



# Sustainable Economics for Forest Restorations

Lessons learned from the field  
in three regions of Guatemala





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### Lessons Learned from the Field

Launched in 2015, ForestValues aims to restore and conserve tropical forests in Guatemala through private-sector partnerships and investments. In this publication, directed at all organizations and communities seeking to combine forest restoration with the commercialization of sustainable products, we share the primary lessons learned over seven years of working in the field.

# Introduction

## Conservation and Development

We start with two basic truths: first, that the world's forests are extremely important for global water cycles, the climate, and the preservation of biological diversity, and second, that global demand for products such as palm oil, soy, cocoa, and coffee continues to grow. Despite a wide range of conventions, laws, initiatives, and promises developed at all political levels, attempts to preserve essential ecosystems often fall short due to inconsistent implementation, insufficient enforcement, and lacking funds. One effective strategy for assuring long-term forest restoration and conservation is combining sustainable protection and production systems that benefit local populations.

## Biodiverse Agroforestry Systems

ForestValues - Productive Partnerships has implemented various measures for forest restoration and conservation linked to nature-positive value chains. The central idea behind this approach is that tropical products can be cultivated for global consumption in a way that simultaneously promotes the socioeconomic development of local populations and protects ecosystems – namely, by way of values chains of products derived from biodiverse agroforestry systems that generate income and at the same time contribute to the conservation and restoration of forests.

The first phase of the project was implemented from 2015 to 2020 by the German Tropical Forest Foundation OroVerde, working together with Guatemalan NGOs Fundación de los Defensores de la Naturaleza and Heifer Guatemala and using funding from the International Climate Initiative of Germany's Federal Ministry for the Environment. The second phase of the project began in 2021 and will run through 2023.

Already, the project has yielded several important insights into the factors that promote or hinder:

### Lessons Learned from the Field

- the restoration and establishment of agroforestry areas,
- the establishment of robust value chains,
- the local capacities of farmers and the organizational development of agricultural associations,
- forest conservation measures.



Workshop on organizational development.

## About this Publication

How can those working in the field offer adequate support to producers in forest areas? How do we develop practices that promote ecosystem health while taking local interests into account? The lessons we've learned so far are presented below and should enable subsequent projects to optimize their measures. We've divided our insights into two categories: DO's: What has worked well in the ForestValues project? and DON'Ts: What have we learned to avoid? For each category, we provide a checkbox for application in the field.



A biodiverse agroforestry system with banana, cocoa, and other crops.

# Strategies for the Sustainable and Productive Restoration of Forest Areas

Cultivating products in biodiverse agroforestry systems is a validated strategy for combining forest restoration and the economic development of the communities that live within them. To be most effective, projects should take the following considerations into accounts:

## Do's

- ▶ Use species adapted to the area – they make biodiverse agroforestry systems more sustainable because they maintain the local ecosystem.
- ▶ Establish biodiverse agroforestry systems with attractive income-generating products for the community.
- ▶ Promote crop diversity – it offers many ecological and economic advantages and boosts food security.
- ▶ Prioritize restoration areas in cooperation with local communities.
- ▶ Explore beekeeping as a complement to agroforestry – if there is a demand in your region, it can operate as a source of additional income and ensure pollination of the prevailing crop species.
- ▶ Develop production systems that use sustainable methods: plant complementary crops and establish sustainable water systems; exclude monoculture and chemicals.

## Don't's

- ▶ Generate overly high expectations among producers; switching cultivation to agroforestry systems is a lengthy process and at least as labor-intensive as conventional cultivation.
- ▶ Give technical instructions and then abandon producers; it is important that the technical team provide ongoing assistance throughout the production cycle.



**Rudy Bautista,**  
Coordinator  
ForestValue, Phase 1,  
FDN

*„Biodiverse agroforestry systems are an effective strategy for meeting the various needs of families living in forest communities. Planting mixed varieties offers a win-win: cash crops can be sold for long-term self-sufficiency and income generation, while diversified crops can help promote local food security. In the long term, biodiverse systems also provide timber for housing construction or sale, generating sustainable livelihoods that discourage a return to conventional agriculture and livestock farming. Overall, they both promote local community health and the conservation of natural ecosystems in protected areas.”*



**Products of biodiverse agroforestry systems.**

### Checkbox for your Sustainable Biodiverse Agroforestry Systemsostenible

- Community involvement
- Local species
- Income-generating products
- Product diversification
- Technical support
- Sustainable methods

# Value Chains and Marketing

Once the restoration system has been defined, the work on the value chains of the selected products can begin. Here, it is essential that the entire process be well thought out and monitored from start to finish, which can take several years.

## Do's

- ▶ Encourage producers to work together in cooperatives or other organizations that allow them to gather a higher quantity of products, achieve higher sales volumes and better prices, minimize costs (machinery, working capital, etc.), and attract more investor interest
- ▶ Implement a tailored training process in good manufacturing practices from the start: this should be specialized for each crop and adapted to the existing level of knowledge and experiences.
- ▶ Link small producers with buyers and maintain communications with companies, including by providing production updates.
- ▶ Work with the highest possible transparency to establish stable relationships between producers and buyers in order to build trust and guarantee annual purchases.
- ▶ Consider all ecological, social, and sanitary standards on the national and international markets for each crop.
- ▶ Make sure you have sufficient investments and working capital at the beginning of the process in order to increase added value.

## Don't's

- ▶ Place all risk management burdens on the shoulders of producers; it is important to sensitize producers to the need to negotiate risk-sharing with buyers.
- ▶ Become discouraged and lose patience; building value chains is a time-consuming process that requires a great deal of effort on the part of promoters, technicians, and buyers.
- ▶ Underestimate the importance of the technical team: choose technicians who like business and are generally interested in the market, then make efforts to keep them motivated.
- ▶ Promote financing only for key products (e.g. cocoa, coffee); instead, develop financial strategies for the entire variety of the agroforestry system (e.g., banana, pepper, achote).
- ▶ Sell all the product to a single buyer; it's better to maintain a network of buyers in order to stimulate the market.
- ▶ Expect too much from producers: they have very high technical knowledge, but they don't always have a business mentality or experience working in collectives. It is important to introduce them to the professional market gradually.
- ▶ Act without information. If economic knowledge of the market is lacking, conduct a profitability study before starting, then develop a business model based on demand and the effect of differential costs.
- ▶ Focus only on the international market in the choice of products. It doesn't always offer better prices and may entail high unforeseen expenses. The local market is an excellent option if there is demand for certain products.

## Checkbox for Your Production Value Chain

- Tailored training in product processing
- Diverse buyer network
- Stable business relationships
- Working capital/seed funds
- Product collection centers
- Consideration of social, ecological, and sanitary health standards
- Financial investments
- Product diversification
- Strengthening of the business mentality among producers
- Profitability study
- National and international market analysis



**Larry Paul,**  
Coordinator  
ForestValues,  
Heifer Guatemala

*„Developing a project that includes several links in the value chain is an interesting challenge. Taking the producers' existing knowledge into account, accompanying them in improving their productive and organizational capacities, and jointly seeking markets has allowed us to build value chains that respond to demand in local and international markets. To guarantee the sustainability of the process and of the supply-demand and producer-consumer relationship, we work hand-in-hand with producers to help them make the transition to mature organizations that maintain customers with quality products.“*

# Organizational Development

In the process of building value chains, local structures such as committees, associations, and cooperatives are central to the success of production and marketing. It is important to ensure that producers experience the maximum potential benefits of the new organizations they create and that they are able to manage the systems autonomously in the long term.

## Do's

- ▶ Encourage local communities to organize themselves into associations or cooperatives. Follow up on the organizational processes and governance of these groups. Support the achievement of legal statutes.
- ▶ Conduct periodic capacity evaluations with appropriate tools. Adapt training plans to local needs, taking into account individual knowledge of marketing, business, production costs, profit margins, and the benefits of operating as collectives.
- ▶ Maintain a good database so that future projects can continue capacity-building and contribute new insights. In other words: make the knowledge generated through the project usable for follow-up projects and new projects.
- ▶ Encourage those in the community to rotate leadership, share responsibility, and discuss experiences. Note: leaders should be able to speak the national language in order to negotiate with buyers.
- ▶ Provide enough training and support that the new collectives can ultimately operate autonomously (i.e. in both production and sales).
- ▶ Specifically encourage the inclusion and active participation of women and youth, two groups that are essential for the sustainability of the structures and require specific investment.



**Anique Hillbrand,**  
Coordinator  
ForestValues,  
OroVerde

*„It's important to us that local organizations develop the necessary structures and capacities to stand on their own two feet once we leave. Close accompaniment over a considerable period of time is indispensable for success. In order to better understand the current state of each organization and identify what it needs to grow, we recommend using competency assessment tools to monitor development and offering workshops tailored to specifically identified needs“*

## Don't's

- ▶ Introduce new products and then leave farmers all alone. They need initial support in the process of building new value chains, including ongoing discussion and exchange.
- ▶ Plan in haste. Sales and marketing will be entirely new to some producers; learning processes can take time, and that should be taken into account in project planning. Make sure to organize educational workshops from the very start, with a strong focus on skills and capacities that have not yet been developed.
- ▶ Underestimate the staff needed for establishing new collectives and making them strong enough to last. In light of often significant geographic distances, it's important to have enough staff that long training gaps are avoided.
- ▶ Withdraw too soon after helping to create collectives. More support may be needed for the production and education processes, especially after a change of leadership.
- ▶ Let the new collectives languish on their own! Encourage producers to connect with other organizations in their area.



Visiting a cocoa drying plant.

## Checkbox for Good Organizational Structures

- Creation of local organizations
- Support in the legal process
- Workshops on management and organizational developmento
- Involvement of women and youth
- Monitoring capacities
- Long-term planning
- Sufficient staff
- Producer networks

# Conservation of Natural Forest

Restoration through biodiverse agroforestry systems has as its overall goal the conservation and sustainable use of the tropical forests, the very basis of our lives. To that end, biodiverse agroforestry systems are complemented with conservation measures that take a holistic approach to the sustainable development of the entire landscape. The following considerations should be taken into account in the development of such projects :

## Do's

- ▶ Use suitable tools when monitoring forests. Cooperate with different institutions to make joint use of expertise and tools.
- ▶ Increase connectivity between biodiverse agroforestry systems in order to create biological corridors.
- ▶ Stay in contact with communities to encourage their participation. Organize monitoring of the areas together with community members to foster self-responsibility, trust, understanding of relevant processes, and the sustainability of the measures enacted. Patrols and institutional presence have proven to be very effective.
- ▶ Inform communities of all project results, e.g., through a communications team.
- ▶ Ensure that technical teams know why they are working with biodiverse agroforestry systems and what they're ultimately working towards.

## Don't's

- ▶ Implement the conservation strategy too suddenly. It requires a process of sensitizing communities to the value of forests and the benefits they bring.
- ▶ Act alone. Advocacy at the political level is essential for gaining the support of authorities.

*„The implementation of joint measures between producer groups and the technical team for forest conservation is one of the main focuses of the project. In the long term, the families we work with benefit from extra income from their biodiverse agroforestry systems, while conserving and enriching the remaining forest on their plots. The end result of this effort is that families have better livelihoods, local producer groups develop economic strength, and forests have a better chance at survival.”*



**Obed Hoil,**  
Coordinador del  
proyecto BOSQUES,  
FDN



**A family in its agroforestry system.**



**Natural Forest in Petén, Guatemala.**

### Checkbox for Long-Term Conserved Forests

- Monitoring tools
- Inter-institutional and community patrols
- Raise awareness of the importance of forests
- Work at the policy level
- Cooperate with authorities

# Sustainable Economics for Forest Restorations

## Lessons learned from the field in three regions of Guatemala

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Supported by:



Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety

based on a decision of the German Bundestag