

Objective

- Build large-scale, climate-adaptive restorations of corals and fish habitats in four regions of the Philippines to support local communities who depend on these essential reef resources for their food and livelihoods
- Restore breeding fish populations and increase fish supply to adjacent fishing areas through the 'spill-over' effect
- Enable more effective and sustainable management of natural and restored reef resources
- Ensure that local communities have ownership of the restored reefs through involvement in the restoration processes
- Improve ecosystem services for local rural coastal communities, leading to improved food security, human health and nutrition outcomes, and increased community welfare
- Provide pathways for alternative sources of income, including responsible tourism
- Reduce poverty by increasing income for households and add to economic activity in the broader community
- Improve gender equity and empowerment of women and girls through postgraduate and research assistant positions, with capacity-building training by female role models.

Expected scientific results

- Build substantial scientific, technical and educational capacity among the project participants
- Create a new model for significantly improving reef restoration practices on degraded reefs around the world
- Significantly improve understanding of coral reproduction patterns and prediction of major spawning periods
- Achieve larger-scale coral restoration using innovative technology approaches to increase the efficiency of targeted coral larval delivery over large degraded reef areas
- Develop new vision-based AI solutions to automatically identify restoration target areas on degraded reefs
- See new juvenile coral growth within 6-9 months (for faster growing corals) and within 12-15 months (for slower growing corals).

Expected impact/outcomes

- Achieve significant scientific, ecological and social wellbeing outcomes from larger-scale reef and fish habitat restoration in four regions of the Philippines in future
- Improve reef health status and consequently increase production of fish and other species used by local fishers and coastal communities for food and income, and improve community wellbeing
- Further stimulate development of similar coral and fish habitat restoration projects in other Southeast Asian and South Pacific nations
- Develop active reef restoration networks and more sustainable management of restored reef areas among the research partners and stakeholders in this project.

