

Project Palau

Coral restoration using Mineral Accretion Technology

 Koror, Palau - 7°21'20.05" S 134°26'34.03"E

Base Info

Project type: Coral Restoration

Partner: adb.org & palauppr.com

Funding: [Asian Development Bank](http://AsianDevelopmentBank)



Budget
730,000 USD



Size / area
600 m²



Start Date
November 2024



Duration
3 years

Background

Palau's coral reefs are under threat from climate change, habitat degradation, and predator outbreaks. Together with ADB and Palau Pacific Resort (PPR), we are restoring PPR's house-reef with Mineral Accretion Technology (MAT). Our focus is on increasing coral cover and recolonising *Acropora* communities and decreasing the reef's background mortality through predator management – all in order to safeguard it against current and future threats.

The project also builds local capacity in Palau for reef conservation, as well as contributing to science through new research on MAT's carbon sequestration potential. The next steps include coral transplantation and research expansion - creating a scalable conservation model to protect Palau's reefs for future generations.

Objectives & Outcomes

- Create a MAT coral nursery with 108 structures
- Mitigate a suspected Crown-of-thorns (COTs) outbreak
- Develop and operate long-term restoration monitoring
- Carbon sequestration research paper
- Capacity build for 3-year handover
- Replicate applicable interventions in Palau



Implementation

Approach

Asexual coral propagation using MAT is the chosen method for increasing reef resilience at PPR. Three separate circles are deployed to make up the 600 m² nursery area, made up of an inner circle of 12 tables and outer layer of 24 pods, in each. Carefully selected corals from locally available genera (mainly Poritids), as well as relocated *Acropora* species from healthier donor sites will be planted on these structures to grow, and then will be out-planted. Entire pods will be out-planted for instant reef relief, whereas hard substrates will have individual colonies out-planted. An estimated total of 3,500 corals will be out-planted yearly. Propagation methods will be supplemented by regular predator control of Crown-of-thorns starfish

Milestones

- Month 1:** Site assessment & procurement
- Months 2-3:** Baseline monitoring
- Month 3:** Installation of MAT structures
- Months 4:** Power supply & coral relocations
- Months 5:** Nursery population & monitoring
- Months 36:** Project handover (capacity build, research, out-planting up until this time)

Deliverables

- Coral cover increased by 5%
- Fully trained local staff
- 10,000+ corals planted
- Research paper
- Comprehensive monitoring protocol

