

Reefs at Risk in the Caribbean

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Many people in coastal communities throughout Latin America and the Caribbean depend on the natural resources provided by reefs for their livelihoods. Ensuring proper management of the reefs is vital for the economic and environmental health of the region, but there is a lack of quality information about the relationship between human activities and coral reef condition across the region. The *Reefs at Risk in the Caribbean* project is a response to this information need. The primary goal of the project is to raise awareness and improve management of coral reefs across the region through improving the knowledge base on the status of and threats to coral reefs. In collaboration with partner institutions across the region, we are implementing an analysis to link human activities with reef condition. A major component of the project involves modeling (estimating) threat to coral reefs from human activities. Within the Caribbean we will examine human pressure on coral reefs from overfishing, coastal development, marine-based pollution, and pollution and sedimentation from upland sources. We will also examine vulnerability to coral bleaching, explore the incidence of coral disease, and examine the influence of natural vulnerability and management effectiveness on threats to coral reefs. In addition, all results will feed into an economic valuation analysis, assessing the value of reef-related fisheries, tourism, coastal protection and biodiversity, under both healthy and degraded conditions.

Expected outputs of the project include data sets and maps reflecting available information on coral reef condition, protection and threats; a graphic, high quality report, poster and web site; and a modeling tool which relates human activities with reef condition and can be used for local area analysis. Integrating information on the environmental health of the reefs with the impact of human activities is the first step toward identifying and mitigating causes of reef degradation, and evaluating the economic costs for the communities that depend on those reefs.