

DEPARTMENT OF ENVIRONMENT ANTIGUA AND BARBUDA



GREEN
CLIMATE
FUND

GLOBAL
PROGRAMMING
CONFERENCE

Project title	Sustainable Integrated Water Resources Management to Build Resilience to Climate Change in the Water Sector of Antigua and Barbuda			
Result areas	Sector	Total financing, USD	GCF financing, USD	Financial instrument
Increased resilience of: most vulnerable people; health and well-being, and food and water security; infrastructure and built environment; and ecosystem and ecosystem services	Public	65 million	42 million	Grant + Subordinated Loan
Description of specific climate change problem and how the project will address it	<p>Antigua and Barbuda, already an arid island state, lie in a zone that is expected to receive 30 – 50% less rainfall in 2090 compared to late twentieth century rainfall norms. Surface water will be an increasingly unreliable source of potable freshwater in Antigua and Barbuda due to the adverse effects of climate change, with implications for both household storage and cisterns, and national supplies from surface water catchments. Salt water intrusion is already causing abandonment of coastal groundwater wells.</p> <p>With the increased frequency of droughts as a result of climate change, there is need for an integrated approach to use available best practices for water generation, water capture, distribution, storage and reuse, while respecting the natural balance of water needs for the forest and natural ecosystem systems and sectors such as farming. The project is to ensure consistent water supply for the people of Antigua and Barbuda.</p>			
Alignment with key country priorities and stakeholders engaged	<p>Antigua and Barbuda's Intended Nationally Determined Contribution 2015</p> <p>Antigua and Barbuda's Medium Term Development Strategy 2015-2020</p> <p>Antigua & Barbuda's National Strategy and Action Plan to Address Climate Change in the Water Sector</p>			

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Activities

- Increasing the use of surface and ground water resources including the storage capacity of the Potworks Water Catchment Area and the development of earmarked water supplies for the farming community
- Strengthening the institutional arrangements for water resources and water supply management, including the full implementation of Integrated Water Resource Management Policy
- Improving distribution lines to reduced losses
- Installation of 2MW of off-grid electricity for water pumping and generation to make the project carbon neutral
- Utilization of an ecosystems approach to wastewater recycling in the McKinnon's Watershed as well as expanding sewage treatment system in the McKinnon's area and recycle water from hotels and homes
- Installation of an additional desalination plant using appropriate technology for the island

Expected outcomes

- Increased access for all to a clean water supply and paying special attention to the needs of women, girls and those in vulnerable situations
- Reduced exposure to various adverse effects of climate change through off grid-renewable energy available to operate reverse osmosis plants, pumps and the sewage treatment systems
- Protected and restored water-related ecosystems that enhance the capacity of ecosystems to adapted to projected climate extremes

Paradigm shift potential

- *The project is seeking a paradigm shift through the use of renewable energy in its water supply system. The inclusion of such technology to the water resource oriented adaptation measures will completely change the current national system of the country from one that is fossil fuel dependent to a resilient and low carbon model. On a regional level, this project and its lesson learnt is consequently envisioned to serve as a key example for replication throughout the Caribbean Community region.*