

PhD Dissertation
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Title: An Evaluation of Social Goals in Philippine Marine Protected Areas

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ABSTRACT

The Philippines has a long history of protecting marine resources and limiting resource extraction and has been a world leader in marine protected areas (MPA) establishment, with over 900+ MPAs. Understanding the success or failure of MPAs depends on evaluating both the biological and social aspects of the MPA. However, there has been limited research into the social goals of MPAs. This study helps fill the critical research gap by examining the social goals of Philippines MPAs using a mixed method approach. In 2012, household socio-economic surveys were administered to residents via a questionnaire ($N = 599$) in three MPA communities in the Province of Misamis Oriental, Philippines. Tubajon MPA a local community initiated MPA (bottom-up MPA), Agutayan MPA a government initiated MPA (top-down MPA), and Duka Bay MPA a privately managed MPA (private MPA) and one non-MPA (control) community: Tagoloan. Quantitative data from questionnaires were used to analyze and statistically test similarities and differences in respondent's perceptions and attitudes of MPA performance both biologically and socially, involvement in decision making, problems with MPAs, and overall impacts of the MPA on their livelihood in each of three MPAs. Additionally, qualitative data was gathered via transcribed, semi-structured interviews ($N = 30$) with various local government unit officers, barangay captains (elected village leaders), Deputized Fish Wardens, and resort managers in each of the three MPA communities, to further understand MPA performance. Significant differences in perceptions were found between MPAs sites. Duka Bay (private MPA) respondents had more negative perceptions of the impact of the MPA on their livelihood, decreased fish quantity since the MPA, and less government involvement. While in Agutayan (top-down MPA) and Tubajon (bottom-up MPA) respondents had significantly more positive views regarding the MPA's impact on their livelihood and improved health of their coral reef. All MPA sites were found to have limited involvement in decision-

making except in Tagoloan (control site). Tagoloan (control site) was found to have a significantly higher percentage of respondents involved in making decisions including marine resource decision-making. Significant differences in perceptions were found between fisherfolk and non-fisherfolk, where non-fisherfolk perceived more biological improvements and increased social benefits (i.e. increased tourists). Negative attitudes from fisherfolk need to be addressed in all MPA sites because it has been found to be detrimental to the success of MPAs. Qualitative data revealed problems with enforcement and corruption of some MPA managers, but many informants commented on how the MPA has been beneficial regarding increased fish abundance and diversity, improved coral health, and the presence of more tourists in their community. Future management strategies for MPAs need to consider the conservation objectives, location, and social situation of the MPA (i.e. highly dependent fishing communities). Recommendations for all sites are the development of livelihoods alternative to fishing, holding of open forums and discussions to encourage communication between managers, local government units, and stakeholders to help maintain support, compliance, and a sense of empowerment for community members.