

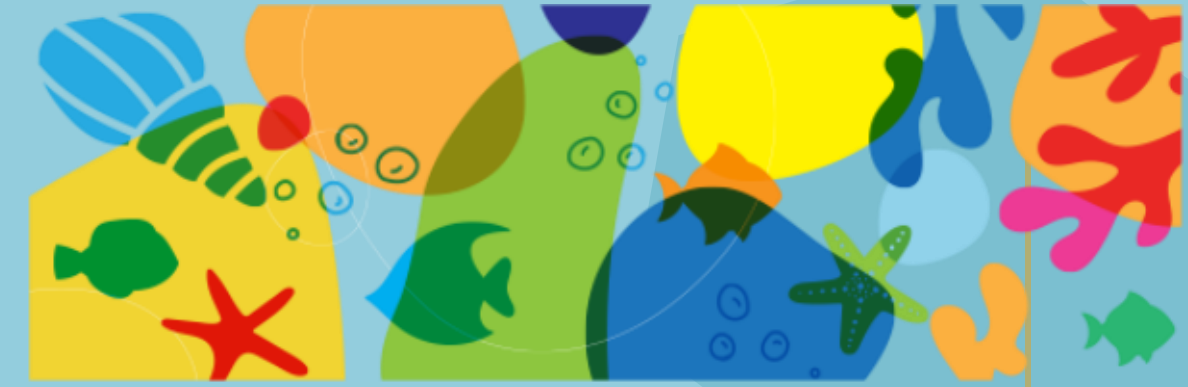


Sanitation: The Engine of the Blue Economy

**LATIN AMERICAN
SANITATION
CONFERENCE**

Innovation, inclusion, and resilience:
Sanitation to promote health, equity,
and sustainability in Latin America and
the Caribbean.

Punta Cana, June 2-4.



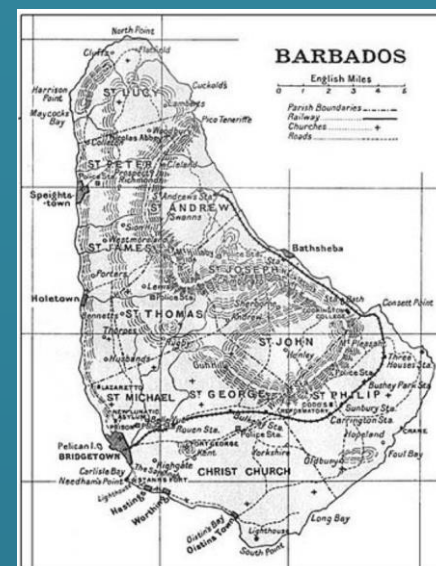
Barbados



General Characteristics

- Most easterly island in the Caribbean
- Land mass of 166 square miles
- Population of ~289,000
- Potable water network ~ 2,500 km
- Water Sources – 22 groundwater wells and 2 springs
- 99% water coverage with 110,000 connections – 99% metered
- 2 Sewage treatment plants at Bridgetown and South Coast
- Sewer network coverage – 4000 connections

The Barbados Context for Sanitation



- **1854** – Devastating Cholera Epidemic
- **1861** – Development of first water wells and supply to Bridgetown from St. John along the old train line.
- **1895 – Waterworks Act** – Consolidation of private companies under government control due to Severe drought issues in the 1880's
- **1960's** – Development of islandwide water supply through aid and loans from British government - Colonial Development and Welfare (CD&W)



- **1975** – US\$9.7 million loan (NPV USD 30M) from the Inter-American Development Bank (IDB) for the Bridgetown Sanitary Sewerage System Project
- **October 1975–1982** – Construction & commissioning of the Bridgetown Sewage Treatment Plant.



- **1980s** – IDB-funded studies on South Coast wastewater disposal.
 - **1995** – Launch of the South Coast Sewage Project
 - **2001** – Commissioning of the South Coast Sewage Treatment Plant.

- **2010-2016** – \$55M USD Water and Sanitation System Upgrade Project
- **December 2025** – NRW Reduction & Mains Replacement executed for USD \$80 M under CCLIP for USD \$200M .



- **2017–2019** – South Coast Sewage Crisis
 - **November 2023** – Studies commenced for funding arrangements
 - **December 13, 2024** – Funding Agreements executed with IDB and GCF for the South Coast Water Reclamation and Reuse Project executed.

Creation of a Circular Water Economy in Barbados

SOUTH COAST WATER RECLAMATION & REUSE FACILITY

Component 1 – Upgrade of existing Primary treatment and Construction of Advanced Tertiary Treatment Plant

- 9,000 m³/day capacity for treatment through Secondary, tertiary and advanced processes

Supporting Infrastructure – Component 2:

- 25 km irrigation pipeline to River Plantation
- Aquifer recharge wells and monitoring systems
- Pumping stations, reservoirs and storage tanks

Component 3 - Climate-Smart Features

- Energy-efficient equipment
- Smart water technologies
- Solar PV with battery storage
- Reduced greenhouse gas emissions

Component 4 – Institutional Strengthening

- Biodiversity protection integrated through conservation of the Graeme Hall Swamp

CIRCULAR WATER ECONOMY

Wastewater

Treatment

Reuse

Water
Security



Innovative Financing for Climate Resilience

Total Investment - US \$110 Million

- IDB Loan – US \$40 Million
- GCF Loan – US \$40 Million
- GCF Grant – US \$30 Million

Financing Model - Debt-for-Climate Transformation Approach

1. Barbados implements agreed policy reforms
2. IDB/EIB guarantees reduce borrowing costs
3. Government issues lower-cost guaranteed financing
4. Proceeds retire higher-cost existing debt
5. Debt-service savings are redirected to resilience investments

Financial Benefits

- US\$97 million Net Present Value (NPV) savings
 - US\$70 million allocated to the South Coast Water Reclamation Project
 - US\$27 million allocated to complementary climate resilience investments
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- Governance framework and Water & Resiliency Commitments guide investments over the next decade:



Outcomes, Benefits & Lessons for the Blue Economy

Expected Outcomes

- Improved water security and climate resilience
- Reduced pressure on limited freshwater resources
- Enhanced sustainability of tourism and coastal ecosystems
- Increased agricultural productivity and food security
- Stronger institutional governance and water resource management

Lessons for the Region

- Sanitation is critical infrastructure for climate resilience
- Wastewater reuse is a practical adaptation strategy for water-scarce countries
- Environmental protection and economic growth can be mutually reinforcing
- Innovative climate finance can unlock major resilience investments
- Integrated governance strengthens long-term sustainability

Greater Operational Resilience Through:

- Non-Revenue Water (NRW) reduction
- Smart water management systems
- Advanced treatment technologies
- Improved customer and financial management





Core Message

"Investing in sanitation is investing in tourism sustainability, climate resilience, water security, economic development and the future of the blue economy."

