



**MAINSTREAMING GENDER SENSITIVE
COMPREHENSIVE DISASTER MANAGEMENT
FOR SMEs IN THE AGRICULTURE SECTOR**

Training Manual

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Canada 

**Enhancing Knowledge
and Application
of Comprehensive
Disaster Management**
(EKACDM) Initiative

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ACRONYMS

BIA	Business Impact Analysis
BCP	Business Continuity Plan
CDEMA	Caribbean Disaster Emergency Management Agency
CDM	Comprehensive Disaster Management
CDRMP	Caribbean Disaster Risk Management Programme
DRR	Disaster Risk Reduction
EKACDM	Enhancing Knowledge and Application of Comprehensive Disaster Management
EWS	Early Warning System
GAC	Global Affairs Canada
IGDS	Institute of Gender and Development Studies
IICA	Inter-American Institute for Corporation on Agriculture
NODS	National Office of Disaster Services
ODPM	Office of Disaster Preparedness and Management
SMEs	Small and Medium-Sized Enterprises
UNISDR	United Nations International Strategy for Disaster Reduction
UWI	The University of the West Indies

DEFINITION OF CONCEPTS

BUILDING CODE

A set of ordinances or regulations and associated standards intended to control aspects of the design, construction, materials, alteration and occupancy of structures that are necessary to ensure human safety and welfare, including resistance to collapse and damage.

BUSINESS CONTINUITY PLAN

A set of technical, administrative, and management activities aimed at planning the steps to recover and restore critical business assets after an unforeseen event has impaired corporate functions.

CAPACITY

The combination of all the strengths, attributes and resources available within a community, society or organisation that can be used to achieve agreed goals.

CAPACITY DEVELOPMENT

The process by which people, organisations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.

CLIMATE CHANGE

(a) The Intergovernmental Panel on Climate Change (IPCC) defines climate change as: “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use”.

(b) The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.

COMPREHENSIVE DISASTER MANAGEMENT

This process is an integrated approach to disaster management which includes attention to all phases of the disaster management cycle – prevention, mitigation, preparedness, response, recovery and rehabilitation.

CONTINGENCY PLANNING

A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.

COPING CAPACITY

The ability of people, organisations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

CRITICAL FACILITIES

The primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.

DISASTER

A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

DISASTER MITIGATION

This action attempts to reduce the consequences and impacts of hazards using structural, non-structural and infrastructural measures.

DISASTER PREPAREDNESS

The process through which people's knowledge and capacity are improved to effectively anticipate, respond to and recover from disasters.

DISASTER RISK

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

DISASTER RISK MANAGEMENT

The systematic process of using administrative directives, organisations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

DISASTER RISK REDUCTION

The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

DISASTER RISK REDUCTION PLAN

A document prepared by an authority, sector, organisation or enterprise that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives.

EARLY WARNING SYSTEM

The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organisations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

EMERGENCY

A state in which normal procedures are suspended and extraordinary measures are taken in order to avert a disaster.

EMERGENCY MANAGEMENT

The organisation and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.

EMERGENCY SERVICES

The set of specialized agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations.

HAZARD

A hazard is a dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

MITIGATION

The lessening or limitation of the adverse impacts of hazards and related disasters.

NATURAL HAZARD

Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environment damage.

PREPAREDNESS

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

PREVENTION

The outright avoidance of adverse impacts of hazards and related disasters.

RECOVERY

The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

RESILIENCE

Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

RESPONSE

The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

RETROFITTING

Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

RISK ASSESSMENT

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability which together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

RISK TRANSFER

The process of formally or informally shifting the financial consequences of particular risks from one party to another whereby a household, community, enterprise or state authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party.

STRUCTURAL AND NON-STRUCTURAL MEASURES

Structural measures: Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard resistance and resilience in structures and systems.

Non-structural measures: Any measure not involving physical construction that uses knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness raising, training and education.

SUSTAINABLE DEVELOPMENT

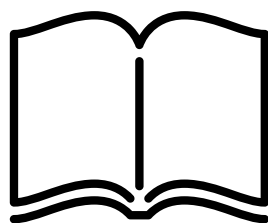
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

TECHNOLOGICAL HAZARD

A hazard originating from technological or industrial conditions, including accidents, dangerous procedures, infrastructure failures or specific human activities, that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

VULNERABILITY

Vulnerability refers to the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. There are many aspects of vulnerability, arising from various physical, social, economic, and environmental factors.



HOW TO USE THIS MANUAL

The manual is designed for use by persons working at different levels in the Agriculture sector. It provides information, advice, practical examples and policy recommendations about how to integrate gender-sensitive disaster risk reduction and disaster management into small and medium enterprises.



A farm in St. Vincent & the Grenadines

SECTION 1:

INTRODUCTION

1 INTRODUCTION

1.1 BACKGROUND AND CONTEXT

The Consultants were engaged by the Disaster Risk Reduction Centre of the University of the West Indies under the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Initiative. The 'Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Initiative is a five-year sub-project under the Caribbean Disaster Risk Management Programme (CDRMP) funded by Global Affairs Canada (GAC) and aimed at establishing an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that will be of use for various stakeholders, including governments, local communities, the voluntary sector, and the private sector. The Initiative supports the Caribbean Disaster Emergency Management Agency (CDEMA)-led regional CDM Framework by generating and disseminating CDM knowledge and by providing training and tools for the public and private sectors. One of the Intermediate Outcomes of the Initiative is:

The enhanced mainstreaming of gender-sensitive decision-making for CDM in the public and private sectors; Small and Medium Enterprises (SMEs).

The Consultants were, therefore, required to **produce two (2) manuals to enhance the decision support systems for mainstreaming gender-sensitive CDM into business practice for SMEs in the Agriculture and Tourism sectors**. This entailed working with stakeholders at the national and regional level and specifically focusing on the following countries **Antigua and Barbuda, Grenada, Guyana, Jamaica, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago**.

This Manual which is designed for use by SMEs in the Agriculture Sector was developed through the review of secondary data, including previous research commissioned by EKACDM, key informant interviews with stakeholders in the target countries, and "field research on the experience of SMEs in the region with regard to managing and coping with disaster risk". The main tool used in this exercise was the design and administering of questionnaires with small and medium enterprises operating in the sector.

The development of the Manual is timely given the fact that the Caribbean region has become increasingly vulnerable to disaster events over the last two decades and more.

During the period 1980 to 2015, the region suffered from 390 natural disasters which translated into annual damage of 3.6% of GDP¹. These occurrences have had a serious impact on the countries' economic and social development as well as the well-being and livelihoods of citizens. This has led to greater emphasis on and recognition of the need to mainstream disaster risk reduction into development.

At the international level, the Hyogo Framework for Action 2005-2015 was adopted to ensure effective integration of disaster risk into sustainable development policies, plans and programmes². At the regional level CDEMA created a five-year strategic framework (2001-2006) for comprehensive disaster management, followed by an Enhanced CDM Strategy 2007-12. Currently CDEMA and its participating states are implementing a new Caribbean Strategy for Disaster Management 2014-2024. The overall aim is to facilitate the integration of comprehensive disaster management into development strategies.

¹ Moody's Investors Service 2016

² World Conference on Disaster Reduction Report

SECTION 2:

REGIONAL AND INTERNATIONAL FRAMEWORKS

2 REGIONAL AND INTERNATIONAL FRAMEWORKS

2.1 HYOGO FRAMEWORK FOR ACTION (2005-2015)



The Hyogo framework was adopted at the World Conference on Disaster Reduction that was held January 18-22, 2005. The Framework, which was designed to cover the period 2005-2015, still has relevance beyond the stated time frame. The Hyogo framework for action has five (5) main priority areas with its main objective being *“the substantial reduction of disaster losses in lives and in the social, economic, and environmental assets of communities and countries.”*³

The priorities by design target governments and national systems, however, the principles may be applied to the SME sector to help enhance capacity and reduce risk and ultimate loss. The relevant priorities (as seen in the diagram above) and their relevance to the SME sector are outlined below:

Priority 2: Identify, assess and monitor disaster risks and enhance early warning

1. Ensure that risks are clearly identified and communicated to all staff, guests, clients and relevant persons;
2. Ensure that emergency exits, evacuation routes, assembly points and evacuation plans are clearly identified and information available to all users of the facility;
3. Appoint safety/disaster coordinator or monitor and provide suitable training and information;
4. Develop and implement disaster plan for the organisation and establish review periods for updating same.

³ Ibid

Priority 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels

1. Advocate for business leaders to be part of localised disaster committees/mechanisms;
2. Develop a culture of safety by encouragement;
3. Provide training and resources to staff;
4. Train security guards to help with the protection of persons in disasters;
5. Arrange monthly meetings to discuss matters related to disasters;
6. Train staff to use emergency equipment.

Priority 4: Reduce the underlying risk factors

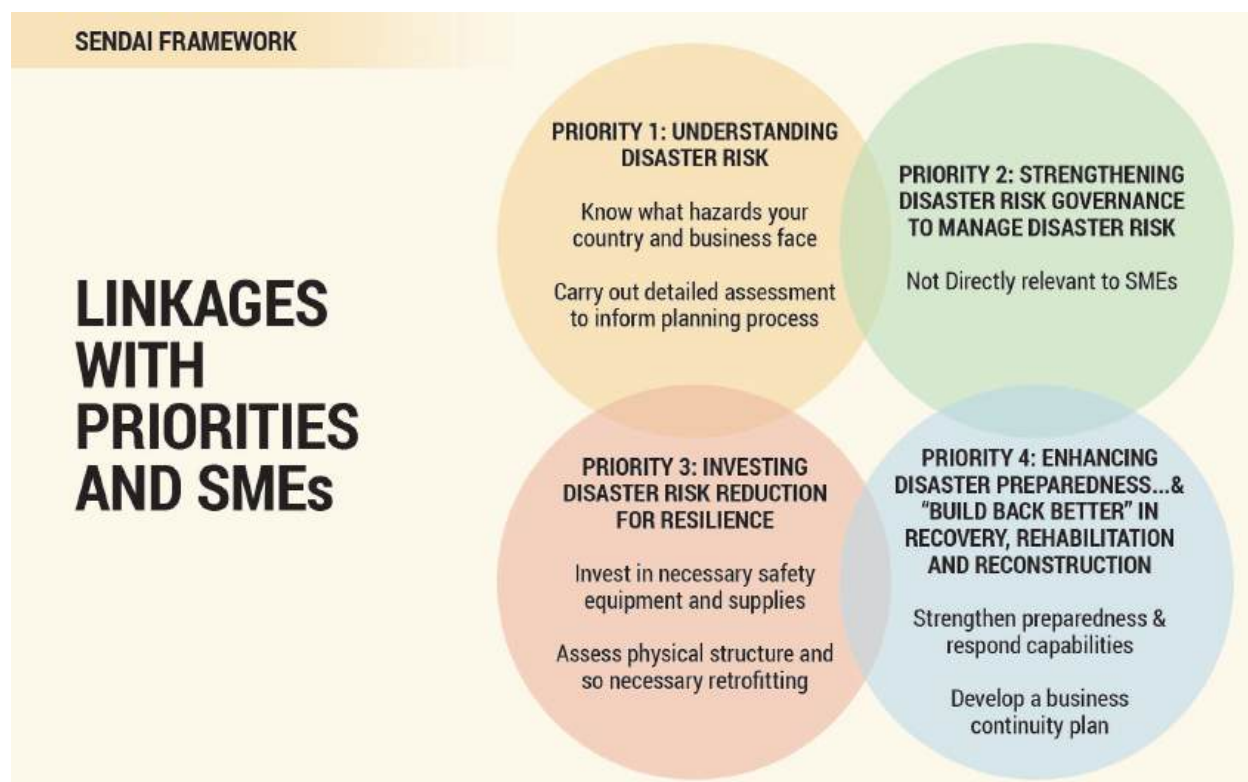
1. Ensure that practices are environmentally sustainable;
2. Buy into existing risk transfer mechanisms such as insurance to help to minimise losses after a disaster;
3. Build facilities and expand in keeping with established building codes;
4. Carry out annual inspections to verify structural integrity of buildings, especially post disaster.

Priority 5: Strengthen disaster preparedness for effective response at all levels

1. Conduct emergency drills and simulations on a regular basis with special emphasis on hazards faced by locality;
2. Regularly review disaster preparedness and emergency plans;
3. Stockpile food and other resources likely to be impacted by shortages due to interruptions.

2.2 SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION (2015-2030)

The Sendai Framework (a follow up to the Hyogo framework) which was adopted on March 18, 2015, aims for the following outcome: “the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.” The framework comprises seven (7) global targets and four (4) priority areas (as seen in the diagram below).



2.2.1 SENDAI FRAMEWORK AND AGRICULTURE

Disaster Risk Management according to the Sendai Framework must be knowledge based. Priorities 1 and 4 are directly related to the need for preparing disaster management and business continuity plans in order to minimize risk and ensuring that businesses continue operations after disasters. Priority 3 emphasizes the need to make appropriate investment in equipping and preparing for disasters. Priority 2 focuses on the framework necessary to support comprehensive disaster management within the national context.

Sendai Priority	Application to Agriculture
Priority 1: Understanding Disaster Risk	- Assessing risk and hazard exposure - Taking necessary mitigation measures - contouring, building drains, rain harvesting, etc.
Priority 2: Strengthening Disaster Risk Governance to Manage Disaster Risk	Framework put in place at the Ministries of Agriculture and National Disaster Agency level that will facilitate disaster management and also legislate sustainable land use practices.
Priority 3: Investing in Disaster Risk Governance to Manage Disaster Risk	As in priority 2
Priority 4: Enhancing Disaster Preparedness for Effective Response and to "Build Back Better" in recovery, Rehabilitation and Reconstruction	- Investing in necessary safety equipment - Investing resources in development of necessary plans at the SME level

2.3 SUSTAINABLE DEVELOPMENT GOALS (2015-2030)



2.3.1 SUSTAINABLE DEVELOPMENT GOALS AND AGRICULTURE

The Sustainable Development Goals (SDGs) were adopted in September 2015. There are seventeen (17) goals under the SDGs (as depicted in the above diagram). The table below highlights goals 1, 2, 5, and 13 as seen below which are directly relevant to the sectors targeted in the manual. Also included under each goal is a brief statement linking same with SMEs in targeted sectors.



By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

Relevance: This is directly relevant to SMEs which employ economically vulnerable populations. CDM will indirectly impact these populations by reducing loss of job and income.



By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

Relevance: SMEs in the agriculture and fisheries sector by employing the information in this manual can participate in sustainable food production thereby minimising risk.



Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Relevance: Mainstreaming gender issues in CDM will ensure that the specific needs of men and women are targeted and addressed without discrimination.



Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Relevance: by implementing plans, training and other capacity building activities, SMEs will ensure that they are adequately prepared to withstand hazards and build back better after a disaster.

2.4 CDEMA CDM STRATEGY 2014-2024

The Caribbean Disaster Emergency Management Agency (CDEMA) is comprised of eighteen (18) participating states. They are: Anguilla, Antigua and Barbuda, Commonwealth of the Bahamas, Barbados, Belize, Commonwealth of Dominica, Grenada, Republic of Guyana, Haiti, Jamaica, Montserrat, St. Kitts & Nevis, Saint Lucia, St. Vincent & the Grenadines, Suriname, Republic of Trinidad & Tobago, Turks & Caicos Islands and the Virgin Islands. The purpose of the CDM Strategy 2014-2024 is to strengthen regional, national and community level capacity for mitigation, and coordinated response to natural and technological hazards and the effects of climate change. The embodying theme of the Strategy is “Resilient Caribbean States” which is further enunciated in the goal of “Safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management.” Given the direct relevance to the Caribbean region and the fact that the current initiative fits within the strategy’s intended outcomes, the strategy is included in the document. The key outcomes relevant to targeted SMEs are:

1. Improved effectiveness of CDM and sectoral levels

Relevance:

- Sector-specific disaster risk Management
- Hazard information incorporated in planning and management.

2. Sustained capacity for a culture of safety and community resilience in participating states

Relevance:

- Community –Based Disaster Management capacity built/ strengthened to address gender and vulnerable group needs.

Comprehensive Disaster Management is an integrated approach to disaster management which includes attention to all phases of the disaster management cycle – prevention, mitigation, preparedness, response, recovery and rehabilitation. A thriving agriculture sector that employs sustainable practices,

- Ensures food security
- Contributes to a healthy population
- Creates gainful employment
- Contributes to sustainable economic growth

2.5 NATURAL HAZARDS AND DISASTER RISK REDUCTION (DRR) IN THE CARIBBEAN

The Caribbean is the second most hazard prone region in the world. CDEMA⁴ puts the annual disaster losses at an estimated US\$3 billion. For the period 2007-2015, 131 disasters were recorded with damage estimated at US\$15.6 billion and affecting nearly 8.5 million people⁵. The consequences of natural disasters for economic activities, property, human welfare and natural resources can be devastating. In the Caribbean, these events have greatly affected the productive sectors of the economy such as agriculture and tourism.⁶ The Association of Caribbean States⁷ is of the view that given the increasing frequency and severity of natural disasters and the fact that natural hazards have the potential to undo years of development through the repeated destruction of economic and social capital, governments of the region need to undertake mitigation activities to reduce the impact of hazards. This is where the necessary steps are taken before the event occurs, which would “create an environment that is less susceptible to negative impacts and thus more cost-effective in the long run”.

⁴ http://www.cdema.org/index.php?option=com_joomdoc&view=docman&gid=83&task=cat_view&Itemid=231

⁵ Nicholson, George and Prescod, Nnyeka: Disaster Risk Reduction in the Caribbean <https://www.caribjournal.com/2016/04/28/disaster-risk-reduction-in-the-caribbean/#>

⁶ http://siteresources.worldbank.org/INTDISMGMT/Resources/cgced_final.pdf

⁷ <http://www.acs-aec.org/index.php?q=press-center/releases/2013/natural-hazards-in-the-caribbean-too-costly-to-ignore>

According to CDEMA, comprehensive disaster management in the region is maturing and receiving increased buy-in from key stakeholders. Emerging from a 2016 event dubbed, “Annual Achievements and Priorities in Disaster Risk Reduction in the Caribbean,” the following DRR priority areas were identified for the Caribbean:

1. Early Warning Systems (EWS)
2. Community Resilience
3. Capacity Building, Training and Public Awareness
4. Institutional Strengthening
5. Private-Public Partnership



Farm in St. Vincent & the Grenadines

SECTION 3:

IMPACT OF DISASTERS ON SMES IN AGRICULTURE

3 IMPACT OF DISASTERS ON SMES IN AGRICULTURE

3.1 OVERVIEW

“The consequences of natural disasters for economic activities, property, human welfare and natural resources can be devastating. In the Caribbean, these events have greatly affected the productive sectors of the economy such as agriculture and tourism.” The impacts of loss in the agricultural sector goes beyond the players of the sector and have far reaching implications for the financial and food security of individual economies and the world economy as a whole. According to an FAO publication entitled “Increasing the Resilience of Agricultural Livelihoods,”

Worldwide, the livelihoods of 2.5 billion people depend on agriculture. These small-scale farmers, herders, fishers and poorest-dependent communities generate more than half of the global agricultural production and are particularly at risk from disasters that destroy or damage harvests, equipment, supplies, livestock, seeds, crops and stored food.”

The FAO categorizes hazards faced by the agricultural sector into three categories:

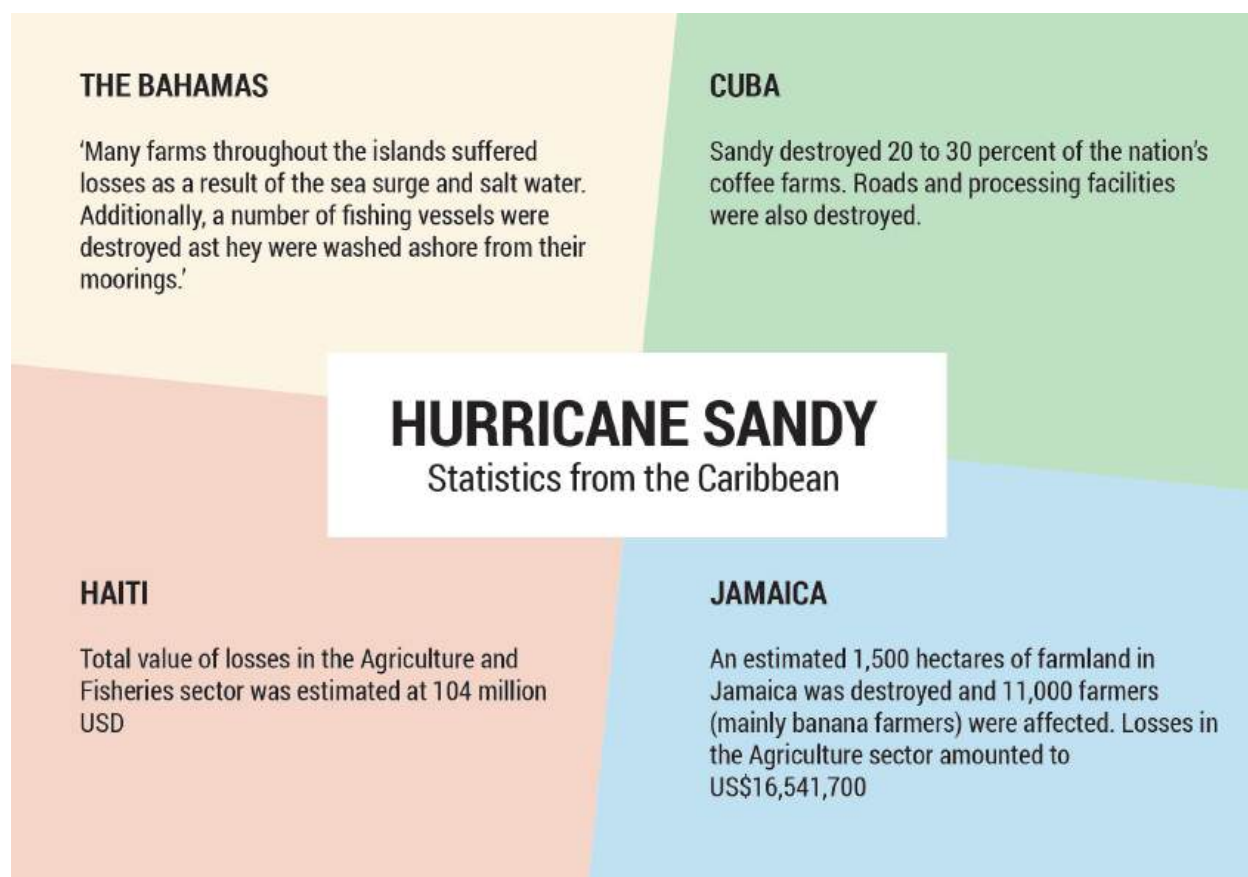
1. **Natural hazards.** “These include “climate change extreme events” such as droughts, hurricanes, earthquakes, tsunamis, wild fires, flooding and landslides, etc.
2. **Food chain crises.** These include plant pests and diseases, animal diseases and food safety issues.
3. **Protracted crises.** This includes periods of violent conflicts.

Natural hazards and food chain crises are the two areas directly relevant to CDEMA participating states.



Statistics and Secondary Data

The statistics and information presented in this section were gathered from secondary data. The following diagram highlights the perspectives and experiences of farmers, agro-processors and fishers. According to Farmer's, Agro-processors and Fishers surveyed, they are impacted by the following natural hazards: severe flooding, high tide/sea surge, pirates, invasion of alien species, high winds coupled with high tides, high unusual winds, hurricanes, pests and diseases, droughts and landslides.



- Approximately 20% of employed persons are engaged in the agriculture sector⁸.
- According to a report developed by Moody's Investor choice, four (4) CDEMA participating states (The Bahamas, Belize, Jamaica and St. Vincent and the Grenadines) are listed among the top 20 countries that are most vulnerable to natural disaster risks⁹.
- "A severe natural disaster can wipe out agriculture and industry."¹⁰
- Between 2003 and 2013, 22 percent of damages and losses caused by disasters in developing countries affected the agriculture sector, (FAO).
- According to the FAO, for both Africa as well as for Latin America and the Caribbean, drought was the costliest disaster, resulting in crop and livestock losses of \$10.7 and \$13 billion, respectively, between 2005 and 2015¹¹.
- One of the most direct ways in which natural disasters affect the sector is through reduced production. This results in direct economic loss to farmers¹²
- Widespread damage in the agriculture sector can wipe out development gains achieved by countries.

⁸ <http://www.fao.org/publications/sofa/2010-11/en/>

⁹ Moody's Investors Service 2016

¹⁰ <https://www.iadb.org/en/news/announcements/2017-09-12/fact-sheet-economic-impacts-of-natural-disasters%2C11887.html>

¹¹ <http://www.fao.org/news/story/en/item/1106977/icode/>

¹² <http://www.fao.org/3/I8656EN/i8656en.pdf>

3.2 GENDER-SPECIFIC IMPACTS

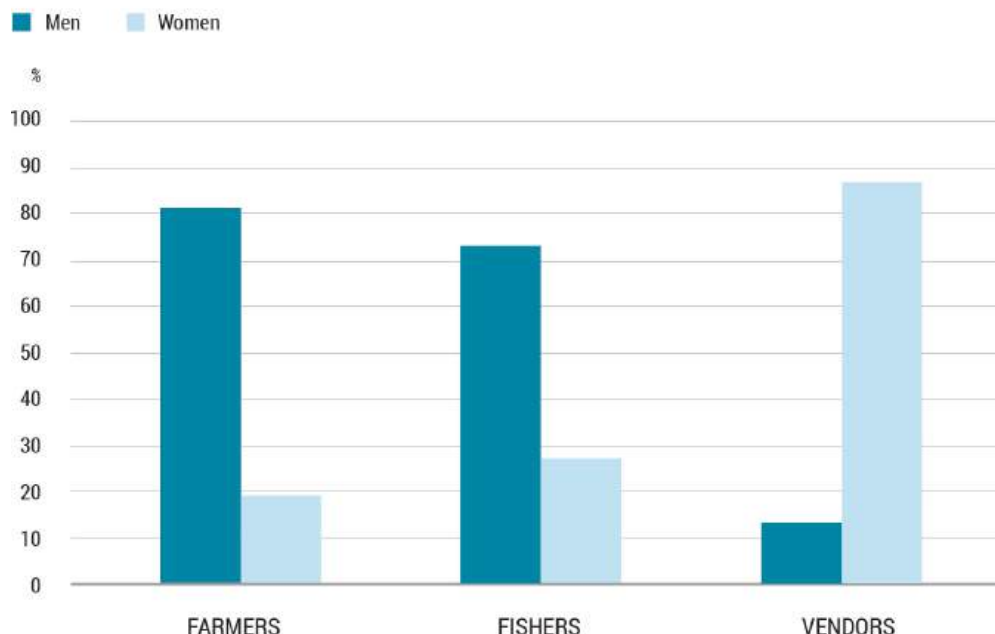


Carriacou, Grenada Fish Market

What is Comprehensive Disaster Management (CDM)

Comprehensive Disaster Management is an integrated approach to disaster management. According to CDEMA, Comprehensive Disaster Management (CDM) places attention on all phases of the Disaster Management Cycle – prevention, mitigation, preparedness and response, recovery and rehabilitation. Reducing risk is a key component of CDM. Disaster risk management, therefore, includes all those activities, processes and measures that help to prevent and limit the adverse effects of hazards. Mainstreaming comprehensive disaster management is an attempt to ensure that it is taken into consideration in all spheres of development policies and programmes. “The goal of CDM is to enhance efforts aimed at sustainable development in the Caribbean by reducing risks and losses associated with natural and technological hazards and the effects of climate change¹³”.

PARTICIPATION OF MEN & WOMEN IN AGRICULTURE



¹³ www.cdema.org

Gender-sensitive Comprehensive Disaster Management

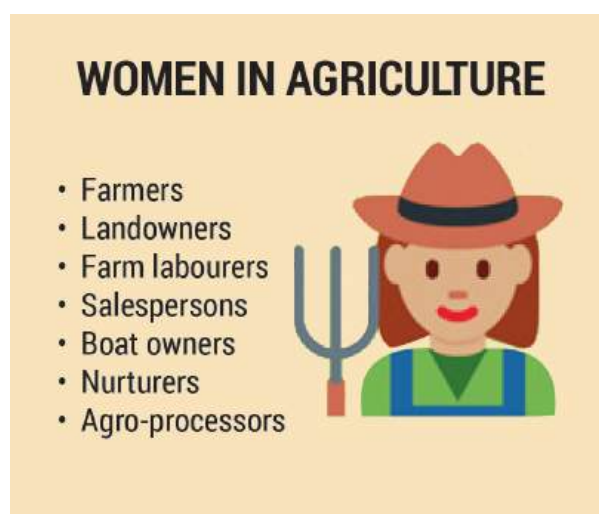
Gender equity considerations are of great importance to disaster management policies and practices. There is evidence to suggest that women are disproportionately affected by the impact of disasters. They suffer higher rates of mortality, morbidity and post-disaster ruin to their livelihoods. "Gender is an important dynamic in climatic and disaster risk reduction efforts. The reasons are essentially twofold: (1) the agency of women is essential for tackling the perils of climate change and disaster risk; (2) despite significant strides that have been made in addressing gender inequalities over the years, women are still among the most marginalized groups of society and are particularly vulnerable to current and future climate change and disaster risk."¹⁴ This section looks at some of the impacts of disasters from a gender perspective and tools that could be used to incorporate a gender perspective.

The impacts of Hazards on Women vs Men

Studies show that,

- > Women, boys and girls are 14 times more like to die in disasters than men.
- > Displacement of women in disasters makes them more vulnerable to sexual abuse.
- > Men often expose themselves to harm during and after disasters as they tend to take risks without the appropriate safety measures in place.
- > Women's care roles in the home such as care provided to the elderly and young make them more susceptible to the impacts of disasters.

Information specific to issues men face as opposed to those that women face, is limited for the Caribbean region. Because of the different roles played by men and women in society and in the agricultural sector, it stands to reason that disaster impacts will likely be experienced differently between men and women. The illustration below depicts the different roles played by women in the Agriculture sector in the Caribbean. This list was developed using primary and secondary data.



Women in Agriculture. Women account for a large percentage of the agriculture labour force. "FAO's estimates show that women represent a substantial share of the total agricultural labour force, as individual food producers or as agricultural workers, and that around two-thirds of the female labour force in developing economies is engaged in agricultural work."¹⁵ Approximately 43% of the agricultural labour force in developing countries is women. In 2008, 12% of the labour force in fisheries across the world was comprised of women. Statistics also suggest that women are mostly involved in marketing of agricultural produce while men are predominantly producers/farmers.

*The prevalence of women in the municipal markets throughout the region points to female dominance of the domestic market. Women, known as hucksters (or higglers), are also the principal operators of the regional food export trade, buying on-farm and exporting agricultural produce to neighbouring islands.*¹⁶

¹⁴ www.undp.org/.../gender/Gender%20and%20Environment/.../Gender_Climate_Chang.

¹⁵ <http://www.fao.org/docrep/009/a0493e/a0493e03.htm>

¹⁶ <http://www.fao.org/docrep/009/a0493e/a0493e04.htm>



Products made by women Agro Processors in Guyana



Due to the fact that the main nurturing and caregiving roles are played by women in the Caribbean, they are more likely to experience greater challenges when there is damage to the agriculture sector than their male counterparts. According to business woman, Una May Gordon, quoted by an online report, "in the fisheries sector in the [Caribbean] region one of the little known fact is that the women fishers are more vulnerable. They are the boat owners so they are the investors, they own the equipment and the fishermen who go to sea, people always believe that they are the vulnerable ones but if you have no boat, infrastructure or equipment then there would be no fisheries."¹⁷

MAIN ROLES PLAYED BY MEN IN AGRICULTURE IN THE CARIBBEAN

- Farmers
- Fishermen
- Boat owners
- Boat makers
- Leaders of Agricultural Associations



¹⁷ <http://www.ipsnews.net/2015/12/women-farmers-strive-to-combat-climate-change-in-the-caribbean/>

According to information collected from surveys and interviews,

1. Women are largely keepers of livestock, especially poultry, and when these are impacted they are directly affected.
2. Bee-keepers are largely men but women do participate especially on the side of marketing. This is often done as a family business so any loss will affect both men and women. In Ginger Ridge (Jamaica), for example, of the 40 bee farmers in the group, only eight (8) are females.
3. In the case of the Fisheries sector, men are largely owners and operators of fishing vessels. Women mainly participate in the marketing of the produce as vendors. On our visit to the Old Harbour Bay Fishing Village (Jamaica) to meet with the association women were observed engaging in the 'scaling' and cleaning up of fish post sale.
4. In the case of Carriacou, Grenada men engage in boat building and repairs.

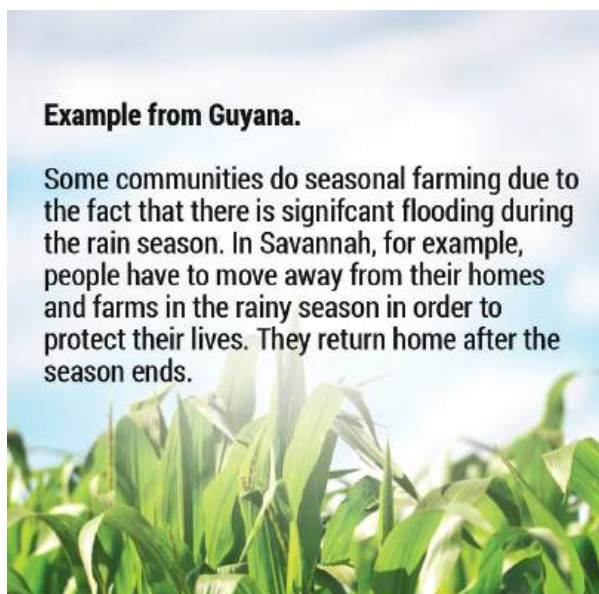


3.3 IMPACTS OF DISASTERS ON SMES: DATA COLLECTED FROM SMES

1. **Loss of business.** Communities vulnerable to the impacts of natural disasters do face loss of crop and livestock during disasters as well as during rainy seasons. Storm surges and heavy winds also result in loss of business as fishers are unable to go out fishing at these times. When they get the chance to venture out yield may be negatively impacted as a result of the weather conditions. Limited risk transfer mechanisms such as inadequate insurance, no insurance package or high cost of premium compounds this problem. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) does have a loan product targeted at low income individuals in the Agriculture Sector, however, respondents were largely unaware of this provision. In St Vincent and the Grenadines, farmers are protected through WINCROP which is an insurance scheme for banana and plantain farmers. The Ministry of Agriculture and the FAO have been encouraging farmers to get involved in this scheme. Private insurance companies in Grenada offer insurance products to farmers, however, the interest rates can act as barriers to access.

Example from Guyana.

Some communities do seasonal farming due to the fact that there is significant flooding during the rain season. In Savannah, for example, people have to move away from their homes and farms in the rainy season in order to protect their lives. They return home after the season ends.



2. **Challenges accessing markets.** Due to flooding and damage to access routes, farmers and fishers will from time to time have challenges accessing their markets. Resulting in lower income. One major challenge that SMEs in the sector face is that their record keeping is not done in such a way that allows them to quantify losses under such circumstances. Information collected from respondents suggested that they do experience challenges in accessing markets in times of disasters. In the case of Bethel Town Farmer's Association and Ginger Ridge Bee Farmers group in Jamaica, they reported that when landslides occur in their communities these often cause the access routes to be temporarily blocked. This results in them being unable to access markets. In the case of Guyana, flooding prevents farmers and fishers in areas prone to flooding from accessing Georgetown when the roads are flooded even where their farms are not directly impacted by flooding. According to information from the Upper Corentyne Fisher's Cooperative, "we have good drainage so within a week everything clears up...the amount of water keeps getting less every day."
3. **Man-made hazards.** Man-made hazards in the sector that result in losses include slashing and burning as a means of land clearing; pirates in the case of fishers in Guyana and praedial larceny in the case of Jamaica.
4. **Damage to storage facilities and equipment.** One means of ensuring continued earnings and replanting in disaster prone areas is seed and grain storage. Rafters in roofs are sometimes used by farmers as storage. While these facilities may withstand flooding to a certain extent, they are not always able to withstand hurricanes. In the fishing sector boats and fish pots are frequently damaged during. In the case of Grenada, after the passing of hurricane Ivan Fishers received wires to remake fish pots and accessed loans in order to shorten the time needed to rebound

What makes the agricultural sector particularly vulnerable is the fact that regular weather events not classified as major hazards or disasters can have significant impacts on individual businesses. Because the impact is not widespread in these situations, external help is usually unavailable. This was highlighted by Fisher's in Guyana who stated that they are frequently affected by high tides which leads to flooding which lasts for up to a week. As a result of the floods only being felt in their locality there is no assistance available for the affected Fishers. Another example, is the case of the Ginger Ridge group in St. Catherine. At least three (3) Beekeepers lost their source of livelihoods after a weather event damaged their beehives and they were not able to replace same. This event did not receive attention as the impact was not felt on a national scale.

SECTION 4:

BUILDING DISASTER RESILIENCE IN THE AGRICULTURE SECTOR

4 BUILDING DISASTER RESILIENCE IN THE AGRICULTURE SECTOR

4.1 CHARACTERISTICS OF A DISASTER RESILIENT BUSINESS

Broadly speaking a resilient business is characterized as one that is able to withstand the vagaries of the environment in which it functions. It is able to survive, adapt and grow in the face of turbulent change . There are two aspects to business resilience, these relate on one hand to the status and use of physical assets and on the other hand to organizational and human capacities . The physical assets component of resilience speaks to the ability of the business to resist negative shocks without significant curtailment of operations. It relates to the speed at which those physical assets allow the business to recover quickly so as to stop losses or minimize disruption, in so far as it has excess capacity which allows the business to continue to function even if critical components were to fail. According to respondents, characteristics of resilient businesses include:

4.2 DISASTER RESILIENCE IN AGRICULTURE

By definition, resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. This section examines steps and measures that can be employed by SMEs in the Agriculture and Fisheries sector in order to make their businesses more resilient. Based on primary data collected and secondary data, the main hazards facing the agriculture sector and impacts they have on their livelihoods are summarized in the table below:

Disaster Category	Subcategory	Type of Impacts
Natural Hazards	Drought	• Reduction in yield • Loss of crops • Reduction in Bee population • Increased irrigation costs
	Hurricanes	• Damage to fishing vessels and fish pots • Damage to transportation network • Damage to farms and loss of crops • Damage to storage facilities and buildings used for processing
	Wild Fires	• Loss of crops • Damage to forest covers
	Flooding	• Interruption in transportation • Damage to road networks • Reduces land fertility
	Landslides	• Prevent farm access • Impair access to markets • Destruction of crops and seeds • Loss of livestock • Damage to farmlands
	Earthquakes	• Injury and loss of livestock • Damage to irrigation systems • Damage to farms • Loss of crop yield • Damage to animal shelters • Damage to business places and storage facilities
Food chain crises	Pests and diseases	• Have the potential to erase entire species of crops • Damage to bees and reduced honey production • Loss of livestock • Reduction in fish population

Details of the data collected are outlined in Annex 1: Primary data collected

Disaster Planning and Crisis management

“Crisis management is the application of strategies designed to help an organization deal with a sudden and significant negative event.”²⁰ Businesses in the sector should ensure that they have a disaster and crisis management plan in place. The Food and Agriculture Organization of the United Nations (FAO) puts forward four (4) components of building resilience in the agriculture sector that can be taken by SMEs themselves on an individual level:

- Training and capacity building of staff and owners to identify and respond to hazards to which they are exposed. Our findings based on the data collection revealed that by and large, SMEs in the Agriculture sector had nothing in place. They had no disaster plans, no recovery plans, no business continuity plans and they welcomed disaster management training.
- Ensuring they are registered with different systems such as business associations and the Agriculture Ministry so they can be kept abreast of developments in the sector and also benefit from training and other interventions. Based on information collected in all countries surveyed the majority of businesses were part of either a community based group (farmer’s association or fisherman’s cooperative) and/ or registered with the Ministry of Agriculture in their locality. Information collected from the Ministries of Agriculture in Grenada and Guyana suggested that special training and other capacity development initiatives are put in place for members from time to time and these acts as incentives for non-registered farmers and fishers to get registered.

Monitor crisis and disaster risk with early warnings.

- SMEs should ensure that they are aware of the potential hazards and associated risks with which they are faced. They should ensure that they keep abreast of communication and bulletins coming out of the Ministry. Having connection with extension officers can be helpful.
- Where early warning systems exist they should be aware of and familiar with same. They should also create early warning systems for themselves and have adequate communication systems in place. This is especially critical for the fisheries sector. Some best practices that can be replicated include:
 - i. Ensuring there is adequate call credit available on mobile phones when going out to sea.
 - ii. Taking along phones that using multiple networks to reduce the likelihood of not being able to connect.
 - iii. Back up batteries and mobile chargers in place to keep phones accessible.
 - iv. Ensure that portable radios are on board with battery back.
- Reduce community vulnerability to crises and disaster risk. In this component there are also measures that must be in place from a government perspective. This involves providing adequate information on mitigation measures especially in cases of new invasive species and unfamiliar hazards that SMEs might not have prior experience with; putting policies in place to ensure that there are risk transfer mechanisms such as insurance, social protection mechanisms, low interest loans and recovery assistance and ensuring national borders are adequately protected to reduce the likelihood of new species being introduced. Because of the far reaching implications that agriculture losses have on food security for individual economies and the world economy

²⁰ <https://whatistechtarget.com/definition/crisis-management>

it is important that everything possible be put in place to safeguard SMEs which account for more than 80% of food production within a country. Advocacy is important on the part of SMEs to keep government accountable. This component also involves mitigation efforts to reduce risk and risk transfer systems that can be implemented by the SME:

- i. Utilizing insurance schemes that may exist.
- ii. Proper record keeping that will allow actual and potential loss to be quantified as to enable future planning.
- iii. Setting aside savings to assist in recovery. The savings amount can be informed by data from records of previous losses.
- iv. Ensuring that boats are regularly checked and any issues remedied.
- v. Ensuring that areas where boats are stored are safe and risk of damage and loss are small.
- vi. Storing seeds and grains against future shocks.
- vii. Putting in place adequate storm water drainage systems.
- viii. Diversifying crops to protect against invasive species that might attack one or more types of crops.
- ix. Stockpiling food items for seasons where there is usually heaving rains and flooding.
- x. Store water in preparation of drought is important. Harvest and store rainwater during the rainy season.

Preparing for and responding to crises and disasters. To be able to prepare for and be able to respond in disasters and crisis situations SMEs can do the following:

- i. Have a simplified and easy to follow disaster plan with a crisis management section plan in place.
- ii. Prepare a business continuity plan.
- iii. Ensure all staff are familiar with the plans, emergency procedures, and emergency equipment and how to use them, evacuation routes and assembly points.
- iv. Monitor bulletins and early warning systems in times of emergency.

Business restoration and operational restoration / Business Continuity

Proper planning and preparation for disaster events are critical to building disaster resilience. This is usually achieved through a business continuity plan. Business continuity planning is a key strategy that companies can use to reduce their risk and minimize loss of business after an event. Information and recommendations vary as it relates to components and steps in Business Continuity planning. This manual combines different schools of thought and information gathered from agricultural interests in putting recommendations together for SMEs in the sector. The basic steps in business restoration and business continuity planning are as follows:

- i. Risk identification
- ii. Identifying and analysing potential risks associated with identified risks.
- iii. Prioritizing risk and planning for risk
- iv. Developing business continuity plan
- v. Testing of plan

SECTION 5:

POLICY RECOMMENDATIONS

5 POLICY RECOMMENDATIONS

Gender considerations are essential for building resilience in the agriculture sector. Ensuring gender issues are adequately addressed will require a mix of policy directives by government and practical steps be put in place by SMEs. Information collected via surveys and key informant interviews to the country visited shows that SMEs are not into the business of disaggregating data on a gender basis. Additionally, not special provisions are made in disaster planning and management on the basis of gender considerations. Based on information outlined in previous sections, the following recommended measures can be put into place to mainstream gender issues in disaster planning.

- i. Include representative of male and female staff members as part of the disaster planning process and invite their input in the creation and development of Human Resource policies.
- ii. Given that business places might be destroyed or damaged in disasters, thereby impairing ability to operate from these premises, effort should be made to have workers operate from home temporarily. This will ensure that business activities continue especially relating to clients and also allowing women to tend the care and protection of vulnerable members of their household especially children who might temporarily be out of school to be supervised. Additionally, with the high prevalence of female-headed households, this will allow for women to see to repairs and safety of their physical property. Failure to provide this facility could result in lower productivity as staff might not be able to adequately focus at work as they might be consumed with concerns about the issues at their homes.
- iii. Put in place a disaster assistance fund to provide basic assistance in the event of a disaster. Given that female-headed households are statistically proven to be among the poorer strata in society,

this facility could provide a buffer to staff and allow them to manage personal loss.

Information collected in disasters and emergencies should include gender-related data. According to UNISDR, “The disaster preparation, mitigation, and response plans should take into account both the needs and the potential contributions of men and women. A gender-based approach in the study and analysis of the disasters is essential to achieve the goal of having safer communities that are resilient to disasters.” The efforts at mainstreaming gender must be supported by government policy. These policies will be necessary in ensuring that gender issues are mainstreamed in all phases of the Disaster Cycle. The following are policy recommendations for mainstreaming Gender issues in SMEs specifically as it relates to disasters:

- i. Women should be included in the development of National CDM plans and policies.
- ii. Special provisions should be made to ensure that the needs of pregnant women, women with children and women who are caring for older persons and persons with disabilities are prioritized, e.g. time off to prepare for disasters and in the aftermath of disasters to secure their dependents.
- iii. **Governance crisis and disaster risk.** This first component is mostly not within the scope SMEs but requires necessary policies and structures to be in place at the National level. Advocacy then to ensure that government puts in the policies and assist in capacity building training and initiatives within the sector will be an important element in resilience building. This advocacy work can be spearheaded by membership and community based organisations such as chambers of commerce; farmers’ and fisher’s cooperatives and other similar organizations representing the interests of SMEs in the Agriculture Sector.

SECTION 6:

CONCLUSIONS AND RECOMMENDATIONS

6 CONCLUSIONS AND RECOMMENDATIONS

- i. No special effort is generally made in the region to disaggregate gender related information as it relates to disasters. In addition, National plans do not take into consideration the specific needs of men and women in their disaster planning.
- ii. Better sensitization of SMEs to the real costs associated with disaster losses and the savings to be realised by implementing disaster and business continuity plans.
- iii. There should be follow up work with the SMEs to assist in areas of weaknesses identified. Additionally, Training and assistance should be provided in putting disaster plans, business continuity plans together for their respective businesses.
- iv. Training is needed in record keeping for SMEs involved in the Agriculture sector to allow them to be better able to quantify their operations and due forecasting and provide actual figures where they may be impacted by hazards / disasters.
- v. The disaster preparation, mitigation, and response plans prepared by SMEs should take into account both the needs and the potential contributions of men and women.
- vi. Better Insurance should be offered to farmers and fishers. Additionally, banks should provided better lending rates and incentives for good business practices such as adhering to building codes.

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ANNEX 1: SUMMARY OF DATA COLLECTED

Country	No. Interviews /questionnaires	Agriculture	Other
Antigua	6	4	2
Grenada	3	2	1
Guyana	6	3	3
Jamaica	6	5	1
St Lucia			
St Vincent	8	6	2
Trinidad	3	1	2
Tobago	1	1	
Total	33	22	11

SUMMARY OF DATA COLLECTION - AGRICULTURE

Country	Name of Organization	No. of members / Staff	No. of males	No. of females
Jamaica	Ginger Ridge Bee Farmers Group	40	32	8
	Manchioneal Fishing Group	17	12	5
	Old Harbour ²¹ Bay Fisherman's Cooperative ²²			
	Home Grown Produce / Central Jamaica Social Initiative	25	16	9
	Bethel Town Farmer's Group	15	10	5
Guyana	Maranatha Health Food Stores	6	1	5
	Upper Corentyne Fisherman's Corp	47	40	7
	Major's Food Manufacturing	16		

²¹ The group no longer holds regular meetings. We spoke to a small group of 4 persons. The Secretary was unable to provide us with membership numbers

²² Group is not fully functioning. We spoke to some current operators who are part of the group

KEY INFORMANT INTERVIEWS AND INDIVIDUAL SME INTERVIEWS

Country	Organization
Antigua	IICA
Guyana	Fire Department Guyana School of Agriculture Ministry of Agriculture
Grenada	Fisheries Department, Carriacou Ministry of Agriculture
Jamaica	Maranatha Health Food Stores Jamaica Fire Brigade
St. Vincent and the Grenadines	Ministry of Agriculture; National Emergency Management Organisation; Eastern Caribbean Trading and Development Organisation Windward Islands Farmers Association (WINFA) ECTAD Farmer's Group Vincy Fresh (Agro processing company)
Trinidad	Turban Producers Ltd - Agro Processor
Tobago	Tobago Agro-processors Association

ANNEX 2:

THEMATIC SUMMARY OF DATA COLLECTED

Information was collected for the development of the current manual using a mixed method approach which included 1) review of secondary data 2) key informant interviews 3) surveys and focus group discussions. This section provides a summary of data collected using a thematic approach.

Hazards Farmers and Fishers are Exposed to:

Severe flooding	high winds coupled with high tides	Pests and diseases
Flooding	high unusual winds	Droughts
high tide/sea surge	Hurricanes	Landslides
Pirates	Invasion of alien species	

Are Businesses Required to Have Disaster Plans / Business Continuity Plans?

- > The overwhelming response was no.
- > Agro processors operating out of factory spaces were more inclined to adhere to fire safety regulations as this is a legal requirement. This was confirmed by Key interviews with the Fire Departments in Guyana and Jamaica.

Existence of Disaster Plans and Business Continuity Plans:

- > None of the businesses and groups interviewed stated that they had disaster plans and business continuity plans in place. They largely depend on historical knowledge and past experience. Examples of Actions taken are as follows:
 - “...some communities [in Guyana] do seasonal farming. In Savannah people have to move in the rainy season to protect their lives and return home after the season ends.”
 - Boats are equipped to withstand emergencies:
 - They have a radio system in place and good communication system with radio and cell phone.
 - Fisheries have sim cards from neighboring territories to ensure that you can get signal 200-300 miles from home.

- Factory and battery chargers to charge technology
 - Portable TVs and stuff. Enough batteries and charger to last them out the trip. Some have solar chargers “sun is pretty hot out there so we do take advantage of it.”
- > “Informal mechanisms exist. 2 years ago parts of Guyana experienced severe flooding. The waters were so high that farmers had to dive to dig cassava. These were stored in rafters of buildings.”
- > “I aint study these things. When it comes it comes.” (Agro processor in Guyana).
- > Measures taken in high tide and flood situations:
 - We wouldn’t go out fishing
 - We would ensure boats are in port
 - We watch out for each other. “Fishers have the cooperation within themselves.”

Existence of Sector Plans:

- > The countries visited, except Guyana, do not have a completed disaster plan for the Agri Sector.
- > The DRR plan for the sector was started but is currently incomplete. Consultations were held with the farming community to inform this process so far (Grenada).
- > Guyana. “The CDC has helped the sector to develop a risk management plan and risk management guidelines with technical support provided by UNDP. DRM approach not properly coordinated.”

Disaster Experiences:

The following are accounts of experiences in Disasters?

- > “Drought experience. No water, the bees might go away because of the lack of water. Red Ants destroyed entire hive by clipping bees wings. Storm blew off the hive cover.”
- > “We supply the processors. When these high winds and high tides it affects the volume of fish being supplied to the processors and affects your income too as a fisherman. Nets get entangled up and so boats have to come back into port. Driving back is additional fuel and food stuff. “But it’s part of our job and so we kind a get used to it.”
- > We [in Berbice] helped in assisting the relief effort in 2005. Put aside food stuff and carried it up in George town.”
- > After the passing of hurricane Ivan. Fishers received wires to remake fish pots. Additionally, they accessed loans in order to shorten the time needed to rebound. (Grenada)

Are Special provisions made for Men vs. Women in Disasters?

No special provisions were reported in the interviews conducted.

Relationship between the National Disaster Organization and the Agricultural Sector

- > The main source of assistance provided by the Ministry is in terms of training and capacity building.
- > Some of this training are facilitated by organisations such as IICA, UNDP, FAO, GARD and the National Disaster Agencies.
- > “We always have serious consultation, constant dialogue and consultation with the farming community.”
- > MOA works closely with NADMA.
- > Ham radios exist that allows for communication between the Ministries and fisher

Disaster Assistance Received

- > Training and information support
- > Extension officers provide information and support at the field level.
- > Technical and financial support is received from UNDP and FAO.
- > When there is an impending system. Extension officers go out and work with farmers to assist them in preparing and protecting their lives and livelihoods.
- > Monthly newsletters sent to farmers from the Agri Ministry.
- > Public service announcements from the CDC during the rainy season.
- > After the passing of hurricane Ivan. Fishers received wires to remake fish pots. Additionally, they accessed loans in order to shorten the time needed to rebound.

Assistance Needed

- > Continuous training with new knowledge and new technology - HEART
- > Financial support - Any grant agencies, especially to help restart those who fell out. At one point NEPA said they would
- > Training for quality testing for by products - Scientific research council
- > Women [generally] don't go out as bee farmers . But not all do due to allergies.

Disaster Related Insurance

- > Grenada farmers and Fishers have access to insurance products provided by local insurers.
- > There was a general feeling that more needed to be done to ensure greater access to insurance products. In some cases the facilities exist, however the cost proves prohibitive.

Recommendations:

The following are recommendations from the perspectives of SMEs to improve their DRR and Business Continuity Planning. They are arranged under various headings.

Education and Training:

- Risk management and planning.
 - More focused and coordinated training
 - More focus on preparedness and ‘building back’ post disaster.
 - Consistency is required. Training and adapting of climate smart approaches to agriculture. Growing different types of crops.
 - Training fishers and all stakeholders in protecting mangroves and marine environment.

Protection:

- Better Insurance premiums are required. Banks should provided better lending rates and incentives for good business practices such as adhering to building codes. More collaboration needed.

Culture of Safety:

- Begin DRM awareness training in schools.

ANNEX 3:

DATA COLLECTION INSTRUMENTS

Included in the section of the manual are copies of the data collections that were used.

Manuals for SMEs in Tourism and Agricultural Sectors

Questions for Farmers and Fishers (Focus Group Discussions)

Questions

1. How many members are in your group?
 2. How many males and how many females? What roles do they play?
 3. When was the group established?
 4. From your experience and perspective, what would you say are the key issues that small and medium enterprises (tourism/agriculture and fisheries) face in disaster situations?
 5. What are the main hazards affecting businesses in your sector?
 6. Can you say what your disaster experience is like and how this has impacted on your level of preparedness and response to disaster situations?
 7. What would you say is the impact that natural or other hazards have had/are likely to have on the functioning of Small and Medium-Sized Farmers/Fishers?
 8. What would you say is the impact that natural or other hazards have had/are likely to have on women vs. men?
 9. What coping strategies have you and/or members of your group employed or do you have in place to deal with the impact of disasters on your business?
 - > Power outages
 - > Lack of fuel/gas
 - > Disruption in water supply
 - > Lack of telephone and internet services
 - > Inaccessibility of roads leading to farmers and getting goods to suppliers
 - > what type of insurance do you have in place to deal with losses from disasters?
- what plans do you have in place or how do you stay in touch with your members/employees etc. in cases of major disruption in your business?
- what back-up systems do businesses in your sector have in place to deal with disruption in utility services?

10. What type of relationship exists between the national disaster organization and the agricultural sectors as it relates to disaster planning and management?
11. What type of assistance do you receive with disaster planning?
12. Do you receive assistance with information, materials and disaster preparedness training?
13. What type of disaster related training is available to members of your group?
14. Are disaster management plans for tourism/agriculture guided by national disaster risk management plans?
15. Do farmers see disaster management as their responsibility or as a government function?
16. What topics would you like to see included in a disaster risk management training programme for persons involved in SMEs?
17. What type of support would you recommend for businesses to recover or recover quickly from disasters?

QUESTIONNAIRE FOR SMALL AND MEDIUM ENTERPRISES (SMES) MANUALS FOR MAINSTREAMING GENDER-SENSITIVE COMPREHENSIVE DISASTER MANAGEMENT INTO BUSINESS PRACTICE OF SMES

Good day. My name is xxxxx and I am part of a team which has been contracted by the UWI Disaster Risk Reduction Centre to develop **Manuals for SMEs operating in the Tourism and Agriculture fields which would allow them to integrate comprehensive disaster management in their business practices.** To support this exercise we would appreciate if you could answer a few questions which would help us to identify the areas where assistance is most needed in enabling SMEs to be better prepared to respond to and recover from the effects of hazards. Thank you.

Name of Enterprise	
Location of Enterprise	
Year of Establishment	
Size of Staff	
1. Male	
2. Female	
Type of Business	
Goods	
Services	

Safe Business Facilities

1. Do you think that the business is in a safe location in relation to hazards? ☐Yes ☐No

1b. If no, which hazards in order of greatest risk are most likely to affect the business? (Place in order of greatest risk)

2. Have you ever done a vulnerability assessment of the business in relation to hazards?

3. Has your business ever been affected by any of the following?

Fire	☐ Yes	☐ No
Flood	☐ Yes	☐ No
Hurricane	☐ Yes	☐ No
Earthquake	☐ Yes	☐ No
Drought	☐ Yes	☐ No
Landslide	☐ Yes	☐ No
Other	☐ Yes	☐ No Please specify _____

4. Do you own, rent or lease the business premises? Own () Rent () Lease ()

5. When was the last structural assessment of the premises completed? (optional)

6. Is **access** to the business threatened by the impact of hazards? ☐Yes ☐No

7. If yes, indicate which hazards _____

8. Are the premises equipped with the following, how many, where are they located and are they maintained? **Complete all that applies.**

Item	Quantity	Location in the building	Date last maintained
Smoke detectors			
Fire Extinguishers			
Sprinkler System			
First Aid kit			
Fire Hoses			
Fire Alarm			
Loud Hailer			
Generator			

9. Do you think that furnishings and equipment are installed to minimize potential harm? ☐ Yes
☐ No

10. In your view, what are the defining features or characteristics of a disaster resilient business?

Business Disaster Management:

11. Does your enterprise have a disaster committee?
☐ Yes ☐ No

12. Does the enterprise have a business continuity or disaster recovery plan? ☐ Yes ☐ No

a. Which hazards are addressed in your plan? _____

b. When was the plan last reviewed _____

c. When was the plan last updated _____

13. Does the plan include provisions for the safety and wellbeing of staff?
☐ Yes ☐ No

14. Does the plan differentiate between the special needs of male and female staff?

☐ Yes ☐ No

b. If yes, how do the needs of men differ from women in an emergency situation?

-
-
15. Does your business have a contact list with employees contact information in order to make contact with employees in the event of a disaster? ☐Yes ☐No
16. Does the business/enterprise conduct drills or simulation exercises to test arrangement for hazards and emergencies with the following: (Tick all that applies)
- a. ☐Staff
 - b. ☐Guests
 - c. ☐Customers

b. If yes, when was the last disaster drill conducted?

c. Which hazards does the drill cover?

17. How many of your staff members are trained in handling emergencies? _____

18. Does the enterprise have an assembly point for evacuation? ☐Yes ☐No

19. What kind of support exists for staff and guests affected by disasters? **(Skip if not a hotel)**

20. Does your enterprise have a plan to deal with the following during and after a disaster event? Tick as appropriate.

- | | | |
|--|------------------------------|-----------------------------|
| Power outages | ☐ Yes | ☐ No |
| Damage to/destruction of facility | ☐ Yes | ☐ No |
| Damage to equipment and inventory | ☐ Yes | ☐ No |
| Disruption in water supply | ☐ Yes | ☐ No |
| Disruption in flow of goods from suppliers | ☐ Yes | ☐ No |
| Recovery of vital records | ☐ Yes | ☐ No |
| Making contact with key clients or vendors | ☐ Yes | ☐ No |
| Deployment of key staff | ☐ Yes | ☐ No |
| Loss of or damage to IT resources | ☐ Yes | ☐ No |

21. What type of disaster related insurance does your business have?

- a. Flood insurance ☐Yes ☐No
- b. Commercial property insurance ☐Yes ☐No

- c. Crop insurance ☐ Yes ☐ No
 d. Other _____

22. Does your business maintain back-up records and data? ☐ Yes ☐ No

B. If yes, are they stored in a separate location? ☐ Yes ☐ No

23. Does your enterprise have guest safety information? (**Skip questions 23 and 24 if not a hotel**)

☐ Yes ☐ No

24. Are guests notified of the arrangements in place if hazards occur while they are guests? ☐ Yes
☐ No

25. Does your business have back-up systems for the following?

Electricity ☐ Yes ☐ No
 Water ☐ Yes ☐ No
 Communication (telephone, internet) ☐ Yes ☐ No

Disaster Risk Reduction and Resilience Training:

26. Is Disaster Management included in:

- a. Staff Development ☐ Yes ☐ No
 b. New Staff Orientation ☐ Yes ☐ No

27. Do you know of any programmes that can help you prepare for, respond to and recover from natural disasters? ☐ Yes ☐ No

If yes, have you or anyone from your business participated in these programmes? ☐ Yes ☐ No

28. Indicate the number of staff members with the following training:

First Aid _____
 Disaster Management _____
 Search & Rescue _____
 Fire Safety _____
 Amateur Radio Operations _____
 Shelter Management _____
 Counselling _____
 Business Continuity Planning _____

State Others: _____

29. What kind of support would you recommend for businesses to recover or recover quickly from disasters?

B. Where should this support come from? (Tick where appropriate)

Government ☐ Business Associations ☐ Financial Institutions ☐ Donors ☐

30. What topics would you like to see included in a training programme designed to increase the capacity of SMEs to prepare for, respond to and recover from disaster situations?

30B. What guidelines would you suggest for improving disaster risk management in the tourism/agricultural sector with reference to the following areas?

a. Education and Training

b. Psychosocial Support

c. Protection

d. Communication

e. Coordination

f. Business Continuity Planning

THANK YOU KINDLY FOR YOUR RESPONSE

NATIONAL DISASTER ORGANISATIONS, MINISTRIES OF TOURISM AND AGRICULTURE AND PRIVATE SECTOR BODIES

DRM MANUALS FOR TOURISM AND AGRICULTURE SECTORS

Good day. My name is Jeffrey James and I am part of a team which has been contracted by the **UWI Disaster Risk Reduction Centre** to develop Manuals for Mainstreaming Gender Sensitive Comprehensive Disaster Management into Business Practice for SMEs in Tourism and Agriculture. As part of this exercise we are collecting information from stakeholders that would assist in completing this exercise. I would appreciate if you could respond to a few questions.

Safe Business Facilities:

1. Are hotels/guest houses in your country designed and built with disaster resilience in mind and in keeping with building codes and standards?
() Yes () No () Not sure
2. Are buildings and facilities assessed for non-structural and infrastructural risks on a regular basis?
() Yes No () () Not sure

3. What plans are in place for the continuous monitoring, financing and oversight of ongoing facilities maintenance and safety?

Disaster Management and Business Continuity

4. To the best of your knowledge, what are the key strengths and weaknesses of the approach to disaster risk management or business continuity planning in your country?

5. What plans are made for business continuity?

6. To what extent are SMEs active participants in the design of plans and policies for disaster risk management?

7. To what extent do SMEs have in place business continuity or disaster risk management plans?

8. Are individual enterprises expected to have disaster management plans?



11. What are some of the **prevention and preparedness actions** that have been put in place/ should be put in place to protect SMEs from the impact of hazards in the following areas?

Insurance/Risk Transfer

Education and Training

Safety

Business Continuity Planning

Disaster Risk Reduction and Business Resilience

12. To what extent is disaster management included in staff development and the orientation of new staff in businesses? w

13. In what areas do you recommend that staff be trained to support disaster risk reduction and climate resilience in SMEs?

14. To what extent and how are staff involved in real-life disaster reduction situations such as drills and other simulation activities?

15. Do you have any suggestions as to how a culture of safety and disaster resilience could be better integrated in the SME sector

Thank you for your time and cooperation.

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://uwi.edu/drrc/>

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