

## Integrated Water Resources Management (IWRM) Projects and Initiatives in the Caribbean

**Title:** Sustainable Water Management Under Climate Change in Small Island Developing States of the Caribbean (Water-aCCSIS)

**Organisation:** University of the West Indies, Centre for Resource Management and Environmental Studies (CERMES), Cave Hill Campus

### **Aims and Objectives:**

The overall goal of the programme is to contribute to the improvement of water management and climate change adaptation of Caribbean states and the development of adaptive management strategies balancing the sustainability of ecosystems and societal needs. The six project objectives are:

- Objective 1: Downscale global and regional climate model outputs to local level
- Objective 2: Describe landscape functionality and social-ecological systems
- Objective 3: Develop coupled landscape socio-ecological-hydrological modelling approaches
- Objective 4: Develop adaptation strategies for ensuring water security
- Objective 5: Provide evidence-based adaptation strategies for national water management policies
- Objective 6: Expand regional research capacity, collaboration and improve training

**Duration:** Start Year: 2013 Completion Year: 2016

**Additional Comments:**

**Estimated Cost (USD):** \$1,500,000

**Funding Source:** Canadian International Development Research Centre

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**Key Words:** Climate Change; Water Resources; Adaptation; Catchment Management; Socio-economic Modelling

**Geographic Coverage:** Barbados; Grenada; Jamaica; Trinidad

**Sectoral Focus:** Water Sector

**Target Beneficiaries:** Ministries with responsibility for water management, water utilities, communities, universities

**Outputs:**

- Downscaling of regional climatic model outputs to the catchment level using statistical downscaling techniques
- Improved hydro-ecological modelling under sparse data conditions
- Improved approaches to water availability/scarcity assessments and evaluation of ecosystem services by combining socio-economic factors with changes in vegetation under climate driven changes
- Inform the development of national water resources adaptation strategies through the exploration of the impact of different adaptation options
- Inform water resource management policies using evidenced based-approaches through guidance documents and discussion papers
- Strengthened research capacity and, training and professional development of expertise in water resources management by developing short courses, academic training material, workshops and knowledge exchanges.

**Project Links and References:**

<http://www.water-accsis.org/>

**Impacts:**

Too early to report

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**Sustainability:**

Too early to report

**Lessons for the Future:**

Too early to report but the scope of the project is very wide and we should have probably concentrated on fewer sites.

**Opportunities Arising from the Project:**

- Explore alternative modelling techniques to take account of human-environment interactions
- Used the Representative Concentration Pathways for the emissions scenarios instead of the SRES scenarios
- Dropped the environmental health modelling and incorporated more vegetation modelling work.

**Further Comments:**

Not at this stage