

## A multi-stakeholder strategy to delineate issues related to coastal forest conservation: A case study from mangrove ecosystems of the Eastern coasts of Sri Lanka

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Sri Lanka, with its rapid economic growth after three decades of civil war, exemplifies the problems related to coastal conservation faced by many countries in the Global South. This is especially the case in Sri Lanka's Eastern province which has seen major infrastructure investments - following the end of the civil war in 2009 and the recovery from the Indian Ocean tsunami in 2004. Coastal development has exacerbated erosion processes and contributed to the degradation of many coastal ecosystems. Here we present the results of three a multi-stakeholder engagement studies from August 2019 to October 2020, with a focus on coastal management and resource use. Ethnobiological surveys were carried out in 83 households to understand the usage and perception of mangrove forests of the east coast, one of the most severely degraded coastal ecosystems. The second study used an action research approach in to explore changes in the coastal landscape from a community perspective. The final study focused on stakeholders from organizations directly involved in coastal management and consisted of in-depth interviews with 19 key stakeholders thought to be involved in mangrove conservation in the Eastern province.

Mangroves were used for fuelwood, construction, medicinal, chemical and alimentation purposes in the Eastern coast. Seventy three percent of the respondents observed a change in the coastal ecosystems and the prominent changes were increased construction in the coast, loss of mangroves, agricultural land, and coastal erosion. Fifty eight percent said that the quality of drinking water has decreased over the past 10 years. Furthermore, all respondents emphasized the need to protect the coast for future generations. From a community perspective it was apparent that the degradation of coastal ecosystems also led to decreases in social cohesion among community members. It was recognized that there is a need to focus on re-establishing a sense of community besides focusing on the physical restoration or conservation of coastal ecosystems.

Out of all the stakeholders interviewed from government and NGO's, only five stakeholders directly deal with most of the issues related to coastal forest conservation. The major reasons for coastal forest degradation were land pollution (60%), illegal logging (40%) and disputes in land ownership (40%). A proper way of communication between organizations and awareness were highlighted as important steps for better conservation and collaboration. All stakeholders suggested that maintaining a healthy lagoon and coast is a responsibility of the government as well as the coastal communities. Our findings suggest that there is a need to develop a more participatory and community-based approach to coastal management in Eastern Sri Lanka with an equal focus on the social and environmental aspects.

Key words: Action research Coastal development; Ethnobiology; Mangroves; Stakeholders