Yaf Keru - A Reef Restoration Project in Raja Ampat

Pilot Phase 2016 - 2018

An initial pilot phase took place over 2 years on an area of degraded reef located near a resort in the Dampier Strait. This area had very likely been the location of dynamite fishing in the past, with other areas, similar topographically and very close by, still in pristine condition. During this phase, we trialled various restoration methods, monitored recovery of the reef, and trained local coral gardeners who could now receive paid full time position for their competencies in Coral reef rehabilitation.
Upon transplantation, the corals quickly settled and began growing around their ties and attaching to the structures. Within the first month, Acropora corals grew 1cm with very little mortality. After just 5 months corals were thriving; with less than 15% mortality corals were growing and very quickly becoming inhabited by molluscs, grazing fish and even larger predatory fish. After 12 months, and the restored area was significantly altered from its pre-restoration state; transformed from a desolate rubble area with life limited, to an ecosystem containing everything from macro life, to grazers to large predatory fish and hosting complex food webs.

AREA RESTORED: **500m2, with an additional 500m2 of healthy reef protected**
NUMBER OF STRUCTURES: **32**
NUMBER OF CORALS TRANSPLANTED: **5000+**
SPECIES DIVERSITY: **57 species of hard corals** transplanted plus at least 1**3 naturally recruited**
SURVIVAL RATE: **80% after 30months** (mortality largely due to spatial competition as well as predation in the initial 3 month settling period)
GROWTH RATE: Fastest growing are the acropora species, demonstrating growth of approximately **1.5cm per month**. Slower growing species show a growth rate of an estimated 1-2mm per month - highlighting just how old the large and established reef systems in Raja Ampat are