

Climate Change Impacts, Adaptation and Coastal Management in the U.S. Virgin Islands

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All over the world people are beginning to see how the impacts of rising global temperatures affect their communities, their livelihoods, and the natural environment. The region has already been experiencing the impact of this rise in temperature through greater and more intense episodes of coral bleaching, droughts and heat waves and also more intense and frequent rainfall episodes resulting in flooding, erosion and landslides. If the current trend in rising greenhouse gas emissions is not addressed, the consequences for the Caribbean would be catastrophic as climate change would affect agriculture, fisheries, forestry, infrastructure, tourism, and water resources, i.e. the natural resource base of the Caribbean region.

In a preliminary step to determine vulnerability of our islands to a changing climate, we've focused on the impacts of sea level rise on U.S. Virgin Island's (USVI) coastal built environment. The Nature Conservancy's Virgin Islands-Puerto Rico program has developed an online platform to illustrate hurricane inundation scenarios based on the Intergovernmental Panel on Climate Change's emissions projections. This presentation will describe some of our current understanding of sea level rise in this region, socioeconomic impacts, and strategies for adaptation and demonstrate how visualization tools can facilitate coastal management, planning, and decision-making.