

# Project Seychelles

## Artificial Reef - Mobile hope spots

 Fregate Island - 4°35'1"S 55°56'46"E

### Base Info

**Project type:** Coral Restoration

**Partner:** [Fregate Island](#)

**Funding:** [Fregate Island Conservation](#)



**Budget**  
22,500 USD



**Size / area**  
120 m<sup>2</sup>



**Start Date**  
May 2024



**Duration**  
12 months

### Background

Fregate Island is a jewel of the Indian Ocean, with stunning biodiversity and abundance both on land and beneath the water.

Coralive have partnered with Fregate Island, in the Seychelles, almost yearly since 2018. What began as a simple Mineral Accretion Technology (MAT) test between electrified and non-electrified steel dome structures, has evolved through to a pioneering MAT research project in 2021, and now in 2024, has grown into a new phase of mobile artificial reef nurseries that offer hope to degraded reef patches.

### Objective & Outcomes

- To out-plant 40 existing overgrown structures
- To build a new coral nursery with 120 structures
- To attach and monitor over 1,920 coral fragments
- To support coral fragments growth and survival through Mineral Accretion Technology
- To out-plant 120 new overgrown structures
- To turn rubble fields into 'hope spots' around Fregate Island for the years to come



### Implementation

#### Approach

The new nursery will take the shape of four separate circles in the existing area of the research experiment from 2021 – two inner circles of 20 structures each, and two outer circles of 40 structures each. The set-up took place during a bleaching event, so only resilient corals were taken as donors, usually Corals-of-Opportunity (COOs). Only 1 species of coral was planted on each structure to ensure quick growth and reduced competition. All structures are hooked onto the existing MAT system, and will accrete to protect the metal, and ensure quick and secure attachment of corals. Once corals have grown to colony size, the structures can be moved from the nursery area, and out-planted onto rubble patches nearby. The structures will act as mobile 'hope spots' of coral in otherwise barren patches of the reef.

#### Milestones

**Months 1:** Outplant 40 existing structures to nearby rubble fields

**Months 1:** Expand existing circle to 120 structures, equipped with MAT

**Months 1-12:** Regular assessment of survival, as well as maintenance of coral nursery

**Months 12:** Outplant 120 artificial reef structures once coral has overgrown

**Months 12:** Evaluate next steps

#### Deliverables

- Permanent substrate in rubble fields
- Increased coral cover
- Nursery of resilient brood-stock coral for future restoration

