

UNFCCC Expert Meeting on Loss and Damage

Small Island Developing States Group

Barbados

October 9-11, 2012

CARIBBEAN COMMUNITY CLIMATE CHANGE CENTRE

The CCCCC

- * **CARICOM Specialised Institution**
 - * Coordinating mechanism for the Region's response to climate change

- * **Objectives, include:**
 - Enhancing regional institutional capabilities for the co-ordination of national responses to the adverse effects of climate change and taking advantage of any opportunities presented

 - Providing comprehensive policy and technical support in the area of Climate Change and related issues and spearheading regional initiatives in those areas

Policy Direction

In 2009 the Caribbean Community Heads of Government approved two significant policy documents to address Climate Change and its response in the Caribbean. They are:

- * the **Liliendaal Declaration** on Climate Change and Development which defines the national and international positions of the CARICOM member states.
- * In support of the Declaration, ***A Regional Framework for Achieving Development Resilient to Climate Change*** prepared by the Caribbean Community Climate Change Centre

The Regional Framework for Achieving Development resilient to Climate Change



Mainstreaming Climate Change into the **SUSTAINABLE DEVELOPMENT AGENDA** and work programmes of public and private institutions in all Caribbean Community countries at all levels



Promoting systems and actions to **REDUCE THE VULNERABILITY** of Caribbean Community countries to global Climate Change wherever possible



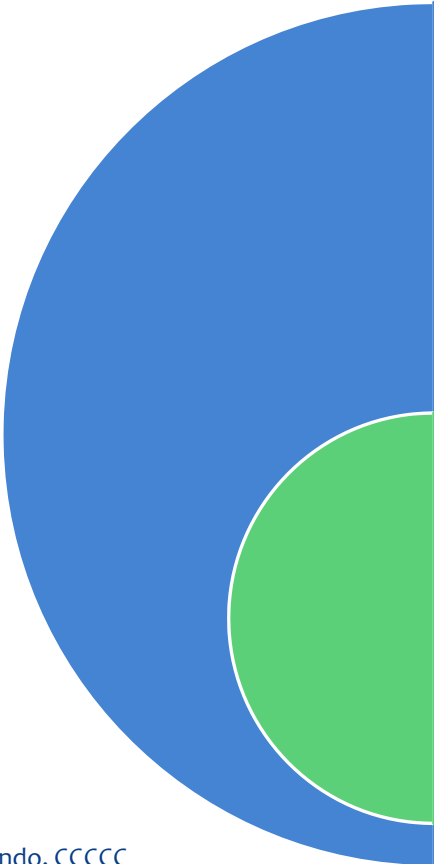
Promoting measures to **DERIVE BENEFIT FROM THE PRUDENT MANAGEMENT** of forests, wetlands, and the natural environment, in general, and to protect that natural environment



Promoting actions and arrangements to **REDUCE GREENHOUSE GAS EMISSIONS**, including those aimed at energy-use efficiency by increasingly resorting to low-emission renewable energy sources



The Implementation Plan for the Regional Framework



seeks to guide the identification and prioritisation of actions by regional and national stakeholders under each strategic element and goal area of the Regional Framework through the use of **risk management approaches to decision-making**.

acknowledges that a **transformational change** in mind set, institutional arrangements, operating systems, collaborative approaches and integrated planning mechanisms are essential to deliver the strategic elements and goals of the regional framework.

Requirements for SIDS to address Loss and Damage

Capacity Building

- assessment, planning and implementation of rrm's for key sectors –increased information –data and analytical capacity

Risk Management

- tools and instruments – Captive Insurance systems – reinvestments of premium in SIDS

Economic Valuation

- identification of key economic assets and valuation

Economic Diversification

- develop a more resilient economy

The CCCCC Clearinghouse

- * Database: vulnerability assessments
- * Climate map: given scenario at a given point in time, by area and country
- * Next generation – geospatial data – maps showing areas of high risk



- Background On Climate Change
- National Communications And Greenhouse Gas
- Inventories Impacts Of Climate Change
- Modeling & Monitoring
- Case Studies**
- Educacion
- Risk Management
- Economics Of Climate Change
- Stock Take 2010
Strategies, Programmes, Plans
- Newsletters



Vulnerability Aesessments

Document Collection for Vulnerability and Capacity Assessment

Sort by: Year

#	Title	Author(s)	Date	Description
1	FINAL Snapshot CCCRA - Grenada	The CARIBSAVE Partnership	2012	This volume is the outcome of the "International Consultative Workshop for Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs" held at the WorldFish Center's Headquarters, Penang, Malaysia, 8-10 Decembe... more



CARIBBEAN COMMUNITY CLIMATE CHANGE CENTRE

*EMPOWERING...
People to act on Climate Change.*



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CARICOM MEMBER COUNTRIES (16)

The CARICOM Region and other Caribbean Participating Countries

1. [Antigua and Barbuda](#)
2. [The Bahamas](#)
3. [Barbados](#)
4. [Belize](#)
5. [Dominica](#)
6. [Grenada](#)
7. [Guyana](#)
8. [Haiti](#)
9. [Jamaica](#)
10. [Montserrat](#)
11. [Saint Lucia](#)
12. [St. Kitts and Nevis](#)
13. [St. Vincent and the Grenadines](#)
14. [Suriname](#)
15. [Trinidad and Tobago](#)
16. [Anguilla*](#)
17. [Bermuda*](#)
18. [British Virgin Islands*](#)
19. [Cayman Islands*](#)
20. [Turks and Caicos Islands*](#)

*Associate member states

CARICOM



Climate change contact
Caribbean Community Climate Change Centre
Ring Road, P.O. Box 563, Belmopan, Belize
Email: info@caribbeanclimate.bz



Regional Climate Model

Document Collection

Strategies, Programmes, Plans

Regional Climate Model

Regional Climate Model

Document Collection

Strategies, Programmes, Plans

Regional Climate Model

Choose a [Climate Change Scenario](#)

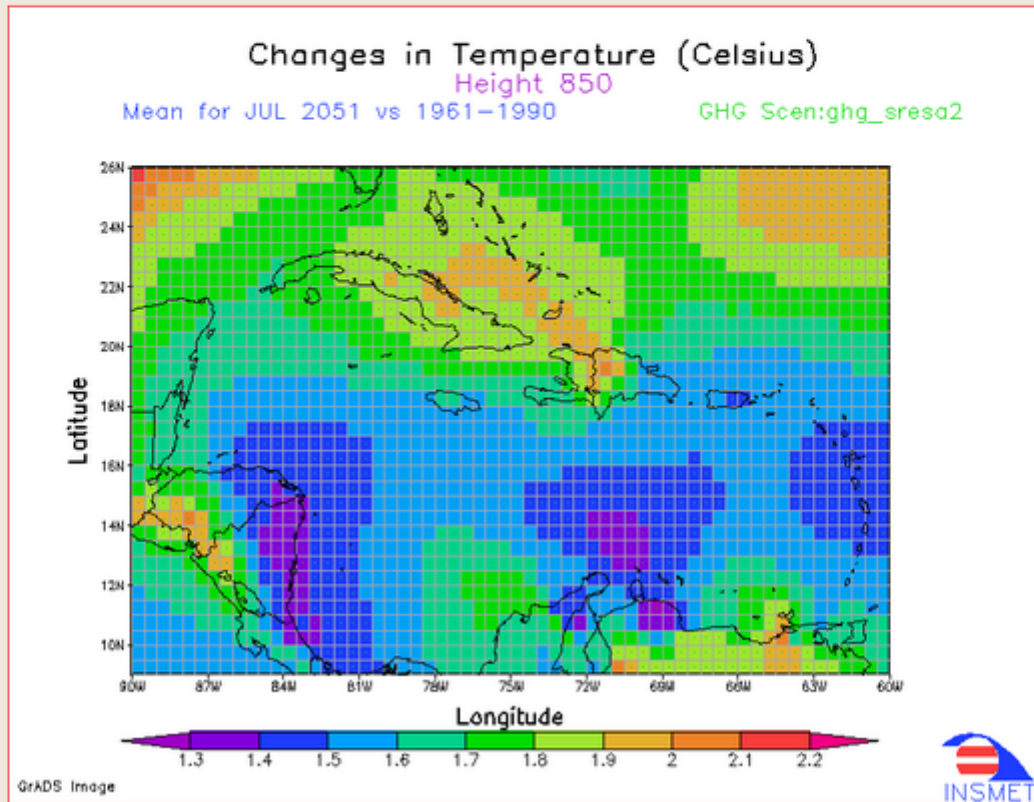
A2: regionalization, emphasis on human wealth (clash of civilizations) ▼

Temperature ▼

July ▼

2051 ▼

SUBMI



Caribbean Risk Management Framework and Toolkit

Risk management

- * assists in the selection of optimal cost-effective strategies for reducing vulnerability, using a systematic and transparent process.

The **CCCCC** is spearheading a **Project** that will:

- * Support climate compatible development in the Caribbean
- * Embed considerations of climate change across the Caribbean, through the development of **regional approach to risk management** and the creation of a risk ethic in decision making.

Caribbean Risk Management Framework and Toolkit

Caribbean Risk Management Project:

Phase 1 will be the development of a risk management, web-based tool to guide decision making.

Phase 2 will provide in-depth training for country decision-makers.

Phase 3 will undertake detailed risk assessments in selected countries.

Develop a risk management tool and an online stress tool

Economic Assessment

Short-term loss (Hurricanes and Storms)

- 2000-2011 – 23 tropical storms and hurricanes
- Over USD \$ 4B* in damages
 - 3,876+ lives lost

Year	Tropical Cyclone	Affected countries in the Caribbean	Economic Losses (\$ M)	Loss of Life
2004	Earl (TS)	Grenada St. Vincent &Grenadines	(12 homes) (banana crops)	
	Ivan	Total Barbados Cayman Islands Grenada Jamaica St. Vincent &Grenadines St. Lucia Tobago	\$3 B (CDB) (176 homes) \$ 1.85B (95% of homes/infrastructure lost) \$ 815 M (14,000 homes, 80% nutmeg trees destroyed) \$ 360 M (47,000 damaged, 5,600 homes lost) \$ 40 M (50 homes damaged) \$ 2.6 M (damage to homes and utilities)	1 2 39 17 1
	Jean	Haiti	(200,000 persons lost their homes)	3,000+
2010	Tomas	St. Lucia Barbados St. Vincent &Grenadines Haiti	337 8.5 3.3 --	8 -- -- 35

Source: NOAA



Combined events

Hurricane Tomas in St. Lucia

- ❖ Following a period of prolonged drought,
- ❖ Infrastructure in ill-fitting locations,
➔ Resulting in incredible damages to infrastructure

Economic Assessment

Long-term loss (Sea-level rise 1m)

Total Economic Losses

- * GDP loss = > US\$ 1.2 billion per year (cumulatively US\$30 billion if 1m SLR occurs in 2075)
- * Permanently lost land value = US\$ 70 billion +
- * Reconstruction / relocation costs = \$ 4.64 billion

Economic Losses by Sector (Sea-level rise 1m)



Tourism

- 16 \$\$\$M resorts lost
- Replacement value of USD \$1.6 B



Transport

- 10% of island airports at USD \$715 M
- 14 of 50 ports inundated, USD \$ 320 M
- Reconstruction cost of lost roads exceeds US\$ 178 million (6% of



Infrastructure

- Over 2,700 km² land area lost (10% of The Bahamas)
- Cost to rebuild basic housing, roads and services (water, electricity) for displaced population approximately US\$ 1.8 billion

Economic Losses by Sector (Sea-level rise 1m)



Displaced persons

- Over 100,000 people displaced (8% of population in Suriname, 5% of The Bahamas, 3% Belize)



Agriculture

- Over 1% agricultural land lost, with implications for food supply and rural livelihoods (4% in Suriname, 3% in The Bahamas, 2% in Jamaica)

Building a resilient Region

~~BUSINESS AS USUAL~~

TRANSFORMATIONAL CHANGE



For more information:

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SLindo, CCCCC