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Water Management and the Challenges Facing Barbados

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Outcomes - Caribbean	
Temperature	Annual temperature increases by end of the 21 st century: range from 1.4°C to 3.2°C (median of 2.0°C) - below the global annual mean Approx. 1°C increase in sea surface temperature
Rainfall	Most models project decreases in annual precipitation but increase in intensity
Sea Level	Sea level rise (not specific) is projected to rise by 0.35 m $(0.23 - 0.47 \text{ m})$ by the end of the century (non-uniform)
Extreme Weather	Less certain projections regarding storm surges, wave heights and frequency and intensity of tropical cyclones
WG1 Chapter 11 – Regional Climate Projections' Summary for Caribbean Simulations	





Climate change in the Caribbean

(%0







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- For the Caribbean, a 1.5–2°C increase in global air temperature is projected to affect the region through [WGII TAR Chapter 17]: increases in evaporation losses,
- increases in evaporation losses, decreased precipitation (continuation of a trend of rainfall decline observed in some parts of the region), reduced length of the rainy season down 7–8% by 2050, increased length of the dry season up 6–8% by 2050, increased length or the dry season up 0% by 2050, increased erosion and contamination of coastal areas.











Implications - General

- Agriculture & food security
 - Crops
 - Fisheries
- ► Health
 - Increased prevalence of water associated diseases

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- Coastal infrastructure
 - Sea-level rise & storm surges
- Economy & economic linkages



Water Management Issues

Management of the resource

- Data collection & analysis
- Strategic thinking
- Allocation & dispute resolution
- Management of water services
 - Sound financial footing
 - Accountable for services provided
 - **-**Cross-sectoral co-ordination

Opportunities & Adaptive Strategies

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Increase water use efficiency

- Manage levels of consumption
- Enhance reliability of water systems
- Promote water reuse & appropriate use
- Sustainable Land Use & Management
 - Build in Climate change
- Promote institutional resilience
 - Capacity building
 - Stakeholder inclusion
 - institutional adaptation

