

Understanding mangrove utilization by local communities in Sri Lanka: A social-ecological approach

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Mangrove restoration is expensive and time consuming, especially when compared to the protection and management of existing forests. Typically, local communities are aware of the importance of mangroves, from which they derive direct benefits.

Our study focuses on how people along the east coast of Sri Lanka perceive and live off these mangrove ecosystems, with the aim of promoting the development of a management plan that considers the needs of nature and people. To assess the impacts of mangrove ecosystems on coastal communities, their usage was assessed through an ethnobiological questionnaire in 83 households in 5 communities along the eastern coast of Sri Lanka considering differences in religion, ethnicity, economic status, gender and age. Local people were aware of the importance of mangroves to their livelihoods; in most cases they were unable to explain particular ecological benefits of mangroves.

In the current study, a higher percentage of people utilizes mangroves for fishery, fuelwood and edible fruits. They rarely used mangrove wood for construction or medicine. Men answered the questions related to fisheries whereas most women did not. Older people seemed to be more dependent on mangroves. Local communities who live in close proximity to mangroves used them more often, regardless of their religion. However, there were some differences between villages in the usage of mangroves for fuelwood as most villagers tend to use coconut leaves, husks, and other commercial woods instead. They refer to the government-led ban in mangrove wood product use as a reason for such changes. In general, respondents were in favor of mangrove conservation, but dissatisfied with the measures taken by the government, preventing them from using the environment they strongly depend on. Developmental projects such as the Olivil harbor and bridges have had negative effects on the mangrove ecosystems as locals relate it to the loss of diversity of plants and animals, reduced fishery and water quality. Mangroves were perceived as very important for people's livelihoods, and most respondents are not optimistic about the future of mangroves in the east coast of Sri Lanka.

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