MAINTREAMING GENDER SENSITIVE COMPREHENSIVE DISASTER MANAGEMENT FOR SMEs IN THE TOURISM SECTOR

Training Manual

OCTOBER, 2018

Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Initiative
Title: Mainstreaming Gender Sensitive Comprehensive Disaster Management for SMEs in the Tourism Sector

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Website: www.uwi.edu/EKACDM
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The Consultants would also like to express profound thanks for the valuable input, support and participation of the operators of small and medium-sized enterprises operating in the tourism sector in Antigua and Barbuda, Grenada, Guyana, Jamaica, St Lucia, St Vincent and the Grenadines, and Trinidad and Tobago in the preparation of this Manual.
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# ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BIA</td>
<td>Business Impact Analysis</td>
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<td>BCP</td>
<td>Business Continuity Plan</td>
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<td>CDEMA</td>
<td>Caribbean Disaster Emergency Management Agency</td>
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<td>CDM</td>
<td>Comprehensive Disaster Management</td>
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<td>CDRMP</td>
<td>Caribbean Disaster Risk Management Programme</td>
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<td>DRM</td>
<td>Disaster Risk Management</td>
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<tr>
<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<tr>
<td>EKACDM</td>
<td>Enhancing Knowledge and Application of Comprehensive Disaster Management</td>
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<tr>
<td>EWS</td>
<td>Early Warning System</td>
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<tr>
<td>GAC</td>
<td>Global Affairs Canada</td>
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<tr>
<td>NEMO</td>
<td>National Emergency Management Organisation</td>
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<td>NODS</td>
<td>National Office of Disaster Services</td>
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<tr>
<td>ODPM</td>
<td>Office of Disaster Preparedness and Management</td>
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<tr>
<td>SCP</td>
<td>Sustainable Consumption and Production</td>
</tr>
<tr>
<td>SIDS</td>
<td>Small Island Developing States</td>
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<tr>
<td>SMEs</td>
<td>Small and Medium-Sized Enterprises</td>
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<tr>
<td>UNISDR</td>
<td>United Nations International Strategy for Disaster Reduction</td>
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<td>UWI</td>
<td>The University of the West Indies</td>
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## 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".  


<table>
<thead>
<tr>
<th><strong>COMPREHENSIVE DISASTER MANAGEMENT</strong></th>
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<tbody>
<tr>
<td>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.</td>
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<thead>
<tr>
<th><strong>CONTINGENCY PLANNING</strong></th>
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<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th><strong>COPING CAPACITY</strong></th>
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<tbody>
<tr>
<td>The ability of people, organisations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.</td>
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<table>
<thead>
<tr>
<th><strong>CRITICAL FACILITIES</strong></th>
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<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th><strong>DISASTER</strong></th>
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<tr>
<td>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.</td>
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<tr>
<th><strong>DISASTER MITIGATION</strong></th>
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<tr>
<td>This action attempts to reduce the consequences and impacts of hazards using structural, non-structural and infrastructural measures.</td>
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<table>
<thead>
<tr>
<th><strong>DISASTER PREPAREDNESS</strong></th>
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<tr>
<td>The process through which people’s knowledge and capacity are improved to effectively anticipate, respond to and recover from disasters.</td>
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<tr>
<td>Definition</td>
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<td>----------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>DISASTER RISK</strong></td>
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<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>DISASTER RISK MANAGEMENT</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>DISASTER RISK REDUCTION</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>DISASTER RISK REDUCTION PLAN</strong></td>
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<td>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.</td>
</tr>
<tr>
<td><strong>EARLY WARNING SYSTEM</strong></td>
</tr>
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<td>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.</td>
</tr>
<tr>
<td><strong>EMERGENCY</strong></td>
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<tr>
<td>A state in which normal procedures are suspended and extraordinary measures are taken in order to avert a disaster.</td>
</tr>
<tr>
<td><strong>EMERGENCY MANAGEMENT</strong></td>
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<tr>
<td>The organisation and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.</td>
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### 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.
The manual is designed for use by persons working at different levels in the tourism sector. It provides information, advice and practical examples and policy recommendations about how to integrate gender-sensitive disaster risk reduction and disaster management into small and medium-sized enterprises.

HOW TO USE THIS MANUAL
SECTION 1:
INTRODUCTION
INTRODUCTION

1.1 BACKGROUND

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 to produce two manuals to enhance the decision support systems for mainstreaming gender-sensitive Comprehensive Disaster Management (CDM) into business practice for small and medium-sized enterprises (SMEs) in the agriculture and tourism sectors. 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) with the aim of establishing an effective mechanism for managing and sharing 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)”.

This Manual which is designed for use by SMEs in the tourism 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-sized 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 GDP.1 These occurrences have had a serious impact on the countries’ economic and social development as well as on the wellbeing 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 programmes.2 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.

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1 Moody’s Investors Service 2016
2 Handbook on Disaster Risk Management Mainstreaming in Development
SECTION 2:

OVERVIEW OF COMPREHENSIVE DISASTER MANAGEMENT (CDM)
OVERVIEW OF COMPREHENSIVE DISASTER MANAGEMENT (CDM)

This section of the manual will briefly examine international and regional frameworks guiding DRM and DRR in the region and show relevant linkages with the tourism sector with specific focus on enhanced mainstreaming of gender-sensitive decision-making for CDM in SMEs.

2.1 THE GOAL OF COMPREHENSIVE DISASTER MANAGEMENT

Comprehensive Disaster Management (CDM) is an integrated approach to disaster management. According to CDEMA, 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 change”.3 The CDM approach adopted by CDEMA and its participating member states is closely aligned to international frameworks such as the Hyogo Framework for Action and its successor, the Sendai Framework.

2.2 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”.

### Hyogo Framework for Action

RELEVANT PRIORITIES FOR SMEs

<table>
<thead>
<tr>
<th>Priority 2</th>
<th>Priority 3</th>
<th>Priority 4</th>
<th>Priority 5</th>
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<tbody>
<tr>
<td>Identify, asses and monitor disaster risks and enhance early warning.</td>
<td>Use knowledge, innovation and education to build a culture of safety and resilience at all levels.</td>
<td>Reduce the underlying risk factors.</td>
<td>Strengthen disaster preparedness for effective response at all levels.</td>
</tr>
</tbody>
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Source:

**FIGURE 1: HYOGO FRAMEWORK FOR ACTION**

3 [www.cdema.org](http://www.cdema.org)
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”. The priorities by design target governments and national systems, however, the principles may be applied to the SME sector to enhance capacity and reduce risk and ultimate loss as 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.

**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.
2.3 SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION (2015-2030)

The Sendai Framework (a follow-up to the Hyogo Framework) was adopted on March 18, 2015. The goal of the Sendai Framework is three-fold: preventing the creation of risk; the reduction of existing risk; and the strengthening of resilience of people and assets to withstand residual risk. The goal of the Sendai Framework, therefore, addresses the three variables of disaster risk: exposure to hazards; vulnerability and capacity; and the hazard's characteristics. The expected outcome of the Framework is: “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 key targets of the Framework that are relevant to the sector will be highlighted and clear linkages shown.

2.3.1 THE SENDAI FRAMEWORK AND THE TOURISM SECTOR

The Sendai Framework as observed by the United Nations International Strategy for Disaster Reduction (UNISDR) outlines key areas for integrating disaster risk reduction and tourism. The Framework promotes the integration of disaster risk management approaches throughout the industry; the development of quality standards, such as certification and awards for disaster risk management; and the application of business continuity management practices with the participation of the private sector, civil society, professional associations, scientific organisations and the United Nations.

**FIGURE 2: SENDAI FRAMEWORK**

Source:

UNISDR: Reading the Sendai Framework for Disaster Risk Reduction 2015–2030
2.4 SUSTAINABLE DEVELOPMENT GOALS (2015-2030)

The Sustainable Development Goals (SDGs) were adopted in September 2015. There are seventeen (17) goals under the SDGs. The Figures below highlight goals 8, 12 and 14 which make specific mention of tourism and are receiving the specific attention of the United Nations World Tourism Organization (UNWTO).

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Tourism is one of the driving forces of global economic growth, and currently accounts for 1 in 11 jobs worldwide. By giving access to decent work opportunities in the tourism sector, society – particularly youth and women – can benefit from enhanced skills and professional development. The sector’s contribution to job creation is recognized in target 8.9: “By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products”.

Ensure sustainable Consumption and Production patterns. A tourism sector that adopts sustainable consumption and production (SCP) practices can play a significant role in accelerating the global shift towards sustainability. To do so, as set in Target 12.b of Goal 12, it is imperative to “Develop and implement tools to monitor sustainable development impacts for sustainable tourism which creates jobs, promotes local culture and products”. The Sustainable Tourism Programme (STP) of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) aims at developing such SCP practices, including resource efficient initiatives that result in enhanced economic, social and environmental outcomes.

http://icr.unwto.org/content/tourism-and-sdgs
Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Coastal and maritime tourism, tourism’s biggest segments, particularly for Small Island Developing States (SIDS), relies on healthy marine ecosystems. Tourism development must be a part of integrated Coastal Zone Management in order to help conserve and preserve fragile ecosystems and serve as a vehicle to promote the blue economy, in line with target 14.7: “by 2030, increase the economic benefits of SIDS and LCDs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism”.

FIGURE 6: GOAL 14 – SUSTAINABLE DEVELOPMENT GOALS

2.5 CDEMA’S CDM STRATEGY 2014-2024

The Caribbean Disaster Emergency Management Agency (CDEMA) comprises eighteen (18) participating states. They are Anguilla, Antigua and Barbuda, the Commonwealth of the Bahamas, Barbados, Belize, the Commonwealth of Dominica, Grenada, the Republic of Guyana, Haiti, Jamaica, Montserrat, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname, the Republic of Trinidad and Tobago, the Turks and 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 as follows:

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

The Caribbean is the second most hazard prone region in the world. CDEMA 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 people. 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 Association of Caribbean States 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 ex-ante mitigation. This means that there should be a focus on preventive measures as compared with emergency management activities. This approach would “create an environment that is less susceptible to negative impacts and thus more cost-effective in the long run” (ACS, 2016).

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.

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6 http://www.cdema.org/index.php?option=com_joomdoc&view=docman&gid=83&task=cat_view&Itemid=231
SECTION 3:

IMPACT OF HAZARDS ON SMES IN THE TOURISM SECTOR
This section will provide some detail about the effects of disasters resulting from hurricanes, tropical storms, earthquakes, volcanoes, floods, landslides and droughts on the tourism industry in the Caribbean. It will also give some indication about how SMEs in the tourism sector cope with disaster risk based on information collected from field visits to the seven countries that were part of the data gathering exercise.

3.1 OVERVIEW

Tourism is regarded as the lifeblood of the Caribbean economy. It comprises 40% of the region’s GDP and employs 13.4% of the people. More recent figures put the share of GDP at close to 18%. It is the second most important source of employment in the Caribbean. “In 2016, the Caribbean set a record for the most visitors ever with 29 million tourist arrivals, according to the Caribbean Tourism Organization. The total amount spent by those visitors rose to nearly $36 billion in 2016, the organization said”.

The tourism industry by its nature, however, is highly vulnerable to natural hazards and disasters which have been on the increase over the last few years as a result of changing weather patterns and have produced extreme weather events in the form of excessive rainfall, floods, hurricanes and tropical storms. Direct losses to the industry over the last thirty years have exceeded over US$8 billion. Small and medium-sized enterprises are usually the worst affected due to their limited ability to absorb disaster impacts. Research has shown that small businesses are more vulnerable to hazards and are less prepared to build resilience after a disaster event.

As identified in the 2013 Global Assessment Report (UNISDR, 2013), tourism is also one of the most susceptible and vulnerable industries to disasters.

The high exposure of tourism to disasters reflects the preference of many tourists to be close to areas of natural beauty, such as rivers and coastlines, on remote islands, in warm tropical environments and mountainous terrains. These locations are often exposed to hazards such as cyclones, hurricanes, storm surges, floods, tsunamis and landslides. Building and development in high risk locations are also on the rise. As competition and demand for limited coastal locations grows, so does the willingness of investors to use higher risk locations for development (Mahon et al., 2013).

There is, however, very little specific information available at the macro or micro level about the level of impact that natural disasters have had on the tourism sector in Caribbean countries. In the interviews carried out with SMEs in the tourism sector in the seven countries selected for data gathering, very few indicated that their businesses were affected by a natural hazard. In cases where this was stated, flooding was the hazard most frequently mentioned by these enterprises.

More recently (2017), Hurricanes Irma and Maria wreaked devastation on several Caribbean islands.

In Antigua and Barbuda, 95% of the structures on Barbuda were seriously damaged or destroyed by Hurricane Irma, although the larger island of Antigua was largely unscathed. As a result, the population of Barbuda, estimated at some 1,700 residents, was evacuated completely, with the majority of evacuees sheltering on Antigua. Hotels on that island were severely damaged.

11 https://blog.iic.org/2017/10/06/three-keys-supporting-caribbean-tourism-natural-disasters/
FIGURE 7:

The French- and Dutch-administered island of St Martin suffered widespread damage from Hurricane Irma, with 11 deaths in St Martin and 4 in St Maarten. The hurricane damaged the island’s water desalination plants and primary airport, as well as electrical and telecommunications networks. As at the end of March 2018, St Maarten still had 36 of its 63 hotel properties closed, while on St Martin only 400 of the 1200 hotel rooms were available for accommodation.13

In Dominica,14 Hurricane Maria (September, 2017) left 31 persons dead and US$930.9 million in damages. Nineteen per cent of the US$380.2 million losses were sustained by the tourism sector. Overall damages and losses were put at US$1.3 million amounting to 224% of the country’s GDP. As of January 2018, only 393 (41%) of the 960 hotel rooms were available to visitors.15

Particularly vulnerable to hazards are small and medium-sized enterprises in the tourism sector. Research16 has shown that the smaller the enterprise the more vulnerable it is to the negative impact of hazards. These businesses are less likely to have business continuity plans; and they have fewer resources to plan, respond to and recover from disaster impacts. Moreover, the accommodation sector which operates all hours of the day and all year round is more open to disaster risk since for the most part, hotels – as is the case in the Caribbean – are in coastal locations and they cater to a clientele who are unfamiliar with their surroundings.17

14 ACAPS Disaster Profile: Dominica, January, 2018
16 Sarmiento, Juan Pablo et al., (2016): Disaster Risk Management and Business Education: The Case of Small and Medium Enterprises
17 https://www.researchgate.net/publication/313409412_Exploring_Disaster_Resilience_within_the_Hotel_Sector_A_Systematic_Review_of_Literature
3.2 RISK MANAGEMENT APPROACH

• National Frameworks

Although the national disaster framework varies from country to country, the seven countries which formed part of this study all have (with the exception of Guyana) a legislative and regulatory framework which governs matters related to disaster risk management. This is supported by a National Disaster Council or a national disaster risk reduction committee as is the case in Trinidad and Tobago. These Councils include representatives from the respective Ministries of Tourism in the various countries as well as representatives from other sectors and Ministries. The countries also have national disaster organisations in place with the responsibility for coordinating and implementing disaster risk reduction and disaster risk management plans and programmes. There is also a National Emergency Operations Centre which is activated in anticipation of or following a disaster event.

• Risk Identification

Risk identification is the process of determining risks that could potentially prevent the programme, enterprise or investment from achieving its objectives. Participants in the study identified hurricanes/storms, floods, landslides, tsunamis, storm surge, earthquakes and volcanoes as the potential threats to their respective countries. Floods, hurricanes and storm surge were the ones that particularly threatened the tourism sector, although some stakeholders reported not having been affected by any of these hazards.

• Risk Assessment

Risk Assessment is a methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability as together they could potentially harm exposed people, property, services, livelihoods and the environment on which they depend. The process, therefore, includes the identification and analysis of hazards, the identification and analysis of vulnerable elements and the identification and analysis of risks and the results flowing from this process. Risk assessment is an integral part of the disaster risk management process and provides the basis for mitigation and preventive activities.

Although SMEs involved in the study were able to identify the risks that face their countries or threatened their businesses, very few of them reported having carried out formal risk assessments. Most of the SMEs interviewed in St Vincent and the Grenadines, however, indicated that they have carried out vulnerability assessments. Interviews carried out with operators in the tourism sector revealed that many of them have not been affected by hazards. Approximately 90% of the enterprises interviewed indicated that their businesses were located in a safe environment. Those that have been impacted mentioned flooding, hurricanes and storm surges as the hazards that have affected their businesses.

• Collaboration between and Linkages with Stakeholders

Although the various sector entities are represented on the National Disaster Councils, there were no clear and distinct linkages and defined ways to facilitate coordinated efforts among the national disaster organisation, the tourism-related entities and small and medium-sized operators in the sector. Only in one country did there appear to be a coordinated approach to disaster risk management. In this instance, it was the Tourism Ministry which attempted to forge public-private partnerships.
### Staff Training/Capacity Building

Training of staff in different aspects of disaster and emergency management varied from enterprise to enterprise and from country to country. In some instances, a few enterprises had no staff trained in any area related to disasters, while some only had staff trained in first aid. Staff in these enterprises had some level of disaster-related training in three main areas: first aid; fire safety; and disaster preparedness.

Based on the number of respondents participating in the study and the numbers responding to this particular question about training, we were able to tabulate the responses for Jamaica and St Vincent and the Grenadines as shown below. However, respondents from the various countries expressed a desire to receive training in the following areas: basic disaster management; fire safety; shelter management; counseling; and the development of disaster plans.

**FIGURE 8: STAFF TRAINING/CAPACITY BUILDING: JAMAICA WITH THE PERCENTAGE OF PERSONS TRAINED IN EACH TOPIC**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Aid</td>
<td>92%</td>
</tr>
<tr>
<td>Fire Safety</td>
<td>58%</td>
</tr>
<tr>
<td>Disaster Preparedness</td>
<td>42%</td>
</tr>
<tr>
<td>Search and Rescue</td>
<td>33%</td>
</tr>
<tr>
<td>Business Continuity Planning</td>
<td>17%</td>
</tr>
<tr>
<td>Counselling</td>
<td>17%</td>
</tr>
<tr>
<td>Shelter Management</td>
<td>17%</td>
</tr>
<tr>
<td>Amateur Radio Operations</td>
<td>8%</td>
</tr>
</tbody>
</table>

**FIGURE 9: STAFF TRAINING/CAPACITY BUILDING: ST VINCENT AND THE GRENADINES WITH PERCENTAGE OF RESPONDENTS TRAINED IN EACH TOPIC**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Safety</td>
<td>46%</td>
</tr>
<tr>
<td>First Aid</td>
<td>46%</td>
</tr>
<tr>
<td>Amateur Radio Operations</td>
<td>31%</td>
</tr>
<tr>
<td>Disaster Preparedness</td>
<td>31%</td>
</tr>
<tr>
<td>Business Continuity Planning</td>
<td>8%</td>
</tr>
<tr>
<td>Counselling</td>
<td>8%</td>
</tr>
<tr>
<td>Search and Rescue</td>
<td>8%</td>
</tr>
</tbody>
</table>
• **Disaster Preparedness**

Very few hotels engaged in the study provide guests as a matter of course with disaster information or what to do should the facility be impacted by a hazard. Some key informants disclosed that larger hotels were the ones more likely engage in this practice. Hotels in St Vincent and the Grenadines that were surveyed also indicated that this information and support were available to guests. This scenario is also captured in a 2015 study, Developing Strategies to Strengthen Resilience of Hotels to Disasters, led by Natalia Tostovrsnik:19

Tourists are especially vulnerable to disaster risks. This is because tourists are mobile, difficult to account for and not easy to reach with relevant and timely information or warnings (Becken and Hughey, 2013; Mahon et al., 2013). Tourists are often unfamiliar with the landscape and potential risks. They usually do not have local community links nor speak the local language. In an emergency situation, they may be unaware of how to react or what to do (Niininen, 2013). Due to the large geographical and cultural differences, visitors from different regions may under or overestimate risks (Law, 2006).

Lack of attention to staff training and preparedness planning only helps to aggravate the situation. Only a few of the hotels participating in the study had staff trained in disaster preparedness or any aspect of disaster management, although some had staff trained in First Aid/CPR and Fire Safety.

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19 [https://reliefweb.int/sites/reliefweb.int/.../ScopingStudy_HotelResilientInitiative_0.pdf](https://reliefweb.int/sites/reliefweb.int/.../ScopingStudy_HotelResilientInitiative_0.pdf)
3.3 BUSINESS IMPACT ANALYSIS

Business impact analysis\(^{20}\) is a systematic process to determine and evaluate the potential effects of an interruption to critical business operations as a result of a disaster, accident or emergency. According to Paul Kirvan,\(^{21}\)

*a business impact analysis attempts to relate specific risks and threats to their impact on key issues like business operations, financial performance, reputation, employees and supply chains. The BIA is usually the starting point for risk identification in a business continuity context and the analysis results should guide the risk assessment process.* (Kirvan, 2011)

The business impact analysis (BIA) is therefore essential to business continuity planning.\(^{22}\) It helps to reveal a company’s vulnerabilities and helps the business to prepare for potential setbacks. Knowledge of the potential effects of a disaster on critical business processes enables the enterprise to design and implement appropriate risk management strategies.

There is very little evidence to suggest that SMEs in the tourism sector as a matter of course carry out business impact analysis of disasters on their operations. As was pointed out earlier, risk assessment was not a feature of the SMEs interviewed, and since business impact analysis looks at risks and threats and their possible impact on the business, it was not surprising that conducting BIAs was not a common practice among the SMEs. In fact, most of the enterprises interviewed for this study had no knowledge of business impact analyses nor had in place any protocols to deal with the likely effects of disaster events on their business operations. Some of the reasons for this have been advanced in the literature:\(^{23}\) “negative attitudes towards crisis planning, a perceived lack of responsibility for dealing with crises, lack of money, lack of knowledge, lower risk perception and/or the, small size of the organization” (Wang and Ritchie 2012, cited in Becken and Hughey 2013). In addition, the fact that not many businesses have ever been affected by hazards means that this area has not been given priority and that more energies are expended on making the business profitable. The National Emergency Management Organisation (NEMO) in St Vincent and the Grenadines pointed out that the process of integrating DRM into the business processes has been slow, and a lot more work needs to be done in this area. The Office of Disaster Preparedness and Management (ODPM) in Trinidad and Tobago, while pointing out that disaster risk management has been mainstreamed into government operations, indicated that this has not been the case with the business sector, as there is still the popular view that the country does not have a high level of physical vulnerability, especially in relation to hurricanes and other similar events. Lack of money, lower risk perception and the size of the SMEs were the main reasons why there is a virtual absence of business impact analyses and business continuity planning among the SMEs that participated in the study.

As extreme weather events become more frequent, a business impact analysis needs to be recognized as a useful tool that operators in the tourism industry would do well to include in their business plans if they are to ensure swift recovery of their operations following a hazard event.

3.4 GENDER IMPACTS

Both men and women suffer the impacts of disasters but do so differently because of their varying social roles. Worldwide women comprise about 46% of the labour force in tourism, but they are employed in the lower level jobs in the sector. They can be found at the front desk and in the reception, housekeeping, catering and laundry services. As such, many women face unemployment when disasters do severe damage to the tourism industry. On the other hand, men tend to have more transferable skills and may gain employment in cash-for-work programmes, and in the construction sector during the rebuilding phase.

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\(^{20}\) Searchstorage.techtarget.com

\(^{21}\) Searchdisasterrecovery.com

\(^{22}\) https://toggl.com/business-impact-analysis/

\(^{23}\) https://reliefweb.int/sites/reliefweb.int/files/documents/pdf/ScopingStudy_HotelResilientInitiative_0.pdf
Even in cases where women do not lose jobs in the sector, disasters present additional burdens because of their caregiving role in the family. They tend to have responsibility for children who are not in school because of damage to school buildings or the schools are used as shelters. They also have to care for older relatives. On a whole, domestic work for women increases when family life, childcare, schools, clinics and public transportation are disrupted or destroyed due to natural disasters. The added stress on and displacement of women are factors to be considered in the planning for emergencies by small and medium-sized enterprises.

There is evidence in the Caribbean to show that men are, however, at greater risk of mortality and morbidity during disasters because of their social roles as protector and defender of family and household, their greater propensity to take risks, lower level coping skills and the social support structure. Men on a whole tend to cope differently with loss of employment as a result of disasters, and are prone to alcohol abuse, stress and anger.

Since very few respondents reported that they have been affected by natural disasters, very few commented when asked about the needs of men and women in emergency situations. Some, however, noted that women were given more time off to attend to domestic needs when faced with issues such as flooding and more attention was paid to their safety in emergency situations. It was evident from the non-responses that very little thought was given to the differentiated needs of men and women in emergency situations and gender was not a pivotal issue for the SMEs interviewed.

3.5 GENDER-SENSITIVE COMPREHENSIVE DISASTER MANAGEMENT

Gender equity considerations are of great importance to disaster management policies and practices. There was no evidence based on the interviews conducted with SMEs in the tourism sector that, as a matter of policy, a gender perspective was taken into account where education and training and other matters related to disaster risk management were concerned. No attempt was made to examine the ways in which men and women contribute to disaster risk reduction or how men and women in the sector are affected by disasters. However, there is evidence in the literature 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. According to:

*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.*

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 likely to die in disasters than men;
- Displacement of women in disasters makes them more vulnerable to sexual abuse;
- Men often expose themselves 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 caring for the elder and young, make them more susceptible to the impacts of disasters. They are more likely to be greater losers financially as they will need to take more time off work.

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SECTION 4:

BUILDING DISASTER RESILIENCE
This section looks at the characteristics of a disaster resilient business and the steps that can be taken to build resilience in the tourism sector. It provides specific information about business continuity planning as a means of building disaster resilience, zeroing in on mitigation, prevention, preparedness, response, crisis management, business restoration and operational recovery. The issue of governance as it relates to auditing and maintenance of plans will be highlighted in this section.

4.1 CHARACTERISTICS OF A DISASTER RESILIENT BUSINESS

Broadly speaking, a resilient business is characterised 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 organisational 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 minimise disruption, in so far as it has excess capacity which allows the business to continue to function even if critical components were to fail.

Some of the critical issues for business owners in disaster situations include power outages; damage to facilities, equipment and inventory; loss of telecommunications; water shortages; and supply chain disruptions. A resilient business would, therefore, be able to resist significant loss of function and resume operations quickly even where there are damages to assets or disruptions to supply of inputs for its operations. This situation calls for business continuity planning.

The second component speaks to organisational and human resources which include leadership and culture, networks and change readiness.

Leadership and culture include such things as situation awareness, staff engagement, the decision-making process, and innovation and creativity. For example, Henderson (2007), as cited in Building Disaster Resilience in the Tourism Sector, notes that hotels have a corporate social responsibility to have plans to care for, and keep safe, their staff and guests. Henderson further stated that . . . “The hotel sector’s responsibility must include placing high value on ensuring the safety of their staff and guests, while also improving their organisation’s ability to come through disastrous events and continue to be operational and profitable”.

Networks point to indicators such as effective partnerships, internal resources, leveraging of knowledge and breaking of silos.

Indicators of change readiness are stress testing plans, proactive posture, planning strategies and unity of purpose.

4.2 STEPS IN BUILDING A DISASTER RESILIENT BUSINESS

There are a number of initiatives that have been identified, both from secondary data and from interviews conducted with stakeholders, as drivers of resilience in the tourism sector. These include financial incentives, reduced costs for implementing disaster risk reduction measures, and guidebooks. Some of the factors identified as impacting on resilience are vulnerability, business planning, disaster preparedness and planning, continuity of operations planning, communications, and resources and assistance.

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26 UNESCAP; Asian Disaster Preparedness Centre; R3ADY Asia-Pacific: Resilient Business for Resilient Nations and Communities
27 Ibid
28 https://www.researchgate.net/publication/313409412_Exploring_Disaster_Resilience_within_the_Hotel_Sector_A_Systematic_Review_of_Literature
In Jamaica, the Ministry of Tourism in its attempts to build resilience in the tourism sector has established the Tourism Emergency Management Committee (TEMC). The Committee is charged with developing comprehensive disaster risk reduction strategies covering such hazards as tropical storms, hurricanes, flooding, earthquakes, fires and health threats. Among its activities is the facilitation of the development of disaster plans among tourism entities. The TEMC is a public-private partnership including such stakeholders as the Ministry of Tourism, the Jamaica Hotel and Tourism Association, the Jamaica Association of Villas and Apartments, the Association of Jamaica Attractions, Parish Disaster Committees, the Jamaica Fire Brigade and the Jamaica Red Cross.

Rogerio Basso, principal investment officer and head of tourism at IDB Invest (formerly known as Inter-American Investment Corporation), also identifies three keys for reactivating the tourism sector after the events of 2017 which have implications for resilience and sustainability. These are sustainable infrastructure, resources for rebuilding and improving and incentives from the public sector.

SMEs in the tourism sector that participated in this study have indicated a number of measures that can contribute to building resilience in the sector. These include:

- Training and awareness raising in disaster management and in the use of emergency equipment
- Acquiring of emergency equipment
- Robust physical structures that are disaster resilient. This would help to avoid or reduce damage to physical plants and loss of inventory, etc.
- Regular maintenance of buildings and a rigorous maintenance plan,
- Making sure that non-structural facilities such as furniture, equipment, electrical and other fixtures are of sufficiently high quality and standard and that they do not pose a threat to safety
- Implementing mandatory disaster planning and the development of disaster plans for enterprises and this process should include the following:
  - hazard identification
  - vulnerability assessment
  - development of disaster risk management plan, business recovery plan or business continuity plan
  - select measures to ensure monitoring and implementation of plan
- Establishing disaster funds as a contingency measure
- Insurance
- Effective health and safety management
- Clear guidelines and instructions to be followed in emergency situations.

### Business Continuity Planning

Proper planning and preparation for disaster events are critical to building disaster resilience. This is usually achieved through a business continuity plan. Miranda Brookins (2018) identifies five (5) basic steps in Business Continuity Planning. These are:

- Assess potential risks and costs
- Develop alternate ways to run your business
- Make a list of essential contacts
- Identify your core products and services
- Test the plan.

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Steps in Developing a Business Continuity Plan

1. Identify your business operations critical to survival; examine and list business processes, policies and procedures; and gather contact information that can be used during an emergency situation;

2. List the technology required to keep your business running; and maintain a backup information technology site or identify procedures to utilise other equipment, such as computers, printers, telephones and photocopiers at another location;

3. Identify legal documents, such as building leases, payroll forms, tax returns and critical contracts, that would be required to start your business again, in the event of a complete loss which could result from a fire;

4. Identify a contingency location where you can conduct business, in the event of a complete loss resulting from a fire;

5. Establish procedures for assuming responsibilities for management in the event that company executives are unable to provide leadership during a crisis and include at least one individual who is not located at your primary location, if possible;

6. Fill out an emergency plan template;

7. Review your document with people throughout your organisation, especially those considered vital to business functions and store your document on an intranet website or central storage location so everyone knows where to find it;

8. Train personnel in emergency procedures and communicate the necessity of following established procedures during a crisis by displaying posters, distributing fliers and conducting workshops.
4.3 GENDER CONSIDERATIONS

Gender considerations are essential for building resilience in the tourism sector. Ensuring gender issues are adequately addressed will require a mix of policy directives by government and practical steps being put in place by SMEs. Based on information outlined in previous sections, the following measures can be put in 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. Make efforts to have women workers operate from home temporarily given that business places might be destroyed or damaged in disasters, thereby impairing the ability to operate from the established premises. This will ensure that business activities continue especially relating to clients and this will also allow women to tend to the care and protection of vulnerable members of their household especially children who might temporarily be out of school and in need of supervision. Additionally, with the high prevalence of female-headed households, this will allow women to see to the 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;

iv. Include gender-related data in information collected in disasters and emergencies. 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;

v. Take into account both the needs and the potential contributions of men and women separately when preparing disaster preparation, mitigation, and response plans;

vi. Include women in the development of CDM plans and policies. Special provisions will be needed to ensure that the needs of pregnant women, women with children and women who are caring for older persons and persons with disabilities are prioritised, for example, time off to prepare for disasters and in the aftermath of disasters, to secure their dependents.
SECTION 5:

CONCLUSIONS AND RECOMMENDATIONS
CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The necessary framework exists for the integration of gender-sensitive disaster management in the tourism sector in Caribbean countries. The Comprehensive Disaster Management Strategy and Framework (CDM) 2014–2024 and its earlier edition provide the basis for this approach. Moreover, the regional disaster risk management strategy for the Tourism Sector in Caribbean (2009) sets out the basis for the development of national disaster risk management plans and approaches. The extent to which disaster risk management has been mainstreamed in the national tourism sector varies from country to country and it is evident from the review of literature and the primary data collected that serious gaps and deficiencies exist. The gender dimension is another area that requires serious attention.

SMEs in the tourism sector do not as yet possess either the knowledge and interest in disaster risk management or the financial and human resources to adequately address the issue in their business plans and operations. One common observation made in the seven countries involved in the information gathering exercise for this study was that the SMEs, particularly the small enterprises, were family-owned and there was a certain amount of reluctance to introduce change, even in situations where professionals were employed in management positions and were willing to adopt new strategies and approaches. This situation was most pronounced in the hotel sectors in Antigua, St Lucia and Trinidad and Tobago.

There was also the need for closer collaboration and coordination between the national disaster organisations and SMEs. Very few SMEs indicated that they had a close working relationship with the national disaster organisation or was aware of the training and other forms of support that could be accessed through this entity. On the other hand, tourism entities pointed to the lack of participation of small properties in their training and development programmes.
5.2 RECOMMENDATIONS

1. There is need for a systematic programme of education and awareness among SMEs in the tourism sector regarding the vulnerability of the sector to natural hazards and the potential impact of disasters on small and medium-sized enterprises.

2. 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, and business continuity plans together for their respective businesses.

3. Guidance documents related to business impact analysis, and business continuity planning should be provided as resource material for SMEs. For example, business continuity and disaster planning templates or sample plans can be provided.

4. The disaster and business continuity plans prepared by SMEs should take into account both the needs and the potential contributions of men and women in disaster reduction efforts, as well as how men and women can be negatively impacted by disasters.

5. Special emphasis should be placed on the inclusion of a gender perspective in risk assessment, early warning, information management and education and training.

6. SMEs in the tourism sector should be encouraged to take a multi-hazard approach to disaster risk management covering areas such as fires, floods, hurricanes, storms, landslides, earthquakes, tsunamis, storm surges and volcanic eruptions as well as health and safety issues.

7. There is a need for comprehensive legislation and regulations covering land use planning, building codes, building maintenance and gender sensitive disaster risk management planning.

8. Institutional arrangements should be put in place that allow for public-private partnerships in disaster risk management, and interaction between and among SMEs and government entities.

9. Mechanisms for information sharing and communication including tools for disaster risk management should be developed using the Internet and social media, thus making resources more readily available to small and medium-sized enterprises.

10. Website links and contact information for key agencies/resource organisations as well as links to additional information should be provided online to SMEs.
APPENDIX 1

REFERENCES


Becken and Hughey. (2013)


CDEMA (Caribbean Disaster Emergency Management Agency). (2016). Annual Achievements and Priorities in Disaster Risk Reduction in the Caribbean. Workshop organized by the Caribbean Disaster Emergency Management Agency (CDEMA), the United Nations Office for Disaster Risk Reduction (UNISDR), the International Federation of Red Cross and Red Crescent Societies (IFRC), the office of United Nations Development Programme (UNDP) for the Barbados and the Organisation of Eastern Caribbean States (OECS) as well as ECHO.


Mahon et al. (2013).


APPENDIX 2: DATA COLLECTION INSTRUMENTS

QUESTIONNAIRE FOR SMALL AND MEDIUM-SIZED 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.

<table>
<thead>
<tr>
<th>Name of Enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of Enterprise</td>
</tr>
<tr>
<td>Year of Establishment</td>
</tr>
<tr>
<td>Size of Staff</td>
</tr>
<tr>
<td>1. Male</td>
</tr>
<tr>
<td>2. Female</td>
</tr>
<tr>
<td>Type of Business</td>
</tr>
<tr>
<td>Goods</td>
</tr>
<tr>
<td>Services</td>
</tr>
</tbody>
</table>

**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
APPENDICES

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? If yes, please state how many, where are they located and if they are maintained. Complete all that applies.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Location in the building</th>
<th>Date last maintained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke detectors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguishers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprinkler System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Aid Kit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Hoses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Alarm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loud Hailer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generator</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Do you think that furnishings and equipment are installed to minimise 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? 

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 or simulation exercise conducted? 

   c. Which hazards does the drill/simulation exercise 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 any of the following?
   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
# List of Interviews Conducted and Questionnaires Administered by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>No. Interviews /questionnaires</th>
<th>Tourism</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigua</td>
<td>8 6</td>
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<td>7 4</td>
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<td>St Lucia</td>
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<tr>
<td>St Vincent</td>
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<td>5 3</td>
<td></td>
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<tr>
<td>Tobago</td>
<td>5 5</td>
<td></td>
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<td><strong>Total</strong></td>
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<td><strong>58</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>
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/