

# Integrated Planning for Sustainable Marine and Coastal Area Management in Antigua and Barbuda

## CHALLENGES



*Expert Group Meeting on Implementing Rio 20+: Integrated Planning for Sustainable Marine and Coastal Area Management in the Caribbean  
17 – 18 March 2014*

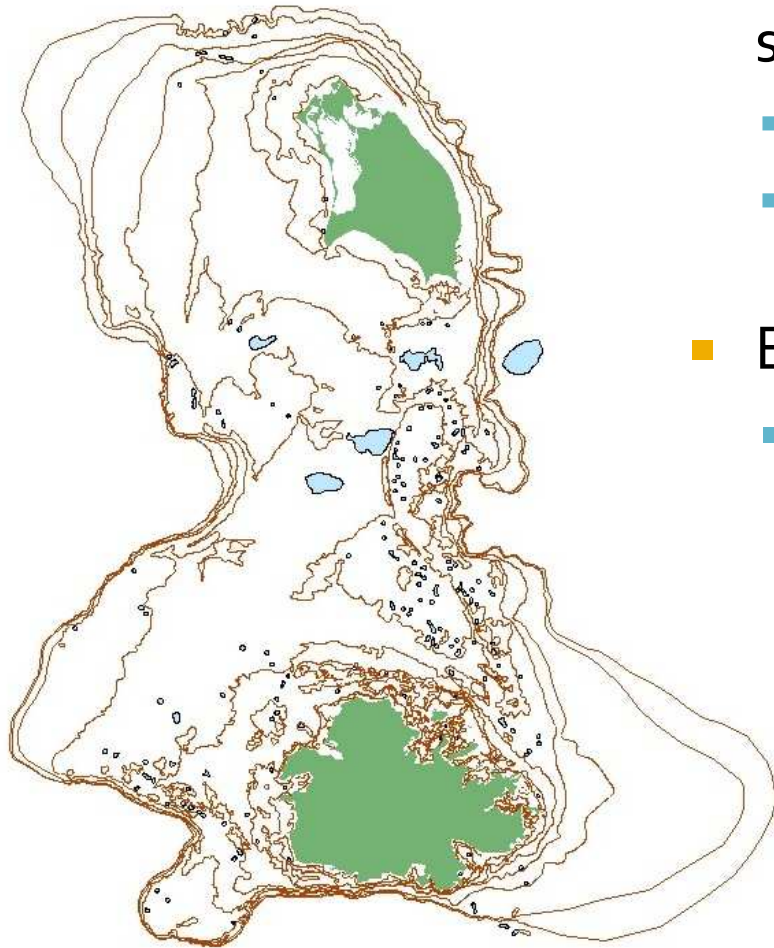
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# Presentation Outline

- Profile of the Physical Environment (Marine and Coastal )
- Use of the Coastal and Marine Areas (Antigua and Barbuda )
- Changing Coastal and Marine Environment
- Antigua and Barbuda's Coast: Conflicting Uses
- Critical Habitats Antigua and Barbuda
- Natural Threats
- Human related Threats
- Legal and Institutional Issues
- Desirable Changes for the Future



# Profile of the Physical Environment (Marine and Coastal )



- Antigua and Barbuda is an archipelagic state
  - 12 nautical mile territorial sea
  - 200 mile EEZ and fishery zone
- Estimated 3, 568 km<sup>2</sup> total shelf area
  - Antigua and Barbuda shelf (3,400 km<sup>2</sup>), South Bank (40 km<sup>2</sup>), a section of Anguilla shelf (7 km<sup>2</sup>), Redonda shelf (98 km<sup>2</sup>), Havers Shoal (5 km<sup>2</sup>) and a section of St. Christopher and Nevis shelf (18 km<sup>2</sup>).

# Use of the Coastal and Marine Areas (Antigua and Barbuda )

- Coastal zone is the most heavily populated area of Antigua and Barbuda
- Marine and coastal areas also location of most industrial activity and often conflicting uses
  - Tourism
  - Fishing
  - Sailing/Marinas
  - Military operations
  - Power generation
  - Water production
- Also area of some of the most critical habitats and ecosystems (Coral Reefs, Sea Grass, Beaches, Mangroves)

# Changing Coastal and Marine Environment

- Over the past 3 decades Antigua and Barbuda's coastline has undergone a significant transformation
- Severe destruction of key habitats
- User conflicts

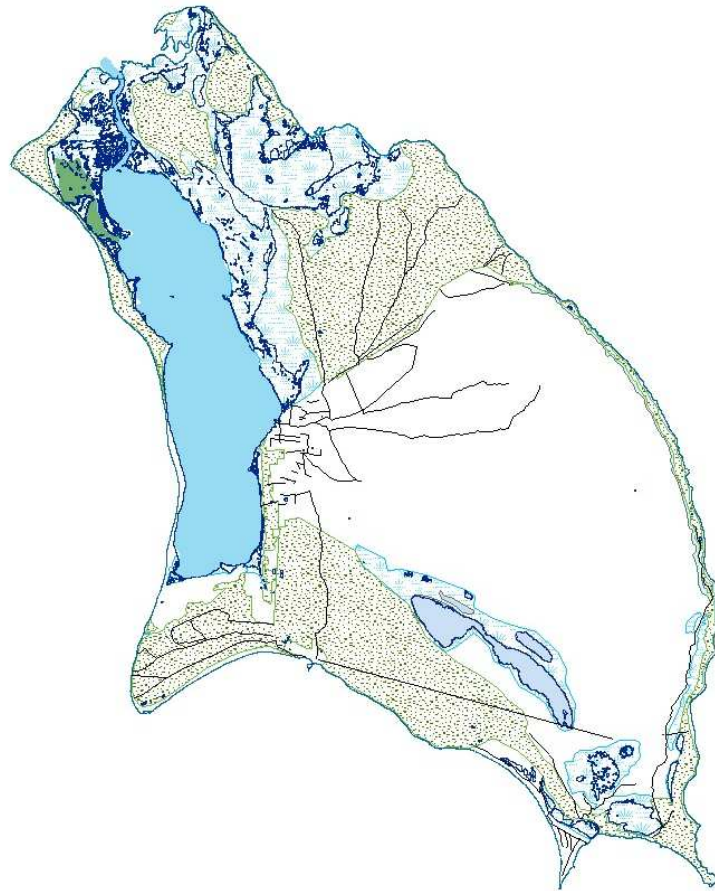
# Antigua and Barbuda's Coast: Conflicting Uses



# Critical Habitats Antigua



# Critical Habitats in Barbuda





# Natural Threats

- Climate Change
  - Physical damage from hurricanes and storms
  - Flooding
    - Increases sediment loading
    - Water pollution
    - Impact coral reefs, sea grass, mangroves
- Coastal Erosion

# Physical damage from hurricanes and storms



# Flooding



# Coastal Erosion



# Human-Related Threats

- Pollution and Effluent Discharge
- Habitat Alteration and Destruction
- Poor Fishing Practices
- Introduction of Invasives
- Legal and institutional issues

# Marine Pollution and Effluent discharge



# Complete Habitat Destruction



# Coral Reef Degradation





# Poor Fishing Practices / Bycatch



# Alien Invasive Species



# Legal and Institutional Issues

- ⇒ Several Agencies Involved
- ⇒ Agencies mandated by Different Legislations
- ⇒ Foci of Agencies Differ
- ⇒ Relatively Weak Cooperation / Collaboration between agencies

|                               |
|-------------------------------|
| National Parks Authority      |
| Fisheries Division            |
| Tourism Department            |
| Development Control Authority |
| Environment Division          |
| Barbuda Local Gov't Council   |
| Forestry Unit                 |
| Port and Airport Authorities  |
| Various Line Ministries       |

# Desirable Changes for the Future

- ➔ Need for a PA Capacity Assessment and Development
- ➔ Development of a Workable Policy Framework for Coastal and Marine Areas:
  - ➔ Integrated Management Plan for coastal and marine areas
  - ➔ National Strategy to implement the Plan
- ➔ Establish a Centralised / Coordinating Agency for Coastal and Marine Areas
- ➔ Develop a Funding Mechanism to support the agency