Agroforestry Systems in the Peruvian Amazon

Farmers' Perceptions and Management Adjustments

Leidy Johanna Bedoya Giraldo | Supervisors: Prof. Dr. Natalie Laibach & Dr. Valentina Robiglio

San Martín, Perú

Introduction

By 2018, Peru ranked as the seventh most deforested country in the world, with 13% of the Peruvian Amazon already cleared (EnvolVert, 2023). Conventional farming contributes heavily to environmental degradation and global emissions (Gassner & Dobie, 2022). In response, numerous projects in San Martín have promoted agroforestry systems aiming to enhance livelihoods while restoring degraded lands. Yet:

- How do farmers perceive these systems over time?
- Do they experience the promised benefits?
- What challenges remain?

Objectives



Types of agroforestry systems



Farmers' benefits and challenges



Changes in management practices



Perceptions across social groups

Understanding farmers' perceptions of agrosilvicultural practices is crucial to ensure that long-term investments in restoration and sustainable land use are both socially relevant and ecologically effective.



Methodology

Case selection

2 organizations with >10 years of agroforestry projects, working with smallholders and Indigenous communities

Participants

47 semi-structured interviews

- 15 Smallholders
- 14 spouses
- 15 Indigenous farmers 3 technicians

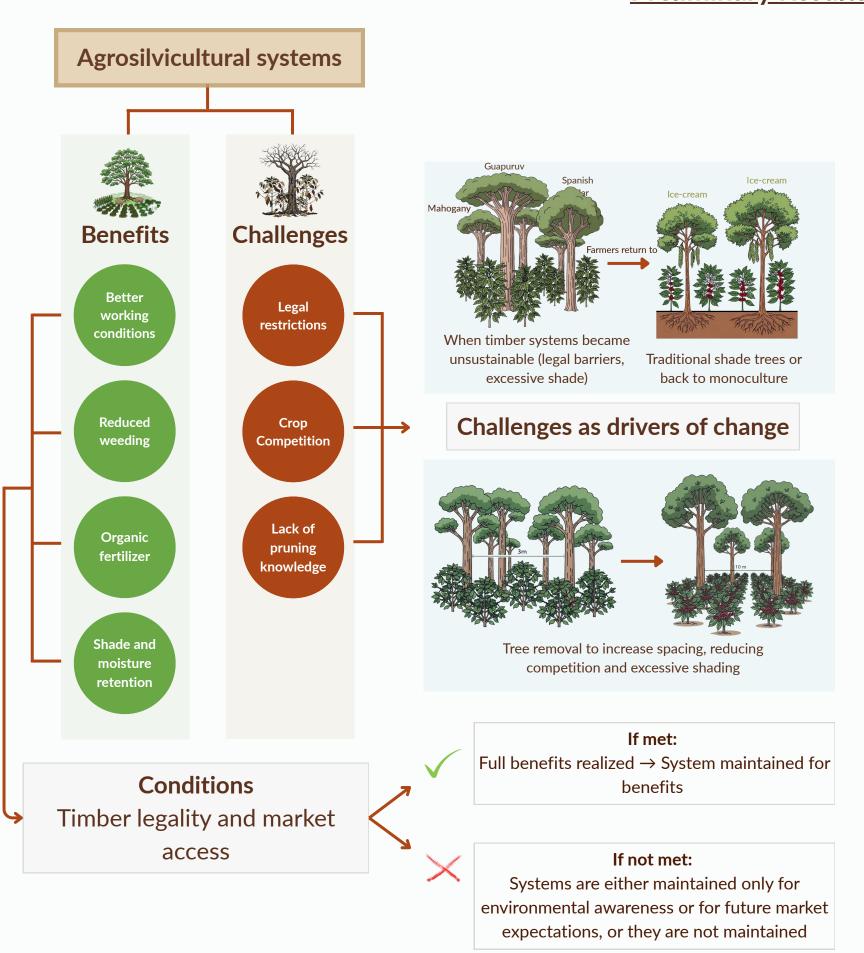
3 Focus groups discussions

Women, smallholders, indigenous farmers

Approach

Plot observations, open coding in Atlas.ti, preliminary Group Concept Mapping.

Preliminary Results



- Farmers adapt Agrosilvicultural systems
 dynamically as they learn from challenges
 Shaina: highly competitive for resources
 Guapuruvu: breaks easily in wind, damages crops
- Traditional shade trees as Guaba (Inga edulis) and Rufinde (Inga lineata) are passed down through generations as "the right trees for coffee" Non-competitive shade, natural fertilization, and food/ market products.
- Legal barriers and weak markets limit timber adoption

Without legal permissions and markets, farmers have little incentive to maintain timber species

Environmental awareness emerges as a strong motivator where economic incentives are weak In such cases, the benefits of tree-crop associations outweigh the absence of timber markets.

From Results to Action

Group Concept Mapping (GCM)

Visualisation of links between benefits, challenges, and practices among social groups

Agroforestry Box tool - CIFOR-ICRAF Classifying systems and management types

Contribution to SMART PlatformAgroforestry data hub for San Martín





Acknowledgments





As part of the ATSAF Academy, this research was funded by the Junior Scientists Tandems project (JST). JST, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), is being arried out by ATSAF (Council for Tropical and Subtropical Agricultural Research) e.V. on behalf of the Deutsche Gesellschaft für

Internationale Zusammenarbeit (GIZ) GmbH. Special thanks to Prof. Dr. Natalie Laibach from the HSRW and Dr. Valentina Robiglio from CIFOR-ICRAF for their valuable guidance.















