reNature.

Los Arboleros Farm - Chone, Equador

Development Stage

Concept — Fundraising — Implementation — Operation — Scaling

In a tropical region dominated by cattle ranching, Los Arboleros Farm stands out as a wildlife hotspot, where bamboo is commercially produced within a roughly designed agroforestry system. Building up from previously degraded pasture land, the farm is now in the pathway for scaling up its production via diversification of its byproducts and by strengthening the envisioned capacity-building program.

LOCATION:
Province of Manabi, Equador

SIZE OF PLANTED PLOT:
05 ha

SIZE OF POTENTIAL AREA:
30 ha

CLIENT:
Los Arboleros Farm

COMMODITY:
Bamboo, Timber, Cocoa, Coffee, Turmeric, and Fruits (Avocado)

INDUSTRY:
Food, Construction

GOAL:
Economic resilience through diversification of crops in a farm where agriculture and architecture meets.

MAIN FOCUS:
Increase biodiversity and provide ecosystem services.

PARTNERS:
Regeneration Field Institute

REGENERATION FIELD INSTITUTE

Finance & Planing

120,000 - 365,000
Investment

Lucas Oshun
Initiator

Assignment & Impact

Number of expected beneficiaries

500 farmer families

Development Challenge

The Manabi region where the project is located is marked by hilly terrains and slope topography, coming from the Andean mountains to the Pacific coast. Traditionally, these adverse conditions made it difficult for most agricultural production, but perfect for other cultures like coffee, for example. From 2011 onwards, extensive cattle ranching has been skyrocketing, supported by governmental policies. But the naturally fragile ecosystem of this mountainous tropical landscape is at risk and overgrazing has already shown its effects transforming the landscape.

Intervention

The Model School Program will focus on the complete bamboo lifecycle (plantations management, curing, processing, construction applications, and market access). Plus it will also bridge with other organic regenerative agricultural practices like compost making, crop rotation, agroecology, topsoil conservation, and watershed management.

Financial Details

reNature Model Farm (1-2 years):	€ 50,000
Farming inputs (for 25 hectares):	€ 70,000
reNature Model School (3-5 years):	€ 300,000
Other investment needs (Processing&Capex):	€ 65,000

Objective

The goal is to increase biodiversity on the pastures and promote crop diversification and long-term economic resilience of the farm.

Inspirational Impact

Los Arboleros is used as a demonstration site for the Regeneration Field Institute and provides a clear example for regenerative agriculture and architecture. In the agroecology training, it will be showcased how to improve soil quality and productivity. The diversification of crops will demonstrate reduced dependency on individual crops whilst protecting farmers from crop failures. The local diet can be improved by growing various species locally while productivity will increase by natural synergies between crops. Tours, workshops and interns pass by for inspiration and learning.

500	73% More	30% More	12 Ton More
Smallholder farmers	Biodiversity tough Bio-corridors creation	Water retention capacity in Soil	CO2 sequestration per ha/year

Environmental Impact

Soil quality and biodiversity are the main focus of the agroforestry system. This will be reached by implementing “bio corridors” (natural biodiversity corridors), diversification of crops and significant areas dedicated to wildlife forage and habitat. More biodiversity will balance the natural system, and more biomass produced so that soil life can benefit from the added Soil Organic Matter (SOM). Trees and plants protect soil from flushing or blowing away while dead plant materials retain water in the soil and nurture living soil organisms, supporting the local water retention system.

Social Impact

The example of agroforestry will inspire thousands of farmers over time. The farmland will function as a model farm in the region that can be studied and multiplied. Socially the farm is a meeting place where knowledge on agroforestry can be exchanged in the existing bamboo buildings, creating a regional hub for regenerative agroforestry. Los Arboleros has an active collaboration with 3 local and 7 international universities. For this reason, the farm has a regular visit from professors and students many of which will be future farmers and are excited to see alternative holistic farming methods. The increased success in their agroforestry work will have a positive social impact and a high likelihood of regenerative agriculture replication through imitation and training.

Economic Impact

Through agroforestry, the farm will be diversified. This will create additional revenue streams next to the income of hosting the Regeneration Field Institute. When the farm itself is a more regenerative, biodiverse example, it will attract more training as an alternative source of income for improving self-sufficiency. Furthermore, a greater variety of food can be sold locally and high-value crops as turmeric will be sold internationally.

Outcome Matrix

1. Increase in yields
2. Increase farmers income
3. Agroforestry uptake and market connection of surrounding farmers
4. Increase of biodiversity

Evaluation Method

1. Annual yield comparison of focus crops with 5-year baseline (kg/ha/year)
2. Farmer’s annual income compared to 5-year baseline
3. Number of farmers that have started the transition to agroforestry and numbers of participants inspired by trainings and workshops
4. Annual comparison of biodiversity and the related natural pest management