



**Hurricane Keith**  
NOAA-12 AVHRR HRPT  
Multi-spectral False Color Image  
September 30, 2000 @ 2227 UTC

# A Novel Approach to Climate Change Resilience

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# Caribbean Climate Smart Islands Program

- *Caye Caulker, Belize*
- *Tobago, Trinidad and Tobago*
- *Harbour Island, Bahamas*

## **THREE COMPONENTS**

1. *Evaluate mitigation options to support the transition to low carbon pathways*
2. ***Evaluate adaptation options to support the transition to climate resiliency***
3. *Design of a communications strategy to disseminate results and create awareness to encourage tourism*



# Caye Caulker, Belize

- ❑ Highest point is 8 ft (2.4m) asl
- ❑ Local population of ~2,000
- ❑ Tourism is the primary source of income on the island – including diving and fishing
- ❑ There are no paved roads on the island
- ❑ Walking and golf carts are the primary mode of transportation



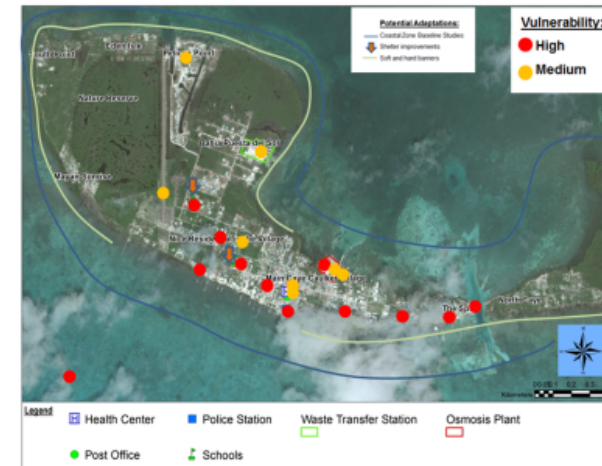




# ADAPTATION COMPONENT

## Key Project Activities

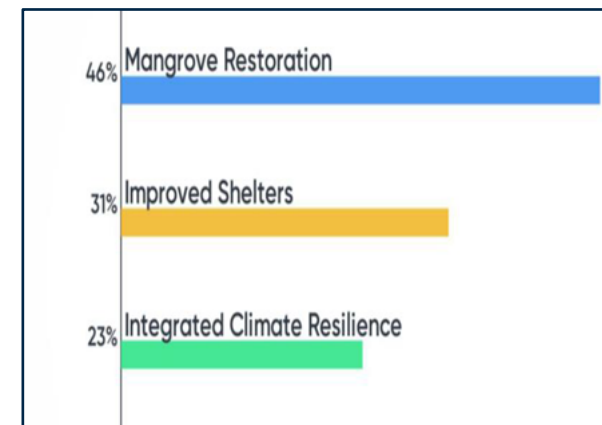
- Conducted an Economics of Climate Adaptation study
  - Hazard and Risk Assessment
  - Economic Analysis
- Identified and prioritize potential adaptation interventions
- Carried out adaptation pilot project



Asset Vulnerability



Stakeholder Engagement



← Winner??

← Winner!



# Integrated Climate Resilience Program

**Combine aspects of several adaptation measures to provide a broader experience and knowledge of climate resilience issues**

- Hurricane shelter improvements
- Training/Capacity building
- Education





# Integrated Climate Resilience Program

## Shelter Improvements – SOURCE<sup>®</sup> Hydropanels



**Daily Production:** 4-8 liters/day  
**Internal Storage:** 30 liters per panel  
**Footprint:** 4 ft x 8 ft  
**Standard Array:** 2 hydropanels  
**Power:** 100% solar



# Integrated Climate Resilience Program

## Shelter Improvements – Began October 2019







# Integrated Climate Resilience Program

## Shelter Improvements







# Integrated Climate Resilience Program

## Training/Capacity Building



Construction



Commissioning

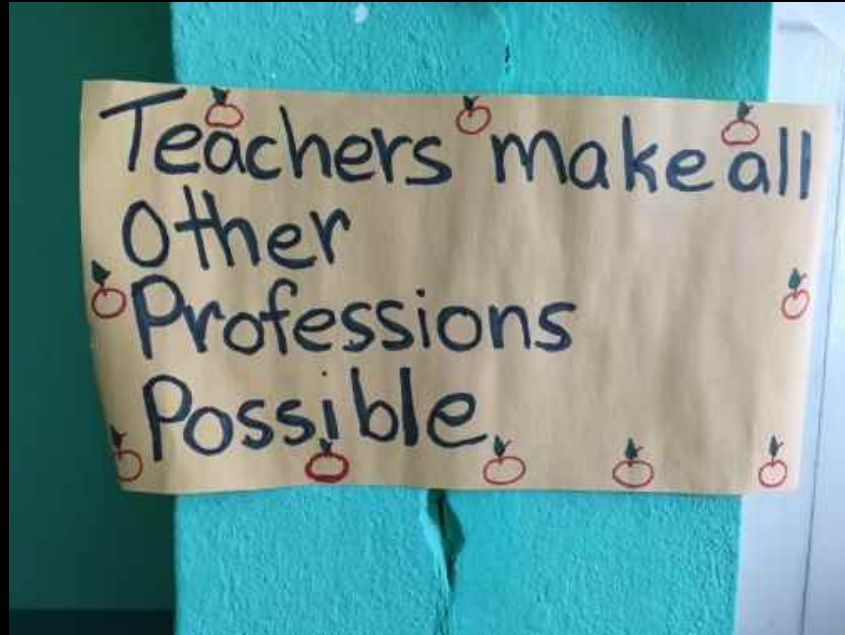


Maintenance



# Integrated Climate Resilience Program

## Education

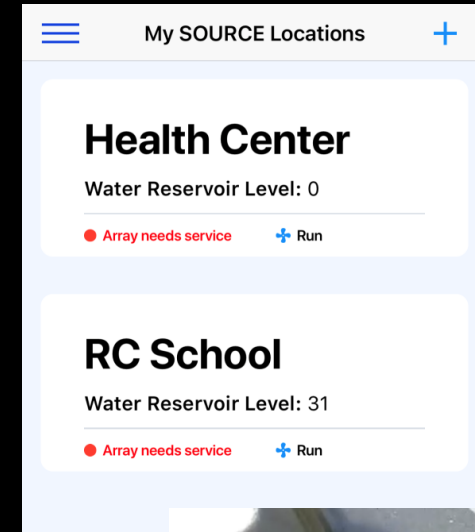






# Lessons Learned

- ❑ Stakeholder engagement can be tricky
  - Stakeholder selection is important
- ❑ Consider long-term outcomes
- ❑ Prepare for the worst
- ❑ Using new technology can have its drawbacks
  - Enabling studies may be needed







# SOURCE<sup>®</sup> Hydropanels in Action







# Questions?

