

# **Business Partners**

**Eden Reforestation Projects** 

Ankilahila Mangrove 1, Madagascar | Update report

<sup>\*</sup>This report includes confidential information that may not be disclosed outside of Eden Reforestation Projects and the intended party and may not be duplicated, used, disclosed, in whole or in part, for any purpose other than to evaluate this report. The information subject to this restriction is contained in all pages of this document.

#### **Project period**

August 2021 - September 2022

#### Summary

We are excited to report on over two years of progress at the Ankilahila Mangrove 1 site.

From August 2021 to September 2022, our Ankilahila Mangrove team:

- · Planted 3,841,798 trees. Since April 2020, our team has planted 7,160,224 trees.
- Employed an average of 101 full-time staff members per month.
- · Created an average of **3,061** working days per month.

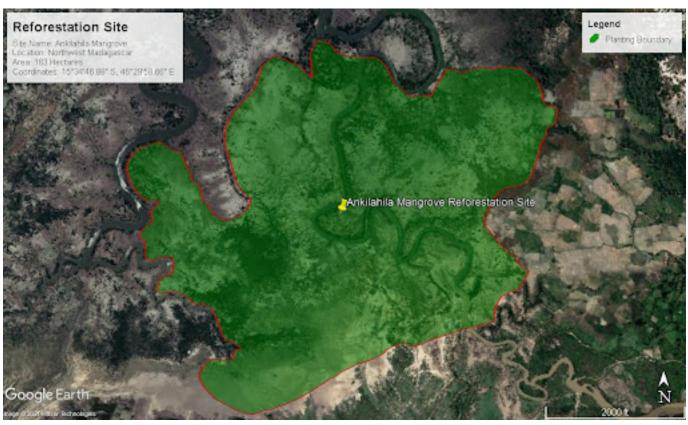
#### **Ankilahila Mangrove 1 quick stats**

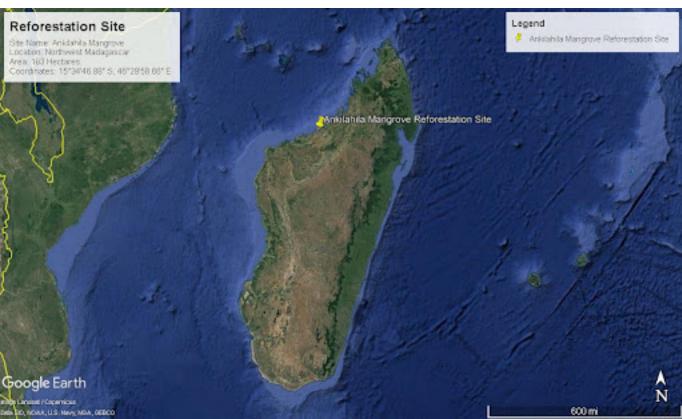
\*See Appendix B for Site Description

Forest type	Coordinates	Planting density	Plantable area
Mangrove	15°34′46.88″S, 46°29′58.66″E	20,000 trees/hectare	183 hectares



### Site maps





### **Planting data**

Trees planted per month (2020-2022)

#### 2020

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
			365,252	321,302	159,926	166,071	165,868	173,332	168,305	172,384	94,114	1,786,554

#### 2021

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
252,997	206,278	277,035	206,053	232,385	232,614	124,510		126,453	131,521	149,689	1,440,939	3,380,474

#### 2022

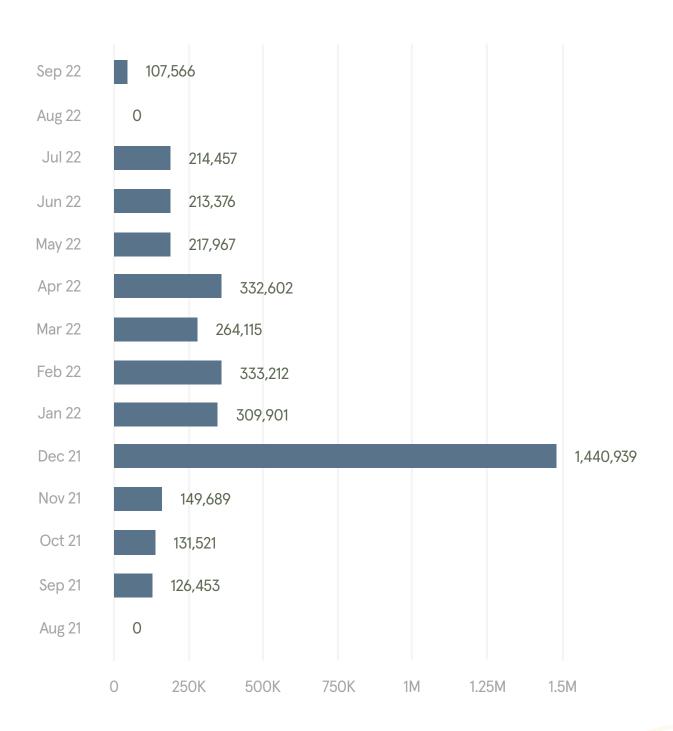
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
309,901	333,212	264,115	332,620	217,967	213,376	214,457		107,566				1,993,196

2020-2022 Grand Total 7,160,224

Please note that no planting occurs in August while our Malagasy employees take an annual vacation.

#### **Trees Planted Per Month**

August 2021 - September 2022



## Socioeconomic impacts

With the help of generous support from our partners, the Ankilahila Mangrove reforestation site has significantly impacted local livelihoods.

- Projects at this site have created an average of **3,061** working days per month.
- Women's empowerment is a core principle and goal for us in Madagascar. Our Madagascar workforce is 44% female.
- Mangroves provide storm-surge protection for local residents. Trees growing along rivers and coastlines provide a natural barrier that mitigates the impacts of flooding events.<sup>1</sup>

With a steady income, our employees can put savings aside, invest in their households, start micro-enterprises to diversify their income opportunities, and provide healthcare and everyday needs for their families.

Additional significant socioeconomic impacts include improved diets and health due to purchasing nutritious food and increasing education as families can afford to send their children to school.



<sup>1</sup>koh, H., Teh, S., Kh'ng, X., & Raja Barizan, R. (2018). MANGROVE FORESTS: PROTECTION AGAINST AND RESILIENCE TO COASTAL DISTURBANCES. Journal of Tropical Forest Science, 30(5), 446–460. https://www.jstor.org/stable/26514436

### What's next?

We expect this site to reach full planting capacity by the end of this year. We are currently working with our field teams to accurately assess how much planting remains.

Although planting is nearly finished here, our teams will actively protect the site and replant any losses to ensure the native mangrove forest reaches its full potential. Ultimately, many of these trees will mature, producing seeds of their own and helping the forest return to the point of natural equilibrium.

We are grateful for your continued support of our projects in Madagascar. Your contributions help us complete this site and work towards reforesting some of the four million hectares that the Madagascar government has committed to restoring by 2030 as part of the AFR100 initiative.

Thank you for helping our mission of large-scale reforestation and poverty alleviation.



## **Progress Photos**

Our Madagascar team walks through young mangrove forests to assess their growth





## **Progress Photos**

This emerging forest is made of mangroves around 2 years old.





Photo album link: Ankilahila Mangrove 1

## Appendix A. Species Planted

Species	Description	Photo
Avicennia marina Grey mangrove	Avicennia marina grows as a shrub or tree to a height of three to ten meters, or up to 14 meters in tropical regions. The habit is a gnarled arrangement of multiple branches. It has smooth lightgrey bark made up of thin, stiff, brittle flakes.  Source: Eden Reforestation Projects	
Rhizophora mucronata Red mangrove	Rhizophora mucronata is a small to medium-size evergreen tree growing to a height of about 20 to 25 meters (66 to 82 ft) on the banks of rivers. On the sea's fringes, 10 or 15 meters (33 or 49 ft) is a more typical height. The tallest trees are closest to the water, and shorter trees are further inland. The tree has a large number of aerial stilt roots buttressing the trunk.  Source: Eden Reforestation Projects	
Ceriops tagal Spurred Mangrove	Ceriops tagal is a medium-sized tree growing to a height of 25 meters (82 ft) with a trunk diameter of up to 45 cm (18 in). The growth habit is columnar or multi-stemmed, and the tree develops large buttress roots. The radiating anchor roots are sometimes exposed and may loop up in places. The bark is silvery-gray to orangish-brown, smooth with occasional pustular lenticels.	
Bruguiera gymnorrhiza Large-leafed orange mangrove	Bruguiera gymnorrhiza is a small tree up to 10 meters (33 ft) high that belongs to the family Rhizophoraceae. It is found on the seaward side of mangrove swamps, often in the company of Rhizophora. Its bark is rough and reddish-brown. The tree develops short prop-roots rather than long stilt-roots.	

## Appendix B. Site Description

Deforestation has long been an issue for Madagascar. It is one of the world's top biodiversity conservation priorities because of its high concentration of endemic species and extreme habitat loss. Ankilahila Mangrove is a labyrinth of rivers and channels spanning 183 hectares, and the mangrove-lined estuary has played an important role for local Malagasy communities. The livelihoods of nearby fishing communities depend on healthy mangrove forest systems to provide critical fish and wildlife habitats and prevent coastal erosion in the face of climate change.

Before the project started, the mangrove forests found in this area were subject to deforestation and forest degradation from charcoal production and wood collection for cooking, construction, and other purposes.