

MARINE PROTECTED AREAS IN THE PHILIPPINES

The Zoological Society of London (ZSL), as a partner of Project Seahorse, has helped establish fifteen no-take Marine Protected Areas (MPAs) in conjunction with local communities and government in the Danajon Bank reef complex of northern Bohol, Philippines. MPAs are created as a conservation and fisheries management tool to prevent the over exploitation of fish and to encourage ecosystem protection or recovery. Within an MPA, all fishing and detrimental practices are halted, allowing an increase in the number of species and the size of individuals present. As a consequence, one of the expectations of no-take MPAs is that fish populations from these reserves can increase and spill over or disperse from the reserve, thus stocking areas outside.

Community led

Over 300 hectares of coral reef and seagrass habitats have been protected thus far.

As capacity within the community organisations increases, the project's role has shifted from direct involvement in MPA establishment to indirect support. For biological and social research, and assisting the communities to engage



Marine Protected Area, Sinandigan, Ubay, Bohol, Philippines.

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The coral reefs, seagrass beds and mangrove habitats of the Danajon Bank have been damaged by pollution, sedimentation, overfishing and destructive fishing methods, such as dynamite fishing. Fishers' catches have significantly reduced as a result of this degradation, although human reliance on marine resources of the Danajon Bank remains extremely high, as a major source of food and income.

Project Seahorse biologists and social scientists have been working with local communities for the sustainable management of these resources through the establishment of MPAs. This is achieved through engaging communities' interest, assessing the biological resources, identifying suitable MPA locations and legally establishing them.



Satellite image of Bohol Island showing the locations of the 15 Project Seahorse MPAs.

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with the municipal and provincial governments in new MPA establishment.

The project has also established a long-term community-based monitoring programme to measure MPA effectiveness with biological and social indicators. Training is provided to fishers and Local Government Unit staff in MPA monitoring and workshops held to feedback results of research.

Food for the future



Project Seahorse boat in front of MPA guard house

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Monitoring began in 1998, recording total live coral cover and fish distribution and abundance.

Results revealed that the MPAs protected large-bodied fishes inside well-enforced MPAs compared with adjacent sites outside the MPAs. The surveys also showed that certain coral health indicator fish species belonging to the Chaetodontidae (butterflyfishes) and Pomacanthidae (angelfishes) families were higher for two MPA's.

Communities have helped validate the results, and they recognise the successes and challenges of managing MPAs. The need to step up MPA protection has been identified and addressed through the building of new guard-houses, clear demarcation of MPA boundaries with marker buoys, and the provision of patrol boats for the MPAs of Handumon, Jandayan Norte and Jandayan Sur.



Coral protected within an MPA

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Partners: Project Seahorse Foundation for Marine Conservation, University of British Columbia, John G. Shedd Aquarium, University of Tasmania.

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