

Project Maldives - Oaga

Mineral accretion coral nursery & reef restoration

 Maadhunifaru, 4°36'36.1"N 73°25'01.4"E

Base Info

Project type: Coral nursery & restoration

Partner: [Oaga Resorts](#)

Funding: Radhun Resort & Investment

 **Budget**
240k USD

 **Size / area**
8ha

 **Start Date**
October 2018

 **Duration**
10 years

Background

Healthy coral reefs are integral to healthy oceans, which the Maldives heavily relies on for the tourism and fishing industry. During the 1998 and 2016 mass coral bleaching events in the Maldives, up to 80% of the coral reefs died due to elevated sea temperatures. To overcome the impacts of climate change, the coral nursery was established in North Male' Atoll and populated with coral saved from a nearby dredging project with the focus on temperature resilient corals. Following this, the reef restoration began to re-establish the reef around the resort island by placing reef mini-dome structures.

Objective & Outcomes

- To build a 7000 coral fragment nursery
- Populate nursery with 30+ species of coral with focus on temperature resilient species
- To restore the reef around entire resort island
- To bring back the balance to the reef ecosystem
- Increase fish diversity and abundance
- Employ and train local divemasters

Implementation

Approach

In 2018, the coral nursery was initiated by creating 60 metal reef structures, powered by Mineral Accretion Technology (MAT). This supports the corals through low voltage direct current electrolysis that supports the 7000+ coral fragments in the nursery. The primary source of coral used to populate the nursery was saved from a development site, first targeting the most temperature resilient corals. Other corals of opportunity are also collected routinely to maintain genetic diversity throughout the nursery. In 2019, annual deploying and outplanting to MAT reef domes began to restore the reef around the island. Today, a total of 300 structures have been placed and populated, with a target to restore the entire house reef by 2028.

Milestones

Year 1: Established and populated MAT coral nursery

Years 2-3: Phase 1-3 of restoration complete with populated reef structures

Years 4-10: Remainder of house reef restored with MAT structures

Deliverables

- Fully populated coral nursery with 7000+ fragment to outplant annually
- 2 trained full-time local divemasters to maintain structures & nursery
- Volunteer training opportunities
- 8ha of restored reef
- Increase coral cover & fish abundance