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CONFERENCE ON  
**Small Island  
Developing States**  
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ST. JOHN'S, ANTIGUA AND BARBUDA

## **SIDS4 Conference Side Event**

# **Building Climate Resilience in the Caribbean: Integrating Water, Energy, Food and Ecosystems**

**30<sup>th</sup> May, 12:00pm, Room 7**

**Organized by: CARICOM Secretariat  
Caribbean Community Climate Change Centre**

Here we discuss the GCF's various financing mechanisms and proposal types, two Water-Energy-Food-Ecosystems (WEFE) Nexus examples from Barbados and CCCCC's experiences in project formulation, development, and implementation.

Presenters:

Dr. Donnell Cain, Mr. Alex Harewood and Dr. Elon Cadogan

Panellists:

Dr. Colin Young, Mr. Ricardo Marshall, Ms. Natalya Nurse and Mr. David Wan

Moderators

Mrs. Dianne Wade-Moore and Mrs. Danelle De Coteau-Campbell

### **Background**

The UNFCCC 2030 Target for Public Finance Adaptation focuses on the public finance actors increasing provision of climate finance and allocating 50% of climate funds to adaptation and resilience. As an official decision at COP28, it was recommended that one of the actions and Means of Implementation be to support the Bridgetown Initiative as it was postulated that this is required to make the 2030 target a reality. Building sustainability and resilience to climate change in Barbados is currently being implemented through strategic initiatives such as the Bridgetown Initiative and the Roofs to Reefs Programme (R2RP). The R2RP serves as an umbrella programme for Barbados' sustainable development projects in which the two Green Climate Funded (GCF) projects, Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados) and the R's (Reduce, Reuse and Recycle) for Climate Resilience Wastewater Systems in Barbados (3R-CReWS), are nested. This SIDS4 side event aims to facilitate a discussion on the GCF's various financing mechanisms and funding proposal types, and to provide two examples from Barbados on the WEFE Nexus and discusses the experiences of the Caribbean Community Climate Change Centre (CCCCC) along the journey from concept note to implementation.

Keywords: Green Climate Fund, Water-Energy-Food-Ecosystems Nexus (WEFE Nexus), Roof to Reef Programme (R2RP), Bridgetown Initiative, SIDS.

### **Key Issues discussed**

- The Bridgetown Initiative (B.I. 3.0), now in its third iteration, is a groundbreaking proposal headed by Prime Minister The Right Honourable Mia Mottley. This initiative aims to reform the global financial system to better respond to current and future crises, principally those related to climate change.
- The B.I. 3.0 also seeks to transform how development finance works, especially in the context of climate resilience and adaptation. It also acknowledges the critical imperative of securing adequate funding for climate action while bridging infrastructural gaps in low- and middle-income countries.
- The B.I. 3.0 intends to address urgent global challenges by rethinking sustainable economic growth and financing mechanisms. One venture that has gathered sustainable development projects in Barbados is called the R2RP, which houses the WSRN S-Barbados Project, also called “AquaSure Barbados” which seeks to explore the areas where the water sector intersects. The project was born out of necessity—a collaborative effort between the CCCCC, GCF, the Government of Barbados, and the BWA. AquaSure Barbados is aimed at increasing water security while promoting renewable energy solutions to:
  - Build greater resilience to climate change and variability including extreme weather and storm events
  - Address water related issues: supply, distribution, quality, availability, access and utilization in Barbados
  - Increase water cycle awareness in the Barbadian society as it aims to reduce water consumption, improve water quality and create resilience to severe weather impacts
- 3R-CReWS Barbados developed from an idea to address the alarmingly decreased rate of replenishment of our underground aquifers; groundwater which accounts for about 96% of the potable water supply for the island. Based on the experience and the studies administered by the Centre under the preceding Green Climate Funds project preparation facility, the approach blossomed and evolved to address some of the national priority challenges being faced in the Water-Energy-Food-Ecosystem nexus.
- This was further evidenced by Barbados’ climate rationale which states “Barbados is experiencing “absolute water scarcity” based on the Falkenmark water stress indicator, since approximately 305-310 m<sup>3</sup> of water is available per person per year, placing Barbados amongst the most water scarce countries in the world.

### **Key recommendations for action**

- Programmes should support integration of renewable energy solutions, this stands at the core of its technical integrative agenda, aiming to reduce the carbon footprint and enhance energy security in SIDS. By harnessing chemical energy contained in the wastewater sludge, and harnessing solar energy by using photovoltaic systems, the project not only mitigates greenhouse gas emissions but also ensures an efficient and reliable energy supply for its internal processes, thus reducing dependence on imported fossil fuels and enhancing energy independence – contributing to Barbados’ 2035 renewable energy targets.
- Programmes should leverage advanced water reclamation technologies (for example reverse osmosis) to address the acute issue of water scarcity prevalent in SIDS. Through the implementation of state-of-the-art wastewater treatment processes and the utilization of reclaimed water for purposes such as irrigation and non-potable uses, the project demonstrates a strategic approach to water resource conservation and resilience-building in water-stressed environments.
- Programmes should reflect on the significance of preserving ecosystems, we recognize the intrinsic linkages between human well-being, environmental health, and sustainable development. By prioritizing the protection of land for agriculture, freshwater resources, marine biodiversity, coral reefs, and the overall health of coastal ecosystems, the project exemplifies a forward-thinking approach to environmental management that balances the needs of communities with the conservation of vital natural resources.