

JAMAICA: CARIBSAVE Climate Change Risk Atlas (CCCRA), Phase I 'Snapshot' Results

Climate change is a serious threat to the economies of Caribbean nations, community livelihoods, environments and infrastructure. Jamaica is already experiencing sea level rise with severe coastal erosion, destructive weather systems and periods of drought. As the climate changes, the extent of such effects is expected to become worse.

Tourism, Jamaica's second largest foreign exchange earner, is highly dependent on coastal infrastructure and the attractiveness of the natural coastal environment. This has been shown to be vulnerable to sea level rise (SLR) and storm surge. A particularly vulnerable stretch of coastline is found in Portland Parish.

**Jamaica: Land Loss From Sea-level Rise
Hope Bay, Portland Parish**



SLR modelling was conducted under the Risk Atlas for beaches with tourism infrastructure at Hope Bay, Long Bay, Frenchman's Cove, St. Margaret's Bay and Winnifred Beach. Results show:

- Even with a 0.5 m SLR almost 70% of beach area at Winnifred Beach would be inundated and the smallest beach loss is 30% at St. Margaret's Bay.
- All sites would be more than 46% inundated with a 1m SLR, with almost all of Winnifred Beach lost.
- Frenchman's Cove and Winnifred Beach would be totally inundated with a 2 m SLR and other sites would be almost completely inundated (88%-98%).

The Risk Atlas provides robust and meaningful data and practical analyses in key socioeconomic sectors as they relate to tourism: *Community Livelihoods, Gender, Poverty and Development; Agriculture and Food Security; Energy; Water Quality and Availability; Sea Level Rise and Storm Surge Impacts on Coastal Infrastructure and Settlements; Comprehensive Disaster Management; Human Health; and Marine and Terrestrial Biodiversity and Fisheries.*

The **Community Vulnerability Assessment of Port Antonio** has increased the awareness about climate change risks to the residents there, and can further assist:

- The Government of Jamaica in improving solid waste management and development planning in this area, as well as undertaking education programmes on chemical use, sustainable fishing and farming, with livelihood and demographic characteristics (including gender) in mind.
- The residents, especially community leaders and change agents, in enhancing their already effective community organisations to increase resilience, through rainwater catchment initiatives and drain maintenance to reduce flooding.
- In identifying the climate change issues in other coastal communities, as well as risk profiling, adaptive capacity analysis and building resilience and capacity in communities.

Moreover, the Risk Atlas provides the evidence-base for specific, pragmatic action and adaptation responses.

Preliminary action plans are identified for planners, tourism operators and other national and sectoral stakeholders to: protect their assets and ecosystems on which they depend; guide the intersectoral dialogue necessary for sound socioeconomic development that is climate-resilient; and build the requisite capacity to respond to climate change.