Community-Based Disaster Management in the Caribbean

2008 Caribbean Hurricane Season

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As of 9 September 2008.

Source: United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
(http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1094121)
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Introduction

The Caribbean region has one of the highest incidences of disasters in the world. The region experiences hurricanes, floods, tsunamis, landslides, mudslides, earthquakes and volcanic eruptions. Whilst natural disasters are the main type of disaster in the region, there is the potential for an increase in technological and human-induced disasters. Indeed, modernization, and its associated developments, leaves the region greater at risk for technological disasters. The reliance on tourism (and cruise ships in particular) increases the risk of accidents on the seas. Similarly, population growth, social and economic dislocations, and the associated growth pangs of modernization, have led to an increase in human-induced disasters, such as fires, oil spills, chemical explosions, biological and pest epidemics, water pollution, insurrection, bomb threats and kidnappings.

More narrowly, however, the hurricane season of 2008 has demonstrated the region’s exposure and susceptibility to natural disasters. The hurricanes of 2008 have caused billions of dollars of damage in Cuba, the Turks and Caicos, the Dominican Republic, the Bahamas and Haiti. As of September, Haiti, by itself, was hit by three major hurricanes for the 2008 season. These storms resulted in the deaths of hundreds and the displacement of hundreds of thousands. Not to be overlooked, the islands of Trinidad and Tobago, Saint Vincent and the Grenadines and Barbados experienced less spectacular—yet no less troubling—storm-related damage. This damage is illustrated in the following tables.

Table 1: The Financial and Human Costs of Tropical Storm Fay, Hurricane Gustav, Tropical Storm Hanna, and Hurricane Ike

<table>
<thead>
<tr>
<th>Country</th>
<th>Damage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>38,000 affected, 1,000 displaced</td>
<td>GOCR^2 – September 5, 2008</td>
</tr>
<tr>
<td>Cuba</td>
<td>4 dead, 55,700 displaced, 2,600,000 evacuated prior to Hurricane Ike</td>
<td>OCHA^3 – September 9, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GOC^4 – September 8 and 9, 2008</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>8 dead, 16,715 people displaced, 3,343 houses damaged</td>
<td>OCHA – September 3 and 9, 2008</td>
</tr>
<tr>
<td>Haiti</td>
<td>328 dead, 37 missing, 114,000 displaced, 600,000 affected, 78,200 in shelters, 3,307 houses destroyed, 11,827 houses damaged</td>
<td>OCHA – September 9, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GOH^5 – September 7 and 8, 2008</td>
</tr>
<tr>
<td>Jamaica</td>
<td>72 communities impacted, 12 dead, 4,000 individuals directly affected</td>
<td>OCHA – September 3, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IFRC – September 2, 2008</td>
</tr>
</tbody>
</table>

Source: USAID

^2 Government of Costa Rica (GOCR)
^3 U.N. Office for the Coordination of Humanitarian Affairs (OCHA)
^4 Government of Cuba (GOC)
^5 Government of Haiti (GOH)
Table 2: Impacts of Tropical Weather Systems (August 23 – September 8, 2008)

<table>
<thead>
<tr>
<th>Country</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>Experienced heavy rainfall on August 23 and 27, and September 7 2008&lt;br&gt;Extensive flash and riverine flooding, damage to roofs, fallen trees and landslides in several municipalities&lt;br&gt;Several cars were also damaged&lt;br&gt;The severe weather experienced by Trinidad and Tobago on August 23, 2008 went on to develop into Tropical Storm Gustav&lt;br&gt;One death was reported</td>
</tr>
<tr>
<td>Jamaica</td>
<td>Gustav impacted Jamaica between August 27-28th, 2008&lt;br&gt;Major impacts: flooding, wind damage and landslides with a few cases of storm surge&lt;br&gt;The agricultural sector has been severely impacted&lt;br&gt;Approximately 200 houses have been completely destroyed</td>
</tr>
<tr>
<td>Bahamas</td>
<td>Tropical Storm Hanna and Hurricane Ike impacted the Bahamas between August 30 and September 8, 2008&lt;br&gt;70–80% of houses on Great Inagua in the Bahamas have sustained roof damage and 25% have sustained major damage&lt;br&gt;The Airport terminal in Great Inagua has been destroyed&lt;br&gt;One shelter remains open to accommodate families whose houses have been completely destroyed&lt;br&gt;A door to door assessment is being conducted by the Department of Social Services and the Ministry of Public Works</td>
</tr>
<tr>
<td>Turks and Caicos Islands</td>
<td>Tropical Storm Hanna and Hurricane Ike impacted the Turks and Caicos Islands (TCI) between August 30 and September 8, 2008&lt;br&gt;The Government of Turks and Caicos Islands has declared Grand Turks and South Caicos Islands disaster areas&lt;br&gt;Extensive damage to housing and infrastructure</td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>Heavy Morning rains associated with a trough system have resulted in flooding and landslides in several areas of the country (Friday, 19 September 2008)</td>
</tr>
</tbody>
</table>

Source: CDERA (http://www.cdera.org/cunews/sitrep/article_2220.php)

The physical risks of natural disasters are exacerbated by socioeconomic and developmental factors, such as high population density, fast demographic growth, substandard building and physical structures, soil erosion and general poverty. When disasters occur, it is generally recognized that the combination of poverty and physical risks results in vulnerable communities with limited coping capacities. This is certainly the case in the Caribbean region.

The region’s environmental diversity exposes its population to varying degrees and levels of risk. These range from 100 percent risk for Saint Kitts & Nevis and Antigua & Barbuda, to 7 percent for the island of Jamaica (Ahmad 2007). However, just as there are marked differences in different islands’ vulnerability to risks, there are also similarities — since several islands share geologic features, such as a plates or rifts. Ahmad sums up the situation as such:
As far as physical environment and vulnerability to natural hazards is concerned there are marked differences as well as similarities across the region. Many Caribbean societies have lived through natural disasters and have been shaped by them. The threat of global warming related hazards are a matter of serious concern. There have been large scale land use changes to the natural environment in the Circum-Caribbean over the last 300-400 years in order to facilitate anthropogenic activities. (p. 14).

Natural disasters also adversely affect the national budgets and economies of countries in the region. ECLAC (2004) estimates that hurricanes in the region were responsible for USD$ 5.7 billion in losses and damages to date. Not surprisingly, the Commonwealth Secretariat regards natural disasters as one of the main reasons for the volatility of Caribbean economies (Ahmad 2007). Whilst a considerable amount of the damage is usually in the form of damage to properties and infrastructure, considerable damage is usually done to the region’s productive sectors, including the agricultural sector. Rasmussen (2004) has analyzed the macroeconomic implications of natural disasters in the Caribbean and has shown that their effects are:

- An immediate contraction in economic output
- A worsening of external balances
- Deterioration in fiscal balances
- An increase in poverty
- Natural disasters also affect long-term outcomes, through a number of channels, including environmental damage to agriculture, fishing, and forestry

Whilst the value of the physical damage is smaller in absolute figures than the loss experienced in other countries (especially developed countries) its impact is several times larger, given the fragile and transitory state of Caribbean economies. It also takes considerably longer for the region to recover from natural disasters and other shocks to its economies.

The region’s list of initiatives to manage disasters is as long as its history of natural disasters. The region’s current natural disaster management efforts are complex and ambitious. Its earlier attempts were merely reactionary, in that they focused on responding to disasters after they had already occurred. Now, however, the emphasis is on trying to prevent disasters from occurring in the first place. The adoption and mainstreaming of international strategies, such as the recommendations from the World Conference on Disaster Reduction, have led to the incorporation of approaches in line with those of the international community. One of the main tenets of the 2005 World Conference on Disaster Reduction is that disaster response alone is not sufficient to achieve disaster management. Prevention and mitigation activities undertaken before a disaster strikes can facilitate human safety, economic well being, environmental health and social justice. This is the nature of integrated disaster risk management.

Whilst vulnerability reduction action is slow in most of the countries of the Caribbean region, there has been a concerted effort to move in that direction. Another finding of the 2005 Disaster Conference was that state and state-controlled apparatuses are not necessarily the most effective means of disaster mitigation. The involvement of non-state actors is crucial for effective disaster mitigation and management, especially in developing countries like those comprising the region.

This study is a review of the practice of community-based disaster management in the Caribbean. It will explore the efforts to adopt and mainstream community-based disaster management in the region. It will describe the challenges in implementing the approach to date.
First, a definition and description of the elements of community-based disaster risk management will be presented. Then, the community-based disaster management model will be explored, in the context of the Caribbean Comprehensive Disaster Management approach. We will examine projects using the approach in the region. Finally, recommendations will be made to further enhance the approach in the region.
Community-Based Disaster Management in the Caribbean

Disaster Risk Management Approaches in the Caribbean

Early Disaster Management Efforts

In 1990, the United Nations declared the years 1990-2000 as the International Decade for Natural Disaster Reduction. Caribbean governments responded to the declaration by becoming more involved in disaster management activities and incorporating disaster reduction into their national planning efforts. A major result of those efforts was the establishment of a regional disaster coordinating unit called the Caribbean Disaster Emergency Response Agency (CDERA).

CDERA came to being after several previous attempts to establish national and regional disaster management entities. The Pan-Caribbean Disaster Preparedness Project (PCDPP) was established to improve national and regional disaster management, and had a lifespan from 1981-9. The PCDPP resulted in a number of accomplishments, including the creation of central government disaster management organizations in several countries. This project was originally conceived as an 18-month project, focused solely on disaster preparedness. However, the PCDPP operated for almost ten years (Poncelet, 1997). In 1989, when disaster prevention was included in its work, the acronym was changed to the Pan-Caribbean Disaster Preparedness and Prevention Project (PCDPPP). The Central Emergency Relief Organization in Barbados, the National Emergency Management Agency in Trinidad and Tobago, and the Office of Disaster Preparedness and Emergency Management in Jamaica were all created under the PCDPPP project. In addition, during the 1990s there were several other important disaster management projects active in the region. These included the UNDP-financed Disaster Emergency Response and Management Systems Project (DERMS), which ended in 2000. There were also ongoing projects funded by the United States Agency for International Development (USAID), the Organization of American States (OAS), the European Union (EU) and the Caribbean Development Bank (CDB).

Caribbean Disaster Emergency Response Agency (CDERA)

In 1991, the Caribbean Community (CARICOM) approved the creation of CDERA to replace the PCDPPP, providing a new agency funded by member states and donor agencies. Among its responsibilities was mobilizing resources among CARICOM countries (www.cdera.org). CDERA commands a stronger institutional position than the PCDPPP, including the right to mobilize the military. There are presently sixteen Participating States within CDERA’s membership. The participating states are: Anguilla, Antigua and Barbuda, the Bahamas, Barbados, Belize, the British Virgin Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St Kitts & Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, and the Turks and Caicos Islands. CDERA’s main function is “to make an immediate and coordinated response to any disastrous event affecting any Participating State, once the state requests such assistance” (www.cdera.org ). Its other functions include:

- Securing, collating and channeling comprehensive and reliable information on disasters affecting the region to interested governmental and non-governmental organizations;
- Mitigating or eliminating, as far as possible, the consequences of disasters affecting Participating States;
Establishing and maintaining adequate disaster response capabilities among Participating States; and,
Mobilizing and coordinating disaster relief from governmental and non-governmental organizations for affected Participating States.

To maximize its response to disaster in the region, the 16 CDERA Participating States are grouped into four sub-regions, each headed by an operation unit known as a Sub-Regional Focal Point. The functions of each focal point are:

- Acquiring and maintaining comprehensive information on the facilities and services available in each of the Participating States;
- Maintaining and testing communications with the Coordinating Unit and with critical response agencies under the control of national relief organizations;
- Maintaining independent fuel and power supplies and ensuring that relevant physical facilities are in a condition to withstand a major disaster;
- Keeping and maintaining an equipment package at the operational focal point in serviceable and optimal working condition. This package should contain items determined essential by the Board of Directors, and is subject to the approval of Council.

![Figure 1: Actors in CDERA CDM Framework](source: www.cdera.org)
Regional Response to Disasters

CDM-A Regional Framework for Disaster Management

The main paradigm of disaster management in the region is the Comprehensive Disaster Management (CDM) Strategy and Framework. This framework was designed by CDERA as the region’s contribution to the Hygo Framework for Disaster Reduction, and is described by CDERA as:

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

The main goal of the strategy is “Regional Sustainable Development enhanced through Comprehensive Disaster Management” (CDERA 2006).

According to the Caribbean Community Regional Programme Framework 2005-2015, this paradigm was adopted since it was proven to be the best approach, given the experiences of the region, the ongoing best practices of the region, the Kobe preparatory process, and the priorities outlined for the region by the World Committee on Disaster Reduction. The CDM, which was developed through consultations with all sectors of Caribbean society as well as bilateral and multilateral partners, focuses its activities and programmes around the 5 Intermediate Results outline in the table below.

<table>
<thead>
<tr>
<th>IR1</th>
<th>Stronger regional and national institutions to drive implementation of CDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR-2</td>
<td>National Disaster Organizations strengthened to support CDM</td>
</tr>
<tr>
<td>IR-3</td>
<td>Regional institutions and donors incorporate CDM in their own programs and promote CDM to their respective constituencies</td>
</tr>
<tr>
<td>IR-3.1</td>
<td>Donors to the region have adopted consistent policies requiring due attention to hazard assessment and mitigation measures in project approvals</td>
</tr>
<tr>
<td>IR-3.2</td>
<td>Organizations representing key economic sectors actively promote CDM to their constituents and on their behalf</td>
</tr>
<tr>
<td>IR-3.3</td>
<td>Insurance and finance industries in the region actively support CDM</td>
</tr>
<tr>
<td>IR-4</td>
<td>Preparedness, response and mitigation capability is enhanced and integrated into all public, private and civil sector entities</td>
</tr>
<tr>
<td>IR-4.1</td>
<td>Disaster management legislation supports CDM</td>
</tr>
<tr>
<td>IR-4.2</td>
<td>Comprehensive disaster management plans in place, tested and reviewed annually</td>
</tr>
<tr>
<td>IR-4.3</td>
<td>Emergency operations facilities are adequately equipped and operational</td>
</tr>
<tr>
<td>IR-4.4</td>
<td>Lifelines and critical infrastructure are protected with mitigation measures</td>
</tr>
<tr>
<td>IR-4.5</td>
<td>Mitigation is included in response, recovery and reconstruction actions</td>
</tr>
</tbody>
</table>
Community-Based Disaster Management in the Caribbean

Table 3: Intermediate Results

<table>
<thead>
<tr>
<th>IR-5</th>
<th>Hazard information is incorporated into development planning and decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR-5.1</td>
<td>Physical planning includes consideration of hazard and vulnerability information</td>
</tr>
<tr>
<td>IR-5.2</td>
<td>Policy and decision-makers in the public and private sectors are well informed about CDM and its implications for economic growth and political stability</td>
</tr>
</tbody>
</table>

Community Regional Programme Framework 2005-2015 identified the following priority areas for the region:

- Hazard mapping and vulnerability assessment
- Flood management
- Community disaster planning
- Early warning systems
- Climate change
- Knowledge enhancement

The report also stated that the principal issue for CARICOM and CDERA was “how to effectively link national and regional actions to existing and projected resource support. At the national level, governments and civil society will be encouraged to include disaster loss reduction principles in development decisions and project designs, so as to increase the likelihood of access to technical assistance programmes”. It is proposed that this resilience can be advanced through the pursuit of courses of action, in line with the following themes:

1. Governance: institutional and policy frameworks for risk reduction
2. Knowledge management
3. Community disaster planning
4. Flood management
5. Adaptation to climate change

CDM represents a paradigm shift from previous disaster frameworks in the Caribbean. It is a change from focusing on individual hazards to viewing hazard exposure as an ongoing process. It also aims to reduce vulnerability across all sectors (CGCED 2002). It places an emphasis on natural hazard risk reduction, encourages strategic partner alliances, promotes a culture of safety, and recognizes that strengthening disaster preparedness is critical for better responsiveness. Additionally, it encourages sector partners to take responsibility, lead dissemination of vital information and be vocal advocates for their constituencies (CDERA 2006).

CDERA cites the main benefit of CDM as disaster risk reduction. It argues that:

The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development (CDERA 2006).

CDM is also linked and aligned with other regional and global agendas, including the Hyogo Framework for Action 2005-2015, CARICOM Regional Programming Framework, the
Caribbean Single Market and Economy, and the St. George’s Declaration of Principles for Environmental Sustainability in the OECS.
Community-Based Disaster Management Approach

At present, there is a general consensus that disaster risk management cannot be isolated from general development planning—nor can it be implemented exclusively by the disaster management agencies of central governments. The diverse factors that contribute to disaster risk (as well as the far-reaching impacts of natural disaster risk management) are sustainable only if viewed as a multisectoral issue, compromising as broad a range of sectors as possible. In recent times, this has come to include sectors such as environmental management, protection and conservation, natural resource planning and management, agriculture, land registration, health, and energy supplies at local, national and international levels.

In addition to the inclusion of new sectors, disaster management has also evolved to include new actors. Bollin (2003) identified the following reasons why local actors play a major role in disaster management in developing countries:

Table 4: Reasons Why Local Actors are Important in Disaster Management

- Natural disasters rarely engulf entire countries. Disaster risk frequently varies significantly even by microregion. This is why use must be made of local knowledge and measures tailored to local hazards and vulnerabilities for effective disaster risk management and this is the best way to gear it to the specific disaster risk.
- National disaster management authorities in most developing countries are centrally organized and not able to provide rapid and effective help in an emergency, particularly to rural populations. Even national early warning systems (e.g. information on whirlwinds) often fail to reach the endangered population or reach them too late. So endangered areas must rely on their own capabilities to prepare and protect their populations.
- In several respects, society often increases the disaster risk itself (e.g. soil degradation through deforestation, unsafe settlements on dangerous slopes). It should therefore be made more aware of the dangers and made accountable for disaster risk management. Everyone can do something to reduce disaster risk and should also be given the opportunity to do so. This can increase the sense of responsibility amongst the endangered population and improve the sustainability of disaster risk management measures.

Source: Bollin (2003), Pages 12 and 13

The consensus at international discussions—such as the Istanbul Declaration on Human Settlements, the United Nations Conference on Human Settlements (Habitat 2), and the World Summit on Sustainable Development, Johannesburg—is that decentralizing disaster management is pivotal. Indeed, they stipulate that involving local actors is a prerequisite for disaster mitigation.
A disaster risk management system decentralized in this way must ensure that the measures of the various actors complement each other. Despite a certain autonomy exercised by the various stakeholders, mutual consultation is essential for an effective and sustainable system.

It is not enough to assign powers to local actors. They also need the personnel, sectoral and financial resources to be able to put them to effective use. Training and access to own funds are therefore elementary components of decentralization. Allocating competencies to local actors must thus go hand in hand with providing the necessary resources.

When allocating new powers and resources it is also important to set up suitable mechanisms for their control and use. This improves the supervision and transparency of strategies and their practical implementation in disaster risk management, for instance, and, in the case of control mechanisms at local level, raises the degree of responsibility borne by the population.

Pandey and Okazaki (1998) described community-based disaster management as an approach that seeks to engage at-risk communities in all of phases of the disaster cycle: prevention, mitigation, preparedness, response and recovery. They identified the most common elements of community involvement as partnership, participation, empowerment and ownership by the
local people of the disaster management process. They further argued that to be effective, local communities must be supported into analyzing their hazardous conditions, their vulnerabilities and capacities as they see themselves.

Similarly, Bollin described the situation as follows:

Community-based disaster risk management denotes the application of measures in risk analysis, disaster prevention and mitigation and disaster preparedness by local actors as part of a national disaster risk management system. A key feature is multisectoral cooperation with special responsibility borne by the municipal Authority (p. 15).

The role and importance of local level actors is stressed in all definitions of community-based disaster management. It also recognized that reduction of vulnerability to risk, as well as the means to respond effectively to disasters, is directly related to the decentralization of disaster functions and the involvement of local communities. Pandey and Okazaki (1998) further stressed that whilst it is important to have people own the activities in mitigation and preparedness initiatives, it is necessary to take that involvement all the way to policy-making and derivation of strategies. Community-based disaster management therefore puts communities at the forefront of all disaster management activities, from policy formulation to implementation of disaster relief efforts. The approach does not ignore scientific risk assessment and planning, but rather concedes that as many stakeholders as possible need to be involved in the process. The goal here is to achieve capacities and transfer resources to the community level, which would assume the biggest responsibility in disaster reduction and management.
**Figure 3: The Community-Based Disaster Management Process**

1. **Identification of Local Actors**
2. **Raising Awareness and Introduction to DRM**
3. **Participatory Planning**
4. **Risk Analysis, Prevention and Preparedness Measures**
5. **Raising Awareness and Training of Population**
6. **Training and Advice for Actors**
7. **Organization and Disaster Risk Management Actors**
8. **Monitoring and Evaluation**
9. **Integration into the National Disaster Risk Management System**

*Source: Bollin (2003)*

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**Table 6: Key elements of CBDM in the Philippines**

- **People’s Participation** — community members are the main actors and propellers; while sustaining the CBDM process, they also directly share in the benefits of disaster preparedness, mitigation and development.

- **Priority for the Most Vulnerable Groups, Families, and People in the Community** — in the urban areas the most vulnerable sectors are generally the urban poor and informal sector while in the rural areas, these are the subsistence farmers, fisherfolk and indigenous people; also more vulnerable are the elderly, the differently abled, children and women (because of their care giving and social function roles).

- **Risk Reduction Measures are Community-Specific** and are identified after an analysis of the community’s disaster risk (hazards, vulnerabilities and capacities and consideration of varying perceptions of disaster risk).

- **Existing Coping Mechanisms and Capacities are Recognized** — CBDM builds upon and strengthens existing coping strategies and capacities; most common social/organizational values and mechanism are cooperation, community/people’s organizations, and local knowledge and resources the aim is to reduce vulnerabilities by strengthening capacities; the goal is building disaster resilient communities.

- **Links Disaster Risk Reduction with Development** — addresses vulnerable conditions.
Table 6: Key elements of CBDM in the Philippines

and causes of vulnerabilities

- **Outsiders Have Supporting and Facilitating Role** — NGOs have supporting, facilitating and catalytic role, but while NGOs should plan for phase-out, government’s role is integral to enable and institutionalize the CBDM process; partnerships with less vulnerable groups and other communities.

- **These serve as overall targets to work for and parameters/indicators of performance to keep track of:**
  - **Participatory Process and Content**: involvement of community members, particularly the most vulnerable sectors and groups in the whole process of risk assessment, identification of mitigation & preparedness measures, decision making, implementation; the community directly benefits from the risk reduction and development process
  - **Responsive**: based on the community’s felt and urgent needs; considers the community’s perception and prioritization of disaster risks and risk reduction measures so the community can claim ownership
  - **Integrated**: pre-, during and post-disaster measures are planned and implemented as necessary by the community; there is linkage of the community with other communities, organizations and government units/agencies at various levels especially for vulnerabilities which the local community can not address by itself
  - **Proactive**: stress on pre-disaster measures of prevention, mitigation and preparedness
  - **Comprehensive**: structural (hard, physical) and non-structural (soft, health, literacy, public awareness, education and training, livelihood, community organizing, advocacy, reforestation and environmental protection, etc) preparedness and mitigation measures are undertaken; short-, medium- term and long-term measures to address vulnerabilities
  - **Multi-Sectoral and Multi-Disciplinary**: considers roles and participation of all stakeholders in the community; combines indigenous/local knowledge and resources with science and technology and support from outsiders; addresses concerns of various stakeholders while upholding the basic interest of the most vulnerable sectors and groups
  - **Empowering**: people’s options and capacities are increased; more access to and control of resources and basic social services through concerted action; more meaningful participation in decision making which affects their lives; more control over the natural and physical environment; participation in CBDM develops the confidence of community members to participate in other development endeavors.


However, community-based disaster management does not, by any means, mean that relief efforts are divorced from the national level. In fact, local communities need national support to function effectively. Community-based basically means that relief efforts feed into the national disaster management framework. In order for it to be effective, local actors need to be
encouraged to analyze the hazards, vulnerabilities and capacities of their immediate environment. While it is vital for them to make their own assessments, they must be supported by the national disaster management system. Community-based disaster management endows local communities with the capacity to respond to disasters by providing them with more access and control over resources and basic social services. The main objective of community-based disaster management is building the capacity of local communities to respond to disasters. In achieving this goal, the result will be resilient communities. Moreover, many of the skills acquired during the process will build the community’s capacity to participate actively in all aspects of its development.

Victoria identifies the following general steps in transforming at-risk communities to disaster resilient communities:

1. **Initiating the Process** — a linkage and building rapport with community; community or outsiders may initiate

2. **Community Profiling** — initial understanding of disaster situation and orientation on CBDM

3. **Community Risk Assessment** — anticipatory assessment of hazards, vulnerabilities, capacities and people’s perception of risks

4. **Formulation of Initial Disaster Risk Reduction Plan** — community counter disaster, disaster management, development plan or action plan; identification of appropriate mitigation and preparedness measures including public awareness, training and education; action plan

5. **Formation of Community Disaster Response Organization** — community organizing and mobilization, capability building in preparedness and mitigation, organizational development and strengthening

6. **Implementation of Short-, Medium-, and Long-Term Risk Reduction Measures, Activities, Projects and Programs** — implementation strategies and mechanisms; organizational/institutional strengthening

7. **Monitoring and Evaluation** — continuous improvement of disaster risk reduction plan/community counter disaster plan, identification of success factors and improvement of weak areas; documentation and dissemination of good practices for replication

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Community-Based Disaster Management in the Caribbean: Obstacles and Opportunities

CDM Strategy and Community-based Disaster Management

The CDM strategy mandates proactive management throughout all phases of the disaster cycle. These include prevention and mitigation of the likely impact of disasters, especially hurricanes; preparedness and response before and during the event; and recovery and restoration. These activities are to be carried out by both the public and private sectors (including all segments of civil society and the general population) in hazard-prone areas. The CDM strategy also envisions the integration of disaster management into long-term planning and development processes.

The Caribbean Community Regional Programme Framework 2005-2015 identifies Community Disaster Planning as theme 3, out of 4 themes (or areas of focus), for action. It identifies the guiding principles of theme 3 as:

- Hazard information, developed through mapping and vulnerability assessment, interpreted and effectively communicated
- Engagement of the community in risk reduction, through awareness and creative models of governance
- Formation of meaningful partnerships among respective stakeholders—especially engagement of business enterprises, service clubs and other community-based organizations

It also identifies the flood hazard mapping programme being implemented through the CADM project is an example of best practices, which should be expanded to strengthen community resilience as the impacts of floods on communities are often devastating. This builds on the support ECHO has provided to CDERA and the IFRCS in helping to produce products for standardization of community disaster planning training and the establishment of Early Warning Systems in two (2) vulnerable communities.

A search of the CDM database on CDERA’s website identifies more than 117 projects that have been implemented (or that are being implemented by CEDERA or its partners), where the main outcome (or one of the outcomes) is resilient communities. Appendix I identifies the projects where community-based disaster management was mentioned in the title.
Table 7: Efforts by the International Red Cross and the Setting up of PADRU to Help Local Communities

- As in other parts of the world, the National Red Cross Societies of disaster-affected countries are supported by the International Federation of Red Cross and Red Crescent Societies (IFRC). In 2001, IFRC established the Pan American Disaster Response Unit (PADRU), in order to respond more effectively to natural disasters in the Caribbean and Latin America. PADRU has two main roles. When disaster occurs, it coordinates and facilitates the international response of the Red Cross in the Caribbean and Latin America. When not responding to disasters, it contributes to strengthening the local and regional disaster response capacity of the National Societies.

- PADRU provides technical support by means of disaster management tools and systems which can be applied in an emergency. These have been developed by IFRC, based on experience, and have demonstrated their value frequently:
  - Community Vulnerability and Capacity Assessment (VCA), a Disaster preparedness tool
  - Rapid response to natural disasters via guidelines for Well Prepared National Societies (WPNS), coordinated by the Federation’s secretariat
  - Mobilisation and coordination of trained teams at different levels, such as National Intervention Teams (NIT), Regional Intervention Teams (RIT), and (at international level) Field Assessment & Coordination Teams (FACT) and technically specialised Emergency Response Units (ERU)
  - Disaster Management Information System (DMIS), which supports assessments, strategic decision-making, and coherent planning

The Caribbean Disaster Mitigation Project Strategy for Public Private Partnership

In an effort to promote public/private sector collaboration in disaster loss reduction, the CDMP strategy focuses on major issues in the disaster/sustainable development linkage in the Caribbean. These include:

- Improving public awareness of natural hazard risk by accurately mapping hazard-prone/environmentally fragile areas
- Achieving sustainable development by reducing natural hazard vulnerability in existing and planned development
- Better managing natural hazard risk and maintaining adequate catastrophe protection for the region

The strategy for implementing the CDMP therefore focuses on three main operative objectives:

1. initiating activities to develop a comprehensive database to identify risk prone areas,
2. engaging the private sector in assessing hazard risk and mobilizing their support for the adoption of hazard resistant standards,
3. stressing the need for an integrated approach to development

It is obvious that community-based initiatives and efforts to decentralize disaster management are only as good as the national, regional and international resources at their disposal (like CDERA, FEMA and the International Red Cross). This is so because community-based initiatives get their information/resources from higher-level sources (like government and regional institutions). In short, it’s not as though local groups derive information and scientific data and studies on their own. For instance, United Caribbean Trust, a “Christian” institution which offers disaster mitigation workshops, gets all its information from CEDRA and FEMA. As it was put in one study from Central America:

Community-based disaster risk management does not stand alone; it is part of the national system. The only way to ensure maximum effectiveness is for local capabilities to be well interfaced with the national system as the ways and means available to local actors depend in part on national parameters (e.g. laws and standards) and outside assistance.

A discussion on the obstacles and opportunities to mainstream community disaster management is discussed below:

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9 [http://www.unitedcaribbean.com/fema_workshops.html](http://www.unitedcaribbean.com/fema_workshops.html)
Disaster Management and Relief Structure in the Caribbean

The general structure of disaster relief and management in the Caribbean mirrors the finding that the Government remains the chief and most influential actor when it comes to disasters. Disaster management activities in the Caribbean region follow a self-evolved protocol and are undertaken at different levels. They also involve a number of formal and informal actors. These are classified as follows (CDB and CARICOM, 2004):

1. **Local Level**: Civil society (communities and their organizations), Local government, Local disaster committees
2. **National Level Central Planning and Sectoral Agencies**: National disaster office, business and industry
3. **Sub-Regional Level**: OECS framework, Country-to-country collaboration
4. **Regional Level**: Regional institutions, CDERA, CARICOM, CDB
5. **Bi- and Multi-Lateral Lending Institutions and Donors**

This pattern is evident throughout the Caribbean. However, who gets involved and when is dictated by the severity and extent of the disaster. When natural disasters occur, most of the initiatives to facilitate short- and long-term relief, rehabilitation and mitigation are funded through donor agencies and worldwide humanitarian aid organizations.

The State continues to dominate disaster management in the region, through its various national agencies. This means that disaster management is plagued with the same problems as other state entities—namely, a general shortage of staff (particularly technical staff), bureaucracy, financial limitations, duplication of efforts, as well as competition among other state entities. These problems can be lessened through the increased involvement of civil society and local actors—especially the private sector. Some have even gone as far as arguing for the divestment of some emergency services to the private sector (Ahmad 2007).

The (Minimal) Role Played by Civil Society in Disasters

Related to the disaster management and relief structure above, is the limited or minimal role played by civil society in disaster mitigation and management. The needs of the affected populations of natural disasters are served by the civil society and its various organs—such as churches, NGOs and community watch groups. However, most effective among the civil response to disasters are international humanitarian relief organizations. Two examples of such organizations are the International Federation of Red Cross and Red Crescent Societies and OXFAM. The personnel from these organizations are usually the first group of professionally trained persons to reach a disaster site. They help the needy in a variety of ways and complement the efforts of the State. The IFRC personnel are specially trained and have international experience in assessing real-time societal needs.

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12 Ibid 27.
Under-Utilizing the Private Sector for Disaster Relief

The private sector is completely under-utilized in disaster management. Consider the following:

The majority of past efforts in disaster management in the region have been focused on strengthening public sector capacity. While public sector response is clearly essential to effective disaster management and has yielded significant results, nearly a decade of experience has also demonstrated that there are inherent limitations to this approach. In general, the Caribbean public sector is both understaffed and under-funded, which inhibits its ability to design and enforce natural hazard mitigation measures, such as building codes or land use zoning. The public sector is also reticent to invest its scarce resources in measures designed to mitigate the impacts of infrequent natural hazards with very long and uncertain return periods. Faced with short-term demands that are often driven by the political process, government instead will support more visible projects that can demonstrate large short-term returns. The Caribbean Disaster Mitigation Project (CDMP) recognizes these limitations, and therefore seeks to identify private sector interest in natural disaster mitigation.14

… Throughout the Caribbean, the private sector has, in general, more financial resources, more and better trained staff, and a clearer interest in mitigation measures than does the public sector. The CDMP recognizes these advantages in working with the private sector, and therefore actively involves the sector in project activities.15

Disaster Relief/Preparedness Money Competes with the Money Needed for Development16

Caribbean Governments have had to cope with natural disasters amidst efforts to solve chronic economic problems, high unemployment and the balance of payment deficits that lead to declining standards of living for the majority of the population. When faced with a disaster, Caribbean Governments have been hard pressed to find the financial and other resources needed to rehabilitate social and economic infrastructure and restore full economic activity. Therefore, assistance has been sought from other sources, such as the regional and wider international donor community.

In the event of disasters, scarce resources previously earmarked for development activities must usually be diverted to relief measures. Foreign exchange earnings are used for the importation of emergency food supplies, for the rehabilitation of the agricultural and manufacturing sectors, and for basic reconstruction (Vermeiren, 1992). The cumulative economic effect of natural disasters on the Caribbean societies is one of loss of production, reduced employment, disruption in the balance of trade, and increased foreign indebtedness—all of which serve to set back economic growth (Ahmad, 1991).17 This has set off a vicious cycle in which funds earmarked for development activities have had to be diverted to providing humanitarian relief, cleanup and rebuilding following natural disasters.18

15 Ibid.
A major reason is that most decision-makers still see disaster risk management as a cost factor, rather than an investment. A contributory factor here, however, is that no informative cost-benefit analyses are available. On top of this, the broad application of community-based disaster risk management depends on progress in decentralization and democratization in the region.\textsuperscript{19}

\textbf{Information/Communications Divide}

Another serious consideration is that there may be an information/communications divide between disaster resources and the local populations. To begin with, through international aide and information technology, websites and other communications media have become vital parts of disaster management plans. Consider this report by Caribbean ICT professionals on the effect of communications technologies in Hurricane Ivan:

\begin{quote}
\textbf{Information Communications Technology on the Local Level is Vital in Disaster Preparedness}

…The review shows that although there was much use of ICT throughout the region as the hurricanes approached there is considerable room for improvement. On the various islands throughout the Caribbean, people listened to their radios, watched their televisions and awaited word on what they should do. The Barbadian response to Ivan for example was coordinated through the use of cellular phones in the communities. Radio and television broadcasts were also used to keep the public abreast during and after the passage of Ivan. Cellular phones were also the primary mode of communication between the thirty District Emergency Organisations (DEOs) covering the entire island.\textsuperscript{20}
\end{quote}

Similarly, while Caribbean information technology professionals note that the various regional disaster-related websites provide vital information before, during and after natural disasters, they stress that the information technology infrastructure is itself vulnerable during a disaster. As such, steps have to be taken to secure it.

Yet, the importance and vulnerability of information technology infrastructure is overshadowed by what has been called the “Digital Divide.” In short, what good are state of the art websites and cellular phone grids if the local people cannot afford to access them?\textsuperscript{21}

\begin{flushright}
\textsuperscript{19} http://www.gtz.de/de/dokumente/en-community-based-drm.pdf (page 7)  
\textsuperscript{20} http://www.devnet.org.gy/documents/Caribbeandisasterbrief-Final.pdf (Page 5)  
\textsuperscript{21} Ibid (5-6)
\end{flushright}
Conclusion/Recommendations

Given the obstacles mentioned above, the following are recommended to improve the mainstreaming of community based disaster management in the region:

1. There is a need to increase the involvement of civil society organizations in disaster management on the whole. The present involvement of civil society is still limited to traditional groups such as churches. The types of groups involved need to be broadened to include groups such as women’s, youth’s, and farmers’ organizations. The structure of how these community organizations feed into the national disaster management needs to be clearly defined, and definite lines of communication have to be established. At-risk populations need to be given the capacity development assistance, and resources, to organize themselves.

2. Efforts to increase the involvement of community and civil society groups are concentrated in disaster mitigation and relief. These efforts need to be expanded to the level of disaster policy formulation. This will result in a sense of ownership of the process by community organizations; and this, in turn, will make them partners in the enterprise, and not merely passive actors being told to follow esoteric rules.

3. Integration of disaster risk management in various sectors of developmental activities, including community development, environmental protection and resource conservation. Community groups can act as the link between the local population and national agencies.

4. The link between improved livelihoods, poverty reduction and reduction of disaster risks need to be stressed in efforts to increase local participation.

5. There is a need for the development of instruments and methods for risk analysis and cost-benefit assessment. These analyses can then be used as a decision yardstick for investment.

6. Community-based disaster management in the Caribbean also needs to be linked to and develop new methodologies for dealing with future challenges like climate change.

7. International funding for community groups in disaster management should be part of international development cooperation in the region. However, in a report, the CBD complained that whilst it is open to working with groups, it requires that those groups have the capacity and competence to undertake the necessary activities. Many groups require the technical assistance to develop the capacity and competencies, and that is where the funding activities should commence.

8. Systems should be developed, in order to plan, monitor and evaluate community-based disaster management projects.

### Appendix I: Community Based Disaster Management Projects in the Caribbean

<table>
<thead>
<tr>
<th>Implementing Agency</th>
<th>Project</th>
<th>CDM Outputs</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>American Red Cross</strong></td>
<td>Community Disaster Preparedness, Education and Mitigation</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>To increase disaster preparedness of vulnerable communities through enhanced coordination of local emergency organizations and community awareness.</td>
</tr>
<tr>
<td><strong>International Federation Red Cross and Crescent</strong></td>
<td>Community and organizational disaster preparedness program in Haiti</td>
<td>OP2-5, OP4-2, OP4-3, OP4-5</td>
<td></td>
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<tr>
<td><strong>Organisation of Eastern Caribbean States</strong></td>
<td>Decentralized Disaster Preparedness in the Eastern Caribbean Islands</td>
<td>OP4-1, OP4-5</td>
<td>The project aims at strengthening local rural communities in disaster preparedness through the adoption of selected measures/tools</td>
</tr>
<tr>
<td><strong>CDERA</strong></td>
<td>School Disaster Preparedness</td>
<td>OP4-1</td>
<td></td>
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<tr>
<td><strong>CDERA</strong></td>
<td>Community Disaster Management</td>
<td>OP4-1, OP4-2</td>
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<tr>
<td><strong>IFRC</strong></td>
<td>Support to community organization in taking mitigation measures against flood-related hazards</td>
<td>OP4-1, OP4-2, OP4-3, OP4-4</td>
<td></td>
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<tr>
<td><strong>ODPM</strong></td>
<td>Community Disaster Preparedness Program</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>To reduce the impact of natural hazards on communities by providing community members with the skills and knowledge needed to better prepare for and respond to disasters</td>
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<td>Implementing Agency</td>
<td>Project</td>
<td>CDM Outputs</td>
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<tr>
<td>UNDP</td>
<td>Reinforcement of Capacities on National and Local Risk Management in Haiti</td>
<td>OP1-1, OP3-1, OP3-3, OP3-4, OP4-1, OP4-3, OP4-5</td>
<td>This project falls within the scope of priorities defined in the Country Cooperation Framework between the Republic of Haiti and the UNDP. It constitutes a follow-up to a first capacity building project in which both partners acknowledged the need to reinforce the national capabilities in Risk and Disaster Management, and whose main results have been the participatory formulations of the National Plan for Risk and Disaster Management (PNGRD from the French Abbreviation). On this basis, the project aims at reinforcing the implementation of the plan by means of a series of coordinated activities, which shall be developed at central and selected Department and community levels.</td>
</tr>
<tr>
<td>UNDP</td>
<td>Vulnerability reduction of the population in Haiti</td>
<td>OP1-1, OP4-1, OP4-3, OP4-5</td>
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<tr>
<td>USAID</td>
<td>Reinforcement of Capacities on National and Local Risk Management in Haiti</td>
<td>OP1-1, OP2-2, OP2-5, OP4-1</td>
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<tr>
<td>ADMD</td>
<td>Disaster Mitigation for High Risk Communities in the Dominican Republic via Technical Assistance for Community Disaster Mitigation Committees.</td>
<td>OP4-1, OP4-2, OP4-3, OP4-4, OP4-5</td>
<td>To facilitate community awareness of natural hazards &amp; efforts to prepare for &amp; mitigate, where possible, potential impacts.</td>
</tr>
<tr>
<td>ODPM</td>
<td>Community-based Disaster Preparedness Program (CDPP) in Trinidad and Tobago.</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>To empower communities w/ the knowledge and skills necessary to exposure to hazards; To reduce the impact of disaster events on communities; To support the initiatives of the Min of Community Development, Forestry Division, NGOs, the TT Emergency Mutual Aid Scheme [TTEMAS] and other community activities in disaster preparedness and mitigation to ensure a sustainable and effective program.</td>
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<td>Implementing Agency</td>
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<tr>
<td>ODPEM</td>
<td>Community-based Disaster Management Project (CDMP) in Jamaica.</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>To implement a disaster mitigation plan through mobilizing the local community and through carrying out of a mitigation project to reduce the impact of future natural disasters on the community.</td>
</tr>
<tr>
<td>ODPEM</td>
<td>Protecting Children in Emergencies by Strengthening the Capacity of Schools and their Surrounding Communities to Respond to Disasters.</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>Training of school and community representatives to care for children in emergencies.</td>
</tr>
<tr>
<td>ODPEM</td>
<td>Disaster Management Training for Parish Councils.</td>
<td>OP1-1, OP4-1, OP4-3, OP4-4, OP4-5</td>
<td>The project aims to establish a national communication network to allow real time information flow between the parishes and the ODPEM.</td>
</tr>
<tr>
<td>ODPEM</td>
<td>White Helmets Initiative to the Building of a Community Resilience.</td>
<td>OP4-1, OP4-3, OP4-5</td>
<td>The project aims to build resilience at the community level, allowing community members to cope in emergencies.</td>
</tr>
<tr>
<td>OXFAM GB</td>
<td>Support for food security, livelihoods recovery and disaster preparedness in flood-affected communities of Guyana.</td>
<td>OP4-1, OP4-2, OP4-3, OP4-5</td>
<td>This is the third phase of an ECHO funded humanitarian response to flooding which occurred in Guyana in Jan 2005. This phase will help restore livelihoods, food security, and develop a community based disaster preparedness system amongst 21 flood-affected villages of East Coast Demerara.</td>
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<tr>
<td>Implementing Agency</td>
<td>Project</td>
<td>CDM Outputs</td>
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<tr>
<td>CDERA</td>
<td>Expansion of Caribbean Disaster Management Project Enhancing Flood Hazard Mapping and Community-based Disaster Planning in CDERA Participating States</td>
<td>OP2-2, OP2-5, OP4-1, OP4-2, OP4-3, OP4-4</td>
<td>Mechanisms, processes and products are established to mitigate disaster damage form floods in CDERA Participating States through the strengthening, enhancement and broadening of Hydrological observation, flood analysis technology, Geographic Information Systems capability for Flood Hazard Mapping, Community-based Disaster Management Planning (CBDM) capacity for the flood hazard and the establishment of an Early Warning flood hazard System mechanism.</td>
</tr>
<tr>
<td>CDERA</td>
<td>Empowering coastal communities to prepare for and respond to the tsunamis and coastal hazards (in support of the Tsunami &amp; Coastal Hazards Warning System – TCHWS)</td>
<td>OP2-1, OP2-4, OP4-5</td>
<td>The purpose of this proposal is to support the establishment of an effective end-to-end Tsunami &amp; Coastal Hazards Warning System (TCHWS) at regional and national levels among CDERA Participating States, and to undertake public education and awareness campaigns to prepare coastal communities for actions to be taken when a warning is issued. This project will save lives as it seeks to educate and prepare the communities at risk making them less prone to tsunamis, storm surges, flash floods and other hydro meteorological hazards. In support of and in collaboration with the Intergovernmental Oceanic Commission’s (IOC) Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE), this project is designed to address these needs through a partnership between technical and specialized agencies.</td>
</tr>
<tr>
<td>123 CDERA ACP-EU</td>
<td>Natural Disaster Facility Project for the Caribbean</td>
<td>OP1-2, OP1-5, OP2-1, OP4-1, OP4-4</td>
<td>To Improve human security for populations exposed to natural disasters and to reduce the social, economic and environmental costs of natural disasters by strengthening the capacity of the ACP States to build safer and more resilient communities and support of the regional and national sustainable development planning processes; and thus reduce poverty. The specific objective of the project is to reinforce the disaster risk management capacities of ACP-States at national, sub-regional and intra-ACP level. The project will: (i) Provide technical, institutional, resource and capacity building assistance to Caribbean ACP States in National Disaster Risk Management to support the implementation of the Caribbean Strategy and Framework. (ii) Seek to reduce the vulnerability levels of selected communities through a process of identifying, analyzing and evaluating risk, leading to the development of strategies to treat/mitigate existing and future risk. (iii) Facilitate the translation of the model evacuation policy into French for distribution to French-speaking states.</td>
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## Appendix 2: Literature on Community-Based Disaster Management in the Caribbean

<table>
<thead>
<tr>
<th>Title</th>
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<tr>
<td>Risk Management, Vulnerability and Natural Disasters in the Caribbean Report Prepared for the International Federation of Red Cross</td>
<td><a href="http://www.proventionconsortium.org/themes/default/pdfs/Forum08/Caribbean_Ahmad.pdf">http://www.proventionconsortium.org/themes/default/pdfs/Forum08/Caribbean_Ahmad.pdf</a></td>
<td>Circa 2007 “This report is an analytical review of the practice of risk management, vulnerability and natural disasters in the Caribbean.” Contains lots of analytical charts/tables on geographical, seismic and weather hazards, as well as their economic costs. Has a table on which countries were affected by which disasters and what the cost was (p. 16). This is a good source: he explains why there are so few local/community-based actors when it comes to disaster relief.</td>
</tr>
<tr>
<td>Community-Based Disaster Risk Management Experience Gained in Central America</td>
<td><a href="http://www.gtz.de/de/dokumente/en-community-based-drm.pdf">http://www.gtz.de/de/dokumente/en-community-based-drm.pdf</a></td>
<td>Circa 2003. “In the 90s, Central America played a pioneering role in efforts to reduce natural disasters and made major progress in conceptual and practical terms. A major milestone was the recognition of the role of the local and particularly the community level for disaster risk management and the resultant involvement of local actors. The governments in the region are supported in implementing this policy by many national and international organizations.” This is a useful study, which looks into limitations of community-based disaster management</td>
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<tr>
<td>Strengthening Disaster Management Capacity in the Caribbean Region</td>
<td><a href="http://www.reliefweb.int/rw/rwbnsf/db900SID/SHESS72SRMS?OpenDocument">http://www.reliefweb.int/rw/rwbnsf/db900SID/SHESS72SRMS?OpenDocument</a></td>
<td>This comes from a humanitarian aid decision for the region from the EU, circa 2006. A general discussion on disasters in the area and the Pan American Disaster Response Unit (PADRU). Contains a table on population figures of each country.</td>
</tr>
<tr>
<td>NATURAL DISASTER MANAGEMENT (from Caribbean Development Bank)</td>
<td><a href="http://www.caribank.org/titanweb/cdb/webcms.nsf/AllDoc/9FB25BD231DCD787042573CD0062F282/$File/NatDisMngtStrat&amp;OpGdlnesPaper%5B1%5D.pdf">http://www.caribank.org/titanweb/cdb/webcms.nsf/AllDoc/9FB25BD231DCD787042573CD0062F282/$File/NatDisMngtStrat&amp;OpGdlnesPaper%5B1%5D.pdf</a></td>
<td>“This paper outlines Caribbean Development Bank’s (CDB’s) strategy and provides operational guidelines for financial assistance to its Borrowing Member Countries (BMCs) for Natural Disaster Management.” (April 1998). Includes discussion on assisting Community Based Organisations (CBOs). Includes a history of the Banks’s direct assistance after disasters, as well as topics like insurance, and other disaster relief initiatives/organizations. Includes: LESSONS LEARNT AND PROSPECTS FOR A NEW STRATEGY</td>
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<tr>
<td>Natural Disaster Management at the Regional Scale</td>
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<td>Statement By H.E. Edwin Carrington, Secretary-General of the Caribbean Community (Caricom) to the Opening Ceremony of the Sixteenth Inter-Sessional Meeting of the Conference of Heads of Government of the Caribbean Community, 16-17 February 2005, Paramaribo, Suriname</td>
<td><a href="http://www.caricom.org/jsp/speeches/16inthgc_carrington.jsp">http://www.caricom.org/jsp/speeches/16inthgc_carrington.jsp</a></td>
<td>(16 February 2005). General speech on the state of CARICOM, including the disasters in Guyana and other CARICOM countries, and how they would be dealt with</td>
</tr>
<tr>
<td>Association of Caribbean States (ACS) Assessment of ACS Countries’ Disaster Management Projects, Weaknesses and Strengths First Meeting of the Special Committee On Natural Disasters</td>
<td><a href="http://www.geo.mtu.edu/~jaherric/Documents/ACS_Assessment.pdf">http://www.geo.mtu.edu/~jaherric/Documents/ACS_Assessment.pdf</a></td>
<td>Circa 2000. Assessment of Caribbean countries’ risk management projects. “The survey, carried out by a consultant with the support of liaison officers from the Caribbean Disaster and Emergency Response Agency (CDERA) and the Central American Center for Disaster Prevention (CEPREDENAC), was aimed at assessing current risk levels, as well as programs and intergovernmental and subregional mechanisms, in order to set priorities for cooperation in disaster prevention, mitigation and management.” (page 1) It basically gives the results of a survey it sent out to member countries, and shows a couple of graphs of the results: which disasters they fear, what they priorities are and so on. (To me, it’s not a very good assessment.)</td>
</tr>
<tr>
<td>Facilitating Effective Disaster Management in the Caribbean A Response from the Caribbean Information and Communications Technology Community</td>
<td><a href="http://www.devnet.org.gy/documents/CaribbeanDisasterBrief-Final.pdf">http://www.devnet.org.gy/documents/CaribbeanDisasterBrief-Final.pdf</a></td>
<td>November 10, 2004. Shows the role of Information Technology (ICT) in disaster preparedness. “A review of national ICT plans within the region show very little if any, concentration on the role of ICT in disaster management. Although the CARICOM Connectivity Agenda for ICT recognized infrastructure as a fundamental pillar in ICT development and evolution, it is only with the adoption of a new development orientated regional strategy that disaster management has been identified as a priority issue. That strategy and the flagship programmes within it, take note of the need to ensure that there are preventative and proactive policies to protect for infrastructure and people from physical threat.”</td>
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<tr>
<td>Support to Community-Based Disaster Management in the (Jamaican)</td>
<td><a href="http://www.undp.org/cpr/disred/documents/regions/americajamaica_summary.pdf">http://www.undp.org/cpr/disred/documents/regions/americajamaica_summary.pdf</a></td>
<td>Circa 2003. It’s a project proposal. “The project will work with the communities to develop and implement vulnerability reduction programmes in flood-prone communities in the parishes of Westmoreland, St. James, St. Ann and Clarendon; utilising the approach used in communities of the Rio Grande Valley and Rio Cobre. It will also review methodologies and best practices for developing community flood warning systems, prepare a strategy and protocol for developing flood warning systems; undertake landslide”</td>
</tr>
<tr>
<td>Parishes of Westmoreland, St. James, St.Ann and Clarendon</td>
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<tr>
<td>Urban Community Based Natural Disaster Prevention and Mitigation</td>
<td><a href="http://www.crdi.ca/en/ev-67619-201_920024-1-IDRC_ADM_INFO.html">http://www.crdi.ca/en/ev-67619-201_920024-1-IDRC_ADM_INFO.html</a></td>
<td>“This project will enable a group of research centres to network with development NGOs and educational centres to develop, disseminate, and adapt urban community-based disaster management strategies in central America. It will combine vulnerability and adjustment strategy analysis, multidisciplinary expertise, and action-research, to design and document a typology of communities under high risk of more recurrent and damaging hazards in major urban centres (floods, landslides, windstorms, and associated stream pollution). Specifically, the project will produce a reference typology of urban communities at risk; a comprehensive survey and review of kinds and degrees of family and community-level human vulnerability and adjustment mechanisms in urban settings; a repertory of criteria and guidelines for transfer to, and adaptation by, communities of technical skills required to access, produce, disseminate, and apply information relevant to prevention and mitigation initiatives; and an improved policy-advisory capacity for the research network.”</td>
</tr>
<tr>
<td>(Central America)</td>
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</table>
| United Caribbean Trust-Community Disaster Mitigation                 | [http://www.unitedcaribbean.com/cderacommunityemergencyplan.html](http://www.unitedcaribbean.com/cderacommunityemergencyplan.html) | Circa 2007. (Apparently, a “Christian” site) “The participation and coordinated efforts of all members of the community are necessary to the development of a feasible and workable recovery plan. To do this, we need to  
• Identify and locate Hazards to the Community  
• Assess Community Vulnerability;  
• Create a Plan of Action  
• Test and Evaluate the Community Plan.”  
They use CDERA (and the United States’ FEMA site) as their source, and seem to provide basic, common sense info on what to do in case of a disaster.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
References

Ahmad 2007, Risk Management, Vulnerability and Natural Disasters in the Caribbean (Report Prepared for the International Federation of the Red Cross)
http://www.proventionconsortium.org/themes/default/pdfs/Forum08/Caribbean_Ahmad.pdf

Bollin 2003, Community-Based Disaster Risk Management: Experience Gained in Central America

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Caribbean Development Bank (CDB) and Caribbean Community Secretariat
CARICOM 2004, Sourcebook on the Integration of Natural Hazards into the Environmental Impact Assessment (EIA) Process, Caribbean Development Bank, Barbados

CDERA
http://www.cdera.org/

Development Net

International Federation for Red Cross and Red Crescent Societies

Organization of American States

Pandey and Okazaki (1998)


ReliefWeb

United Caribbean
http://www.unitedcaribbean.com/fema_workshops.html

United Nations Development Programme

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
(http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1094121)

USAID