

A Tree for Life 1 Year Planting Progress Report

Name of Donor: Square Resources

Date of donation: 16 August 2022

Number of trees planted: 10,000

Type of tree planted/Species: Mangroves, *Rhizophora mucronata*

Total land size covered: 1 hectare

Location of tree planting: Pandansari Village, Kaliwlingi Village, Brebes, Central Java, Indonesia

Carbon offset: 12.3 kg per year per tree x 10,000 = 123 tonnes per year

Photos: [link](#)

Info about location:

Pandansari Village, Kaliwlingi Village, which is located in Brebes Regency in Central Java, is an area that was once famous for its dense mangrove forest.

In the 1990s, the government released several policies to support the Indonesian fishing industry. This policy was followed by clearing mangroves and turning them into fish ponds or shrimp ponds. The fishing and shrimp industry had become the backbone of the lives of many people in the coastal regions. However, with the proliferation of shrimp diseases and the banning of Indonesian shrimp exports by several countries, the shrimp industry was later wiped out. Many prawn ponds are left behind by their owners.

Today, the problem of coastal abrasion is increasing in various regions, including the coast of Pandansari, Kaliwlingi Village, Brebes. As one of the areas experiencing severe abrasion in Brebes Regency, the abrasion in Pandansari to date has reached an extreme level, namely 800 hectares of productive land has been completely eroded by seawater.

One possible preventive effort is to plant mangrove seedlings along the coast or reforest. The impact of the abrasion was directly felt by the residents of Kaliwlingi who were directly adjacent to the disaster, such as rising sea levels and loss of aquaculture production land.

***Thank you for helping us reforest, conserve, and protect
forests and coastlines in Indonesia!***

The mangrove planting program wants to slowly but surely restore coastal villages with all the habitats and ecosystems previously seen in this region.

Benefits of mangrove trees:




Mangroves sequester massive amounts of carbon to combat climate change, adapt to rising sea levels, serve as nurseries in a vital food source for marine life and provide critical habitat for endangered species.

Mangroves have specialised root structures (breathing roots or pneumatophores) as a result of their physical adaptation to oxygen-poor or anaerobic sediments/soils. Mangrove forests are rich in biodiversity providing a habitat for wide varieties of animal and plant species.

They are dynamic areas, rich in food. Live and decaying mangrove leaves and roots provide nutrients that nourish plankton, algae, fish and shellfish. Many of the fish caught commercially in tropical regions reproduce and spend time in the mangroves as juveniles or adults. Mangroves also help other species survive, forming dense forests that shelter animals as well as shellfish and brightly coloured corals.

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Photos from Kaliwlingi Village:

	<p><i>Figure 1</i> After the rehabilitation of mangrove seedlings in August 2022, the plants in their second month are still living very well. However, after the west monsoon, which hit the program location, the plants on the front side—which are directly facing the ocean—have slow growth due to disturbances from waves and high tides.</p>
	<p><i>Figure 2</i> The seedlings in their seven months. The difference in growth indicates the process of plant life that takes place in the program location. The biggest obstacle was the west monsoon—which was bigger than the previous year. This caused some plants to grow with slanted stems, due to the waves and waves from the west.</p>
	<p><i>Figure 3</i> At eleven months, the plants that live at the back of the program location have a very good life, which can be seen from the monitoring results. Seedlings grow with an average of 15-20 leaves per plant, have 2-5 new stems, and have put out a tap root which characterises <i>Rhizophora Mucronata</i>—with a tap root of 3-6 roots. This growth is categorised as quite good with the growth process at the location considering the disturbances caused by the west monsoon.</p>

**Thank you for your generous support in helping us towards our goal of reforesting
1 million mangrove trees in Indonesia!**

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