



Agroforestry project in Sri Lanka

*Piloting agroforestry models on degraded **tea and coconut** plantations to support a sustainable agriculture*



Facilitator of agricultural transition

Sri Lanka is the fourth largest tea producer and the fourth largest coconut exporter in the world. The tea and coconut sectors are of critical importance for the national economy and rural livelihoods. Unfortunately the sectors and their sustainability are in danger.

The Netherlands Enterprise Agency (RVO), team Territorial Development (RVO/GRO) serves as the facilitator and initiator of a public private partnership to support a transition towards sustainable agroforestry agriculture in tea and coconut plantations.

Sustainability requires diversifying

Sri Lanka has a substantial area of (largescale) mono-culture coconut and/or degraded tea and coconut plantations that are privately or state owned. These plantations face serious challenges in terms of land degradation, aging of the plantations, climate change, price volatility, labor scarcity and increasing production costs. Diversification through an agroforestry approach is proposed to regenerate the productivity and viability of the plantations, while generating benefits to the environment and rural populations.

Degraded coconut plantation

This project is a cooperation of Sri Lankan and Dutch partners and stakeholders with expertise in agronomy, agroforestry, business models, natural resource management and stakeholder participation

The value of agroforestry

The 'Agroforestry on tea and coconut plantations in Sri Lanka' project aims to contribute to an enhanced environmental and socioeconomic sustainability of the production systems of the Sri Lankan tea and coconut plantation sectors. Diversification of plantations through agroforestry is seen as a promising alternative to current agricultural practices.

Agroforestry combines different types of woody and non-woody crops and sometimes animal species to provide multiple environmental, social and economic benefits and create synergies between them.

Agroforestry-based interventions have the potential to restore the productivity of degraded tea and coconut plantations. Production of goods and services will diversify and environmental and economic performance will improve.

View of Adams Peak from a tea plantation

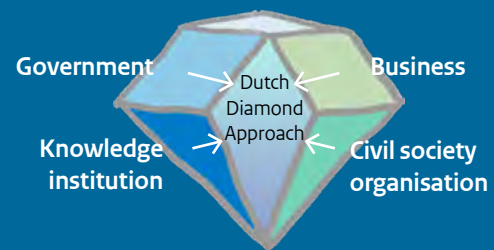


The role of RVO/GRO

On behalf of RVO Private Sector Development Toolkit, in cooperation with the Netherlands Embassy in Colombo, GRO has designed the project setup.

As the project lead, GRO strategically coordinates the project and its members from different organizations.

GRO also takes a leading role in building dialogues and organizing participatory multi-stakeholder processes, for example through bringing together the Project Advisory Committee with its various participants representing all four corners of the Dutch Diamond.



Agroforestry is location specific

While there is strong momentum for agroforestry, a transformation of degraded plantations into highly productive, and economically and socially viable agroecosystems is not straightforward.

Agroforestry requires adaptation to the specific climatic and social context and may also ask for new market linkages and alternative business models. Cross-sectoral collaboration is essential. Therefore participatory approaches and on-farm piloting are designed to adapt opportunities to the local context and generate lessons learned.

Integrated & participation

Agroforestry in this project is piloted in a way that integrates agronomic, environmental, social and economic aspects.

A multi-stakeholder and participatory approach is used to achieve strong involvement of stakeholders at the local, national and international levels. Both public stakeholders, such as the Sri Lankan Tea and Coconut Research Institutes and government ministries, as well as private sector stakeholders, such as the owners, managers and workers of tea and coconut plantations, are actively engaged.



Project setup

Selection of plantations

The tea and coconut plantations that provide pilot locations in this project were carefully chosen through a selection process.

The selected plantations are motivated to learn and experiment on their plantation. They are willing to reflect on their current way of working and are able to make financial investments for the suggested interventions. Both the plantations and other project partners are open to working in a participatory setting.

Technical Assistance

RVO is the project manager of an international project team consisting of experts from both Sri Lankan and Dutch organizations. The Sri Lankan University of Peradeniya, supported by the Dutch Wageningen University and Research, and IUCN Sri Lanka bring in technical assistance. This includes knowledge and experience with agroforestry models, the local climatic and social context, and business cases.

Baseline study

There is no blueprint for the perfect tea or coconut agroforestry system: system designs depend on the specific conditions of the plantation, including a clear identification of the degradation issues to be tackled. On each pilot location a baseline study was conducted, which includes both agronomic, ecologic, economic and social indicators. The process of conducting a baseline study also helps further identifying and prioritizing the issues to be addressed.

Agroforestry scenarios

The baseline is followed by drawing up possible scenarios for a suitable agroforestry model on each plantation.

These scenarios were established by the project team and were discussed in interactive sessions with plantation owners and managers.

After this, each plantation chose its final agroforestry model to work with.

Agroforestry models

The agroforestry model – one tailor-made model for each plantation – serves as a starting point for the envisioned transition. It includes the main agroforestry principles that underly this pilot, the co-creation principles used, system and actor analyses, descriptions of the plantations, SWOT analyses, short-, medium- and long term goals of the agroforestry pilot (specified for the agroecological, economic and social domains). It then describes the agroforestry production models, consisting of management interventions aimed at different interacting components that shape the agroecological system, e.g. soil, vegetation, water. This is followed by a business model that is aligned with the production system. It describes the financial aspects of the interventions, and how these fit within the current and future business opportunities of the plantations. Finally, it describes the social benefits of an agroforestry system, including a human-resources management plan and the ambition to improve livelihood for workers.

Implementation

After the inception phase, which lasted more than one year, the implementation phase started. In general plantations are in the lead to implement the suggested interventions at the pilot site and in their operational strategy, but they work in close collaboration with the project team.

The first step consists of land preparation (e.g. soil improvement measures and removal of unproductive coconut or tea trees), and capacity building (e.g. generating organizational awareness of new HRM plan and identifying new business opportunities).

The second step is the agroforestry model implementation, consisting among others of planting new crops, developing and conducting training programs on the new agricultural practices and developing opportunities for marketing and value addition of agroforestry products.

Continuous adaptation

It is crucial to realize that agroforestry models are dynamic. The availability of resources change during the different development stages of the tea or the coconut trees and allows for different crops or trees to be introduced as intercrops at different stages. Labor and input needs may change over time, as well as revenues. Therefore, the proposed agroforestry models will be constantly adapted to changing needs and context.

Monitoring for management and learning

Monitoring and evaluation of the processes and impacts of the transition towards agroforestry is critical to ensure that the environmental and social benefits are achieved on the different plantations.

Monitoring and evaluation is equally important to draw lessons for future interventions on other plantations in Sri Lanka and elsewhere.

The reflexive monitoring team of RVO is involved to yield insight in the overall process. They support RVO/GRO in their role of ensuring the project is on track to achieve its objectives, by taking a helicopter view and extracting lessons learned.

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Published results

Wageningen University and Research, partner of this project, published the paper “Agroforestry in Tea and Coconut Plantations in Sri Lanka” in 2022, which is meant to inspire others with what can be achieved through agroforestry-based interventions.

Lessons to share

With this project, RVO/GRO seeks to share lessons learned with other plantations and stakeholders in the tea and coconut sectors for purposes of inspiration, (tailored) replication, spin-off and scaling up of agroforestry interventions throughout the sectors.

The project will formulate guidelines for the sustainable management of degraded tea and coconut plantations based on an agroforestry approach.

By facilitating a public-private partnership and building an internationally embedded agroforestry network in Sri Lanka, the project offers an opportunity for a larger group of stakeholders to scale up, support or extend this project to other locations, policy or fields. Part of the project structure is the Project Advisory Committee (PAC), which serves as the project's advising body. Its members are stakeholders from both the private and public sectors, and knowledge institutes. Through this collaboration the project aims to reach a wider group of stakeholders (e.g. other plantations in the sectors and policy makers at national level) both throughout the project duration and thereafter.

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