Conserving the Ayyalur forest, Dindigul, India

Development Stage

Concept — Fundraising — Implementation — Operation — Scaling

Located in Dindigul, India, the project area encompasses 20 villages positioned on the fringes of the Ayyalur forest, the habitat of the endangered “slender loris” species. Given its remoteness, the local community are very dependent on the forest for sources of food and income. This has led to deforestation and depletion of natural resources. reNature and local NGO SEEDSTRUST will first implement a Model Farm and then a Model School to train 50 farmers to incorporate agroforestry techniques in the cultivation of various fruit trees. This will foster alternative livelihoods for the local communities and thereby reducing the dependency of the forest, whilst improving farmer incomes, soil health and mitigate the impacts of climate change.

LOCATION:
Ayyalur Forest Region, Dindigul, Tamil Nadu, India

SIZE OF PLANTED PLOT:
2 ha

SIZE OF POTENTIAL AREA:
8000 ha

KEY CROP:
Various fruit trees, timber, poultry and honey

INDUSTRY:
Agriculture and Forestry

GOAL:
To provide sustainable food security and livelihoods for the local community, whilst preserving the habitat of the slender loris.

MAIN FOCUS:
Conservation and social resilience

PARTNERS:
SEEDSTRUST

Finance & Planning

€ 400,000	SEEDSTRUST
Investment	Initiator

SEEDS TRUST

Assignment & Impact

Expected Beneficiaries

Once the Model Farm has been established, 50 local farmers from the surrounding 20 villages will participate in the Model School. This is to facilitate wider dissemination of knowledge, with the potential to impact 1000 indigenous farming families.

Development Challenge

The region suffers from multiple environmental issues, including drought, soil erosion, and biodiversity loss. The local forest area has been particularly hard-hit, especially in light of unemployment and drought during the pandemic. This has led to high levels of deterioration, including deforestation and over-exploitation of forest and non-timber products. Additionally, the frequent failure of monsoon rains and undulating terrain has led to soil health depletion and has hampered the yield.

Intervention

The project will begin with the implementation of a Model Farm to demonstrate an agroforestry system with fruit crops and timber species. In the second year, a Model School will be established to train around 50 farmers from 20 local villages using this demonstration plot. We will carefully monitor social improvement throughout the 2 year implementation.

A fruit crop based agroforestry system will be implemented utilising only economically viable crops that can survive the local climate. Once the Model School has been implemented, the agroforestry systems will be scaled up to 8000 hectares and 1000 local families, facilitated through the long-established partnership that SEEDSTRUST has with the local community.

Financial Details

reNature Model Farm:	€ 30.000 - 60.000
reNature Model School:	€ 200.000 - 400.000

Objective

By developing the skills and knowledge of local farmers, we will demonstrate that agroforestry is a sustainable system for ensured income. By addressing these social challenges, we will also protect the habitat of endangered slender loris and contribute towards mitigation of climate change.

Inspirational Impact

The selected indigenous farming communities will receive training on the cultivation and marketing of fruit tree crops. The 50 farmers who participate in the Model School will be carefully selected from different villages in the local area to ensure that knowledge is disseminated as widely as possible. The agroforestry system will be designed to adapt to the local environment, be profit-yielding and accepted by the local community.

1000
Community Members

61% More
Biodiversity

45% More
Soil Humidity

23% More
CO2 sequestration per ha/year

By enhancing income generation through agroforestry, the project aims to disincentivize farmers to expand into the forest and to address the social challenges caused by lack of livelihoods.

Environmental Impact

This project will enhance vegetative cover in the region, which will help to both mitigate and adapt to climate change. It will also improve the habitat for the flora and fauna in the area, including the endangered slender loris. Some of the damage caused by increased pressure on the forest will be addressed, such as soil erosion and overexploitation. Soil health impacts are particularly key as part of this project to enhance productivity for the local community. Additionally, through reduced dependency on chemical inputs, the air and water quality in the local area will be vastly improved.

Social Impact

Enhanced local livelihoods will generate incomes which will reduce local social challenges, including infant and maternal mortality, underage marriage, retention rates in schools and gender inequality. The introduction of an agroforestry system will support food security and protect the local landscape, improving the health and vitality of the local community. The prospect of having nutritional food available all-year round will also reduce the high level of migration.

Economic Impact

The system will be designed to provide maximum income and profit to the local community. The inclusion of staggered harvesting periods for fruit crops will provide the community with income the whole year round. Even in extreme weather events such as drought, income will be made possible through cultivation of a diverse set of crops which can withstand the local edaphic and climatic changes.

Impact Metrics

Outcome Metrics

1. Enhanced income of the indigenous farming community with reduced input cost
2. Enhancement of soil health and ground water level
3. Habitat development of slender loris
4. Establishing the fruit crops based agroforestry resulting in converting fallow lands to productive lands.

Evaluation Method

1. Increased crop yield
2. Soil test and ground water depth studies
3. Increased productivity of fallow lands.
4. Earning capacity of the individual family
5. Reduction in school dropouts, child marriage and maternity death
6. Increase in vegetation in the area.