

First-ever socioeconomic study on coral reefs points to challenges of coastal resource management

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A first of its kind study, "Socioeconomic Conditions Along the World's Tropical Coasts: 2008," reports on the social and economic ramifications of healthy coral reefs in 27 tropical nations and points to the inability of coastal managers to effectively implement decades-old recommendations as a significant barrier to coral reef protection.

Issued as a parallel report to the quadrennial "Status of Coral Reefs of the World: 2008" from the Global Coral Reef Monitoring Network and the International Coral Reef Initiative, researchers from the NOAA-coordinated Global Socioeconomic Monitoring Initiative, with funding from Conservation International, provide the first regional and global synthesis of socio-economic data looking at the importance of healthy coral reef for communities located along the world's tropical coasts. The study data was compiled from interviews with 14,000 households in 27 tropical coastline countries grouped into six broad geographical regions.

The study focuses on the dependence of coastal communities on fishing, the top three perceived threats to corals along the coasts, and how socio-economic data is being used in coastal ecosystem management.

In looking at nations located in the Caribbean, Central America, the Pacific, Southeast Asia, South Asia, and the Western Indian Ocean, the reports' editors repeatedly found three basic recommendations: 1) the need to develop alternative livelihoods for fishers; 2) the need to involve

local community members in decision making processes for coastal and resource management; and 3) the need to improve education and awareness of the value of healthy coral ecosystems.

"None of these recommendations are new to coastal resource management," notes Christy Loper, the report's lead author and social science coordinator of NOAA's Coral Reef Conservation Program.

"However, the fact that they are still emerging as the most important recommendations by dozens of communities indicates that coastal management efforts have not yet been able to effectively implement these site level recommendations in many parts of the world."

"The significance of this study can not be ignored," notes Kacky Andrews who directs the overall NOAA Coral Reef Conservation Program. "While we strive to minimize human impacts to reefs, I think this study also points to the critical need to consider how those negative changes to the reefs impact humans as well. The goal here is sustainable use of resources. By listening to local communities we can better mitigate both human impacts on the reef as well as the effects of those negative changes on the community. We need both to happen if we are to be successful."

"The message is clear. Humanity needs nature," noted Leah Karrer, senior director of Conservation International's Marine Management Area Science Program which funded the study/ "This study, based on case studies worldwide, shows that people's livelihoods, food security and coastal economies depend on marine resources. As much as 90% of coastal families are dependent on fishing as a primary source of income and as much as 54% of gross domestic product is from tourism. It also shows that these same communities recognize this value and subsequently support well-managed conservation efforts - as much as 78% of communities support marine managed areas."

The findings varied in emphasis by region with the growth of tourism transforming community fishing dependency in the Caribbean and Central America, a finding which contrasts with heavy fishing dependencies in the Pacific, South and Southeast Asia and the Western Indian Ocean.

The report finds that the declining quality of coral reefs negatively impacts communities which are dependent on them for food, income and revenue from tourism. Recent coral reef conservation initiatives such as the Coral Reef Triangle, and the Micronesia, Caribbean and Indian Ocean challenge efforts are intended to preserve biodiversity through the creation of marine protected areas (MPAs).

Locally managed MPA networks are found in all six regions. The report authors note that continued socioeconomic monitoring is needed to understand and mitigate potential negative impacts of MPAs on human populations and that where needed coastal managers need to provide alternative livelihoods and sustainable resource use practices.

Source: NOAA Headquarters

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