

# Project Kenya

## Comparative evaluation of MAT for coral restoration

 Shimoni, 4°39'01.1"S 39°23'11.3"E

### Base Info

**Project type:** Research Study

**Partner:** Reefolution

**Funding:** Wageningen University



**Budget**  
10'000 USD



**Size / area**  
200m<sup>2</sup>



**Start Date**  
December 2019



**Duration**  
12 months

### Background

As of now, there is very little scientific consensus about the Mineral Accretion Technology (MAT) effects on corals. Scientific literature on the subject is very limited as most studies reporting the benefits of MAT are related to the previous patent holder of the technology.

Due to the uncertainties that remain, this project has the aim of improving the coherence regarding efficiency and benefits of the Mineral Accretion Technology. It is important to clarify the processes of the method and the impact it can have; if shown to be successful then it is important for it to be given more attention as a viable reef restoration technique.

### Objective & Outcomes

- To assess the MAT efficiency regarding corals growth and survival rates
- To publish a research study on MAT
- To clarify the process and positive impact the MAT can have
- To use the MAT nursery for further study purposes

### Implementation

#### Approach

Four treatments were created for this experiment, with varying exposure to the electrical support; 1) MAT-tables with continuous electrical supply, 2) MAT-control tables, which were charged for one month, before being placed outside the ionic field for the rest of the experiment, 3) the control tables, which were not charged for the complete duration of the experiment and 4) the MAT- Pods, which were continually supplied with electrical charge, introduced after one month, in place of the MAT-control table. Each of these treatments consisted of nine structures, placed in a circular arrangement.

#### Milestones

**Month 1:** Producing, transporting and placing of MAT-structures

**Month 1:** Attachment of coral fragments onto the structures

**Month 2:** Initiation of study

**Month 3:** Exchange between MAT- Control and MAT-Pods Month

**Months 3-12:** Completion of data collection

#### Deliverables

- MAT experiment implemented
- Thesis created
- In-depth understanding of the MAT

