Mainstreaming disaster risk reduction and adaptation to climate change.

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1. Emergency management.
2. Disaster relief.
4. Climatic changes.

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The Organization of American States (OAS) brings together all 35 independent states of the Americas and constitutes the main political, juridical, and social governmental forum in the Hemisphere. The OAS uses a four-pronged approach to effectively implement its essential purposes, based on its main pillars as established in the OAS Charter: democracy, human rights, security, and development through dialogue and cooperation among its member States.

Reducing risk to disasters and adapting to a changing climate has become increasingly critical to achieve sustainable development in the Americas. Concurrently, strong and sound democratic institutions provide for good governance in the decision-making processes to reduce vulnerability, prevent and mitigate disaster, and prepare and respond in cases of complex emergencies. Observance of human rights for all and public security are basic conditions to create resilient societies. Conversely, disasters and other complex emergencies increase social, economic and political instability resulting in more vulnerable communities and nations.

Mindful of its unique position as the prime Inter-American Forum on matters of democracy, human rights, security and development, our General Secretariat can assist its member States, like no other organization, in addressing the root causes of disasters and the predisposing conditions of vulnerability.

This document informs our General Secretariat in mainstreaming Disaster Risk Reduction (DRR) and Adaptation to Climate Change (ACC) across all its secretariats, offices, organs and dependencies. It provides the foundation for understanding how risk is built so that it can be deconstructed, and offers a suite of objectives and principles that must guide the implementation of policy, strategies, plans and programs at all levels of government and across all sectors.
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Cristina Huidobro also of DSD RISK-MACC assisted with the editing and layout of the final document.

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<td>OAS Inter-American Commission of Women</td>
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<td>CRED</td>
<td>Emergency Events Database EM-DAT of the Centre for Research of the Epidemiology of Disasters, Université Catholique de Louvain in Belgium and World Health Organization Collaborative Centre</td>
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<tr>
<td>DRDE</td>
<td>Department of Regional Development and Environment</td>
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<td>DSD</td>
<td>Department of Sustainable Development</td>
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<tr>
<td>IACNDR</td>
<td>Inter-American Committee for Natural Disaster Reduction</td>
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<td>IASP</td>
<td>Inter-American Strategic Plan for Policies on Risk Reduction, Risk Management, and Disaster Response</td>
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<td>ISP</td>
<td>Inter-American Strategy for the Promotion of Public Participation in Decision Making for Sustainable Development</td>
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<tr>
<td>NHP</td>
<td>Natural Hazard Project</td>
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<td>RISK-MACC</td>
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INTRODUCTION

The General Secretariat of the Organization of American States (GS/OAS) has been working in Disaster Risk Reduction (DRR) since the early 1980’s when the Natural Hazard Project (NHP) was established within the Department of Regional Development and Environment (DRDE), now called the Department of Sustainable Development (DSD). Since that time, the GS/OAS has treated disasters as an integral part of its development programs and projects, and has supported the efforts of the OAS Member States in addressing the root causes of disasters through an ecosystem approach and using watersheds and biospheres – particularly, those that extend across international boundaries, as the planning and management unit.

The Primer on Natural Hazard Management in Integrated Regional Development Planning, published in 1991 by DRDE, places DRR at the core of the development processes. A pioneering document in every sense of the word, the Primer provides a suite of tools to assess risk within development projects and programs, by mapping hazards and exposed socio-economic infrastructure, and identifying vulnerability and risk, as well as mitigation measures. In identifying various hazard typologies, it offers a clear understanding between “rapid-onset” and “slow-onset” disasters, similarly to what the UN International Strategy for Disaster Reduction (UNISDR) calls “intensive” and “extensive” disasters.

While climate change was not at the forefront of the international cooperation agenda as it is today, the document had already flagged the urgency of adapting to extreme weather that is associated with climate variability. DRR and Adaptation to Climate Change (ACC) have been integrated into Integrated Water Resources Management (IWRM), Biodiversity and Land Management, and Sustainable Energy projects and programs. Moreover the underlying causes of disasters, such unsustainable land-tenure policies, environmental degradation, land use planning that does not integrate environmental impact and disaster risk assessments, poor access to quality education and health, and increasing social and economic inequity, among others, are continually being addressed through all these programs and projects.

Additionally, the GS/OAS has been supporting an Inter-American political dialogue informed by technical and scientific data and information that has led to a suite of hemispheric instruments and mechanisms. For example, the Inter-American Convention to Facilitate Disaster Assistance, adopted in 1991 that entered into force in 1996 with the second ratification (Perú) is the only regional legally binding instrument in the world on matters of humanitarian assistance. The Convention represents a relevant instrument for
addressing the challenges of international humanitarian assistance. It defines (i) requests for and offers and acceptance of assistance; (ii) the National Coordinating Authority; (iii) matters of direction and control of assistance; (iv) transport vehicles, equipment and supplies; (v) access and transit routes –including considerations for transit states; (vi) assistance personnel –including matters of immigration and protection; (vii) restricted areas and risk; (viii) costs; (ix) claims and compensation; as well as (x) governmental and non-governmental organizations.

The Inter-American Committee for Natural Disaster Reduction (IACNDR), created in 1999, coordinates among all member organizations of the Inter-American System all matters of DRR, and facilitates strategic thinking among OAS member States. Established in 2007 by the OAS General Assembly, the Inter-American Network for Disaster Mitigation (INDM) is the main hemispheric mechanism for the sharing and exchanging practical experience in DRR in the Americas. The Inter-American Strategic Plan (IASP) for Policies on Risk Reduction, Risk Management, and Disaster Response, developed in 2003 at the request of the General Assembly represents another relevant instrument for the member States and the Inter-American System to advance DRR at all levels and sectors of government.

In 2012, the General Assembly endorsed the Inter-American Plan for Disaster Prevention and Response and the Coordination of Humanitarian Assistance. This new instrument stresses the need for hemispheric cooperation and strengthening of inter-institutional coordination among member institutions of the Inter-American System and sub-regional organizations, agencies of the UN System, and international organizations, under the framework of the UNISDR Regional Platform of the Americas.

The Purpose of the Document

This document aims to assist OAS member States in addressing the root causes of disasters and the pre-conditions of vulnerability. More specifically the document:

- offers a foundation for understanding how risk is built so that it can be deconstructed;
- proposes objectives and principles to guide the implementation of policy, strategies, plans and programs at all levels of government and across all sectors;
- seeks to guide the incorporation of DRR and ACC in programs and projects designed within the GS/OAS;
- examines the root causes of disasters that are embedded in development processes;
and identifies the pre-conditions of vulnerability that must be addressed for any DRR and ACC strategy and policy to succeed.

Those predisposing conditions of vulnerability relate to the four pillars of the OAS Charter: integral development, human rights, democracy and peace and security. This places the OAS and its General Secretariat in a unique position to assist its member States in addressing the pre-conditions of vulnerability, in areas that until now have received little or no attention by the international community.

Structure of the Document

The remainder of the documents is structured into parts. Part 1 defines some of the basic concepts surrounding DRR and ACC and their mainstreaming. It explores the processes that build risk so as to better understand their root-causes, and identify strategies to address them. It identifies criteria to be addressed in the formulation and execution of programs and projects so as to integrate DRR and ACC as key strategic objectives of development. These criteria aim, particularly, to support: (i) the identification and mapping of natural hazards and vulnerabilities; (ii) risk assessment; disaster mitigation and prevention; (iii) disaster preparedness, response and relief; (iv) humanitarian assistance; (v) recovery and reconstruction; and (vi) recuperation of productive and subsistence systems. Finally, the document explores in depth some of the pre-conditions of vulnerability that are addressed in the four pillars of the OAS Charter, namely: (i) observance of human rights for all; (ii) strengthening democratic institutions for good governance; (iii) peace and security; and (iv) reducing poverty and socio-economic inequities.
PART 1 - DISASTER RISK REDUCTION: BASIC CONCEPTS

This Part of the document introduces some of the main concepts surrounding DRR and explores the processes of building, reducing, transferring and retaining risk.

According to the UNISDR a Disaster is defined as ‘a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.’ It has been argued that this terminology: (i) does not capture recent advancements in DRR thinking that place local communities and governments at the center; and (ii) does not emphasize in the linkages with environmental degradation, given that consumption patterns and population growth ar infrastructure to natural phenomena without the ability to avoid or to cope with such natural phenomena. Moreover, it is accepted that there are many thresholds of impact before a disaster is reached. When social systems can cope with the impacts of natural phenomena, disasters can be mitigated or completely avoided. Thus, disasters are a function of the natural phenomena—the natural hazard, and the vulnerability of the exposed system and its capacity to cope.

Natural Hazards are defined by the UNISDR as ‘natural processes or phenomena that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.’ The actual natural phenomenon or event can be characterized by its magnitude or intensity, speed of onset, duration, and area of extent. Earthquakes, for example, are placed at one end of the spectrum, as they are characterized by sudden onset and short durations, usually affecting small regions; while droughts are placed on the other end with slow onsets, affecting large geographic areas over long periods of time. In between there is a wide variety of events, such as cyclones that may develop slowly or quickly, and that may or may not produce intense rain fall over long or short periods of time, resulting also in a wide range of hazards from wind and surge storms to floods and land- and mud-slides. Tsunami can also be of rapid onset, as those hazards that result from earthquakes with epicenters under submarine plaques close to shore, or slow onset in the case of long-range Tsunami originated in the far Pacific—in the case of the Americas; yet, always of short life and quite destructive when they affect populated coastal communities.

The UNISDR defines Vulnerability as ‘the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.’
Using this definition, a system may be more or less vulnerable to different hazards, and the conditions that determine that vulnerability may also vary. In many cases, these conditions are concealed in social and economic conditions, legal systems and cultural patterns. For instance, a segment of society may be more vulnerable to a certain hazard, not because of biological or physical characteristics, but because educational opportunities are lacking, the legal system does not provide citizens with the necessary knowledge and access to information, nor the same rights for access and use of resources as other segments of that society. So, in formulating vulnerability reduction strategies and plans, one must seek to identify and understand the root causes, rather than address the observable effects at the end of a causal chain.

The third determinant of a disaster is Capacity. Also according to the UNISDR capacity refers to ‘the combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals,” that is, reducing disaster risk and the impact of natural hazards on a system. While this definition shares many elements of vulnerability, it centers the attention in acquired attributes, resources and skills of a system to cope with a given hazard.
Risk of any kind is measured in terms of probability of something to occur. Because of its association with natural phenomena, there is a tendency to think of risk as the probability of a natural event to occur. However, Disaster Risk refers to the probability that a disaster occurs. Thus, the UNISDR defines disaster risk as ‘the potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.’ Those potential disaster losses or the probability that a natural phenomenon may result in disaster losses is not measured in terms of the frequency of the event or the probability that a certain natural event occurs, but rather in terms of the probability that a given natural event results in an impact for which the affected social system is no longer able to cope.

Disaster Risk Management is defined by the UNISDR, as ‘the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.’ This process may include reducing risk as well as retaining and transferring risk. This implies not only technical and managerial decisions but also, political decisions where other issues must be weighted and prioritized.

If DRR is viewed in a timeline, disaster prevention and mitigation, vulnerability reduction, and disaster preparedness would be placed to the left of the event - the disaster, with disaster relief and response, recovery, humanitarian assistance, rehabilitation, reconstruction and recuperation to the right of the event. However, as is now understood, often many of these phases may overlap or even be skipped depending on the ‘system’ that is affected or impacted, the magnitude and frequency of the event, and the levels of vulnerability and capacity.

Phases of Disaster Risk Management: Timeline

The phases of disaster prevention and mitigation, and vulnerability reduction include

<table>
<thead>
<tr>
<th>Development Planning</th>
<th>Disaster/Emergency Management</th>
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<tr>
<td></td>
<td>Recuperation</td>
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<td>Prevention</td>
<td>Preparedness</td>
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<td>DISASTER</td>
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<td>Relief</td>
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<td>Response</td>
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<td>Recovery</td>
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<td>Humanitarian Assistance</td>
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<td>Vulnerability Reduction</td>
<td>Needs (initial) and Damage Assessment</td>
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<tr>
<td></td>
<td>Rehabilitation</td>
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<td></td>
<td>Reconstruction</td>
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strategies, plans and programs for DRR and disaster **Risk Transfer**, the latter which refers to ‘the process of formally or informally shifting the financial consequences of particular risks from one party to another, where for example, a household, community, enterprise or state authority can obtain resources from the other party after a disaster occurs, in exchange for compensatory social or financial benefits provided to that other party.’ While the physical impact of a disaster may not be mitigated or reduced, by transferring the financial losses, the risk of disaster is reduced, at least in financial terms.

Risk transfer can pose a moral dilemma, as governments and businesses must make decisions on how much risk they are willing to retain and/or transfer, with the understanding that by transferring some of risks, they may still be confronted with others such as the loss of life, and damages to social and economic infrastructure. Placing a value on how much risk can be transferred and/or retained is a difficult process involving the use of technical and scientific data and analysis, social and economic analysis, as well as an examination of political ramifications. But what is clear is that only **residual** risk should be transferred, and the retained risk should never include the risk of loss of human life, or the loss of continuity of health and education services, among other critical elements for the functioning of a society.

**Mitigation** means ‘the lessening or limitation of the adverse impacts of hazards and related disasters.’ **Prevention** on the other hand means ‘the outright avoidance of adverse impacts of hazards and related disasters.’ Disaster mitigation and prevention may include structural measures, such as dikes and levees – for flood control, retaining walls, and **retrofitting** of infrastructure to withstand seismic events or cyclones, among many others. Non-structural mitigation and prevention measures may include community organization and education; legislation and legal precedents for determining disaster-related cases; the standardization of building codes and the application of land-use planning with **Risk Assessment** considerations; and the application of protocols and manuals for requesting and receiving humanitarian assistance.

**Disaster Preparedness** may also be considered as prevention and mitigation, and

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1 According to the 2009 UNISDR Terminology on DRR, Residual Risk refers to ‘the risk that remains in unmanaged form, even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained.’
2 According to the 2009 UNISDR Terminology on DRR, Retrofitting refers to the ‘reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.’
3 According to the 2009 UNISDR Terminology on DRR, Risk Assessment refers to ‘a methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.’
4 According to the 2009 UNISDR Terminology on DRR, Disaster Preparedness refers to ‘the knowledge and capacities...’
even vulnerability reduction, as the better prepared a system may be for an eventual disaster, the greater its ability to cope with its adverse effects, or to prevent disasters from occurring.

Once a disaster strikes, the Disaster Management phase starts. The UNISDR does not define disaster management, but speaks about emergency management, which it defines as ‘the organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.’

New thinking in DRR suggests that disaster mitigation and prevention, as well as vulnerability reduction considerations must be integrated into the various aspects of disaster/emergency management. Failure to do this may create more risk, as poor decision-making regarding initial response and recovery may compromise rehabilitation and reconstruction efforts and lead to critical infrastructure being rebuilt or retained with the same design weaknesses that caused their failure in the first place. Further poor initial damage assessment and inadequate documentation of river dynamics, flood episodes, as well as potential causes – such as presence of debris, vegetation and other obstruction to the natural flow of a river may be critical to the success of any rehabilitation and reconstruction plan that aims at reducing the risk of future disasters.

A concept that is increasingly being used and that has been the subject of a UNISDR campaign, Making Cities Resilient, is resilience. According to the UNISDR, resilience refers to ‘the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from, the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.’ This concept is important because it allows the identification of DRR strategies and actions as tangible development objectives. Based on these objectives, observable and measurable indicators can be defined and parameters can be established for evaluating and monitoring the performance of these strategies and action.
As discussed in the previous Part, disaster risk is determined not only by the typology, frequency and magnitude of natural phenomena, but also by the degree of vulnerability of the system and its capacity to deal with a given event. In the end, disaster risk exists only if a system—its population, and its socio-economic infrastructure and ecosystems—is exposed to a natural phenomenon.

As economies grow and physical development expands, including through the construction of socio-economic infrastructure and an increase in the demand for natural resources and services provided by ecosystems, inevitably, the risk of disasters will increase. However, when disaster risk assessment is properly integrated within development planning and decision-making, the risk of disaster can be managed. Otherwise, risk may be built in a way that will jeopardize the sustainability of the development process that built it in the first place.

**Text Box 1: Measuring the Impact of Disasters**

Disasters are usually measured based on three parameters: **people killed** or deaths; **people affected**; and **estimated damage** or economic losses. The Emergency Events Database EM-DAT of the Centre for Research of the Epidemiology of Disasters, CRED, Université Catholique de Louvain in Belgium and World Health Organization Collaborative Centre, includes statistics on major events based on those three parameters, which it defines as follows:

**People Killed**: persons confirmed as dead and persons missing and presumed dead.

**People Affected**: People requiring immediate assistance during an emergency, i.e. requiring basic survival needs such as food, water, shelter, sanitation and immediate medical assistance.

**Estimated Damage**: The economic impact of a disaster usually consists of direct (i.e. damage to infrastructure, crops, housing) and indirect (i.e. loss of revenues, unemployment, market destabilization) consequences on the local economy.

It is important to note that the definition of “estimated damage” does not take into account long-term economic impact, such as fiscal impacts and business interruption, which are rarely measured. Indirect consequences may be more easily measured in large economies, while small economies and, more particularly, informal economies have no means to measure these consequences. Concurrently, economic losses that result from disasters in less developed countries and smaller economies tend to be contained within the direct affected system, as opposed to disasters that strike larger economies, which tend to spill over the direct affected area.

The definition of people affected also deserves a special note as in more developed countries citizens rely less on the assistance of the government. So, these figures are also indicative of the levels of vulnerability.

It is not surprising to see that, in the Americas, most of the economic losses related to disasters are registered in the most developed countries. During the decade of 2001-
2010, disasters caused damages of about USD$440 billion. The USA accounted for over two-thirds of all losses in damages, with one event, Hurricane Katrina, costing USD$125 billion. The floods of 2008, in that same country, caused an additional 10 billion USD in damages. And while the earthquake of February 2010 in Chile registered few deaths compared to the staggering about 260,000 deaths yielded by the earthquake in Haiti, in January of that same year, the cost of damage was estimated at USD$30 billion, ten times more than Haiti’s earthquake.

During that same decade, more than 80 million people were affected by disasters, with most of them attributable to the US floods of 2008 and other climate-related events —floods and droughts, in Brazil, Chile, Colombia, Mexico, and US.

In the first two years of the 2011-2020 decade, disasters affected almost 14 million people, and resulted in economic losses for more than 150 billion US Dollars. These figures represent a third of the people affected in the 90s and almost the total economic losses recorded in that same decade. The US accounts for most of the economic losses with USD$145 billion in damages (93%). However, the distribution of people affected is much different. Of the 14 million people affected between 2011 and 2012, almost 4 million were in Mexico; 2.5 million in Brazil; and Guatemala with 2 million.

While one must be mindful of the distortions that these figures may produce due to the factors previously discussed, the direct correlation between levels of development and the size of economies with economic losses becomes evident. Many factors may have contributed to this spread among various levels of development and economy sizes.

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5 All figures used in this chapter have been extracted from Emergency Events Database EM-DAT of the Centre for Research of the Epidemiology of Disasters, CRED, Université Catholique de Louvain in Belgium and World Health Organization Collaborative Centre. As absolute numbers regarding disasters may vary depending on the source and the methodology applied in collecting the data, a single source will minimize distortions.
However, the common denominator is that these figures reflect the cumulative effect of several climate-related events or the result of slow-onset events such as droughts and slow-moving floods affecting large areas.

A direct correlation also exists between population growth and disasters. The population of the Americas has grown by about 30% between 1990 and 2010 from about 716 million in 1990 to 928 million in 2010. As life expectancy improves, the population will continue to grow, with a concomitant increase in demand for natural resources and greater exposure to natural hazards. Further, with projections that by 2050 about 90% of population of the Americas will live in urban areas, the risk of disasters will likely increase, unless development policies and plans take this into account.

The underlying causes of disasters as they relate to development processes are well documented. Priority for action #4 of the UNISDR Hyogo Framework for Action 2005-2015 (HFA) calls for these underlying risk factors of disasters, such as ‘social, economic, environmental conditions and land use, and the impact of hazards associated with geological events, weather, water, climate variability and climate change, to be addressed in sector development planning and programs as well as in post-disaster situations.’ The HFA further identifies key activities in the areas of (i) environmental and natural resource management; (ii) social and economic development practices; and (iii) land-use planning and other technical measures.

While land-use planning and environmental impact and risk assessments are critical risk management tools, they are likely to have limited effect if structural issues are not addressed, especially those that impact the marginalized sectors of the society. A casual chain is then formed from the root causes of disasters located in institutional structures and governance issues, legal and regulatory frameworks, and the social construction of each of the societies that make up the Americas. At the end of this casual chain, the observed issues arise. Those are the issues that traditionally have been addressed by DRR strategies, policies and programs; land-use planning, building codes, emergency planning and early warning systems, education and information, technology and knowledge, among others. However, it is only by addressing their root causes that lasting solutions will be found. For instance, quality education will result not only in citizens being better prepared and knowledgeable of the risks they face, but equally importantly, better educated citizens will likely be able to obtain better jobs and incomes, and consequently be able to move to more resilient communities with less or more manageable risk and better health care.

6 World Bank database.
PART 3 - WHAT DOES ‘MAINSTREAMING’ MEAN?

The concept of mainstreaming has had a strong association with gender equity and equality. Within the OAS, gender mainstreaming is being used as a strategy for ensuring that gender perspectives and approaches—particularly those that lead to gender equity and equality—are integrated in all development activities and policies. To that end, considerable emphasis is placed on research, and on establishing methodologies and data collection processes that support the identification of the different conditions and roles of women and men, in any given activity or phase of development planning and management. An example of the work of the Department of Sustainable Development in this area is the access and use of land and water resources by women and men. Thus, central to any mainstreaming strategy or approach is the data collection and processing.

Mainstreaming DRR and ACC requires identifying the particular vulnerabilities and risk-building processes of the various sectors and levels of government, and segments of the society. For instance, in looking at legal bases for strengthening democratic institutions, promoting human rights and integral development, special attention should be given to how these legal instruments may or may not reduce the vulnerability of women and children, elders and people with disabilities, indigenous people and other marginalized segments of the society.

Mainstreaming DRR and ACC also requires the definition of specific goals, objectives and strategies for reducing the underlying conditions that cause greater exposure to natural hazards, vulnerability and disaster risk. For example, Corporate Social Responsibility (CSR) may include specific actions that help to increase competitiveness, while reducing environmental degradation and disaster risk. By using clear disaster risk reduction indicators and parameters from the design stages of development programs and projects, resilience can be achieved at little or no cost.

The overall and strategic objective of mainstreaming DRR and ACC lies precisely in the core mandates and principles upon which the OAS was founded, in key pillars such as the promotion of democracy, the attainment of human rights for all, integral development and peace and security in the hemisphere. As has been shown, disasters constitute a persistent threat to these hemispheric imperatives and therefore mainstreaming DRR can make a lasting and significant contribution to the attainment of the goals and objectives of Member States in these areas. If the impacts of disaster on people and on social, economic and environmental assets can be reduced, then this will usher in a cycle of positive impacts:
economic growth as well as investments in education, health care and the provision of social and economic infrastructure can better be sustained; the risk of post-disaster social conflicts spilling over into other domains is reduced; and the conditions for an improved democracy can emerge.

In order to ensure that DRR and ACC are mainstreamed within the GS/OAS, a series of measures –administrative, technical and political, will have to be implemented from the earliest phases of planning to the implementation of programs and projects.

Mainstreaming DRR in the GS/OAS will result in three tangible benefits. The most apparent is financial gain, as the cost of integrating DRR and ACC considerations in programs and projects across the GS/OAS will be significantly lower than the implementation of stand-alone programs and projects.

Table 1: Some Examples of the Causal Chain

<table>
<thead>
<tr>
<th>Observed</th>
<th>Secondary causes</th>
<th>Root cause</th>
</tr>
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<tbody>
<tr>
<td>Settlements on steep slopes, flood plains, faults, etc.</td>
<td>Lack of land-use planning with EIA and RA</td>
<td>Land-tenure/ Real State Market</td>
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<tr>
<td></td>
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<td>Low income</td>
</tr>
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<td></td>
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<td>Informal Economies</td>
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<tr>
<td>School Desertion</td>
<td>Lack of access to schools</td>
<td>Land-tenure/ Real State Market</td>
</tr>
<tr>
<td></td>
<td>Lack of an Integral approach</td>
<td>Girls and boys inequities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of schools as shelters</td>
</tr>
<tr>
<td>Slow Response/ Untimely EW</td>
<td>Lack of coordination</td>
<td>Lack of protocols</td>
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<td></td>
<td>Lack of qualified personnel</td>
<td>Lack of access to timely and reliable information</td>
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<tr>
<td></td>
<td></td>
<td>Lack of information/ data</td>
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<tr>
<td></td>
<td></td>
<td>Technological Difficulties/ Access</td>
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A second benefit is linked to the fact that many underlying causes of disasters are rooted in political and institutional structures that often are overlooked by DRR and ACC programs and projects. Strong democracies encourage good governance, which in the context of DRR refers to the process by which decisions are made and implemented to reduce the vulnerability of communities, increase their resilience; prepare, respond and manage emergencies; and rehabilitate and reconstruct the damaged infrastructure as well as recuperate livelihoods. This process of decision-making affects all government sectors and levels, and all segments of civil society, and is founded in the principles7 of public participation as defined in the Inter-American Strategy for the Promotion of Public Participation in Decision Making for Sustainable Development (ISP). Good governance must ensure that the process of decision-making is inclusive and transparent; based on a social consensus, through active involvement of all members of the society, and the implementation of sound information and communication systems and tools; provides for accountability of all –not only government institutions and officials, but also all civil society organizations and community members; and follows the Rule of Law.

Thirdly, mainstreaming DRR and ACC will provide for the appropriate channels and mechanisms to address underlying causes of disasters. It will further allow for the most effective and efficient way to implement the vast number of hemispheric instruments and mechanisms, and particularly the 2012 Inter-American Plan.

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PART 4 - WHY MAINSTREAM DRR AND ACC?

The OAS DRR and ACC Mainstreaming policy has a three-fold objective: (1) financial gain; (2) addressing root-causes outside traditionally identified underlying causes; and (3) providing a common issue across the hemisphere as the basis for Inter-American Dialogue.

The increasing competition over scarce financial resources among the various agendas, disaster risk reduction, climate change adaptation, and the many development issues such as health, education, energy, etc. demands integrated approaches that are capable of addressing the root causes of disasters, while providing solutions to other pressing issues of development. In turn, this approach will allow for finding long-lasting solutions, addressing issues not traditionally identified in the DRR and ACC agenda.

Based on the definition established in Part 1 of this document, it is understood that, while natural hazards—such as tropical storms, earthquakes and Tsunami, storm surges and volcanic eruptions, among others, cross international boundaries, disasters do not; as the impacts vary based on the vulnerability of the affected system, states and communities. Yet, in an increasingly economic and physically integrated region, where economies are inter-dependent, the impacts of disasters often spill over and across international borders. Hurricane Katrina best illustrates this fact as it affected 95% of the refining capacity of the State of Louisiana, which represented a 30% reduction in the US’ refining capacity. And with only 1% of the work force, it accounted for about USD$ 150 billion of country’s external trade in oil, steel, grain, etc., impacting not only the fiscal accounts of the entire US, but also GDP growth in Latin America and the Caribbean as exports to the US were reduced.

Thus, disasters are not a problem of a few OAS member States, but a problem of all. Furthermore, these inter-dependencies demand joint actions and strategies, making DRR and ACC a central issue for Inter-American Dialogue.

Upon further examination of the root causes of disasters, we find that the attainment of human rights for all, particularly women and children, elders and people with disabilities, indigenous people and other marginalized segments of the society becomes critical to any attempt to reduce the vulnerability of these segments of the society to disasters. Strengthening democratic institutions can facilitate the active participation of civil society in the decision-making processes, as well as in good governance—timely access to information, and timely flow of information and decision-making. And hemispheric
security provides additional channels for cooperation and assistance, not only during and immediately after an emergency, but also in preparedness and prevention.

**PART 5 - GENERAL GUIDELINES FOR MAINSTREAMING DRR AND ACC**

These guidelines apply to governmental organizations responsible for formulating and implementing public policy, as well as to non-governmental organizations, international cooperation organizations, and other organizations dealing with DRR and ACC. Given the mission, values and main pillars of the OAS, these guidelines inform particularly the formulation and execution of programs and projects of the General Secretariat of the OAS.

The following framework guides the integration of DRR and ACC in documents and proposals, programs and projects, presentations and concept papers:

1. **Language:** integrate DRR and ACC considerations in program descriptions, project proposals, presentations and speeches;

2. **Institutional Mapping:** identify and classify all pertinent institutions and stakeholders — including governmental institutions, non-governmental organizations, private enterprises, and all other organized groups of the civil society;

3. **Data:** integrate DRR and ACC data in all research, studies and all databases, breaking down socio and economic data by age groups, gender and special groups, such as people with disabilities and indigenous people;

4. **Publications:** integrate DRR and ACC considerations in all publications, and whenever applicable, include specific chapters;

5. **Knowledge Transfer and Sharing:** share all relevant activities with existing networks, think tanks, and research and educational institutions, so that knowledge and practical experiences can be shared and exchanged. Integration of these practices and knowledge into the Inter-American Network for Disaster Mitigation (INDM) Good Practices on-line database will further facilitate the identification of opportunities for inter-institutional collaboration, within national territories and across international borders. The GS/OAS facilitates Virtual Forums and Expert Round Tables at the OAS Headquarters for wider distribution, sharing and exchange; and
6. Multi-disciplinary Expert Groups: support the facilitation of multi-disciplinary groups involved in DRR and ACC. INDM supports an expert segment for Hemispheric-wide expert discussions.

**PART 6 - DRR AND INTEGRAL DEVELOPMENT: ADDRESSING THE UNDERLYING CAUSES OF DISASTERS**

Development determines the occupation of the territory, the construction of socio-economic infrastructure and the demand for natural resources and services provided by ecosystems. And as more economic assets, social and economic infrastructure is exposed to natural hazards, inevitably, risk increases. In addition to the obvious exposure of new infrastructure, development drives people into natural ecosystems, whether is for housing or for agriculture, forestry or other productive systems. And this not only results in environmental degradation, but also increases the demand for more infrastructure as new centers of development are created. The challenge is then to mitigate the potential impacts of natural hazards on socio-economic infrastructure, productive systems and human populations, and assess future demands and future impacts, with the aim of minimizing the impact on the environment and ensuring the availability of environmental services and natural resources to meet the demands of today and future generations within a given horizon -50, 100 years.

It is important to recognize that as population grows, and demands for land and natural resources and environmental services increase, adaptation measures must be implemented, so as to account not only for changes in the hazard but also in the exposure and vulnerability that might be created. But it is equally important to understand that there is a point, threshold, beyond which adaptability is no longer possible, and a system will go into crisis. That is why disaster preparedness and response must be made integral components of DRR and ACC and strategies and measures for disaster response must be constantly reviewed and adjusted.
These considerations bring to light the intrinsic nature of DRR and ACC as it relates to sustainable development, and the need to define development goals with a well established time table, so as to inform adaptation strategies and measures and prepare for the time when adaptation is no longer possible. Adaptation and sustainability are two concepts that closely interlinked, so is resilience and sustainability. While sustainability is defined by the availability of resources to meet the demands of a socio-economic system in a given time—including the requirements for the functioning of ecosystems that host and nurture those resources, resilience becomes a sine qua non for sustainability, as one single event or the cumulative effects of recurrent events can compromise years of development and set back development plans when the system can no longer ‘resist, absorb, accommodate to and recover’.

A closer look into the relationship between development processes and disaster risk shows that in many cases in the Americas, the root causes of disasters lie in socio-economic structural issues, such as land-tenure, real state markets, unemployment and informal economies. In many countries in the Americas, dominant land-tenure systems are characterized by large areas of land owned by few—known as latifundios, which are located in fertile and productive soils, and less exposed to natural hazards. Concurrently, small areas of land—known as minifundios, are owned by many, mostly the poor. In these areas water is scarce, soils are degraded, and crops, housing and other social and economic infrastructure are highly exposed to natural hazards. Subsistence economies prevail in communities living in these areas, depending heavily on local natural resources and ecosystems. Thus, while they are already highly vulnerable to natural hazards, each disaster results in further environmental degradation and, in turn, leads to a vicious circle of poverty—disasters—environmental degradation—and back to more and higher indices of poverty and more disasters, each time more catastrophic.

Poorly functioning land markets and, particularly, the prohibitive price of land, drive low income families to settle on the peripheries of cities, often on steep slopes, in flood plains, and on fragile soils prone to land- and mudslides, where there are no basic services and housing developments do not follow any safety regulations. Self-construction is predominant, which results in unsafe buildings and no considerations for disaster preparedness and response—no evacuation routes, no warning signs and demarcation of unsafe areas, etc. In many cases, this situation is exacerbated by the vertical growth of housing, which with no consideration to building codes, water and sanitation requirements, and electricity increases the risk of disasters. Poor accessibility and precarious constructions
combine to create an environment that is even more hazardous to human health and public security.

Thus, while land-use planning and the use of Geographic Information Systems (GIS) provide pertinent tools, their effect will be limited if integral socio-economic plans are not set in place to drive settlements away from hazardous areas.

According to the United Nations Human Settlements Programme (UN-HABITAT) 2010/11 State of the World’s Cities Report, “Bridging the Urban Divide” in the developing world, the region with the greatest proportion of people living in urban areas is Latin America and the Caribbean. The report argues that “In Latin America, economic development and urbanization have historically been linked in a process of industrialization and modernization, even though this has resulted in high degrees of inequality between and within countries.” Economic development and urbanization have resulted in inequality between and within countries.

These inequalities expressed in terms of unequal income or consumption patterns suggest institutional and structural failures, and larger economic problems such as imbalanced labor markets. All these issues, in the end, conspire against DRR and ACC, increasing the vulnerability of marginalized segments of the society. The report argues also that “the more unequal the distribution of income or consumption in urban areas, the higher the risk that economic disparities will result in social and political tension.” And this, in turn, creates unfavorable conditions for effective public participation in DRR and exacerbates vulnerabilities, diverts scarce financial resources and sets back development processes.

And with about 80% of the population living in urban areas in the Americas and a trend that may take us to a 90% urban population by 2050, the situation is expected to get worse. No DRR and ACC policy and/or plan are likely to succeed unless these underlying causes are addressed. The causal chain must be followed from the observed impacts of disasters to their root causes so that measures can be taken to address them before they trickle down, and become real factors of vulnerability. Addressing the observed impact of disasters and their immediate causes will continue to yield short-lived results at a high cost, financially and in terms of development processes. On the other hand, addressing the root causes will yield long-lasting results at a much lower financial cost and without interrupting development processes, thus making them sustainable over time.
Over the past few years and in the aftermath of catastrophic events, such as the 2010 earthquake in Haiti, increasing attention has been placed in the violation of human rights during and immediately after disaster emergencies. Of particular concern are segments of the society such as women and children, as well as the elderly and people with disabilities. And this concern has led to a broader debate on predisposing conditions of vulnerability that exist in some of these segments of the society, which if not addressed will increase their vulnerability.

Vulnerability then, and as defined by the UNISDR, is not solely dependant on physical conditions and the environment, but on the ‘characteristics and circumstances of a community or system... that make it susceptible to the damaging effects of a hazard.’ The social construction that defines relationships between men and women, children, adults and elder, for instance, is perhaps one of the most critical aspects of that social system, and will determine the relative vulnerability of each segment.

One could think that legislation that protects women and children, elder and people with disabilities, is the main factor. But, in addition to regulating relationships and social conduct, it must be accompanied by a whole set of tools, such as occupational programs for young men, employment and income sources for men and women, educational programs for children and youth with a gender approach, as well as programs for the full insertion of people with disabilities in all socio-economic activities, including those related to DRR and ACC.

In a study undertaken by the OAS Inter-American Commission of Women (CIM) and the DSD, it was found that while women tend to be the first to get organized before, during and after disasters, they are often omitted from short-term humanitarian aid or long-term preparedness and prevention planning processes. In most social systems in the Americas, women are the ones who convene and organize gatherings, social events and community hearings and discussions. And yet, they are excluded from the discussion, formulation, and implementation of disaster risk management policies and programs.

The lack of consideration of the conditions and rights of women related to DRR and their absence in decision-making means that in the majority of social systems of the Hemisphere DRR policies and plans ignore more than half their population.
The study also notes that the incorporation of a rights-based and gender-equity approach in all phases of DRR is essential for reducing the vulnerability of all segments of the society. A lasting solution will not be feasible without the empowerment and participation of women.

DSD also collaborated with the Inter-American Children’s Institute of the OAS in the drafting of a policy position paper on protecting and guaranteeing the rights of children exposed to disasters and emergencies. The paper explores the particular conditions of children in disaster emergencies, as well as their participation—or lack of, in DRR. This later applies, particularly, to teenagers and youth.

In a 2008 study, the Brookings Institute observes that ‘traditionally, natural disasters have been seen as situations that create challenges and problems mainly of a humanitarian nature. However, increasingly, it has come to be recognized, that human rights protection also needs to be provided in these contexts.’ The study indicates that during and in the aftermath of disasters, human rights violation arise, such as ‘unequal access to assistance, discrimination in aid provision, enforced relocation, sexual and gender-based violence, loss of documentation, recruitment of children into fighting forces, unsafe or involuntary return or resettlement, and issues of property restitution’.

All these trends and findings indicate that protecting and strengthening human rights for all and, particularly, for those most marginalized will result in addressing the predisposing conditions of vulnerability. And this is not a task or responsibility of the civil protection or disaster preparedness and response agencies alone, but a responsibility of the whole society. Labor and social development ministries or secretariats, children and women protection institutions, education and health ministries and secretariats, and all ministries or secretariats responsible for economic sectors, private enterprises, NGOs and other organized groups of the civil society, are all responsible and all have much to do to address these preconditions of vulnerability.

In the end, ensuring rights for all and working to guarantee the rights of those most vulnerable will result in more resilient communities, as these preconditions of vulnerability will be removed.
PART 8 - DRR AND DEMOCRACY: GOOD GOVERNANCE FOR DRR AND ACC

Critical to DRR and ACC are the processes by which decisions are made and implemented—or not—to reduce the vulnerability of communities, increase their resilience; prepare, respond and manage emergencies, rehabilitate and reconstruct the damaged infrastructure as well as recuperate livelihoods. In the context of DRR this is what is referred to as good governance. Furthermore, this process of decision-making affects all government sectors and levels, and all segments of civil society. Thus building sound democratic institutions builds resilience and reduces vulnerability of societies to natural hazards.

Consequently, for the purposes of DRR and ACC, good governance must ensure that the process of decision-making is inclusive and transparent; is based on social consensus, achieved through active involvement of all members of the society, involves the use of sound information and communication systems and tools; provides for accountability of all—not only government institutions and officials, but also all civil society organizations and community members; and follows the Rule of Law.

Good governance, including public participation and involvement, transparency and accountability is key to reducing risk. Active and responsible public participation results in self-awareness and sound risk assessment, while fostering transparency and accountability in the administration of emergency assistance, leading to more resilient and better prepared communities. Capacity building and institutional strengthening particularly at the local level, government and organized civil society groups, is also crucial, as these are the first to respond in a disaster and are in the best position to work with communities.

The information flow and the decision-making processes required to implement measures to reduce vulnerability, prevent and mitigate disasters, prepare for and respond to disasters in a timely and effective fashion will make the difference between life and death, and between the well-being of vulnerable communities or their suffering and marginalization.

Disaster Response and Emergency Management, to be effective, requires a great deal of preparedness, which can only be obtained with sound inter-institutional coordination, able to capitalize on comparative capabilities of all government sectors and all levels of government—from national to local. It also requires the active involvement of all segments of civil society—from private enterprises, NGOs and religious groups, to advocacy groups
and other organized groups of the civil society.

The sustainability and successful implementation of community-centered early warning systems, for example, will depend on the formulation and execution of sound public policy and good governance that ensures accountability across all government sectors and levels, as well as all segments of civil society, and effective coordination.

Increasing attention to climate change and the need to advance strategies and measures for adaptation add a layer of complexity to the integration of DRR into development policies and plans. Inter-institutional coordination at all levels, but particularly at the national level, becomes even more critical if financial resources to reduce vulnerability, mitigate disasters and adapt to climate change are to be effectively used.

Where disaster prevention, and mitigation are concerned inter-institutional coordination and cooperation become even more critical. Many of the organizations involved in disaster prevention and mitigation are not as strong as their counterparts in disaster response/emergency management in the area of coordination and logistic capabilities. So, thus, strong democratic institutions, sound institutional arrangements and coordination and cooperation mechanisms for DRR and ACC are critical to good governance in DRR and ACC.
At the Special Conference on Security, in Mexico City, on October 28 of 2003, OAS Member States signed a declaration reiterating their commitment to promoting and strengthening peace and security in the Hemisphere. In doing so, they recognized that ‘the states of the Hemisphere face both traditional threats to security and new threats, concerns, and other challenges that, in view of their complex characteristics, have meant that security is multidimensional in nature.’ And among those non-traditional threats to security, they singled out disasters and environmental degradation.

The increasing pressure on ecosystems to meet the demands of growing populations has resulted in environmental degradation, which in turn has brought changes in run-off, accelerated erosion and sedimentation processes, water pollution and changes in hydrological regimes. Further, unplanned human settlements on steep slopes and flood plains, fragile soils and natural drainage channels, have led to catastrophic consequences. Disasters have significantly increased in numbers and impact in the last decade compared to the previous decade of 1991-2000, and the number of affected people and economic losses have doubled. In some countries, these disasters have further produced political and institutional instability with internal conflicts, often spilling over international borders. Sudden migration create pressure over education and health systems in neighboring countries, which in turn creates internal tensions and social conflicts, and some times international disputes.

Internal and international conflicts become a barrier to DRR as they disrupt participatory processes, weaken institutional capacity and derail planning processes, and exacerbate existing vulnerabilities, particularly, those related to preconditions that lie on social inequities and inequalities. Thus reducing conflict and increasing peace and security will help to address the predisposing conditions of vulnerability and increase resilience.

Concurrently, participation of military and law-enforcement in disaster relief and response, as well as humanitarian assistance has increased in the last decades. In part, this is a direct response to dysfunctional processes that the Hemisphere has experienced, which has prompted governments to rethink the functions and services of the military and armed and law enforcement forces in the construction and strengthening of democracies in the Americas. However, it is also the need to respond to increasing disasters that has
demanded the utilization of all installed capacities.

The military and law enforcement forces have the logistical, transportation and engineering capabilities required in cases of disaster emergencies which allows them to quickly mobilize resources—human and material, and build infrastructure needed to either prevent or mitigate the impacts of natural hazards, and to effectively support the transportation and distribution of medicines and food, build tents and temporary shelters, and put together rescue and search teams. Other areas where the military and law enforcement forces have unique capabilities are communications, airport and maritime port administration, public health, and of course, public security. It is common to see looting in the immediate hours that follow a catastrophe, and some times distribution of food and aid results in violence as affected people are in a stressful state of mind and fighting for their lives.

Improving security and promoting peace, and reducing domestic and international conflict are critical to build an enabling environment for DRR. Lack of public security, political instability, social and armed conflicts are all barriers to the implementation of effective DRR measures, and create preconditions of vulnerability that when a disaster strikes add up to create increasingly complex emergencies.
PART 10 - ACTION PLAN: IMPLEMENTATION OF THE OAS POLICY FOR THE MAINSTREAMING OF DRR AND ACC ACROSS ALL OAS PROGRAMS AND BODIES

1. Administrative Actions and Planning

Executive Order: Mainstreaming Disaster Risk Reduction and Adaptation to Climate Change in the General Secretariat of the OAS, executed via an Executive Order of the Office of the Secretary General with the aim of ensuring that DRR and ACC concerns are considered in all policy, program, administrative and financial activities and organizational procedures.

2. Resource Mobilization

Program and Project Formulation: All project profiles submitted to the Project Evaluation Committee (PEC), evaluated for the integration of DRR and ACC, just like they are for gender.

A check list of DRR and ACC considerations prepared by SEDI for use by the PEC and other Departments of the General Secretariat.

3. Training and Capacity Building in DRR and ACC

Training: One-day workshops for specialists presented with the participation of experts in DRR and ACC who are working in each of the OAS programs. Events facilitated by SEDI, which provides basic instruction and works with experts in each specific area to develop training material and impart training.

Training workshops delivered in OAS member States for staff of Development Planning Ministries/Agencies.

Publications: Policy papers and publications disseminated through the INDM, CIDI, and all pertinent networks.

Examples of Best Practices in Mainstreaming DRR and ACC shared through the INDM.

4. Monitoring and Evaluation

Programs and Projects M & E: All programs and projects incorporate the drafting of policy papers, drawing lessons learned and good practices on DRR and ACC. All program and project progress reports include a chapter on DRR and ACC.

5. Policy Advice and Dialogue

Expert round-tables organized and presented at the OAS Headquarters to inform political bodies of findings and advances in DRR and ACC across all areas in the OAS General Secretariat as well as in member States.