

Empowering People to Act on Climate Change

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Climate Change and Water Resources Management in the Caribbean



A presentation to the webinar on Water Resources Management around the World

Keith Nichols

Caribbean Community (CARICOM) - Political grouping of 16 States





Caribbean Community Climate Change Centre

Empowering People to Act on Climate Change

The Caribbean Community Climate Change Centre coordinates the Caribbean region's response to climate change, working on effective solutions and projects to combat the environmental impacts of climate change and global warming.

Commissioned by CARICOM HEADs in 2002

Operational in 2005

Today has a staff of 40

Accredited to the GCF



Regional action – the foundation

THE LILIENDAAL DECLARATION ON CLIMATE CHANGE AND DEVELOPMENT

Caribbean Community Heads of Government spiled the Disclaration an Item Therbeit Maching of the Conference is Unificient, Goyana, July 2009, emphasizing on the coast of an unjust, and administrated effectives waters by the International Community in order to prevent Small Intends and Line Proportional Community in order to prevent Small Intends and Line Proportional Community in the International Community in the International Community in the International Community in the International Community Interna

Caribbean Community Leaders are gravely concerned not to achieve the internationally agreed development goals, including the Millennium Development Goals, because of severe threats of climate change and sea level rise.

Key elements of the Declaration

- Long-term stabilisation of atmospheric Greenhouse gas concentrations at or below 1.5° C of pre-industrial levels.
- Recognition of the value of standing forests within the Region
- The need for financial support to Small Island Development States from the International Community
- Adaptation and capacity building are development priorities for the Region
- Commitment to provide more effective preparedness for response to natural disasters
- Strong determination to overcome barriers to facilitate the development, diffusion and deployment of appropriate and affordable lowand zero-emission technologies and renewable energy services



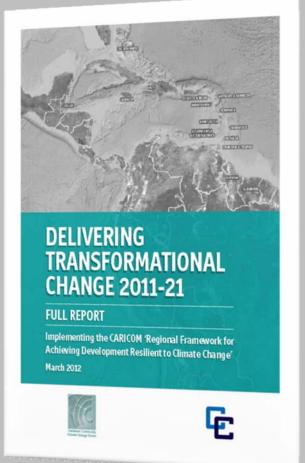


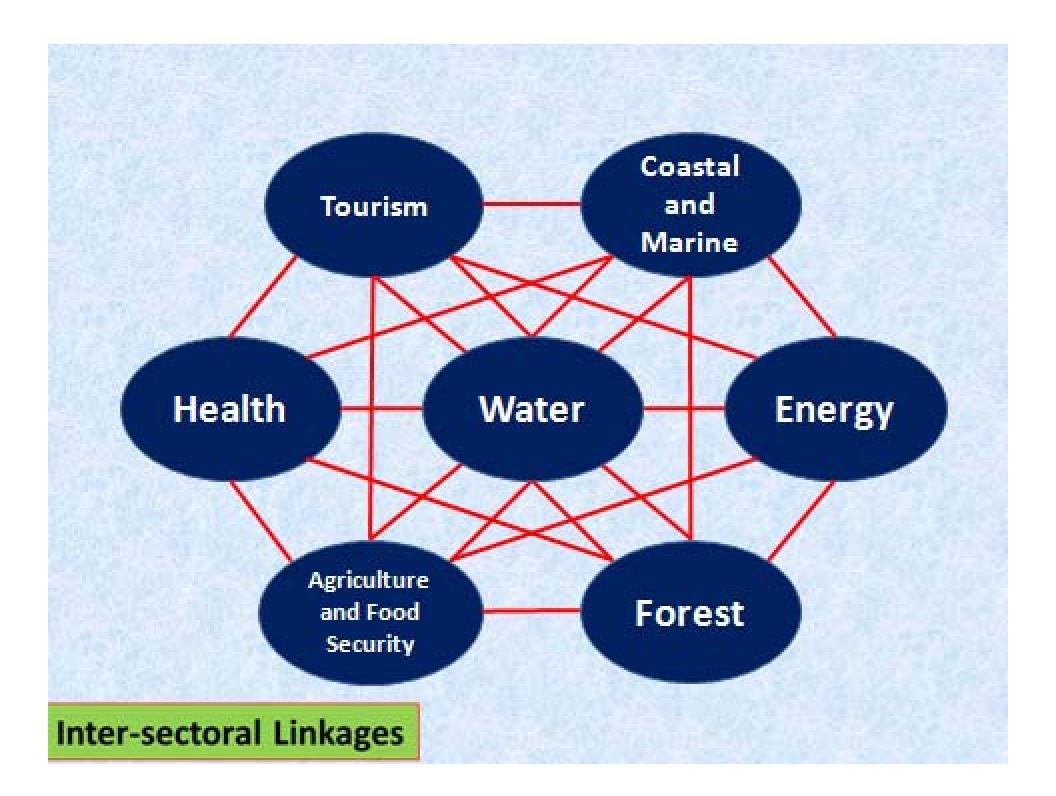




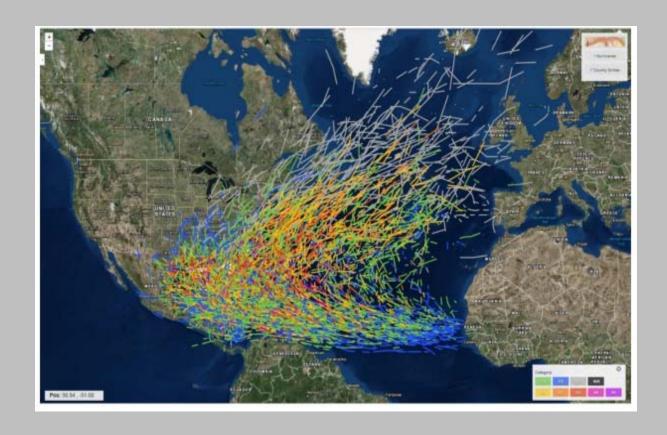








Hurricane Tracks





RCP2.6 RCP8.5 (a) Change in average surface temperature (1986–2005 to 2081–2100) 39 Taken from IPCC Synthesis Report 2014 (°C) -2 -1.5 (b) Change in average precipitation (1986-2005 to 2081-2100) 20 -20-10 10 50 (c) Change in average sea level (1986-2005 to 2081-2100) (m)

0.6

0.5

0.1

-0.1

0.3

0.7

0.8

Caribbean Climate



Number of heavy rainfall **events** is increasing...

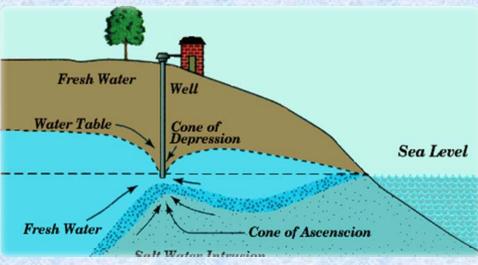
overall rate of precipitation is decreasing.

Impacts on Water Resources



Changes in precipitation may affect the availability of fresh water

Less potable water available







http://static.weadapt.org/knowledge-base/images/655/original/4e8c45494c6datropicalstormgustav-bridgeoverhope-river-disaster-risk-reduction.jpg



Impacts on Agriculture



Volanic Eruptions in St. Vincent and the Grenadines



Regional Strategic Action Plan for Water

Threats from Climate Change	Responses
Changes in hydrological cycle	Sector Governance
Saline Intrusion	Climate informed decision-support
Intensity of extreme weather events	Climate-resilient water resources management
Exacerbation of non-revenue water / leakage	Climate resilient water service provision
	Capacity Building and public sensitization on climate resilience

Promoting Implementation of Specific Adaptation Interventions

Rainwater Harvesting and Greywater Recycling



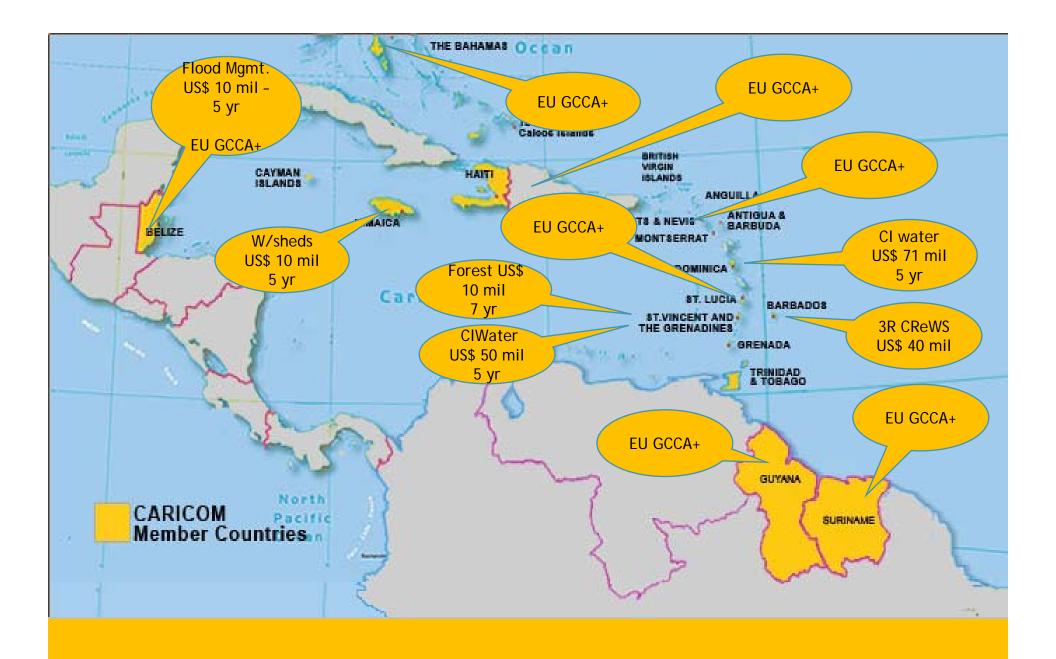




Promoting Implementation of Specific Adaptation Interventions

SWRO Systems in Bequia and Grenada





Water resilience projects in the Caribbean supported by the CCCCC



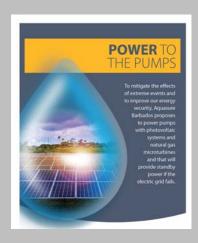
BDOS Water Sector (WSRN/S) project Total US\$ 45.2

Water and Energy:

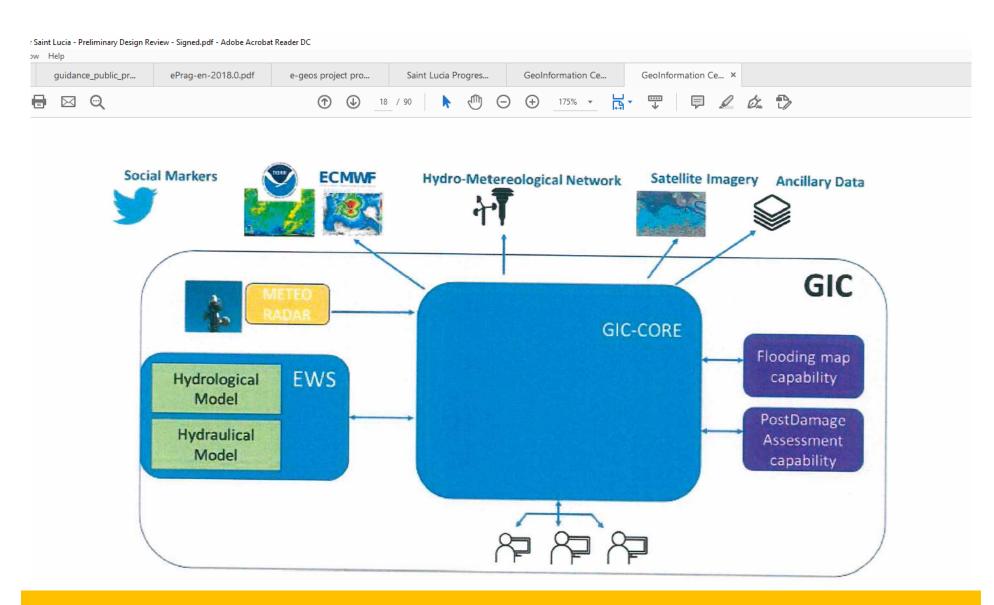
- Design, supply, installation and commissioning of 6.5 MW power systems for 3 pumping stations
- Install Solar PV modules

Increased Water Storage and Distribution

- Non-revenue Water management strategy
- +6 kilometers of outdated water mains replaced.
- *Gender and Vulnerability Needs assessment for clean water storage tanks and rainwater harvesting systems
- +6 Mobile Water tankers







Early Warning Geo Information Centre for Saint Lucia



Everything is not climate change but Climate change is everything.

Keith Nichols