

Text & Photos MATHIEU MEUR

RESTORING CORAL REEFS

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EL NIDO consists of a series of small islands nestled in northwest Palawan, Philippines. These islands and the numerous rocky pinnacles make for an idyllic setting and a paradise for tourists. Unfortunately, the same cannot be said of the underwater landscape. El Nido's reefs have, over the years, been the victims of blast fishing and heavy pressure from local fishermen. The reefs have suffered heavy damage and have been completely annihilated in places. As a consequence, fish population has decreased dramatically.

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The reef rehabilitation project aims to restore coral reefs and provide a habitat for reef fishes by actively promoting the coral re-growth in areas where they have been destroyed.



span of several years, if the project is successful, all traces of human intervention should no longer be visible and should instead have been replaced by live coral reef. This differs from a simple artificial reef creation where alien objects such as shipwrecks are sunk to create ready-made habitat for fishes without the explicit promotion of coral re-growth.

The El Nido reef rehabilitation project includes the installation and monitoring of 600 modules of EcoReefs donated by Seacology in an area known locally as Tres Marias which has sustained heavy damage. In exchange for the donation of the EcoReef modules by Seacology, 15 no-take zones totalling approximately 2,000 acres have been designated by the villagers and authorities. This will ease the pressure on the marine environment and assist in its recovery.

The EcoReef modules are made of moulded micro-porous, non-toxic ceramic elements that are glued together using marine epoxy to form snowflake-like shapes. These closely resemble the shape of the Acropora branching coral. EcoReefs provide a large surface-area-to-volume ratio which makes for increased efficiency over other types of man-made reefs, and is vital in getting baby coral recruits to land on them and begin growing.

More importantly, the modular, lightweight construction of EcoReefs makes them ideal for community reef rehabilitation work. Children or grandmothers alike can participate in their assembly and lowering, and any diver can help in installing them. For this particular project, hundreds of volunteers, including more than 50 divers and some Seacology benefactors took part in the installation of the EcoReef modules in April 2006. Each module was first lowered down onto a holding area, then carried to its designated position by teams of divers. Once in their final position, the modules are anchored down by hammering an arrowhead tied to the EcoReef into the seabed.

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Having witnessed the success of a reef rehabilitation programme in Bunaken Marine Park (Indonesia) organised by Seacology, a US-based non-profit organisation, the El Nido Foundation proposed that a similar project be implemented in El Nido. Seacology accepted the proposal and the ground-work began.

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THE ECOREEF MODULES

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One diver had to hold a steel pipe over the arrowhead while another diver wielded a sledgehammer to secure the module.

The next step consisted of transplanting coral fragments onto the EcoReefs by wedging them within their elaborate shape. This coral rubble is known to be the most superior substrate for promoting coral growth. The operation was carried out under the watchful eye of world-renowned marine biologist Dr Mark Erdmann who was also involved in the reef rehabilitation programme in Bunaken.

But the project doesn't stop there. The El Nido Foundation will monitor fish recruitment over time. They will undertake regular video recordings at the EcoReefs site in order to establish how many and what types of fish are moving in now that there are hiding places available under the EcoReefs. They will also monitor the settlement and growth of baby corals on the EcoReefs over the next few years. **AGED**

MORE INFO

www.seacology.org
www.ecoreefs.com