## Insights of MPAs in Bicol Region, Philippines: Strengthening community management for resource sustainability

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During the international symposium in Kuroshio Science, the discussion on strategic measures and planning were open to all including young researchers that enhances the capabilities to contribute in building a sustainable society beyond borders. In the midst of dwindling resources due to various aspects, essential management along Kuroshio region was addressed such as establishment of effective marine protected areas (MPAs) and others.

MPAs in the Philippines are crucial which has been experienced to be a good resource management tool, as high dependence of its population are involved in fishing (Aliño, unpub). Based from BFAR database 1997, an estimated of more than one million small-scale fishers depend directly on reef fisheries for livelihood (White et al., 2000). However they asserted that due to overfishing, destructive fishing method and others have damaged many reefs resulting to dwindling catch below sustainable level. Although in the past there are increasing interests for MPAs where the government is responsible for the management, in public participation (Wells and White, 1995). Literally, this suggests that exploitation incidence were relatively huge as compared with conservation efforts made. More fishers want to get their share but few wants to share energy to conserve, manage or rehabilitate the distressed fishing ground.

The purpose of MPAs in the Philippines is to sustain the fisheries utilization in the adjacent fishing areas (Aliño, unpub). Under the country's policy amended Republic Act 10654, MPA's are being managed by the local authorities most commonly at the barangay or municipal level (if established under their initiatives). An example of this is the San Miguel Island Marine Fishery Reserve and Sanctuary (SMI-MFR/S) in Lagonoy Gulf, Albay side where cooperative efforts were undertaken by the fisherfolks of Barangay Sagurong, Bicol University Tabaco Campus and the city government of Tabaco to sustain the site since 1998. At present six (6) other marine reserves were established in the entire gulf. While there were potential MPA's that were assessed, David et al., (2005) but unfortunately there are also some so-called "paper parks" due to issues in management efficiency. The effectiveness of the successive managing authorities seems to be overlooked where the residing fisherfolks could only tell 'who done better or worst'. MPA could be threatened due to negligence by weak governance or unlawful political interests. As the policy gives right for the existing local executives to handle MPA's, its fate strongly lie to them where management remains a challenging matter.

To address the issue, this article suggests that iterative interactions by the authorities and community must be strengthened. While the fishers stand as direct stakeholder of the MPA, the transition of managing entities occurs from time to time. People's organization (PO's) must be maintained that should dynamically represent the fishing community in the reigning management council. The commitment of the leader is a good starting point. Authorities must seek ideas from the academe and other research institutions to regularly conduct reef check such as coral and reef fishes monitoring, water quality and others. Aside from MPA, coral transplantation could be implemented by the community to rehabilitate adjacent degraded reef as being practiced in Bicol Region few years ago (Mendoza et al., 2015). Considering the needs and the capabilities of the people such as assistance for alternative livelihood helps mobilize the active participation from the

public. Community involvement in MPA management can reinstate the idea of marine resources as 'common property', Wells and White (1995). Full protection of the MPA helps mitigate the declining catch rate from the adjacent fished zones. An evidence of spill over effects from Apo Island Reserve from 9 years protection of fish population have been reported by Russ and Alcala (1996) suggesting that it has benefits in the stocks recovery.

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