

Understanding the Social Intricacies of Marine Protected Areas: An Approach to Sustainable Coastal Resource Management along the Kuroshio Region

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Declining aquatic resources has been a worldwide dilemma due to natural circumstances and indiscriminate extraction which is triggered by increasing population and limited alternative livelihoods. The fishing grounds, being a common-pool resource, is subjected to exploitation and over-use. In the absence of a specific social arrangement to regulate the use, preserve or conserve the resources, each resource user will rationally behave to drive its self-interest up to the point of depleting that resources thereby leading to the “*tragedy of the commons*.”

The Kuroshio Current, recognized for its fundamental and substantial characteristics which sustain marine resources, flows from the Philippines to Taiwan and Japan also known as Kuroshio Region. The coastlines of this region is acknowledged to have immense ecosystem but not spared with the degeneration state of the resources. Several tools have been undertaken to ensure sustainability of these assets and one of these is the establishment of marine protected areas (MPAs). MPA is an ecosystem-based approach for fisheries management which sees linkage between human and natural systems (Pomeroy *et al.*, 2007). The International Union for Conservation of Nature (IUCN) defines MPA as “*a clearly defined geographic space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.*”

In the Philippines, a common MPA model is composed of a multiple management zones with a core sanctuary (no-take zone). The operation is usually community-based (inclusion of community residents usually at the village level) under a co-management regime (e.g. Local Government Units, academe, Non-Government Organizations, Peoples’ Organizations). Assessment of MPA as a management tool in the Southeast Asia considered it as a biological success at least in the short term but less effective in attaining basic measures of social realization (Christie, 2004). MPA, being a product of social institutions, is purposely done to manage the behaviour of people in the use of coastal and marine resources (Bromley, 1991).

Considering these certain details, it is of paramount importance to contemplate the involvement of local resource users in achieving the objectives of MPA as a management

tool. The aims and goals of MPAs should be structured by the stakeholders through various developmental processes to elicit support from the community at the early stage. The need to understand the complexity of MPA implementation by looking on the social and economic dimensions of the residents involved in carrying it out is indeed vital. The heterogeneity of coastal communities and uniqueness of their social structures and economic situation should always be considered in MPA planning.

Coastal communities in many localities are extremely reliant on natural resources as source of income. Consequently, it is necessary to recognize various social perspectives in synchronization with the ecological context that may influence the implementation of MPA. In particular, we should pursue to comprehend the diversity of coastal people and communities, especially in relation to their livelihood schemes. With this, it is essential to clarify the present socioeconomic situations in the coastal areas that would shape and influence the actions, attitudes and perceptions of residents towards marine resources. In addition, socioeconomic assessment can be used to acquire baseline information on the traditional, financial, demographic and institutional conditions of households and communities thereby pinpointing probable impacts of the MPA. It is also imperative to distinguish measures by which households become accustomed to the management approach and how to reduce its undesirable impacts through provision of incentives that may drive the resource users to support the coastal resource initiatives.

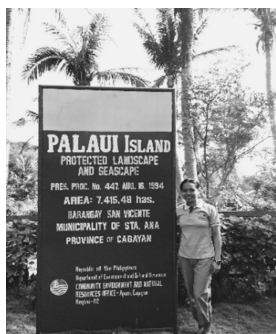
In the case of coastal communities with MPAs in the coasts of northern Luzon, Philippines, livelihood projects, both marine and land-based are provided by the government in the hope of reducing the effects of less fishing areas due to institutions of no-take zones and endowment of environment-friendly fishing gears to be used in the areas with regulated access (marine reserves). Livelihood projects such as aquaculture ventures (culture of fish and other aquatic species in cages and ponds) and land-based activities (piggery, goat raising, mushroom culture) were granted with the support of government agencies. Effects of these livelihood projects towards the reduction of the vulnerability and creation of better lives to coastal communities, however, are not yet conspicuous and conclusive at this time. Recreational zones were also incorporated in the management zones of MPAs to encourage creation of non-consumptive activities such as ecotourism in support to coastal communities’ livelihood. Local residents were trained as tour guides, food caterers and were authorized as tourists’ homestays among others to increase household income and boost rural economy.

Recognition of the social dimensions of coastal resource management strategies is indispensable. It is complicated and distinct in every location but deep consideration will

contribute in the effective design and planning of conservation policies. Understanding these complexities lead to more successful implementation of MPAs and in attaining the ecological goals of sustainable maintenance of biological resources.

References

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Palau Island Protected Landscape and Seascape, covering a total area of 7,415.48 hectares (4,976.28 ha of coastal and marine areas) is a national government established protected area located in Sta. Ana, Cagayan, Philippines with flourishing ecotourism activities.