

# TOWARDS AN INTEGRATED WATER RESOURCES MANAGEMENT PLAN FOR DOMINICA



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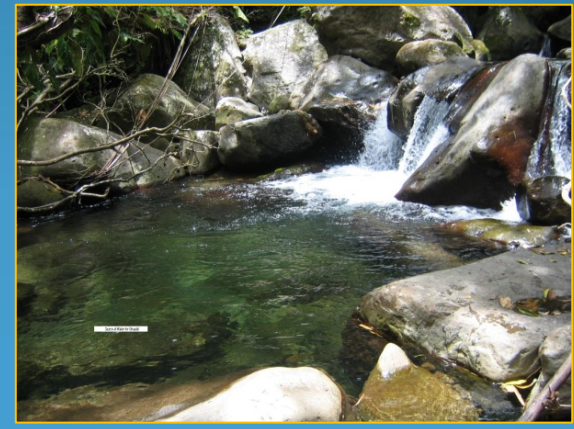
# Outline of Presentation

1. Objectives
2. **Dominica**: A Quick Peek
3. Inventory of Dominica's Water Resources
4. **Historical Overview of Water Management Efforts**
5. Present Efforts at Managing Dominica's Water
  - **Constraints (Policy, Legislation, Institutional, Resources)**
  - **Successes (IWRM Concepts and Principles; LBS Protocol)**
7. **The Future**
8. Acknowledgements



# OBJECTIVES

TO SHARE OUR EXPERIENCES AS A  
SMALL ISLAND DEVELOPING STATE  
(SIDS) IN THE AREA OF WATER  
RESOURCES MANAGEMENT AND TO  
PROMOTE EAST/WEST DIALOGUE



# Basic Facts About Dominica

Area: 291 sq mi (754 sq km) – 15mile x 30mile

Highest Point on Land: 4,747 feet

Population: 72, 600

Per capita: US \$4,948.00 – GDP \$362 m

Economy: Mixed (Agriculture, Tourism, Industry & Services)

History: Former British and French Colony. – Gained Political independence in 1978

Government:

Parliamentary Democracy; Prime Minister -  
Head of government; President- Head of State

Capital: Roseau (“Rozo”)

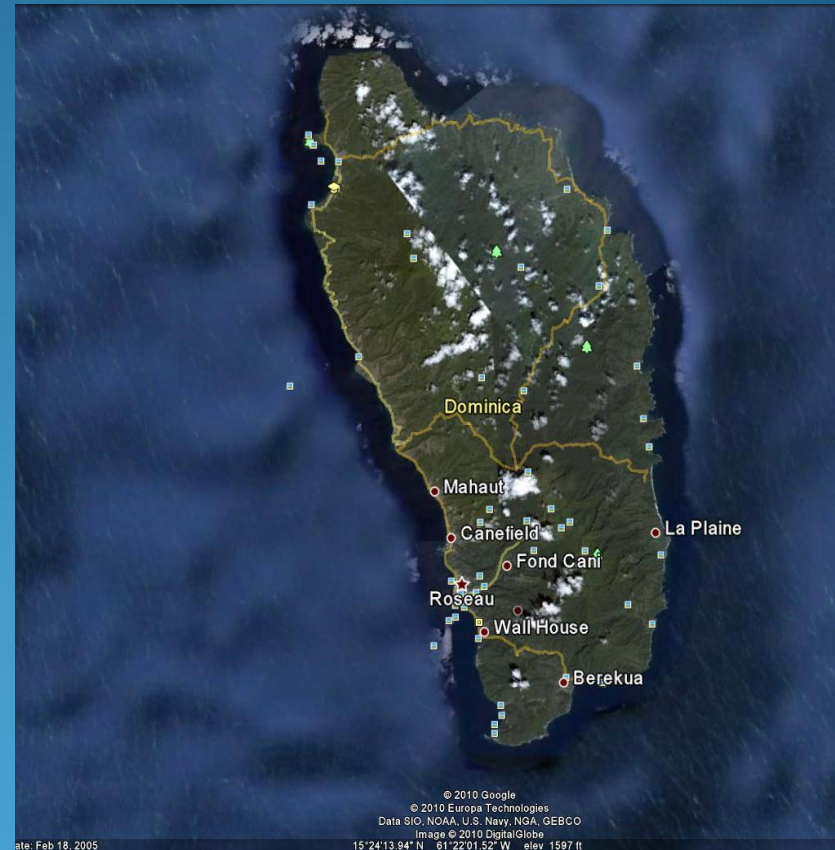
Official Language: English (Creole – Patois)





# DOMINICA

*“NATURE ISLAND OF THE CARIBBEAN”*



# INVENTORY OF WATER RESOURCES

Rivers (365)

Lakes & - 6

Waterfalls -15+

Groundwater

Sea/Ocean

(200 miles east/west)

Numerous Springs

Rainfall – variable

mean average – 7500  
in mountains to 1981  
on coast





# Managing the Country's Water Resources Policy

Government has always advocated maximizing the economic potential of the State's water resources, e.g. bulk & bottled water export.

No official, coherent Government policy on management of water resources.

Some work done in preparing a study on the water sector. (The EU has supported two institutional/policy study on Dominica's water sector)

# Managing the Resource cont.

## Institutional Arrangements – Several Actors

- Ministry for Water Resources (January 2010)
- Physical Planning Division: Development Control
- DOWASCO (Potable water & Sewerage)
- Ministry of Health (Potable and Recreational)
- Ministry of Agriculture: (Agriculture and Forestry)
- Fisheries Division & Police (Marine Waters)
- DOMLEC – Hydro-power generation

\* each institution has its statutory mandate



# Water Demand & Use

43 independent water supply systems producing 10 million gallons per day

93.6 % of population have access to potable drinking water

Average Consumption

Domestic: 39 gallons/person/day – 24x7

(Except during times when river is in flood)

Agricultural – not available

Industrial: Electricity – data not available

40% of electricity generated through hydropower

Population see water as free gift from God, flowing unchecked in rivers



# Welcome GEF/IWCAM

- GEF funded project - US \$112 (includes co-financing)
- GEF - \$14 m
- Implementing Agencies: UNEP & UNDP
- Executing Agencies: CEHI, UNEP CAR/RCU and UNOPS
- Project Coordinating Unit at CEHI





# Welcome GEF/IWCAM



## Project Objective:

To assist Caribbean Small Island Developing States to adopt an integrated approach to watershed and coastal areas management

# Welcome GEF/IWCAM



The overall objective of the project is “to strengthen the commitment and capacity of the participating countries to implement an integrated approach to the management of watersheds and coastal areas”.

The long-term goal “is to enhance the capacity of the countries to plan and manage their aquatic resources and ecosystems on a sustainable basis”.



# Welcome GEF/IWCAM



The Project consists of 5 components:

**Component 1:** Demonstration, Capture and Transfer of Best Practices

**Component 2:** Development of IWCAM Process, Stress Reduction and Environmental Status Indicators Framework

**Component 3:** Policy, Legislative and Institutional Reform for IWCAM

**Component 4:** Regional and National Capacity Building and Sustainability for IWCAM

**Component 5:** Project Management and Coordination

# GEF/IWCAM Project Sites



9  
in  
8



# Component I: Demonstration

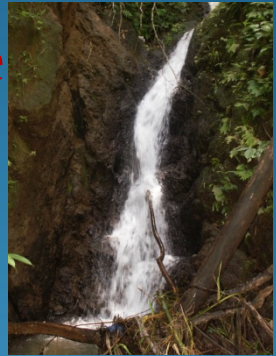
**Antigua:** Mitigation of groundwater and coastal impacts from sewerage discharge from St. John's

**Bahamas:** Land and sea planning for water recharge protection and management in Andros

**Bahamas:** Marine waste management in Elizabeth Harbour in Exuma

**Cuba:** Application of IWCAM concepts at Cienfuegos Bay & Watershed

**Dominican Republic:** Mitigation of Impacts of Industrial wastes on the Lower Haina River Basin and Coasts.



# Component I: Demonstration

**Jamaica:** An integrated approach to managing marine coastal and watershed resources of East – Central Portland.

**St. Kitts/Nevis:** Rehabilitation and management of the Basseterre Valley as a protection measure for the Underlying aquifer .

**St. Lucia:** Protecting and valuing watershed services and developing management incentives in the Fond D'or watershed area.

**Trinidad & Tobago:** Land-use planning and watershed restoration as part of a focused IWCAM Demonstration in the Courland watershed and Buccoo Reef area.



# Activities in Non-Demo Countries

Component 2: Development of IWCAM Process, Stress Reduction and Environmental Status Indicators Framework

- Conducted Hotspots Diagnostic Analyses (HSDA) at non-demo hotspots in each country.

Roseau River

Component 4:

- Training in Community Based Resource Assessment. (Training workshop for youth leaders and teachers)

# Roadmap - IWRM

- Initiate the Process ✓
- Formation of a steering committee ✓
- Process management (team establishment) ✓
- Stakeholder involvement plan and implementation ✓
- Communications, plan development and implementation
- Situational Analysis and IWRM plan framework ✓
- Vision statement and goals articulation ✓
- Evaluate IWRM plan options
- IWRM plan promotion, adoption and implementation



# Progress Made re: IWRM - Dominica

- Initiate the Process
  - Inception Workshop held (2007)
  - First stakeholder meeting held at start of consultancy
- Steering Committee
  - Multi-stakeholder Committee formed





# Promoting LBS Protocol Hotspots Diagnostics



# Examples of Sustainability

## Cuba:

- Co-financing example. Were able to achieve much more than original planned. Activities to continue beyond life of project.
- MSc. Program Developed based on IWCAM concepts and principles

## Jamaica:

- Project completed way before deadline. Community mobilized. Central government onboard. Project concept and principles to replicate in another watershed. Work already started.

# Examples of Sustainability

## St. Lucia:

- Project activities completed well advance of schedule. Community has been mobilized.
- A private sector (NGO) formed to coordinated and managed activities related to the protection of rivers.



# Lessons learnt

**Power of “People Power”.** What ordinary people can do once they are empowered and resources become available

**Role of communities** in resource management once the applicable policies and legislative instruments are in place

**Role of private sector** as co-partners to the state

**How development Assistance** can be used to support communities



# Real ISSUES FOR CONSIDERATION

## Inadequate Land-use Practices

- Housing
- Road Construction





# Real ISSUES FOR CONSIDERATION

Agriculture

Waste disposal





# REAL ISSUES FOR CONSIDERATION

## Water Pollution -

- Siltation of Streams and Coastline  
(Erosion/Loss of topsoil)



# REAL ISSUES FOR CONSIDERATION

- \* Tourism / Recreation
- \* Natural Disasters (Hurricanes)





# REAL Issues/Consideration

Deforestation

Land slides

Quarrying





# Challenges Ahead

## Policy & Legislation

- Arrive at a consensus for adopting a far reaching all embracing policy on Integrated Water Resources Management
- Enact relevant legislation in support of new policy

## Institutional

- Capacity Building: Train human resource) for managing water resources of the country.
- Establishing a central coordinating entity that would assume a regulatory function
- Resources

# OPPORTUNITIES FOR EAST -WEST CO-OPERATION (SIDS)

Sharing of experiences

Opportunities for exchange of technical assistance

Examine how each region can benefit from ongoing efforts in training of water sector managers. E.g Graduate Diploma in IWRM, Cuban MSc. Program.

Collaborate when making representation at international foras

# Acknowledgements

Government of Dominica - Time off to attend this meeting.

GEF/IWCAM – Facilitating my attendance

SOPAC – Invitation to GEF/IWCAM

People of Palau for their generosity

DOWASCO – Information & Photographs

GEF/IWCAM Demos: St. Lucia & Jamaica – photographs

Arlington James – Review and Photographs

Google Earth







# Come See our region







Come by boat