



Caribbean Community Climate Change Centre

Experiences from the Caribbean

TEC Thematic Dialogue on Enablers
and Barriers to South-South
Cooperation on Technologies for
Adaptation

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Vulnerability of the Caribbean

- Small size, limited mobility, low elevation
- Economies based on tourism and agriculture
- Threats to water resources
 - Reduced rainfall
 - Higher temperatures resulting in more evaporation
 - Sea level rise resulting in salinization of coastal aquifers and agricultural lands
 - Enhanced hydrological cycle resulting in more extreme events: droughts and intense rainfall events

The Implementation Plan

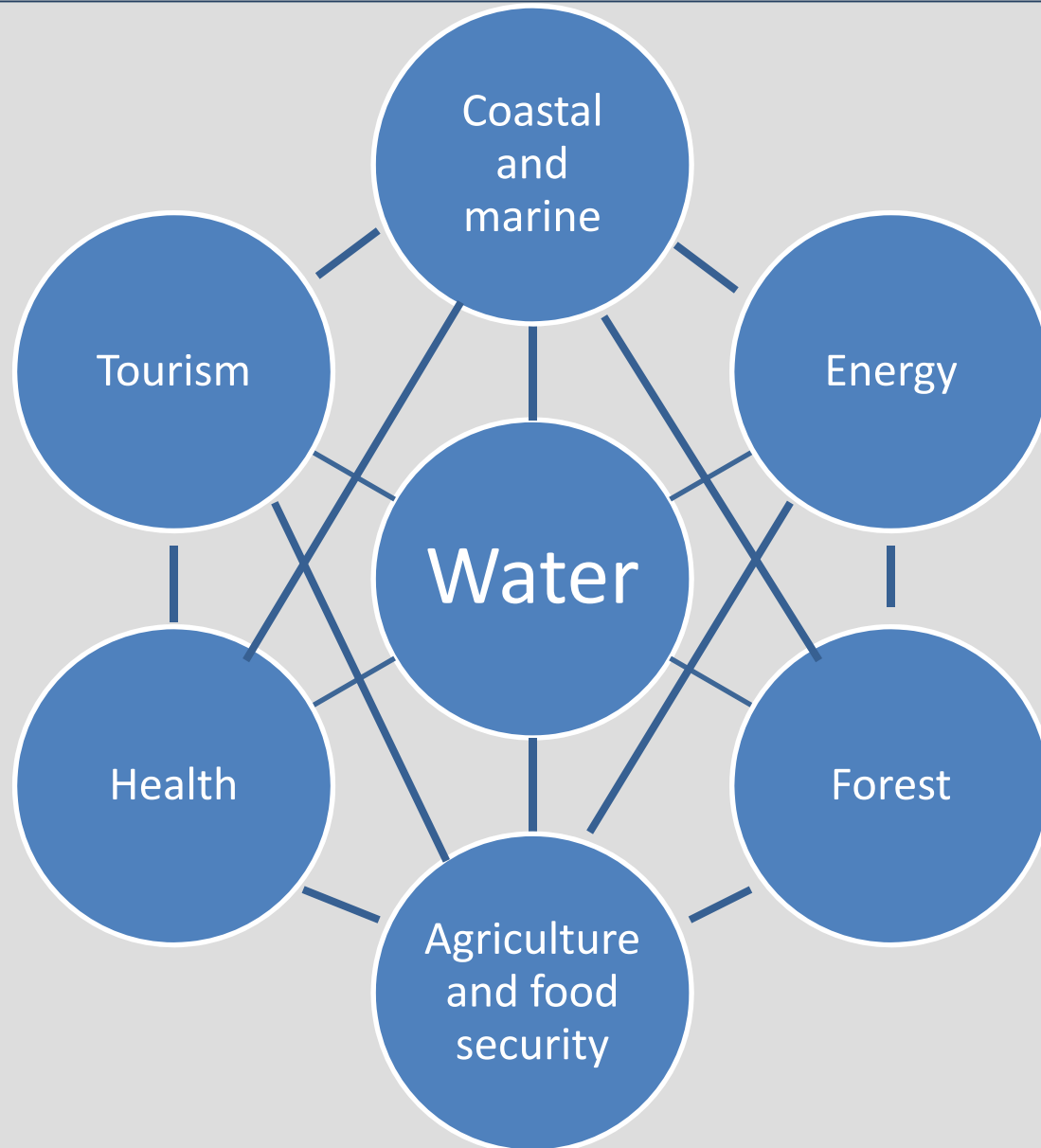


The Implementation Plan (IP) for the Regional Framework, defines the regional strategy for coping with Climate Change over the period 2012-2022

Approved by the 23rd Inter-Sessional Meeting of CARICOM Heads held in Suriname 8-9 March, 2012.



Sectors Identified in the IP





Bequia, St Vincent & the Grenadines



Issue

- Small island
- Limited potable water
- Water barged during dry season
- Population carry water using buckets
- Models project reduced rainfall

**Adaptation Measure Identified –
Installation of a SWRO potable water
system powered by renewable energy in
Paget Farms area of Bequia**



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The Carriacou and Petite Martinique Systems





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The Caye Caulker, Barbados, Carriaco and Bequia PV Systems





Reduced availability of fresh water

- **Pilot Intervention -
Vieux Fort, Saint
Lucia**
- **Adaptation –
Installation of Water
Conservation System
at the Coconut Bay
Resort (2nd largest
consumer of water in
the Vieux Fort area)**





The Vieux Fort, Saint Lucia System



Wastewater tank excavation



Waste water tank side steel



Inside waste water tank



Wastewater tank in operation



Wastewater effluent pumps for
irrigation system



Wastewater effluent meter
for system monitoring



The Marchand Community Centre, Saint Lucia

- The project was designed to provide engineering guidelines to policy makers in the upgrading of the Caribbean Uniform Building Code (CUBIC).
- In discussions with the Government of Saint Lucia a community building was selected on which a comprehensive engineering analysis was to be conducted.
- The analysis would provide engineers and architects with the information needed to strengthen the building to be able to withstand the wind forces of at least a category 4 Hurricane.
- In addition to the engineering retrofitting, the redesign included a backup renewable PV energy supply, rain water harvesting storage system and a communication system in the event of a storm-related loss of power and water due to a storm.

The Marchand Building



Before



After



The Milton Pilot Irrigation System, Dominica

- The project addressed a potential encroachment by the small farmers of the Milton community into the Morne Diablotin national park which lies at the foot hills of Morne Diablotin within the western agricultural region at the north-western side of the island.
- The main reason for the construction of an irrigation system was to enhance the productivity of farmers by ensuring the availability of water for irrigation of their crops so as to enhance the livelihood of the farmers adjacent to the More Diablo tin National Park thus providing addition protection to the biodiversity of the Park.
- The irrigation system is comprised of:
 - An intake from the Dublanc River at an elevation of 530 m
 - A transmission line measuring 2605 m
- Operations and structures of the irrigation delivery system consist of the following
 - A concrete dam/intake structure on a tributary of the Dublanc River
 - An Inlet Arrangement with a gate valve assembly, water meter and pressure gauge for measuring the incoming pressure into the filtration uni





Ya'axche, Toledo, Belize Agroforestry Project

- The primary objective of the project is to enhance the adaptive capacities of a rural community and to alleviate pressure on natural resources from the impacts of climate change in Belize.
- The project comprised of four Activities details of which are given below:
 - Activity 1:
 - Reduce the rate of deforestation for agricultural conversion and hence reduce vulnerability of local communities to climate change effects within the MGL.
 - Activity 2:
 - Arrest the degradation of the water catchment area in Maya Mountain North Forest Reserve
 - Activity 3:
 - Reduce the occurrence of wildfires within Toledo's rural communities
 - Activity 4:
 - Awareness building of climate change and adaptation measures



1. 5Cs staff conducting a field inspection of project progress
2. Water cistern for cacao nursery
2. A villager involve with the project



Saint Lucia Agroforestry Project

- This project is based on a request from the Government of Saint Lucia to provide support for the replanting of aged cocoa plantations as well as the establishment of new areas within forest zones to support small farmers, increasing their livelihoods and income while reducing deforestation..
- The project provided for:
 - Hiring of a project coordinator, four field supervisors, a driver, and field workers
 - Purchase of a four-wheel drive pick-up truck for field work
 - Purchase of cocoa seedlings and fruit tree seedlings
 - Purchase of fertilizers and other agro-chemicals
 - Purchase of one hydro-meteorological station



1. Female farmer stands proudly beside cocoa plant in the field
2. Cocoa seedlings being distributed to farmers
3. Inter-cropping cocoa with banana within the forest in Saint Lucia



Conclusions

BARRIERS	ENABLERS
Physical Isolation	Political Union (Caribbean)
Each island State unique	Specialized Climate Change Centre
SIDS challenges unique	Regional Strategy and Implementation Plan (Caribbean)
Global solutions not necessarily applicable in SIDS	MOUs with partners in South and North
Not attractive economically	Regional ownership once technology is transferred
Cultural differences among SIDS regions	Ensuring sustainability of interventions
Limited capacity to modify technologies	