

Incorporating Stakeholder Preferences for Effective Management of Hikkaduwa Marine Protected Area: A Multicriteria Analysis

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Marine Protected Area (MPA) is considered a successful method for managing marine resources. There are four marine protected areas in Sri Lanka. It is widely understood that effective stakeholder participation is key for sustainable management of MPAs around the world. Thus, this study aims to explore the stakeholder preferences for better planning and effective management of the Hikkaduwa MPA. A Multicriteria decision analysis tool was employed to analyse the perceptions of different stakeholder groups. A purposively selected sample of respondents were surveyed using a structured questionnaire. The sample included five key stakeholder groups including local households, students, academics, fishermen and government officials. The expert respondents were posed with statements reflecting key dimensions pertaining to management; biological, environmental, socio-economic, institutional and psychological. Weighting and scoring of the responses were carried out using an analytical hierarchy process. Results revealed that the highest importance was given to biodiversity conservation by the respondents while the lowest importance was indicated for psychological factors related to MPA. Fishermen and other households in the surrounding, who are resource dependent placed a high importance on the socio-economic benefits, which signals that the accessibility and use values for the community are essential concerns in MPA planning. Therefore, promoting an active participation of all key stakeholders in the complete decision-making process considering their objectives and perceptions are crucial for sustainable marine resource planning and management.

Keywords: Analytical hierarchy process, MPA, Multi-criteria analysis, Stakeholder preference