

A stylized map of Central America and the Caribbean region, rendered in a light blue color against a dark blue background. The map shows the outlines of the countries in the region, including Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama, as well as the Caribbean islands.

# Strengthening Integrated Climate Risk In Central America

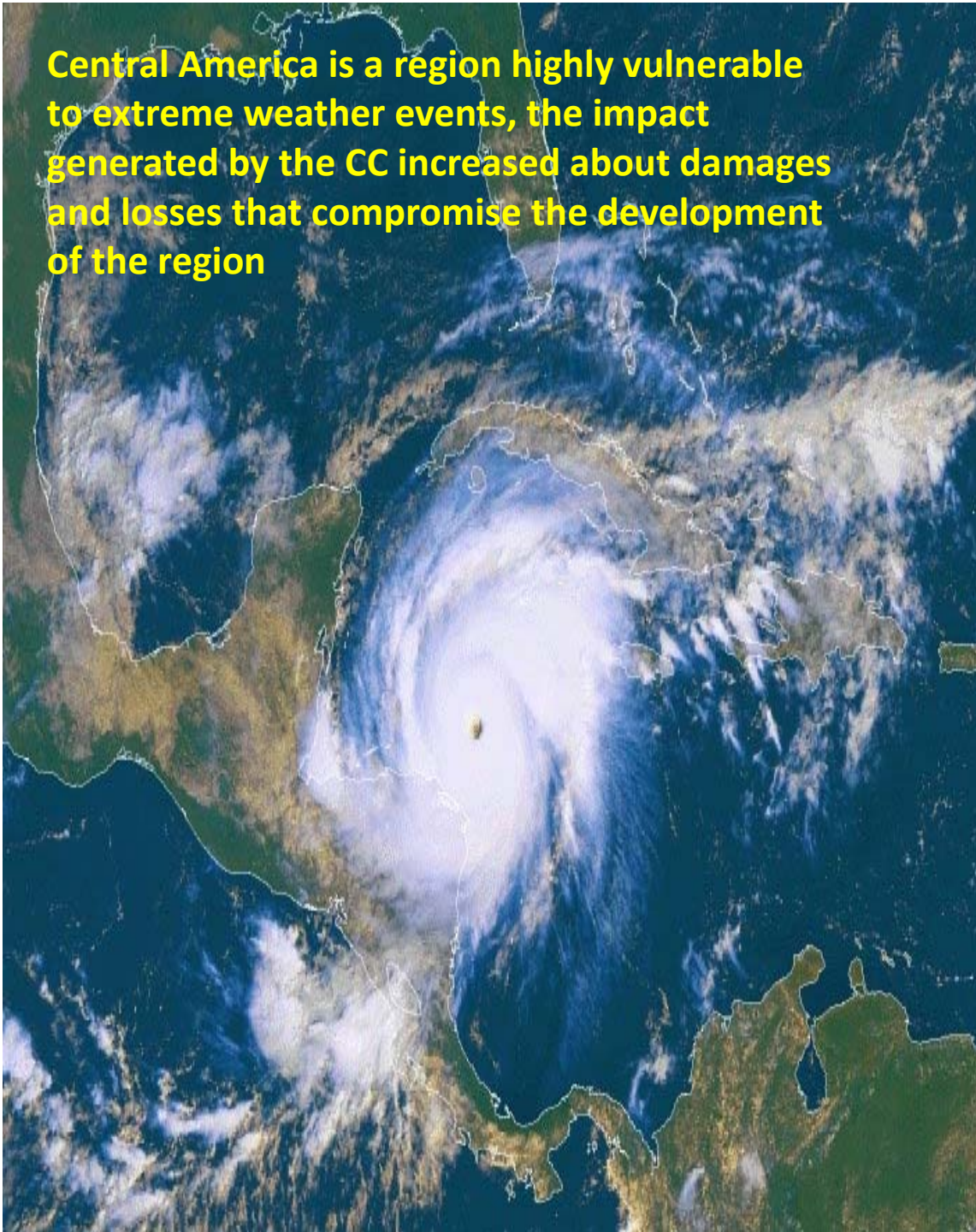
**Sistema de la Integración Centroamericana. SICA**

**UNFCCC regional expert meeting on a range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events**

**México DF, 23 -25 Julio 2012**



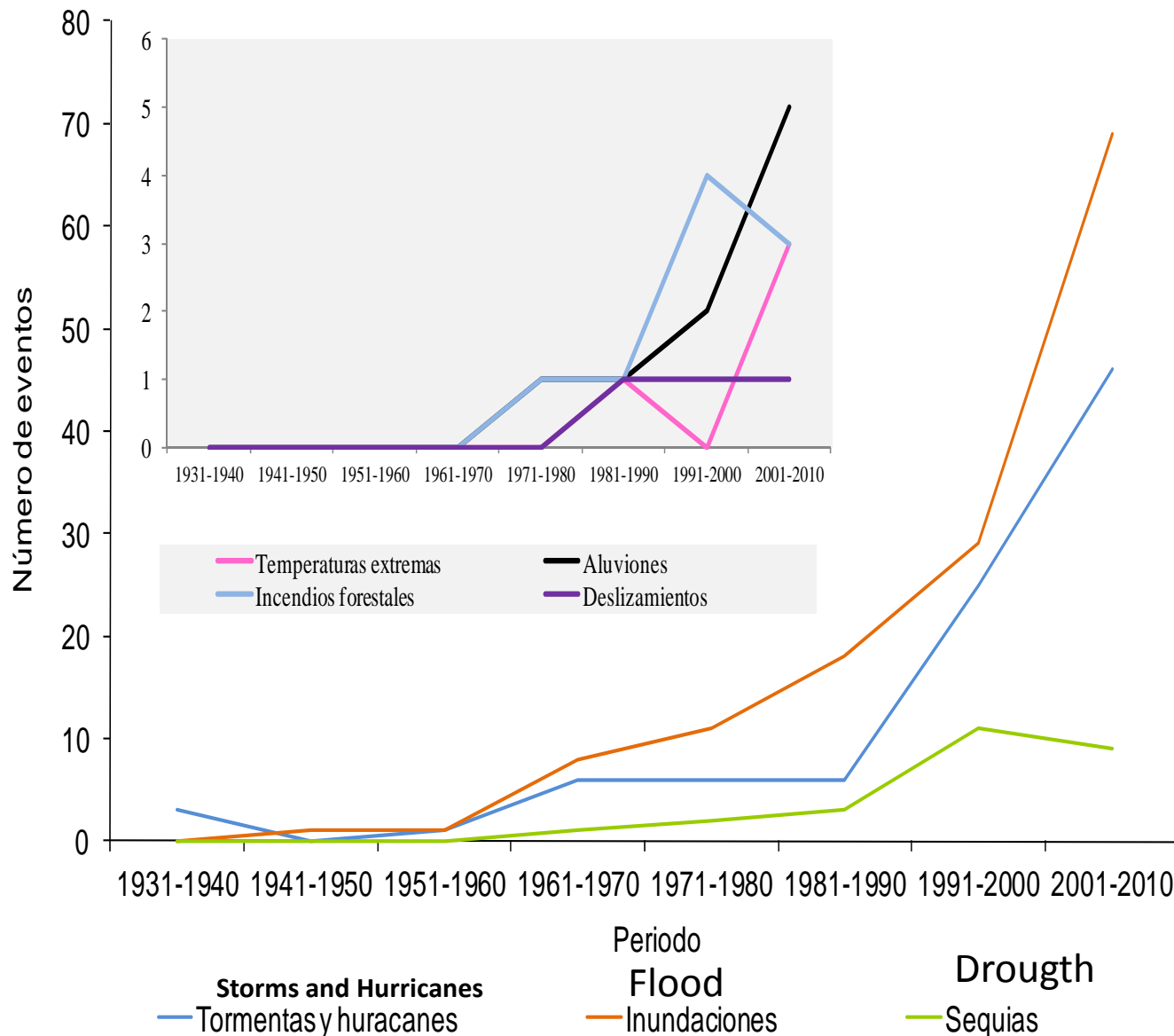
**Central America is a region highly vulnerable to extreme weather events, the impact generated by the CC increased about damages and losses that compromise the development of the region**



**A combination of factors, make the region highly vulnerable to climate change:**

- 1. Geographic exposure:** Intertropical Convergence Zone ☐ tropical cyclones and low pressure systems generated in the Pacific (with a tendency to move south in recent years)
- 2. Socio-economic factors:** patterns of settlement and land use and environmental degradation, inadequate
- 3. Insufficient capacity and resources at the institutional level to mitigate the risk of disasters and promote adaptation to climate change.**

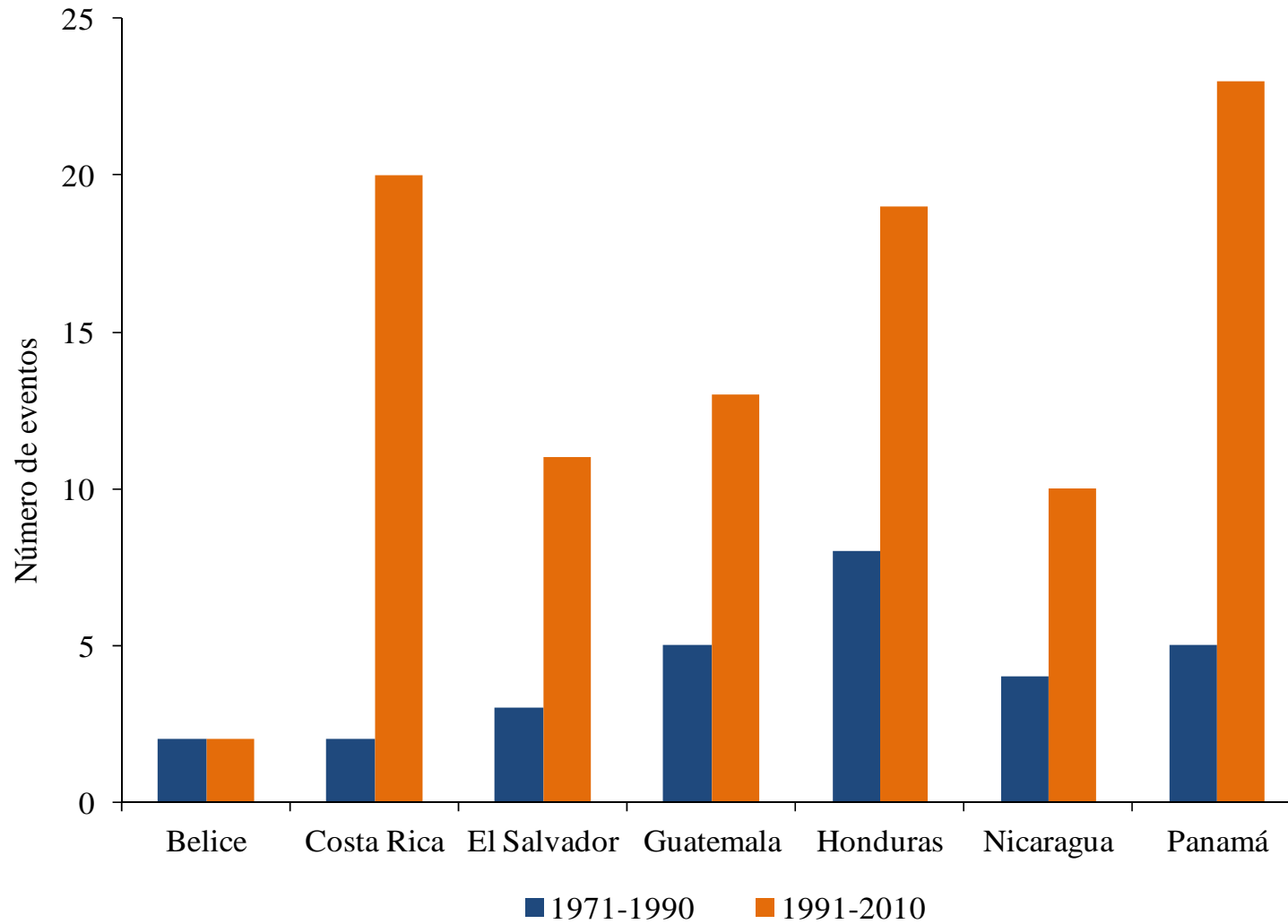
**Central America : temporal evolution of extreme events registered from 1931 to 2010  
(Number of events recorded by type of event)**



Fuente: CEPAL 2011.

- Derived from the global climate change, increased levels of risk in Central America to extreme weather events.
- In 2004-2009, 6 of the 8 countries of SICA occupied one of the first places in the Global Climate Risk Index Germanwatch: El Salvador, Dominican Republic, Honduras, Belize, Nicaragua

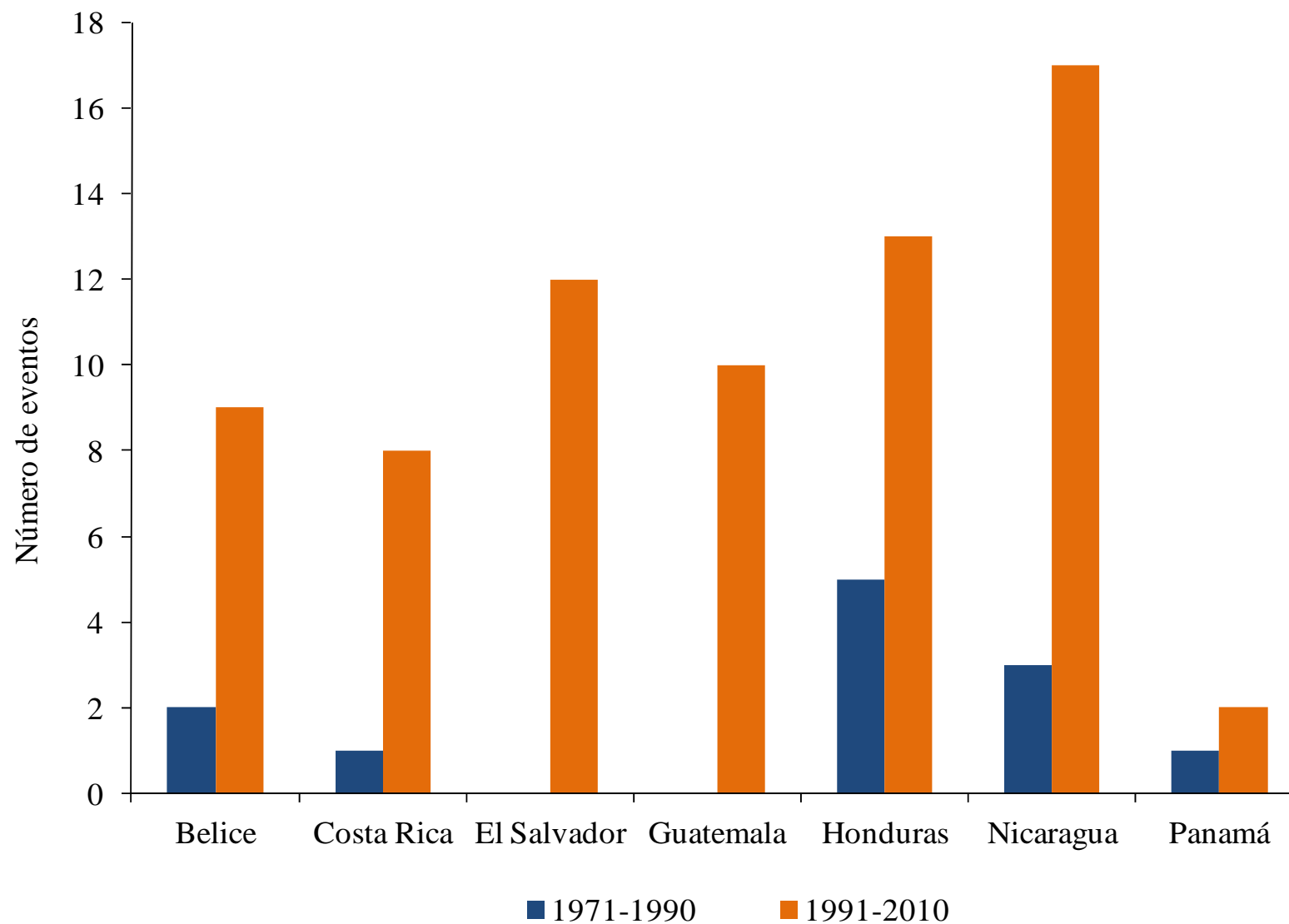
**Central America :**  
**Number of floods in two periods, 1971-1990 and 1991-2010**  
**(Number of events)**



Fuente: CEPAL 2011.



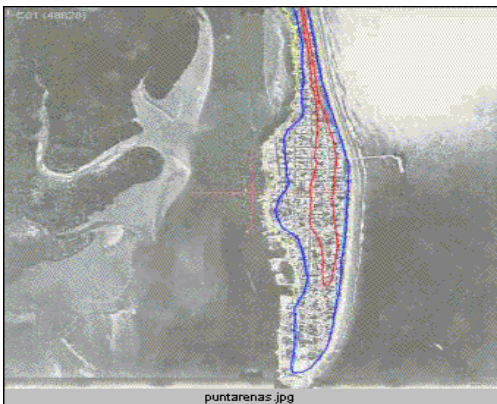
**Central America :**  
**Number of tropical storms and hurricanes recorded**  
**into two periods, 1971-1990 and 1991-2010**  
**(Number of events)**



Fuente: CEPAL 2011.







- The impacts associated with climate variability and climate change pose serious costs:
- El Salvador, between 2009-2011 loss and damage to this country caused by extreme weather events totaled 1.300 million, 6% of GDP (ECLAC and the Government of El Salvador.)

In the case of Guatemala, losses and damages in 2010 ECLAC disaster in 982 million dollars (7.856 million quetzals) or more than 2.2% of GDP.

In addition to other non-quantifiable costs economically and loss of life, damage to ecosystems and social impact.

**CENTRAL AMERICA : LOSS AND DAMAGE  
STORMS TROPICAL -12-E  
(USD)**

<b>Country</b>	<b>Damage</b>	<b>Loss</b>	<b>Total</b>
<b>Costa Rica</b>	<b>57,938,532.95</b>	<b>25,988,762.84</b>	<b>83,927,295.79</b>
<b>El Salvador</b>	<b>569,604,595.108</b>	<b>373,827,902.95</b>	<b>902,300,127.13</b>
<b>Guatemala</b>	<b>81,899,491.09</b>	<b>251,226,463.10</b>	<b>333,125,954.20</b>
<b>Honduras</b>	<b>117,586,112.06</b>	<b>86,470,188.45</b>	<b>204,056,300.50</b>
<b>Nicaragua</b>	<b>315,701,326.33</b>	<b>129,761,742.19</b>	<b>445,463,068.52</b>

Fuente: CEPAL 2011.

**Loss and Damage infraestructure  
Storm Tropical 12-E October 2011  
(USD)**

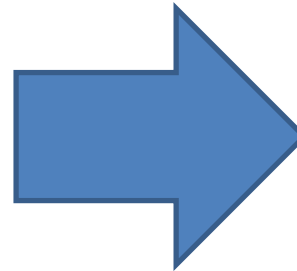
<b>Country</b>	<b>Damage</b>	<b>Loss</b>	<b>Total</b>	<b>%</b>
<b>El Salvador</b>	<b>250,460,191</b>	<b>27,624,933</b>	<b>278,085,123</b>	<b>41.7%</b>
<b>Honduras</b>	<b>35,035,802</b>	<b>933,979</b>	<b>35,969,781</b>	<b>5.4%</b>
<b>Nicaragua</b>	<b>240,800,000</b>	<b>24,850,000</b>	<b>265,650,000</b>	<b>39.8%</b>
<b>Guatemala</b>	<b>36,206,107</b>	<b>2,321,883</b>	<b>38,527,990</b>	<b>5.8%</b>
<b>Costa Rica</b>	<b>46,833,540</b>	<b>2,520,498</b>	<b>49,354,038</b>	<b>7.4%</b>
<b>Total US\$</b>	<b>667,123,396</b>	<b>100.0%</b>		

Fuente: CEPAL 2011.

Institutional response at the highest level  
Extraordinary Summit of Heads of State SICA (2010 and 2011) that assume the complete management of climate risk as a priority for the region



Promote initiatives to strengthen regional capacity  
For post-disaster recovery, comprehensive risk management and adaptation to CC so as to mitigate future risk

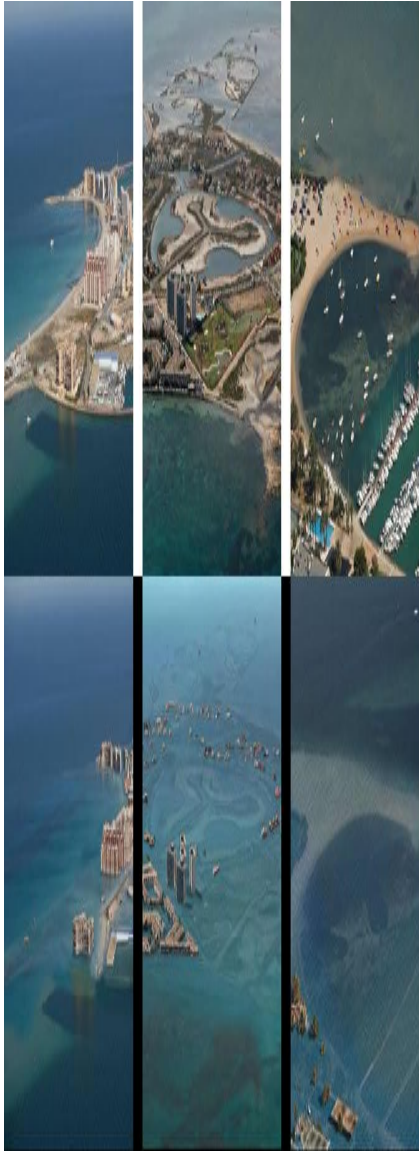


# REGIONAL APPROACH

- **Integrated Risk Management Climate**  
Integrated risk management involves internalizing climate, practices, actions and measures social, environmental, economic and production, adaptation to the context and reality of high vulnerability to the threats of climate variability and climate change affecting the region increasingly



# Guidelines for Action (1)



- **1-. Prospective and corrective management of climate risk, adaptation and land management**  
Modify the conditions of risk, from design and planning of economic and social policies to the development of local capacity for resilience and adaptation through:
  - **Zoning and land use planning**
  - **Restoration of ecosystems**
  - **Resilient human settlements**
  - **Shielding of physical infrastructure and natural**
  - **Organization for disaster response**
  - **Developing local capacity for local management of climate risk**

# Guidelines for Action (2)



## 2) Knowledge Management and Technology Transfer.

- Regional Climate Forum.
- Research
- Regional Environmental Observatory Centre
- Modernize and information hydrometeorological national systems.

## 3) Institutional Capacity Building

- Harmonize national visions and regional integrated management approach climate risk.
- Update the normative and rules to allow practical application of integrated climate risk
- Regional shared criteria for resilience: building regulations using materials and land management
- Regional task force to develop institutional mechanisms and processes necessary to ensure comprehensive climate risk management.

# Mechanisms

## **1. Strengthening, integration and institutional coordination**

CEPREDENAC and CCAD,  
Coordination of external cooperation

## **2. SICA positioning in the context of UNFCCC negotiations in the Working Agenda of Damages and Losses**

### **3. Financial Instruments:**

- International Development Bank provides mechanisms for the response (rapid hiring credits, loans, contingent activated) and there are various types of insurance available.
- Fund for the Promotion of Integrated Disaster Risk (FOCEGIR) you expect to seek support from international community
- Global Funds: Adaptation Fund, GEF and Green Climate Fund Mechanism to address loss and damage from climate change



<http://www.sica.int/cambioclimatico/>

**Thank**

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