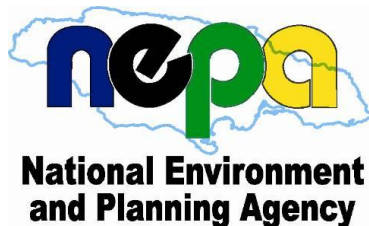


Planning for Resilience: Approaches in Jamaica

2nd Reef Resilience Conference: Planning for Resilience

Marriot Harbour Beach Hotel, Ft. Lauderdale
October 18-20, 2011

Loureene Jones Smith



Caribbean Basin



Experiences with Climate Change

- Coral coverage reduction and mortality
 - High sea-surface temperatures
 - Widespread bleaching in 2005
 - Coral diseases
 - Increased frequency of hurricanes
 - High intensity hurricanes
- Reduction in fishable resources
- Coastal erosion and loss of infrastructure
- Loss of coastal ecosystem services



National Programmes

- Analysis of island-wide Shoreline Stability
 - Mapping beaches susceptible to erosion
- Ecological maps of select sea turtle nesting beaches
- Planned implementation of volunteer turtle monitoring programme
- Quarterly Beach Erosion monitoring
- Annual Reef Assessments



- Updating management and zoning plans for MPA's
 - Zoning based on resilience
 - NMP (connectivity, currents, size)
- Increased monitoring in protected areas
 - MOU with park managers



Research at the Centre for Marine Sciences, UWI

- **Coral Reef Restoration**

- Enhancing coral reef and fish habitat through coral restoration.
- Coral nurseries

- **Management**

- Development of best practice strategies for the use of scuba gear in fisheries exploitation
- community based fisheries education program to promote sustainable fishing practices in Jamaican waters.
- Management and control of the lionfish *Pterois volitans* and *Pterois miles* in Jamaica

- **Monitoring**

- Port Royal Cays coral reef monitoring for long-term changes
- Rackham's Cay cut face monitoring for coral recruit recovery
- Jamaica Coral Reef Monitoring network (JCRMN)

- **Coral Ecology**

- Spatial distribution and population abundance of the sea urchins in the Port Royal area, Jamaica
- The effect of zooxanthellae clade on density banding patterns in *Montastraea annularis*



Regional Programmes

GOJ/EU/UNEP – Climate Change Adaptation and Disaster Risk Reduction Project

Project objectives

- Reduction of downstream run-off and associated negative environmental and human impacts through rehabilitation and improved management of selected watersheds
- Increased resilience of coastal ecosystems to climate change impacts through restoration and protection of selected ecosystems
- Enhancement of institutional and local-level capacity for climate change adaptation and disaster risk reduction through increasing capabilities and raising awareness.

Objective 2

Increased resilience of coastal ecosystems

- Assess bleaching and recovery; installation of data loggers
- Coral and seagrass restoration
- Sand dune and mangrove rehabilitation
- Delineate activity zones – marker and mooring buoy installation
- Hard and soft engineering to combat coastal erosion
- Install Artificial Reefs in MPA's displaying vulnerability to rising sea levels

Breaking news

- UWI and NEPA – soft launch of a community based **Bleach-Watch Programme** as part of an early warning system
- Workshop held to assess potential stakeholder buy in. Stakeholder feedback will help to refine coral bleaching response plan.



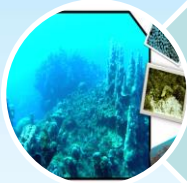
Phased implementation

- Practitioners and network core
- 1st responders – “eyes in the water”
 - Dive operators
 - Dive enthusiasts
 - Fisherfolk
 - Community-based groups
- Negril, Montego Bay, Ocho Rios, PBPA

Major Challenges



Ability to assess all of our coral reef resources



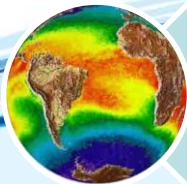
Strengthen public education programme



Funding to replicate best practices island-wide



Balancing environmental protection with economic advancement/viability



Total buy-in by the public