Ebiil Society, Inc.

Nature Based Solutions (NbS) and Management Approaches

Ebiil Society Forestry Project started in 2012 in Ngarchelong State and has expanded to other states of Palau, including Ngaremlengui, Ngiwal, Ngardmau, Hatohobei & Helen Reef.

Throughout the years, Ebiil Society developed a best management practices for the purpose of restoring degraded land areas with native forests. The approach of restoring with native trees, provides additional benefits such as prevention of invasive species, promoting native plants with social and economic values, promoting protection of native forests, and forest ecology education.

- # Tree Species Selection

The soils that the majority of the reforestation occurs are classified as Typic Udorthents, which are barren mined areas or savannas that have very little to no organic matter in them. They also have an excessively high aluminum content which is toxic to most plants, especially considering there is no organic matter to buffer this toxicity.

Through scientific research and trial and error, Ebiil has determined that the following trees are suitable for growing in these harsh soils. They are as follows:

1. Btaches- *Calophyllum inophyllum*
2. Kisaks- *Milletia pinnata*
3. Las – *Pterocarpus indicus*
4. Ukall – *Serianthes kanehirae*
5. Miich – *Termilalia cattapa*
6. Rebotel – *Syzygium samarangense*

- The Nursery

1. Seed/Seedling/Cutting Collection
2. Propagation
3. Rapid Growth
4. Hardening Stage
5. Fumication (Outer Ilsands)
6. Transportation to Planting Site

Planting

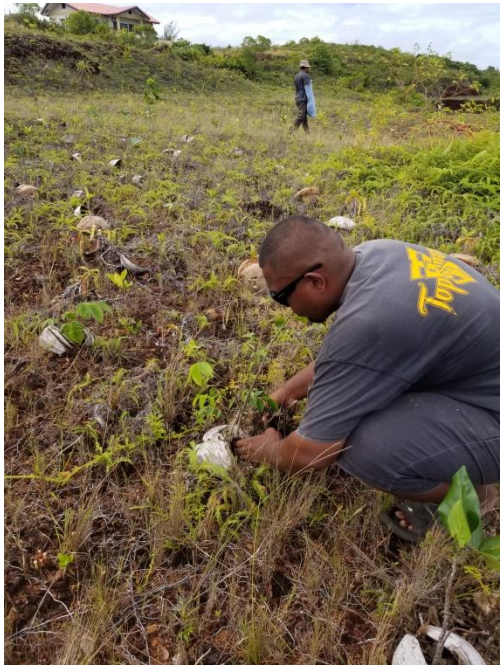
- Island Forest – 64 trees
- Mulch - Organic Matter
  - Coconut Leaves
  - Betel Nut Leaves
  - Coconut Husk

Maintenance

- Sediment Traps
  - Logs
  - Tree Branches
  - Stones
  - Lemon Grass
  - Native Trees

Maintenance

- Weeding
- Replacing coconut husk & Leaves



Tree Tagging & Monitoring

Restoration Trees & Udeuiid

- Tree Tagging

  10% of trees planted

  tagged and recorded.

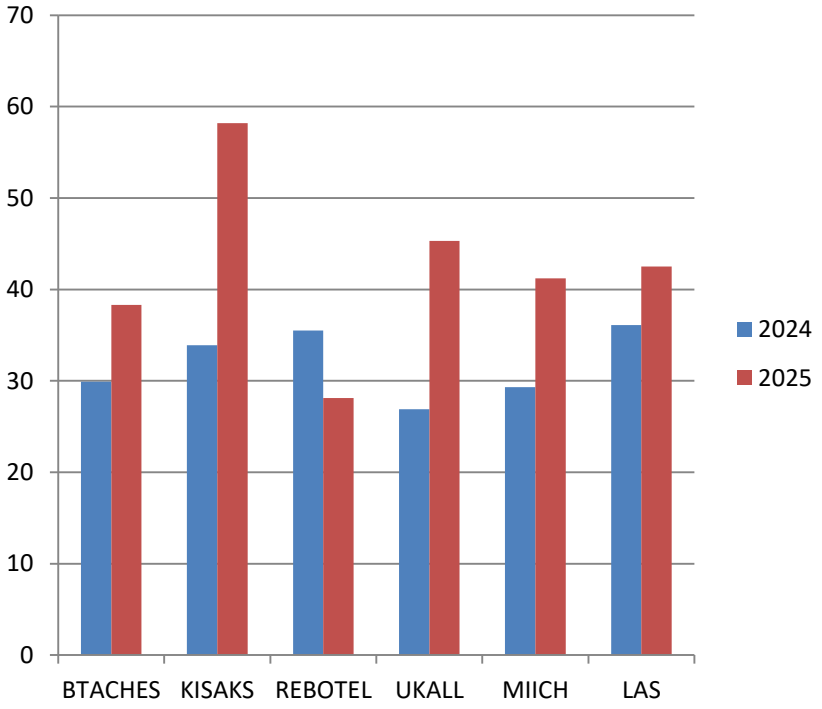
- Plot and Island Numbers Coordinates recorded.
- Annual Trees Tagged Monitoring

Tree Tagging & Monitoring Data

REFORESTATION MONITORING FORM	DATE:						NAME OF MONITORING PERSONNEL:						
747 SITE #4	Tag ID #	Species	Survival		Growth (cm)		Health (1 - poor; 3 - moderate; 5 - excellent)				Reproduction & Recruitment (Yes or No)		
Plot#/Island#			Initial height on 4/22/2024(cm)	Dead/Alive	Height on 4/22/2025:	DBH (1.37)	Nutrient deficiency (1, 3, or 5)	Stress, drought, storm surge, salt, spray, pest, invasive, other (specify):	Disease? (Yes or No) Take photo if yes.	Chla	Seeds	Flowers	Seedlings
P3/I1	1049	BTACHES	19	A	30.5								
P3/I1	258	LAS	47	A	55								
P3/I1	259	REBOTEL	70	A	65								
P3/I1	260	UKALL	30	A	46								

ANNUAL TREE MONITORING ACTIVITY
Ngardmau Site 4

	2024	2025	GROWTH RATE
BTACHES	29.9	38.3	128%
KISAKS	33.9	58.2	172%
REBOTEL	35.5	28.1	79%
UKALL	26.9	45.3	168%
MIICH	29.3	41.2	141%
LAS	36.1	42.5	118%



BEFORE & AFTER NGAREMLENGUI

2018

2023

BEFORE & AFTER
NGARDMAU SITE 1

2020

2022

BEFORE & AFTER

HELEN REEF

2022

2024

And the work continues…

Kom Kmal Mesulang!