









Report

From Vulnerability to Resilience:

Exchange of Experiences in Disaster Risk Management in the Greater Caribbean Region

Managua, Nicaragua

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Acronyms

AAL Annual average losses

ACS Association of Caribbean States

AMEXCID Mexican Agency for International Development Cooperation
ARISE Private Sector Partnership for Disaster Resilient Societies

CARICOM Caribbean Community

CATPAD Technical Advisory Committee in Animal Protection during Disasters

CDEMA Caribbean Agency for Emergency Management

CECC Central American Educational and Cultural Coordinator

CENAPRED National Disaster Prevention Centre (México)

CEPREDENAC Coordination Centre for the Prevention of Natural Disasters in Central America

CNE National Emergencies Commission (Costa Rica)

CNE National Emergencies Commission (Dominican Republic)
CONRED National Coordinator for Disaster Reduction (Guatemala)

COSUDE Swiss Agency for Development and Cooperation

CRIS Caribbean Risk Information System

CSUCA Central American University Executive Council

DRR Disaster Risk Reduction

ECHO European Civil Protection and Humanitarian Aid Operations

OAS Organization of American States

OPDEM Office of Disaster Preparedness and Emergency Management (Jamaica)

PCGIR Central American Policy on Comprehensive Risk Management
PITCA Caribbean Territorial Information Platform for Disaster Prevention

PRIDCA University Program for Disaster Risk Reduction and Climate Change Adaptation

RM-GIR Meso-American Network for Comprehensive Risk Management

SDGs Sustainable Development Goals
SICA Central American Integration System

SIDS Small Island Developing States

SINAPRED National System for Disaster Prevention, Mitigation and Attention (Nicaragua)

UNISDR United Nations Office for Disaster Risk Reduction

















Executive Summary

The "From Vulnerability to Resilience Meeting – Exchange of DRR Experiences in the Greater Caribbean Region" was established in response to the Havana Action Plan 2016 - 2018, adopted along with the Declaration of Havana in June 2016. The meeting was jointly organized by ACS, CDEMA, CEPREDENAC, SINAPRED ACSand UNISDR Disaster Risk Reduction Committee. The meeting's focus is on countries belonging to the Caribbean Community (CARICOM), the Group of Three (G-3), the Non-Group Members, and the countries that form part of the Central American Integration System (SICA). The objective of the meeting was to exchange experiences in the field of comprehensive disaster risk management; strengthen communication processes and inter-institutional coordination in issues related to comprehensive disaster risk management; identify actions that support the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030; and the identification of potential synergies among countries in the Greater Caribbean sub-regions for comprehensive disaster risk management.

The meeting was attended by representatives of the national disaster risk management systems in Antigua and Barbuda, representing the eastern sub-region¹ of the CDEMA Participating States; Costa Rica, Cuba, El Salvador, Guatemala and Jamaica representing the north-western sub-region of the Participating States of CDEMA and Mexico, Nicaragua, and the Dominican Republic, as well as representatives of the ACS, CDEMA, CEPREDENAC, ECHO and UNISDR.

Along with a focus on intra-regional coordination measures, through contributions from ACS, CDEMA, CEPREDENAC and UNISDR experiences of countries (in the implementation of initiatives related to the Priorities of the Sendai Framework for DRR 2015-2030) were extensively addressed. National comprehensive disaster risk management systems, regional organizations and a private company shared cases related to the topics identified during a

² For all details, consult section 8 of this document.







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¹ Sub-regions for the participating states of CDEMA: Northwest sub-regions (Countries: Belize, Turks and Caicos Islands, Haiti, Jamaica, The Bahamas); Southern sub-region (countries: Trinidad and Tobago, Guyana, Grenada, Suriname); Central Sub-region (Countries: Barbados, Saint Vincent and the Grenadines, Saint Lucia, Dominica); Eastern Subregion (Countries: Anguilla, British Virgin Islands, Montserrat, Saint Kitts and Nevis)











pre-meeting consultation, specifically focused on risk mapping & shared information systems; training and raising awareness about comprehensive disaster risk management; strengthening national comprehensive disaster risk management systems; the promotion of a multisectoral approach for comprehensive disaster risk management; the private sector and the comprehensive risk reduction management; public cooperation and investment in comprehensive risk reduction management; the application of comprehensive disaster risk management processes; and multi-country contingency plans.

Work groups identified the challenges, barriers and opportunities to make progress in each of these issues in the Greater Caribbean region². Among the most recurrent challenges is the need to increase efforts, not just to collect data related to risk awareness, but also to make this data more readily available to the public. This includes facilitating exchanges between countries, encouraging the addressing of trans-border risks, as well as the creation of products designed for the general public and decision makers at political levels of governments. This final area was identified as indispensable in order to ensure a greater commitment to the development, implementation and reinforcement of national comprehensive disaster risk management systems that have a multi-sectoral focus.

In addition, linguistic differences were identified as a key barrier that impedes the exchange of knowledge. Strategies need to be developed to enhance training programs by providing them in more than one language, developing technical jargon in various languages to overcome these barriers. From a linguistic and technical perspective, during the meeting we urged members to find means through which students and professionals can exchange their experiences and knowledge of comprehensive disaster risk management systems, whether in a virtual or face-to-face manner.

There was an emphasis on the need to continue developing governance processes for comprehensive disaster risk management systems through national and international regulatory frameworks. The role of the mediator that can be taken on by regional organizations was identified as a way of facilitating the alignment of guidelines between

















countries on both the comprehensive approach to risks and the international response to disasters.

It was also highlighted during the meeting that there is a need to shift from the financing of climate change actions (as a separate element to risk reduction) to funding that recognizes the connections of DRR to climate change. In this regard, it was proposed that the criteria for receiving funding for adaptation to climate change should be expanded to include investment in risk reduction due to the already visible effects of climate change.

Finally, the need to jointly make progress in the above areas among organizations at the national level, the private sector, regional and international organizations, as well as cooperation agencies were recognized and underscored. The Managua Declaration and other related documents from the event can be found on the website: https://www.preventionweb.net/go/56743

1. Introduction

The Caribbean has seen an increase in disasters linked to extreme hydrometeorological phenomena and climate change. It has become evident and imperative that regional leaders confront the negative effects of natural events and other threats in the Greater Caribbean. The region's high vulnerability has resulted in a sustained increase in losses related to catastrophes with significant short, medium and long term economic, social, health, cultural and environmental impacts, particularly at the local and community levels. This has had a dramatic influence on the long-term development of countries that have regular or frequent exposure to disasters. Climate change presents an additional challenge: projected rain patterns and temperatures are capable of affecting the severity and frequency of natural dangers such as hurricanes and floods².

According to Germanwatchs 2018 Global Climate Risk Index³ in the period between 1997 and 2016, several countries in the Greater Caribbean region are amongst the 20 most affected by disasters in the last 20 years. It is worth highlighting that this figure doesnt take into account the consequences in multiple countries in the Greater Caribbean caused by Tropical Storm

³ Source: https://germanwatch.org/en/14638, last access: February 19 2018.







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 $^{^2}$ United Nations international strategy to reduce disaster risk (2008) "Climate Change and Disaster Risk Reduction" .











Nate, Hurricanes Harvey, Irma and Maria, the landslides that occurred in Colombia on April 1, 2017 and the earthquakes that affected Mexico between September 7 and 19, 2017.

Latin America and the Caribbean could suffer damages that cost four times more each year compared to Europe and Central Asia, and two times more compared to North American countries⁴. It is projected that \$1.4 billion USD will be added to average annual losses (AAL⁵) just for wind damage, which does not include changes in the average annual losses (AAL) associated with storm surgescaused by rising sea levels. The case of Small Island Developing States (SIDS), particularly the ones in the Caribbean, is a more critical situation as these countries' social capital, investment and social expenditure face potentially high losses associated with multiple threats.

In June 2016, the heads of state of the Association of Caribbean States adopted the Havana Declaration and the 2016-2018 Havana Action Plan, which highlighted support for the implementation of the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction 2015-2030.

One of the points covered the 2016-2018 Havana Action Plan and the work program for the Association of Caribbean States (ACS) refers to organizing a meeting between disaster management agencies among its member countries. In this meeting, these agencies will address activities identified as priorities in order to support proposed initiatives and make progress in the implementation of regional policies, projects and actions to reduce disaster risk at the regional level. In response to this, and after an extensive process of discussions at several levels, the "From Vulnerability to Resilience Meeting – Exchange of DRR Experiences in the Greater Caribbean Region" organized by the Association of Caribbean States in coordination with CDEMA, CEPREDENAC, SINAPRED and UNISDR has been carried out. This meeting provided a platform for countries in the Greater Caribbean to collaborate and work towards regional management in order to improve and develop processes for disaster risk

⁵ AAL = Average estimated annual loss of a long term period taking into account the full range of loss scenarios related to different periods of return.







⁴ UNISDR (2015). Towards sustainable development: The future of disaster risk management. Global Assessment Report about Disaster Risk Reduction. Geneva, Switzerland. United Nations Office for Disaster Risk Reduction (UNISDR).











identification, prevention, mitigation and preparation in response and rebuilding processes for disasters in the Greater Caribbean region.

2. History

The Association of Caribbean States aims to strengthen regional cooperation and the integration process in order to create an expanded economic space in the region, preserve the environmental integrity of the Caribbean Sea, which is considered common patrimony of the region's countries, and promote the sustainable development of the Greater Caribbean. The Association currently has five areas of focus: the preservation and conservation of the Caribbean Sea, Trade and Economic External Relations, , Transport, Sustainable Tourism and Natural Disasters. It has five special committees, including its Disaster Risk Reduction Committee, which helps to strengthen cooperation between the organizations responsible for planning and responding to disasters in the region. This helps prevent and mitigate risks and provides knowledge of prevention, education and planning in relation to the effects of disasters.

The member countries of the Association of Caribbean States belong to four sub-regions within the Greater Caribbean, specifically those that form part of the Caribbean Community (CARICOM), the Group of Three (G-3), the Ungrouped Members and members of the Central American Integration System (SICA).

In terms of disaster risk management, CARICOM identified the need to establish a support network and coordination between the emergency units of its member countries at the beginning of the 1990s, leading to the establishment of the Caribbean Disaster Emergency Management Agency (now known as CDEMA)⁶ in 1991. The Regional Comprehensive Disaster Management (CDM) Strategy and Programming Framework 2014-2024 was launched as part of CDEMA's efforts to continue working across the region to integrate and institutionalize comprehensive disaster management strategies such as the Caribbean Platform in order to succeed in reducing risk.

The Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC) is a regional intergovernmental agency belonging to the Central American

⁶Established in 1991 as the *'Caribbean Disaster Emergency Response Agency (CDERA)'*, and transitioned to *'Caribbean Disaster Emergency Management Agency'* (CDEMA) in 2009.

















Integration System (SICA) as a specialist secretariat. CEPREDENAC' s general objective is to contribute to reducing vulnerability and the impact of disasters as a vital part of the transformation and sustainable development process of the region through the promotion and coordination of international cooperation and exchanging information, experiences and technical and scientific consultation in disaster prevention, mitigation, assistance and response. The five key elements of CEPREDENAC' s actions are established in the Central American Policy on Comprehensive Disaster Risk Management (PCGIR), which was updated in 2017 in order to align it with the Sendai Framework 2015-2030.

The United Nations Office for Disaster Risk Reduction (UNISDR) is the coordination center for disaster risk reduction in the framework of the United Nations system. UNISDR ensures synergy between United Nations agencies and regional organizations to reduce the impact of disasters by implementing socio-economic, humanitarian and development activities that support the integration of different related policies. UNISDR supports the implementation, monitoring and review of the Sendai Framework for Disaster Risk Reduction 2015-2030. In accordance with its mandate, UNISDR works to strengthen regional ties and coordination spaces between national actors and inter-governmental institutions for the implementation of the Sendai Framework.

Through the years, the different agencies in the Greater Caribbean region have made significant progress in terms of comprehensive disaster risk management. Progress has been made in knowledge of disaster risk, governance of disaster risk management has improved, investment in disaster risk reduction has been increased and agencies and processes have been strengthened to respond to disasters and rebuilding needs. In this vein, the accumulated experiences and knowledge have not been homogenous across the Greater Caribbean region. As a result, there is a strong potential for exchanging experiences and mutual learning in the framework of issues that are relevant for all countries and actors.

During the XXV meeting of the Special Committee for Disaster Risk Reduction of the ACS, Nicaragua, the Chair of the Special Committee, proposed a regional meeting in Nicaragua at the beginning of 2018, which was approved by the Committee, to exchange experiences between sub-regions, in line with what is proposed by the 2016-2018 Havana Action Plan and ACS's work program. Dialogue was held with ACS, CARICOM, CEPREDENAC, Cuba and SICA

















in several platforms and previous meetings, and meetings both before and after the Special Committee, which included the Global 2017 DRR Platform⁷, the IV Regional Consultation Forum on the Central American Policy for Comprehensive Disaster Risk Management (PCGIR)⁸, the 3rd Cuba-CARICOM Workshop on Disaster Risk Management and Adaptation to Climate Change⁹ and the 10th CDEMA Conference on Comprehensive Disaster Management¹⁰. All of the interested parties were involved and contributed to the process to plan and organize this meeting.

3. Objectives and expected results

Based on what is included in the Havana 2016-2018 Action Plan and the Association of Caribbean States work program, the "From Vulnerability to Resilience Meeting –Exchange of DRR Experiences in the Greater Caribbean Region" coordinated the meeting's content, discussions and methodology in accordance with the following four objectives:

- The exchange of experiences in the area of comprehensive disaster risk management between the participating sub regions.
- Strengthening of inter-institutional communication and coordination processes between
 organizations representing the four sub regions in the areas of comprehensive disaster
 risk management to favor the progress made by participating countries from the Greater
 Caribbean sub regions.
- Identification of actions that support the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 in its four prioritized areas in the Greater Caribbean.
- Identification of potential synergies or beneficial projects for the four sub regions in the Greater Caribbean in the area of comprehensive disaster risk management, taking into account the mandates of each representative organization.

The following results were achieved in the meeting, which will be covered in more detail below:

¹⁰ 10th Caribbean Conference on Comprehensive Disaster Management, December 4-9 2017, Bahamas.







⁷V Global Platform for Disaster Risk reduction, May 22-26 2017, Cancún, México.

⁸ IV Regional Consultative Forum of the PCGIR, August 24 and 45 2017, Panamá.

⁹ "Risk Management and Adaptation to Climate Change" Course-Workshop October 16-19 2017, Havana, Cuba.











- Experiences shared by the sub regional organizations in relation to the priorities from the Sendai Framework for Disaster Risk Reduction 2015 2030, including risk maps, the use of information systems, the inclusion of comprehensive disaster risk management in school and professional curricula, the strengthening of national comprehensive disaster risk management systems, multi-sectoral approaches to comprehensive disaster risk management, links between the public and private sectors in this area, as well as regular and extraordinary financial mechanisms.
- An understanding of the structure and external and internal coordination of disaster risk reduction systems and programs implemented in the Greater Caribbean sub regions by ACS, CDEMA, CEPREDENAC and UNISDR.
- Identification of obstacles and challenges that impede the implementation of activities to make progress with the Sendai Framework for Disaster Risk Reduction 2015-2030.
- Identification of coordination and cooperation opportunities between countries from the Greater Caribbean region, as well as with other actors that are present in theregion.

4. Methodology

Given the wide variety of contexts and priorities in the countries that form the Greater Caribbean region, and with the goal of ensuring that the exchange of experiences for disaster risk reduction is relevant and useful for the countries and organizations that are represented, a prior consultation was organized with the objective of identifying topics of shared interest. Countries from the four sub regions participated in this consultation, which was held between the 5th and 12th of February 2017. The feedback received from participants was systematized and distributed into one of the four priorities from the Sendai Framework 2015-2030, with this being a key contribution to the thematic and methodological design of the "Meeting on Vulnerability to Resilience – Exchange of DRR Experiences in the Greater Caribbean Region". This meeting sought to develop an approach that takes into account the different interests of the four sub regions, with the goal of identifying factors that either facilitate or limit the

















implementation of the each of the priorities and contribute to actions carried out at in the Greater Caribbean region.

The feedback received from participants was categorized into each of the priorities from the Sendai Framework 2015-2030, identifying eight topics that were covered in the same number of thematic sessions.

The sessions during the meeting involved a panel consisting of representatives of the ACS, CDEMA, CEPREDENAC and UNISDR, presentations on experiences at country and regional levels that were linked to the topics identified for each action priority and group work for the identification of weaknesses, barriers and internal and external opportunities. The results of the group work were captured in a form designed for this purpose, with the results from each group presented during plenary sessions for information and feedback.

5. Panel on regional coordination

With the opportunity provided by the participation of the ACS, CDEMA, CEPREDENAC and UNISDR, together with representatives of countries of the Greater Caribbean, the first session of the meeting aimed to create a common understanding of intra-regional coordination processes. In a panel format, representatives presented the mission and mandate of each of these organizations, highlighting their current initiatives.

Subsequently, the subject of cross-border risks was raised during the plenary session, exemplified by rivers that cover more than one country in Central America. It was noted that while each country has regulations on the use and contamination of rainwater, these norms do notapply across borders. Similarly, the implementation of different norms for comprehensive disaster risk management among several countries at the same time was identified as a significant challenge for Caribbean islands.

More than a technical question, it was agreed that the solution to the above issue is of a political character, as long as it is accompanied by expert multi-sectoral advice and with the participation of all levels of government. The mechanism to achieve this objective included mediation between the parties and the development of a policy by the ACS, which guides the management of cross-border risks.

















6. Exchange of experiences for the implementation of the priorities of the Sendai Framework of DRR 2015-2030 in the Greater Caribbean

As a result of the previous consultation eight subjects of common interest were identified between countries and actors of the Greater Caribbean, classified in two for each Action Priority of the Sendai framework of DRR 2015 – 2030. Specifically the following subjects were identified.

- 1. Priorities for Action 1: Understanding disaster risk:
 - a) Mapping of risks and shared information systems.
 - b) Training and awareness raising on comprehensive disaster risk management.
- 2. Priorities for Action 2: Strengthening disaster risk governance to manage disaster risk
 - a) Strengthening of national comprehensive disaster risk management systems.
 - b) Promote a multi-sectorial approach to comprehensive disaster risk management.
- 3. Priorities for Action 3: Investing in disaster risk reduction for resilience:
 - a) Private sector and the comprehensive management of risk reduction.
 - b) Cooperation and public investment in the comprehensive management of risk reduction.

<u>Priorities for Action 4: Enhancing disaster preparedness for effective response, and to «Build</u> Back Better» in recovery, rehabilitation and reconstruction:

- a) Application of comprehensive disaster risk management processes.
- b) Multi-country contingency plan.

Based on these topics, experiences were identified at national and regional levels that can enrich the exchange of knowledge between the countries attending the meeting. Similarly the thematic sessions made use of work in groups, with the objective of identifying barriers, challenges and opportunities to make progress in the topics covered at a regional level.

The sections below summarize the shared experiences and weaknesses, barriers and opportunities identified, organized into the results of the different work groups.

















a. Action Priority 1: Understanding disaster risk

Session IVa: Mapping of risks and shared information systems.

Experiences from Nicaragua and Mexico on this topic started the session. Dr. Guillermo González, Minister-Director of the National System for the Prevention, Mitigation and Attention of Disasters (SINAPRED), Nicaragua, presented a "Map of Vulnerabilities and Threats". For this map, an emphasis was placed on the need to expand the use of risk maps to inform decision makers at political levels, exemplified by the "Interactive Maps of Vulnerabilities and Natural Threats" used in Nicaragua.

Next, Mr. Carlos Miguel Valdés González, of the National Center for Risk Prevention (CENAPRED), México, presented the National Risk Atlas, the Caribbean Territorial Information Platform for Disaster Prevention (PITCA) and the Caribbean Risk Information System (CRIS).

The participants discussed the weaknesses, barriers and opportunities for progress on the mapping of risks and shared information systems, with the following conclusions:

Weaknesses:

- Lack of human, material and financial resources to identify risk, as well as an absence of homogeneous methodologies for the evaluation of vulnerabilities.
- Data used for analysis is not updated with sufficient frequency, as a consequence of
 costly and time-consuming processes to generate information. In addition, there are
 no scales of detail in the risk analyses that are carried, since the majority of the studies
 are conducted at a national level.
- At the political level, increased recognition is required from politicians and the local
 population on risk information systems. This is augmented by the technical language
 that risk information systems tend to use, failing to produce communication products
 that are easy to understand and designed for the general public.
- The expression of risk in technical-scientific terms makes transmission to and appropriation by non-specialists very difficult. In addition, the linguistic differences between countries of the Greater Caribbean region impede the exchange of knowledge lt.

















- At a regional level, there is no well-defined legislation or norms to establish specific roles in the processes of diagnosis, evaluation, monitoring and alerting of risks, accompanied by an absence of regional protocols for the exchange of information.
- There are gaps among the countries in the region in relation to technological tools and the use of geo-referenced data. As a result, it is not possible to obtain an analysis of harmonized risk for the Greater Caribbean region.
- At a local level, authorities are not aware of the efforts made at national and subnational levels, since there is no information process for understanding threats and risk maps. As a result, outside the area of comprehensive disaster risk management, authorities are not aware of the necessity and usefulness of understanding disaster risk.

Opportunities:

- Existence and replicability of construction regulations at a national level incorporating considerations relating to natural phenomena in the design and construction of housing and infrastructure.
- At the level of risk mapping, progress has been made on the development of
 information tools that integrate regional information on threats and exposure to risk,
 which is the experience of the National Center for Disaster Prevention (Mexico). The
 ACS currently leads the Caribbean Territorial Information Platform project (PITCA), a
 tool that provides technological infrastructure and technical training for CDEMA.
- CDEMA has the Caribbean Risk Information System (CRIS), a portal that integrates information on threats in the Caribbean region. CEPREDENAC and CDEMA have the technological infrastructure to integrate and publicize risk information systems for the Caribbean region. In addition, the Meso-American Network for Comprehensive Risk Management (RM-GIR) allows for the exchange of information between Meso-American countries, since they have the necessary infrastructure for the publication of geospatial information.
- CEPREDENAC has generated indexes for the calculation of vulnerability at regional level, as well as proposing the consideration of elements such as theHuman Development Index for the assessment of risk reduction.

















- CENAPRED and ACS will continue to coordinate collaborative actions in the areas of risk assessment and identification for the member countries of CDEMA, CARICOM and CEPREDENAC.
- AMEXCID will seek additional funds to continue with the sustainability process for the PITCA project.
- Nicaragua proposed establishing a range of forums in which experiences and ideas
 could be exchanged to measure physical, institutional and social vulnerability
 (including poverty and inequality) and to conceptualize the different concepts of
 resilience. Together with this work, there is a proposal to form a permanent (virtual)
 communication mechanism between the countries in the region, with the aim of
 discussing common subjects on the basis of previous national experiences.

Session IV-b: Training and awareness raising on comprehensive disaster risk management

Mr. José Alcántara Betances, National Sub-director of the Civil Defense Brigade of the Dominican Republic, begin the session sharing an experience from "Strengthening thecapacities of local level decision makers". The Diploma in Risk Management for Local Level Decision Makers was presented, designed for decision makers in the area of disaster risk management at a municipal level, with special focus on the members of the Municipal Committees for Prevention, Mitigation and Response of Santiago de los Caballeros, San Juan de la Maguana and San Felipe de Puerto Plata, and other municipalities.

On behalf of UNISDR, Ms. Saskia Carusi, External Relations Officer, presented the "Strategy for developing capacities to support the Implementation of the Sendai Framework", proposing the inclusion of comprehensive disaster risk management subjects in university and school curricula, and increasing the knowledge of decision makers in relation to comprehensive disaster risk management. The Strategic Guide produced by UNISDR recommends increasing awareness about the importance of: developing capacities at all levels and by everyone who is interested; supporting the development of national and local strategic plans; establishing relevant evaluation indicators at national level and for the Sendai framework which permits the measuring of products, results and impacts of development of

















capacities; expanding opportunities for association and South-South, Triangular and other forms of cooperation through the creation of a providers roster for the development of global capacities; the de-mystification of capacity needs through the provision of targets for capacity standards centered on the Sendai Framework that is relevant at national and local levels; and the strengthening of the progress and professionalization of disaster risk reduction capacities by taking advantage of existing regional and national organizations for capacity development, and/or establishing new ones.

Ms. Mayra Valle, Cooperation and CEPREDENAC Projects Manager, gave a presentation on the "Strengthening of Disaster Risk Management in Higher Education in Central America". She underlined the signing of the Cooperation Agreement between CEPREDENAC, the Superior University Council of Central America (CSUCA) and the Central American Educational and Cultural Coordinating Committee (CECC), as well as the establishment of "Action Areas for the Education Sector (2012-2015) in the framework of the PCGIR"; and the PRIDCA "University Program for Disaster Risk Reduction and Adaptation to Climate Change" project implemented by CSUCA and CEPREDENAC with the support of COSUDE.

Following this, participants discussed the weaknesses, barriers and opportunities to making progress in the strengthening of comprehensive disaster risk management, making the following conclusions.

Weaknesses:

- In general there is insufficient regular and sustainable access to information on disaster risk in each of the sub regions of the Greater Caribbean.
- Communication mechanisms between sub regional organizations are not frequent or systematized.
- It is necessary to discuss, in more detail and contextual information, the common challenges and proposals shared by the sub regions and the strategies to address these challenges.

Barriers:

 Different languages, limiting the use of training programs to certain countries or sub regions.

















- Cultural differences that affect the design of programs and campaigns of training and awareness raising.
- Economic aspects relating to the budgetary limitations of the countries in the sub regions.
- Numerous countries in the Caribbean, due to their character as islands, have additional implications relating to costs and organization.

Opportunities:

- Taking advantage of information technology to maintain the exchange of information and knowledge through: virtual schools, knowledge platforms, distance learning programs and student grants.
- Consultations to identify existing education platforms in comprehensive disaster risk
 management, as well as their content and programming. Depending on the result, the
 above could lead to the development of a technological platform for education in
 comprehensive disaster risk management that takes into account the linguistic needs
 of the sub regions.
- Organization of at least one virtual knowledge exchange, making use of existing educational platforms or developing new platforms. Similarly, academic exchanges are proposed between the participants in diplomas in comprehensive disaster risk management in the sub regions.
- Identify opportunities with international cooperation to support research / academic grants that generate and support knowledge of risk of disasters.
- Carrying out of studies/investigations on disaster risk management that cover the whole Greater Caribbean region, and share completed studies between the sub regions.
- Establish shared priorities for the sub regions, permitting the joint formulation of initiatives, programs and projects for seeking resources.
- Incorporate the instruments from the sub regional organizations, such as action plans and cooperation projects, criteria focused on promoting exchanges of experiences and more intra-regional agreements.

















b. Priority 2: Strengthening disaster risk reduction for resilience

SessionV-a: Strengthening of National Comprehensive Disaster Risk Management Systems

Through the "Risk Management Model based on the Leadership of People, Families and Communities", Dr Guillermo González, Minister-Director of the National Disaster Prevention, Mitigation and Assistance System (SINAPRED), explained the comprehensive risk management approach in Nicaragua through the conscious, prepared and organized participation of people, families and communities in the areas of disaster prevention, mitigation and assistance. This includes the: identification of leaders; recognition of realities and response capacities; identification and definition of roles, early alert mechanisms, communication and mobilization; actions to respond to each threat involving protection, support, assistance, solidarity, etc. in family, community, education, work and business settings; and the participation of public and private institutions at municipal, departmental and national levels.

Mr. Sergio García Cabañas, Executive Secretary of the National Disaster Reduction Coordinator (CONRED) gave a presentation titled "Guatemala has a new challenge: addressing the causes and not just the effects of disasters", in relation to the implementation processes of the national disaster risk management policy in Guatemala. This covered normative, institutional and financial aspects.

From CDEMA, Mr. Mandela Christian presented the institutional strategy titled "National Policy on Comprehensive Disaster Risk Management". This facilitated increased understanding of the support process that CDEMA provides to participating countries for theimplementation at a national level of acomprehensive disaster risk management model and its associated strategy, regulatory framework, work plan, monitoring process and evaluation.

Mr. Richard Thompson, Sub-director of the Office for Disaster Preparation and Emergency Management (ODPEM) shared the experience in Jamaica titled "Rearticulation of the national disaster risk management system". This included the updating of the normative framework in 2015, which increased the focus on risk reduction and management. In addition, changes

















were made to ODPEM's structure and role and Committees while a Secretariat Council was established to improve technical approaches and decision-making.

Following this, participants discussed the weaknesses, barriers and opportunities to making progress in the strengthening of national comprehensive disaster risk management systems, reaching the following conclusions.

Weaknesses:

- A permanent lack of funding for risk management offices with budgets that are only available during responses to specific circumstances.
- Insufficient physical and human resources capacities in risk management offices.
- Reduced importance for the technical assistance that can be provided to national systems during emergency situations. This includes maintaining consistency between previous priorities and needs that have arisen from specific emergency situations.
- Insufficient preparation of first responders / first response communities for long-term support.
- Reduced political support, attributable in part to the fact that disaster risk management is not a productive sector.

Barriers:

- The norms established by national comprehensive disaster risk management systems are not complied with.
- Reduced political interest due to differences between local and national levels.
- Changes in government that make it difficult to ensure the continuity of initiatives.

Opportunities:

- Expand the adjusted approach for risk management systems from one based on emergency response to acomprehensive disaster risk management approach.
- Explore potential support between national systems.
- Introduction of opportunities for observation, evaluation and feedback between peers during disaster response, rehabilitation and recovery processes.

















Session V-b: Promote the Comprehensive Risk Management Multi-sectoral Approach

Mr. Jorge Meléndez, Presidential Secretary for Issues of Vulnerability from the General Department of Civil Protection, Prevention and Disaster Mitigation in El Salvador, shared the experience of the countrys response to the eruption of the Chaparrastique volcano.

Addressing the challenges in the agricultural sector, Mr. Ronald Jackson, Executive Director of CDEMA, presented the "Risk Management of Disasters in Agriculture: Contribution of the CDEMA Model to the Regional Strategy for DRMA". This highlighted the gradual implementation of strategies that facilitate the incorporation of comprehensive disaster risk management components in continuous programs for the agricultural sector through governance and operational mechanisms.

Finally, the CEPREDENAC Political and Strategic Advisor, Mr. Noel Barillas, spoke about the "Harmonization of the Central American Policy for Comprehensive disaster risk management (PCGIR for its initials in Spanish) with the Sendai Disaster Risk Reduction Framework 2015 – 2030". This presentation detailed how the coordinating components of the PCGIR incorporated elements such as: rights-based, inclusion and equality approaches; an emphasis on the population with the highest levels of risk; research and knowledge of risks; information management; investments; financing and cooperation; the empowerment and participation of different actors at different territorial and sectoral levels including local, national and sub regional settings; and early recovery and rebuilding with transformations.

Following these presentations, participants discussed the weaknesses, barriers and opportunities to make progress in the promotion and multi-sectoral approach to comprehensive disaster risk management, making the following conclusions:

Weaknesses:

• Insufficient political will to apply disaster risk management approaches in a sustainable and multi-sectorial way. This is exemplified in the limited compliance with territorial ordinance frameworks and construction guidelines.

















- Limited budget for the implementation of DRR actions at all institutional / sectoral levels.
- Reduced sustainability of multi and inter-institutional initiatives that ensure continuity over time.
- Absence of compelling evidence detailing cost-benefit strategies and investments that can be used to raise awareness and mobilize decision makers.

Barriers:

- Disaster risk management is insufficiently incorporated into governance processes in order to support a multi-sectoral comprehensive disaster risk management approach.
- Limited increase in the knowledge of legal frameworks and co-responsibility for comprehensive disaster risk management in all sectors makes it difficult to transition strategies and plans into concrete actions.

Opportunities:

- Establishment/application of indicators to measure progress made in the area of comprehensive risk management.
- Refocus and redesign existing communication programs and campaigns in the sub regions with the goal of supporting governance processes.
- Proposal that includes studies and the development of a database on the cost-benefit
 analysis of investment in disaster risk management with information products that
 can be used by decision makers.
- Organize more exchanges of experiences with the goal of generating strategies for prioritized sectors, sharing lessons learnt and testimonies regarding the benefits of multisectoral work.
- Organize more exchanges of experiences on the topic of financial strategies for risk transfer, such as CCRIF in the Caribbean region.

















c. Priority 3: Investing in disaster risk reduction for resilience

Session VIII-a: The private sector and comprehensive risk reduction management

The "Public-private articulation for disaster risk reduction actions" presentation was given by Mr. Mauricio Espinoza from Puma Energy, Nicaragua. This described the joint action between this company and SINAPRED during the emergency that occurred in the Sandino Terminal in August, 2016. In addition, awareness raising campaigns were shared with the group, which promoted the reduction of risks for operation of liquid gas cylinders.

Mr. Richard Thompson, Sub-director of the Office for Disaster Preparation and Emergency Management (ODPEM) shared an experience in Jamaica in relation to the topic "Public-private partnerships for comprehensive disaster risk management". He specifically highlighted the work with local companies to complement the early warning system for hurricanes and tsunamis.

Mr. Raúl Salazar, head of the UNISDR Regional Office gave a presentation titled "Private sector alliance for disaster resilient societies (ARISE) in the Greater Caribbean". This covered the origin, objective, contribution and implementation carried out by the partnership. An emphasis was made on the work to energize the private sector so that they make tangible contributions to the Sendai Framework based on the six work areas prioritized by the partnership: comprehensive disaster risk management strategies; parameters for investment; reference points and standards; legal and normative education and training; urban risk reduction and resilience; and insurance.

Following these presentations, participants discussed the weaknesses, barriers and opportunities for making progress in topics related to the private sector and comprehensive risk reduction management, with the following conclusions.

Weaknesses:

 Models for the evaluation of potential losses that are contextualized for the region are not effective in their modeling, leading to the sub-estimation of potential response, rehabilitation and rebuilding costs. This is counter-productive to dialogue on public-private partnerships.

















- Normative frameworks do not incorporate sufficient considerations for adaptation to climate change. There is a need to raise awareness about this issue, with the goal of updating these frameworks and generating capacities to address the effects of existing and future climate change.
- The region has not been taking advantage of the penetration that the private sector
 has in communities as a form of expanding comprehensive risk management
 initiatives.
- The number of years remaining until the 2030 target for the Sendai Framework leads
 to false perceptions among decision makers, given that there is a need to manage
 planning and decision making processes at a national level with closer and more
 immediate timelines.

Barriers:

- There are contradictions between the different development strategies from the private sector and those of the public sector.
- Development priorities from the private sector indirectly dictate the possible areas of work for comprehensive disaster risk management.
- Insurance companies limit insurance products by requiring additional fees, which affects access for families that have a limited capacity to pay.
- Predictions of high magnitude events exceed the local resistance/resilience capacities
 of the current infrastructure that has been built using existing standards, which in turn
 can potentially disrupt markets.

Opportunities:

- ACS could help to have an impact on priorities in the private sector in terms of incorporating and making progress in the areas of sustainability, disaster risk reduction and social corporate responsibility.
- Create a model for consensus and agreements between the public, private and civil society sectors to drive collaborative development for comprehensive risk management.
- Continue working on and prioritizing the ARISE initiative.

















- Explore ways in which the existing knowledge of building construction in the private sector can be transferred to populations/communities to improve small-scale construction and prevention practices.
- Start working with reinsurance agents (global) from local insurance companies with the goal of encouraging the development of insurance products that allow access for an increased number of vulnerable families.

Session VIII-b. Cooperation and public investment in comprehensive risk reduction management.

The presentation titled "Disaster Risk Management and Animal Welfare as part of the protection of livelihoods" was delivered by Dr. Iván Brenes, Executive President of the National Emergencies Commission (CNE), Costa Rica. This presentation covered the formation and work of the Technical Advisory Committee in Animal Protection during Disasters (CATPAD) in 2015 and the incorporation of animal protection in the National Risk Management Policy. This has involved the implementation of actions such as fence systems and paddock rotation to preserve soil and feed quality; grass conservation systems through the purchase and distribution of machinery accompanied with technical guidance; the purchase and distribution of feed and medication for the provision of immediate assistance to at-risk animals; and the provision of medical assistance in rural zones, the opening of shelters and mobile clinics for the provision of assistance to animals; among others.

Mr. Roy Barboza, Executive Secretary of CEPREDENAC, delivered the presentation "Estimation of the Cost-benefit Analysis in Disaster Risk Management Projects caused by Natural Phenomena in Public Investment Projects", which covered methodological aspects for the incorporation of the disaster risk variable in investment projects.

Following these presentations, the participants discussed the weaknesses, barriers and opportunities to make progress in cooperation and public investment for comprehensive risk reduction management with the following conclusions:

Weaknesses:

Lack of systems to respond to specific questions about animals, for example,
 volunteer veterinarians. In addition, there is resistance from authorities to include

















animal protection in disaster management plans as this is perceived as additional work.

- Lack of evidence from risk analyses that animal protection programs result in benefits for people and communities.
- Insufficient urban planning results in people and animals that are more and more vulnerable.
- Lack of knowledge about financing needs and investment in projects.

Barriers:

- The migration of people and animals before, during and after a disaster can lead to the propagation of infectious diseases.
- There is resistance from people to leaving their animals during evacuation processes due to the fear that they might be stolen or die.

Opportunities:

- The evaluation of disaster responses offers opportunities to design a broader comprehensive disaster risk management strategy in the agricultural sector.
- Insuring infrastructure and assets offers an opportunity to increase disaster resilience.
- Early warning systems, together with early warning procedures focused on animal wellbeing, can reduce losses in the agricultural sector. Mexico has experience in catastrophe grants and the insuring of infrastructure.
- Exchanges of experiences and triangular and South-South cooperation need to be strengthened.
- South-South Cooperation through the creation of a joint regional training program for comprehensive disaster risk management in the agricultural sector with modules in both English and Spanish.
- Scholarships for university students to study agricultural courses that are focused on expanding knowledge of comprehensive disaster risk management.
- In Central America there is a program called Public Investment in Climatic Protection, which has been implemented in some communities. These efforts can continue.

















d. Priority 4: Enhancing disaster preparedness for effective response, and to «Build Back Better» in recovery, rehabilitation and reconstruction

Session IX-a: Application of comprehensive processes for disaster risk management.

This session began with a presentation from Ms. Xochilt Cortés (SINAPRED) titled "Preparation of the population to protect against multi-threat situations" in Nicaragua. This described the strategy to strengthen institutional mechanisms and at the same time promote community organization and leadership. This is achieved through the training of community leaders and organizations in risk management, and delivering training in civil defense brigades, schools, workplaces and municipalities. The presentation detailed the implementation of protection exercises (simulations) in a systematic manner.

Following this, Mr. Ronald Jackson, Executive Director of CDEMA, shared the presentation titled "Regional collaboration to deal with current and future risks". This described the Regional Response Mechanism used by CDEMA and its participating states to coordinate disaster response actions among Small Island Developing States. This emphasizes the need for the CDEMA Unit Coordinator to have the capacity to mobilize and coordinate regional support for disaster response, as well as the importance of coordinating international disaster response requirements for participating states. In its role, CDEMA mobilizes the resources and capacities of participating states that are not affected by a disaster. The presentation emphasized the proportional relationship between the response capacity of the Regional Response Mechanism and that of each participating state where the regional resources are based.

Following these sessions, participants discussed the weaknesses, barriers and opportunities to make progress in the application of comprehensive disaster risk management processes, making the following conclusions:

Weaknesses:

 Insufficient budget to finance strategic areas and activities for comprehensive disaster risk management.

















- Changes in government administrations affecting the continuity of long-term efforts and processes.
- Cooperation funds that are available are generally focused on adaptation to climate change, with the objective of reducing greenhouse gas emissions, but don't focus on adaptation using a disaster risk reduction approach, which reduces the possible applications of comprehensive disaster risk reduction processes.

Barriers:

- Geographic size of the Greater Caribbean region.
- Difficulty in effective and smooth communication considering the range of languages in the region, with English, French and Spanish as official languages.

Opportunities:

- CDEMA is in the process of hiring people who speak Spanish and French, with the
 objective of overcoming linguistic barriers, and in this way increasing cooperation in
 the Greater Caribbean region.
- Strategic partnerships to develop the linguistic capacities of staff from different national disaster risk management systems.
- Coordination of exchanges of capacities between countries, for example, through joint exercises and other relevant spaces.
- Reallocation of existing funds for adaptation to climate change with the objective of including selection criteria focused on DRR, which is a consequence of climate change.
- Incorporate observers in the CDEMA Coordination Unit who come from other sub regions, promoting support and the exchange of experiences in the area of comprehensive disaster risk management.
- Development of proposals for projects as a consortium of various countries that can be presented to international cooperation entities.

Session IX-b: Multi-country Contingency Plan

Mr. Sherrod James, Sub-director of the National Disaster Services Office of Antigua and Barbuda, presented the experience of this country with the passing of Hurricanes Irma and

















Maria in September 2017. The presentation highlighted the mobilization of regional resources through the CDEMA Regional Response Mechanism.

From the ACS, Mr. Arturo López-Portillo, Director of Disaster Risk Reduction, gave a presentation titled "Harmonization of regional planning and response: The role of the ACS". This presentation emphasized the need to design multi-sectoral emergency plans at all levels and implement awareness raising campaigns for the general public that communicate the details of these plans. The regional disaster response plans should include an efficient early warning system, simulation exercises, monitoring and evaluation processes and regular updating.

Finally, Mr. Luís Ángel Macareño Véliz, Sub-director of the National Civil Defense Brigade, gave a presentation titled "Disaster Risk Reduction Management in Cuba". During the hurricane season of 2017, the Civil Defense Brigade implemented multi-sectoral response mechanisms through contingency plans for the energy, water, sanitation and telecommunications sectors. As a result, the response facilitated the use of available resources, with these offered to support disaster responses in Antigua and Barbuda, Dominica and the Dominican Republic.

The participants discussed the weaknesses, barriers and opportunities for the development of multi-country contingency plans with the following conclusions:

Weaknesses:

- Insufficient exchange of experiences in relation to disaster response through joint actions, for example collective simulations with the participation of a range of countries and organizations in the Greater Caribbean.
- Weak or absent communication between participating organizations in national and regional responses.
- Weak knowledge among external actors about the internal disaster management system of the affected country creates obstacles for international support processes.
- Numerous national systems lack the necessary technical capacity to respond in a fast, effective and efficient manner to disasters.

Barriers:

















- Insufficient knowledge about the scope of international cooperation and the roles of different regional entities (managers or staff).
- The policies and protocols of countries are not always complied with by the regional and international organizations that are implementing actions.
- Difficulties in establishing clear communication about the needs of a country following a disaster, and as a consequence, compliance in meeting these defined needs is weak.
- Lack of a regional plan that guides the provision of assistance among countries in the Greater Caribbean or by international organizations.
- The emergency plans developed by countries do notrefer to logistical aspects such as requirements for storage, packaging, transport, reception and distribution of humanitarian assistance.

Opportunities:

- Holding of workshops and exchanges to develop the capacities of people in comprehensive disaster risk management.
- Align national comprehensive disaster risk management plans with regional plans and international comprehensive disaster risk management frameworks, incorporating lessons learnt and best practices.
- Increase communication and awareness raising about the national mechanisms of each country, broadening the knowledge of each country in the Greater Caribbean, resulting in more efficient international response processes.
- Increased continuity of post-platform dialogues and regional meetings with the objective of implementing concrete collaboration actions.
- Replication of CDEMA's Regional Response Mechanism for the offer of technical support during disaster responses so that supportfrom other countries is mobilized in the sub regions.
- Increase the dissemination of information about response policies and mechanisms from regional organizations, as is the case with the PCGIR and CDEMA's Regional Response Mechanism.
 - e. Identify areas of external cooperation for the Greater Caribbean region

















Linking the meeting "Meeting on Vulnerability to Resilience – Exchange of experiences in DRR in the Greater Caribbean Region" with broader dialogue processes includes taking advantage of the 6th Regional Platform for Disaster Risk Reduction in the Americas, which will be held in June 2018 in Cartagena, Colombia. An emphasis was made on advocating with international cooperation entities about the need to address trans-border risks. There is an offer from the OAS to focus on trans-border issues, specifically related to the management of water basins, pollution and the monitoring of water basins, including the exchange of data among countries.

The meeting highlighted the need to change the view of DRR and climate change adaptation as separate elements to a concept focused on promoting the harmonization of the SDG agenda, the Sendai DRR framework and climate change adaptation initiatives. This would achieve a shift from an approach that is exclusively focused on the effects of climate change to one that includes the underlying causes of risks in a comprehensive manner. In addition, it is necessary to increase the use of climate prediction models to inform cost-benefit relationships of investments in DRR that are linked to climate change adaptation as actions that complement the impacts that have already been observed.

The meeting also highlighted the importance of financing organizations to help reduce barriers to access funds for climate change adaptation through the modification of selection criteria. This implies expanding understanding about the scope and causes of climate change, with the effects of climate change not currently included in eligibility criteria for funding in this area.

Finally, a call was made to countries to take advantage of the approach suggested by donor entities that involves multi-risk and multi-country initiatives. As a consequence, countries should adapt these approaches in a collaborative manner and in this way respond to the challenges identified during the meeting. Representatives from Mexico shared the potential support from the Government of Mexico for comprehensive disaster risk management initiatives in the Caribbean, including the administration of risks, training in the framework of the Civil Protection School and dissemination activities for the general public.

















7. Managua Declaration

The "Meeting on Vulnerability to Resilience – Exchange of experiences in DRR in the Greater Caribbean Region" concluded with the Reading of the Managua Declaration¹¹. In this declaration the attending countries make a commitment to strengthen unity, collaboration, the exchange of experiences and the building of regional capacities to reduce disaster risks in the Greater Caribbean.

In addition, the Declaration calls on ACS, CEPREDENAC and CDEMA to transform the results of the meeting into action through the promotion of meetings that continue to build collaboration in the region. In addition, the Declaration urges the presentation of the results of this meeting at the 6th Regional Platform for Disaster Risk Reduction in the Americas, that will be held in Cartagena from the 20th to the 22nd of June 2018, with the goal of contributing to the construction of a common agenda for the implementation of the Sendai Framework in the Americas.

Finally, the signatory countries are committed to supporting ACS, CEPREDENAC and CDEMA in the creation of effective collaboration mechanisms among their members to increase resilience in the region.

 $^{^{11}}$ Para leer el texto completo, ver Anexo I: Declaración de Managua







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Annex I: Managua Declaration

"From Vulnerability to Resilience Meeting – Exchange of DRR Experiences in the Greater Caribbean Region"

DECLARATION OF MANAGUA

Jointly meeting for the first time in Managua, Nicaragua, Representatives of Risk Management Systems from Countries belonging to the Greater Caribbean and High Authorities of ACS, CDEMA and CEPREDENAC to identify priorities, good practices and mechanisms of cooperation that contribute to disaster risk reduction (DRR) in the Region, having considered that:

- We have witnessed the devastation and destruction suffered by our Caribbean countries in the second half of last year, both small island territories and continental countries, as a result of natural events that reminded us of the Region's high vulnerability.
- There is evidence that there will be an increase in the frequency and severity of events in the Region that can potentially reduce years of development as a result of their impact on human, economic and social capital.
- Each of the Caribbean Sub Regions have developed experiences and articulated mechanisms to reduce the risk of disasters, which are a valuable capital for further support to national efforts towards building resilience and enhancing response capabilities in emergency situations.

Accordingly, we declare that:

- Given the extent of existing vulnerabilities and recognizing the high level of exposure, we commit to work to strengthen the unity, collaboration, exchange of experiences and building of regional capacities to Reduce Disaster Risk.
- It is necessary that the main outcomes of the meeting be considered by Member Countries belonging to ACS, CEPREDENAC and CDEMA, convert these results into action, and to further promote similar periodic meetings that allow for continuous building of effective collaboration mechanisms in the Region.

















- It is relevant that the ACS, CEPREDENAC and CDEMA present the results of this meeting in the VI Regional Platform for Disaster Risk Reduction in Cartagena from 20-22 June 2018, with a view to contributing to the efforts to advance a common agenda for the implementation of the priorities of Sendai Framework in the Americas.
- We are committed to support the efforts made by the ACS, CEPREDENAC and CDEMA
 to create effective collaboration mechanisms among its members and across subregions to increase resilience in the Region.

Given in the city of Managua, on the 8th day of March 2018

















AnnexII: Final Agenda

Agenda

DAY1

8:00	Transport from Crown Plaza Hotel to MTI		
8:15 – 8:45	REGISTRATION OF PARTICIPANTS		
8:45 – 9:15	I. Opening ceremony		
	- Mr.Arturo López-Portillo, Director of DRR of the Association of Caribbean States.		
	- Mr. Roy Barboza, Executive Secretary of the CEPREDENAC		
	- Mr. Ronald Jackson, Executive Director of The Caribbean Disaster Emergency Management Agency (CDEMA).		
	- Mr. Raúl Salazar, Head of the Regional Office, The United Nations Office for Disaster Risk Reduction (UNISDR).		
	- Dr. Guillermo González, Minster-Director of the National System of Nicaragua for the Prevention, Mitigation and Attention of Disasters (SINAPRED)		
9:15 -9:45	COFFEE BREAK AND INTERVIEWS WITH MEDIA / OFFICIAL PHOTO		
9:45-10:00	II.Presentation on the objectives of the meeting		
	Marcel Goyeneche		
10:00-11:00	III.Panel on Regional Coordination		
	Presentation of the mandates and the internal and external coordination mechanisms of the ACS, CDEMA, CEPREDENAC and UNISDR, followed by questions from the audience on regional coordination processes.		
	- Arturo López-Portillo, Director of DRR of the Association of Caribbean States.		
	- Mr. Roy Barboza, Executive Secretary of the CEPREDENAC		
	- Mr. Ronald Jackson, Executive Director of The Caribbean Disaster Emergency Management Agency (CDEMA).		
	- Mr. Raúl Salazar, Head of the Regional Office, The United Nations Office for Disaster Risk Reduction (UNISDR).		
	Moderator: Marcel Goyeneche		

















$\textbf{11:00-11:25-IV. Sendai Framework-Priority for Action 1: Understanding Disaster Risk} \ (Groups\ a\ \&\ b)$

11:25-12:40	IV-a. Risk Mapping & shared information systems.	IV-b. Training and raising awareness on the CDRM	
	Use of risk analysis maps; geospatial information systems; and sharing of information systems in development planning.	Inclusion of themes of DRM in school and professional curricula, and developing knowledge of CDRM among decision makers.	
	1. Nicaragua (SINAPRED): Development of the National Map of Multi-Threat Risks as support for the Disaster Risk Reduction Plans and Emergency Situations Assistance. Mr. Guillermo González	1. Dominican Republic (CNE): Disaster risk management for decision-makers an actors at the local level. M <i>r. José</i> Alcántara	
	2. México (CENAPRED): Territorial platform for identifying risks. Dr. Carlos Valdés	2. UNISDR: Global Capacity Building Strategy for the Sendai Framework. Mrs. Saskia Carusi	
	3. Identification of weaknesses, barriers and internal cooperation opportunities.	3. CEPREDENAC: Strengthening of Disaster Risk Management through Higher Education in Central America. <i>L. Mayra Valle</i>	
		3. Identification of weaknesses, barriers and internal cooperation opportunities.	
12:40 – 1:45	LUNCH		
V. Sendai Fran	nework – Priority for Action 2: Strengthening disa	ster risk governance to manage disaster	
risk (Groups a 1:45- 3:45	V-a. Strengthening of national systems of CDRM	V-b. Promoting the multi-sectoral approach to CDRM	
	V-a. Strengthening of national systems of	•	

















	2. Guatemala (CONRED):Guatemala	CDEMA Model to the Regional Strategy	
	had a new challenge: Address the	for DRMA. Mr. Ronald Jackson	
	causes and not just the effect of	Tot Diamin in itoliaia jacibon	
	disasters. Mr. Sergio García Cabañas	3. CEPREDENAC: Harmonization of the	
	3. CDEMA: National Policy on Integral	Central American Policy of	
	Disaster Management. Mr. Mandela	Comprehensive Risk Management for	
	Christian	Disasters (PCGIR) with the Sendai	
	4. Jamaica (OPDEM):Rearticulation of	Framework for DRR. Ing. Roy Barboza	
	the national disaster risk	- ,	
	management system. Mr. Richard	3. Identification of weaknesses, barriers	
	Thompson	and internal cooperation opportunities.	
	5. Identification of weaknesses, barriers		
	and internal cooperation		
	opportunities.		
	opportumeres.		
3:45-4:00	COFFEE BREAK		
4:00-4:45	VI.Plenary to present weaknesses, barriers and identified opportunities for cooperation		
	among the countries of the Greater Caribbean.		
4:45	Transport from MTI to Crowne Plaza Hote		
6:30	Transport from Crowne Plaza Hotel to Inte	ermezzo Del Bosque	
7:00-10:00	Welcome Dinner		
	(Casual attire)		
10:00	Transport from Intermezzo Del Bosque to Crown Plaza Hotel		
	1		

DAY 2

8:00	Transport from Crown Plaza Hotel to MTI			
8:30 – 8:45	VII. Overview of the first day and perspectives on the second day Marcel Goyeneche			
VIII. Sendai Framework - Priority for Action 3: Investing in disaster risk reduction for resilience (Groups a & b)				
8:45 – 10:00	VIII-a. The private sector and the comprehensive management of risk reduction reduction reduction VIII-b. Cooperation and public investment in comprehensive management of risk reduction			
	Strengthening of the participation of the private sector in CDRM processes,			

















10:00-10:20	COFFEE BREAK	
	3. UNISDR: Private Sector Alliance for Disaster Resilient Societies (ARISE) in the Greater Caribbean. Mr. Raúl Salazar 4. Identification of weaknesses, barriers and internal cooperation opportunities.	Disasters in Investment for Development and Competitiveness in Central America. <i>Ing. Roy Barboza</i> 3. Identification of weaknesses, barriers and internal cooperation opportunities.
	Espinoza 2. Jamaica (OPDEM): Public-Private Partnerships for a CDRM. Mr. Richard Thompson	Management and Animal Welfare as part of the protection of livelihoods. <i>Dr. Iván Brenes</i> 2. CEPREDENAC:Risk Management of
	& financial resources. 1. Nicaragua: Public-private articulation for disaster risk reduction actions. Mr. Mauricio	regular integration of CDM into sectorial fiscal budgets. 1. Costa Rica (CNE): Disaster Risk
	promoting the investment of assets, human	Support through Cooperation and

IX. Sendai Framework - Priority for Action 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction (Group a & b)

10:20–11:30	IX-a. Application of comprehensive processes of CDRM	IX-b. Multi-country contingency plan.	
	Comprehensive approach to disaster preparedness	Development of a multi-country contingency plan for the threats of hurricanes and floods	
	1. Nicaragua (SINAPRED):Preparation of the population to protect against multithreat situations. <i>Lic. Xochilt Cortés</i>	1. Antigua y Barbuda (NODS): Contingency plans against hurricanes and floods. <i>Mr. Sherrod James</i>	
	2. CDEMA:Regional collaboration to deal with current and future risks . <i>Mr. Ronald Jackson</i>	2. ACS:Harmonization of interregional response. Response plan for the Greater Caribbean. Role of the ACS. <i>Mr. Arturo López Portillo</i> .	
	3. Identification of weaknesses, barriers and internal cooperation opportunities.	3. CUBA: Experience of supporting other countries during disasters. Coronel Macareño.	
		4. Identification of weaknesses, barriers and internal cooperation opportunities.	
11:30-12:30	X. Plenary to present weaknesses, barriers and identified opportunities for cooperation among the countries of the Greater Caribbean.		

















12:30-1:30	LUNCH
1:30-3:00	XI. Plenary to identify areas of external cooperation to the Greater Caribbean region
3:00-3:30	Coffee Break
3:30 - 4:00	XII. Closure of the Event
4:00	Transport from MTI to the Crowne Plaza Hotel

















Annex III: Participants List

Name	Title	Organization	Country
Arturo López-Portillo	Director of Disaster Risk Reduction	ACS	Gran Caribe
Kenika Espinosa	Research Assistant DRR and Transport	ACS	Gran Caribe
Ronald Jackson	Executive Director	CDEMA	CARICOM
Mandela Christian	Programme Officer, Preparedness and Response	CDEMA	CARICOM
Carlos Miguel Valdés	Managing Director	CENAPRED	México
Oscar Zepeda Ramos	Risk Management and Analysis Director	CENAPRED	México
Roy Barboza	Executive Secretary	CEPREDENAC	Centro América
Mayra Valle	Project and Cooperation Manager	CEPREDENAC	Centro América
Noel Barillas	Political and Strategic Advisor	CEPREDENAC	Centro América
Iván Brenes Reyes	Executive President	CNE	Costa Rica
Marco Saborío	National Technical Link Costa Rica	CNE	Costa Rica
José Alcántara	Co-director National Civil Defense	Comisión Nacional de Emergencia	República Dominicana
José Joan Rodríguez	Dept. Of International Relations	Comisión Nacional de Emergencia	República Dominicana
Sergio García Cabañas	Exectuve Secretary	CONRED	Guatemala
Hugo Leonel Rodríguez	Deputy Director of the Command System	CONRED	Guatemala
Trujillo			
Jorge Meléndez	General Director of Civil Protection and Secretary	Dirección General de Protección	El Salvador
	for Vulnerability Issues	Civil, Prevención y Mitigación de	
		Desastres	

















Héctor Pineda Castro	Department Head	Dirección General de Protección	El Salvador
		Civil, Prevención y Mitigación de	
		Desastres	
Karina De León	Program Assistant for the Caribbean and Central	ECHO	
	America		
Noel Sampson	Program Assistant for the Caribbean and Central	ЕСНО	
	America		
Coronel Luis Ángel	Deputy Director	Estado Mayor Nacional de la	Cuba
Macareño		Defensa Civil	
Marcel Goyeneche	Facilitator	Facilitador	Chile
Sherrod James	Deputy Director	NODS – Sub regional focal point	Antigua and Barbuda
		Eastern CDEMA	
Richard Thompson	Deputy Director	ODPEM - Sub regional focal point	Jamaica
		North-Western CDEMA	
Guillermo González	Executive Secretary	SINAPRED	Nicaragua
Xochilt Cortes	Administrative Co-director	SINAPRED	Nicaragua
Arlen Martínez	Planning Director	SINAPRED	Nicaragua
Raúl Salazar	Chief of Regional Office	UNISDR	Regional Office Americas
Sandra Amlang	Risk Knowledge and Analysis Officer	UNISDR	Regional Office Americas
Saskia Carusi	External Relations Officer	UNISDR	Regional Office Americas
Luisa Pareja	Technical Assistant	UNISDR	Regional Office Americas





