



UNIVERSITY  
OF THE BAHAMAS

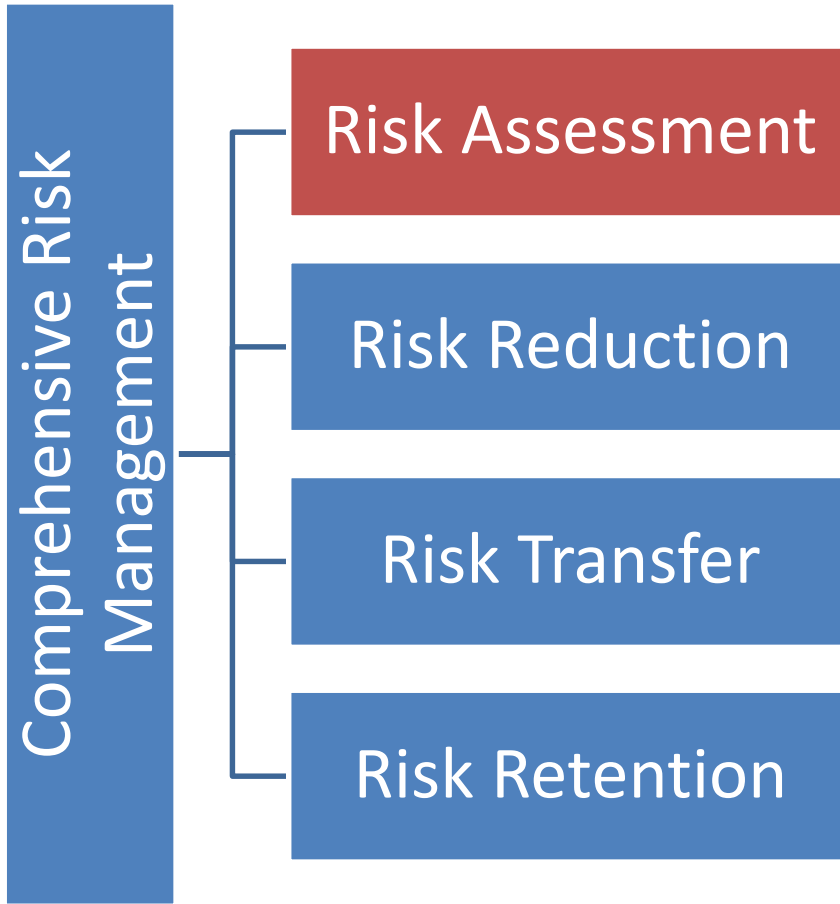
Climate Change Adaptation and  
Resilience Research Centre

# Risk Assessments to Inform Adaptation and Loss & Damage

## Earth Information Day COP26

**Adelle Thomas, PhD**

Climate Analytics; University of The Bahamas



- Risk assessments:
  - Characterize risks to inform risk management decisions and actions, including planned adaptation
  - Allow for identification of residual risks and potential loss and damage
  - Ideally: Cyclical process that includes evaluation of implemented adaptation and experienced loss and damage

# Risk is more than hazard

**Hazard** – climate-related physical events or trends or their physical impacts

**Exposure** – Presence of things of value in places that could be adversely affected

**Vulnerability** – Propensity to be adversely affected

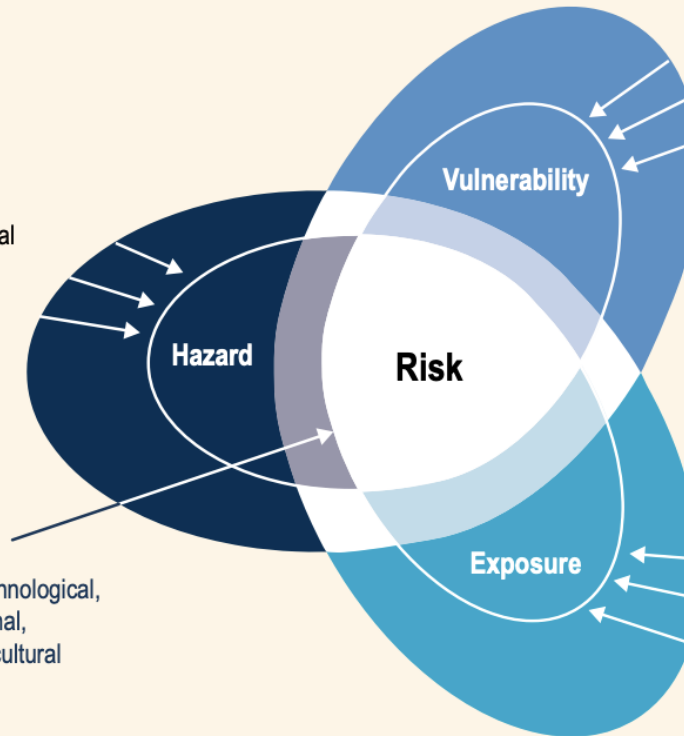
## Actions to reduce Hazards

Examples include:

- Ecosystem-based measures to reduce coastal flooding
- Mangroves to alleviate coastal storm energy
- Water reservoirs to buffer low-flows and water scarcity

## Limits to Adaptation

- E.g. physical, ecological, technological, economic, political, institutional, psychological, and/or socio-cultural



## Actions to reduce Vulnerability

Examples include:

- Social protection
- Livelihood diversification
- Insurance solutions
- Hazard-proof housing and infrastructure

## Actions to reduce Exposure

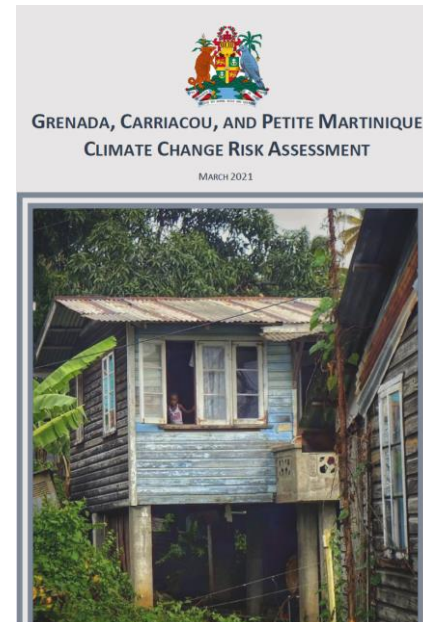
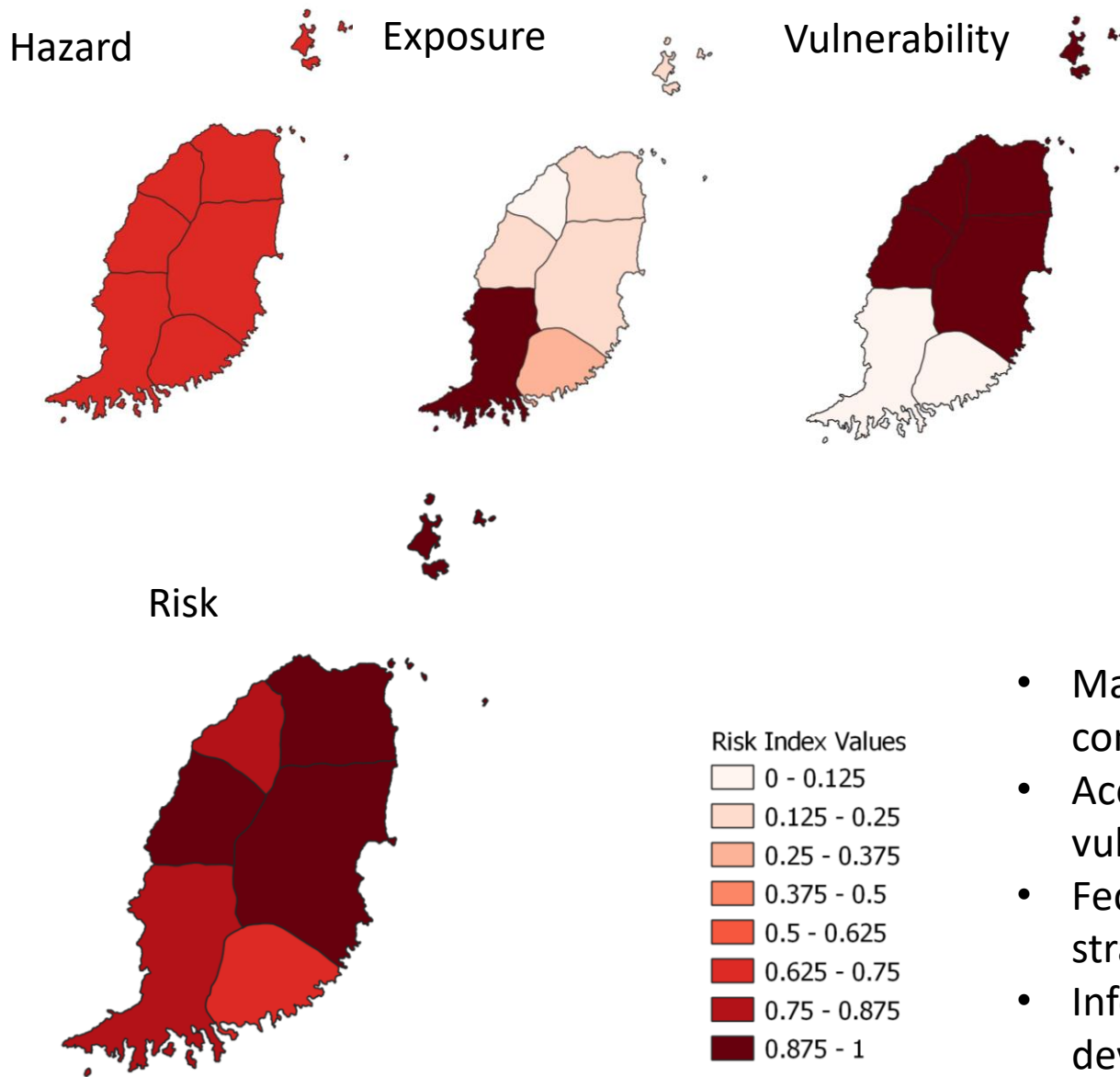
Examples include:

- Coastal retreat and resettlement
- Risk sensitive land use planning
- Early warning systems and evacuations

IPCC, SROCC, 2019

- Risk is determined by interactions between hazards, vulnerability and exposure
- Earth observations/projections are critical but so are improved understandings of the social constructions of vulnerability and exposure

# Risk Assessment Case Study: Grenada



- Mapping using quantitative and compound indicators
- Accompanied by detailed vulnerability assessment
- Fed into identification of adaptation strategies and technology needs
- Informed GCF concept note development

## Challenges

- Limited data at fine spatial resolutions
- Fragmented data collection systems
- Limited capacities to analyze and use risk data
- Translating risk assessment outputs for the needs of users to inform action, including differential action needed for highly vulnerable groups
- Assessing cascading, compound and interacting risks

## Opportunities/Best Practices

- Variety of risk assessment tools developed for use by range of actors
- Using a combination of quantitative and qualitative risk assessment methods aid in identifying and addressing economic and non-economic loss and damage and involving range of stakeholders
- Linking risk assessments to planning processes including NAPs, DRR strategies and NDCs



- [Plan of action](#)
- Resources available:
  - Compendium on CRM Approaches with case studies of risk assessments
  - Stakeholder engagement workshop report on strengthening capacities for observation and risk assessment
  - Series of briefings on compound risks facing vulnerable countries as a result of COVID and climate change
  - Technical guidance on CRM with specific focus on comprehensive risk assessment and integration in planning
- Upcoming initiatives:
  - Action-oriented and practical guide on risk profiles
  - Expert meeting on risk assessment and adaptation