

# Jamaica may cease to be the fairest isle that eyes ever beheld? in the face of climate change

Title Data from climate models indicate that Jamaica is likely to experience significant changes in temperature, precipitation, sea-level rise and extreme weather events. If Jamaica fails to adapt, direct and substantial economic hits are likely to impact important industries such as tourism. These and other conclusions were suggested by Rob Munroe, Climate Change Officer at BirdLife International as he presented a poster on climate change impacts on ecosystem services in the Lower Martha Brae Watershed, part of the Cockpit Country Key Biodiversity Area, near Falmouth in north-west Jamaica, at the poster session of the [Jamaica Institute of Environmental Professionals' \(JIEP\) 5th Biennial Conference](#), last June in Kingston, Jamaica. The tourism sector is highly climate-sensitive given its reliance on environmental assets/ ecosystem services. Beach assets and healthy coral reefs are big drivers of tourist numbers and expenditure, and these are likely to be impacted significantly by climate change impacts such as sea-level rise and sea-surface temperature rise, said Rob Munroe. Such comments were reiterated at the conference by the results from a new analysis entitled *Coastal Capital: Jamaica - The Economic Contribution of Jamaica's Coral Reefs*, presented by the World Resources Institute (WRI) [(on behalf of the project team of WRI, the University of the West Indies (UWI) Marine Geology Unit (MGU), the [Mona GeoInformatics Institute](#) (MGI), and the Nature Conservancy (TNC)]. The study revealed that beach erosion due to the loss of coral reefs could result in \$23 million (USD) in lost tourism revenue per year. [\[More information on Coastal Capital: Jamaica\]](#) BirdLife and the [Windsor Research Centre](#), a centre dedicated to providing research to ensure the best-possible protection and management of [Cockpit Country](#), are engaged in a MacArthur Foundation-funded project that aims to improve the integration of ecosystem and climate change adaptation considerations into development planning in the Lower Martha Brae Watershed (LMBW) area, near Falmouth, so that the [vital role that ecosystems play in mitigating climate change risk](#), such as [mangroves](#) and coral reefs' role in wave attenuation, and, therefore, in protecting human infrastructure, is not negated. The degradation of nearshore ecosystems is likely to increase the vulnerability of coastal tourist and residential developments and to increase rates of beach and shoreline erosion during storm surges caused by tropical storms and hurricanes (projected to increase in intensity with climate change). The positive role that coastal ecosystems can play in climate change adaptation is not adequately taken into account in Environmental Impact Assessments in Jamaica, leading to poorly-sited urban and commercial

development?, Rob Munroe commented. ?There is an urgent need for data collection and investment to facilitate more accurate evaluations of impacts of climate change and cost-benefit analysis of different adaptation options that should include appropriately valuing the role of ecosystems in climate change adaptation.? The first step of this project was to host a workshop for Jamaican insurers on this issue and this was well received by the Association of Jamaican Insurers.