

Indonesia Coral Reef Restoration Task Force

In early 2021, Coral Triangle Center (CTC) joined forces with Mars, Inc. to establish the Coral Reef Restoration Task Force. Currently including representatives from CTC, Mars, Bali Blue Harmony and People and Nature Consulting International, the Task Force's mission is to build capacity for reef restoration and resilience-based management in marine protected areas (MPAs) across Indonesia. In the future, representation is intended to expand to include other restoration practitioners as well as potential collaboration with governments, experts and other key stakeholders. The project is supported by Bloomberg Philanthropies' Vibrant Oceans Initiative and Mission Blue.



The Challenge

As mounting human pressures threaten coral reef biodiversity, ecological integrity and fundamental persistence into the future, focus has shifted to reef resilience, the ability to maintain key functions and processes in the face of stress. In Indonesia, as elsewhere, reef managers are looking to active restoration approaches like coral gardening, larval propagation and construction of artificial reef structures to enhance reef resilience. There is concern, however, that well-intended yet poorly informed practitioners may conduct projects that are ineffective at best and ecologically harmful at worst. Education and training are urgently needed in fundamental ecological concepts like species and genetic diversity as well as skills like identifying reef stressors, selecting an appropriate restoration site and implementing, monitoring and evaluating a restoration project from ecological and socio-economic perspectives.



Task Force Activities

Through in-person and remote support, the Task Force aims to develop an Indonesia-wide network of competent reef restoration practitioners. Initially, the group focuses on capacity building in the Mars Assisted Reef Restoration System (MARRS), an active restoration method that has potential for large-scale and ecologically significant results with successful installations in Makassar and Bali. In the future, the Task Force will extend its focus to other restoration methods to assess the best practice in resilience-based management.

Coral reef restoration, particularly in marine protected areas (MPAs) with former prior MARRS training, are initially prioritized for on-the-ground support. Task Force members conduct in-person visits to consult with MPA managers and troubleshoot issues, where necessary, to help ensure that projects are meeting their ecological and social goals.



Regular remote follow-ups provide ongoing advice and motivation, as well as planning for further capacity building. In addition, two general online courses in reef restoration have been developed in the context of reef resilience, protection and best practices in Indonesia. The courses are open to anyone who is interested.

In a continuous effort to enhance these endeavors, CTC is now working towards expanding its impact. Collaborating with the Nusa Penida MPA management unit, local community groups and private sector, CTC established a Coral Reef Restoration Demonstration and Learning Site. The Demonstration Site, located in Toya Pakeh, is designed to focus on research and monitoring, emphasizing the scientific aspects of coral restoration. Simultaneously, the Learning Site, situated at Mangrove Point, Nusa Lembongan, aims to engage visitors (including but not limited to students, volunteers, and other practitioners), providing them with knowledge exchange opportunities and hands-on experience in learning about coral reef restoration practices. This strategic initiative ensures local ownership, fostering a sustainable restoration site that effectively restores ecosystem function and resilience. Recognized as a Mission Blue Hope Spot, the Nusa Penida MPA holds the potential to inspire a diverse audience, showcasing how collaborative efforts involving communities, NGOs, governments, and the private sector can effectively manage marine protected areas while implementing science-based coral restoration practices.



Project Timeline

Early 2021: Train Coral Reef Restoration Task Force members in the MARRS Method.

Late 2021-2022: Provide in-person support in the MARRS method to reef managers at select MPAs in order to ensure independence in sustaining their own reef restoration program.

2022: Develop online training modules on reef restoration in the context of reef resilience, protection and best practices.

2023-present: Establish Coral Reef Restoration Demonstration and Learning Site in Nusa Penida MPA.

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