

Junior Scientists Tandems

Final Report

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Title: Adoption of Agroecological Practices Among Women Farmers in India: Mapping Market and Value Chain Actors and Assessing Labour Intensity.

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1. INTRODUCTION

I would like to express my sincere gratitude to ATSAF e.V. for granting me the opportunity to conduct my field research in India through the Junior Scientist Program. The financial and institutional support provided by ATSAF was instrumental in enabling my stay in Maharashtra, where I carried out the field component of my Master's thesis.

My research focuses on the **adoption of agroecological practices by women farmers in Maharashtra, India**. The overall aim of the study is to understand *how* and *why* women farmers adopt agroecological methods, and to identify the challenges, barriers, and opportunities they encounter in the process. As part of this work, I conducted a market and value chain mapping exercise to examine the linkages between women farmers and different market actors. Additionally, I assessed the labour intensity of agroecological practices and explored how labour demands shape women's experiences, workloads, and decision-making capacities.

This report presents an overview of my research objectives and the key activities undertaken during my field stay. It also includes a reflection on my personal and professional experiences in India, and how this opportunity contributed to my academic development and practical understanding of agroecology and gendered farming systems.

2. RESEARCH OBJECTIVES AND ACTIVITIES

My thesis investigates how women farmers adopt and practice agroecological farming in Maharashtra, with a particular focus on the labour dimensions associated with agroecological cultivation. The study examines:

- the labour undertaken by women farmers in their own fields,
- the additional labour they perform as agricultural wage workers in other fields, which forms an important source of secondary income for many rural households.

In these villages, both men and women frequently rely on agricultural labour work throughout the year, making labour availability, intensity, and seasonality a critical component of farming livelihoods.

A second major objective of the research is to map and analyse the network of market actors involved in the value chain of women farmers practising agroecological cultivation. Understanding the awareness, opportunities, and challenges faced by women farmers in accessing these markets is essential for identifying interventions that can strengthen their access, bargaining power, and income.

Together, these objectives aim to provide a holistic understanding of the labour dynamics, market linkages, and structural constraints influencing women's engagement with agroecology in Maharashtra

To address these objectives, I employed a **mixed-methods research** approach, combining both qualitative and quantitative tools. A review of existing literature on agroecological practices, adoption drivers, gendered labour, and market participation in India formed the conceptual foundation of the study.

The main data collection activities included:



a) **One-to-One Interviews** with Women Farmers

- Conducted individual interviews to document women's experiences with agroecological practices.
- These interviews provided insights into labour intensities, challenges, barriers, and opportunities associated with their farming activities.
- A brief cost-benefit dataset for the previous agricultural season was also collected to understand economic implications.

b) **Focus Group Discussions (FGDs)**

- Facilitated FGDs that enabled women farmers to collectively identify and discuss the market actors involved in their value chains.
- These discussions helped map the market flow and offered deeper insights into structural bottlenecks and potential interventions.

c) **Value Chain Mapping** Through Net-Mapping Exercises

- Using information from FGDs, a value chain net map was created to visualise the dynamics of agroecology-related actors.
- The mapping exercise captured the flow of resources, relationships between actors, influence levels, and power asymmetries shaping women farmers' bargaining positions.

d) **Key Informant Interviews**

- Conducted interviews with key market actors identified by the farmers, including traders, FPO representatives, intermediaries, and input suppliers.
- These conversations provided the "other side of the value chain," offering clarity on how the market functions and how different actors influence pricing, procurement, and access.

3. REFLECTIONS ON FIELD EXPERIENCE, CHALLENGES AND LEARNING

My six-month stay in India was both **enriching and transformative**, offering profound professional insights and personal growth. Working closely with women farmers, local experts, market actors, and my supervisors enabled me to engage deeply with the complexities of agroecology and the gendered dynamics of agricultural systems in Maharashtra. This experience strengthened my understanding of how women navigate labour demands, market uncertainties, and socio-cultural norms while adopting agroecological practices.

Living in **Pune** and **Murtizapur** exposed me to two contrasting worlds. Pune, a rapidly developing metropolitan city with advanced infrastructure and diverse cultural life, differed starkly from Murtizapur, a quiet rural taluka in Akola district where agriculture forms the backbone of daily life. Experiencing both settings helped me appreciate the **regional diversity, cultural richness, and socio-economic contrasts** that shape farming communities in India. The traditions, languages, and everyday interactions I encountered across the state fostered a deep sense of curiosity and connection.

Throughout the fieldwork, I strengthened key competencies in **research coordination, field logistics, and cross-cultural communication**, all essential for a career in international agricultural development. Observing the resilience, creativity, and commitment of smallholder women farmers—especially their ability to balance household responsibilities, farm labour, and wage work—was particularly inspiring.



These interactions reinforced my interest in research that bridges science, policy, and practice in ways that truly support farming communities.

Fieldwork also brought its share of challenges. **Poor road infrastructure**, long travel distances, and unpredictable weather occasionally disrupted planned data collection. **Language barriers** made it necessary to work closely with translators and field facilitators to ensure accuracy and cultural sensitivity during interviews. Coordinating surveys and focus group discussions across multiple **gaon (villages)** required extensive planning and adaptability, strengthening my organisational and problem-solving skills. These challenges, however, became valuable learning moments that shaped my understanding of field realities.

Overall, the experience provided me with a richer appreciation of the **social and institutional dimensions of agricultural change**. I learned that the adoption of agroecology is not simply a technical transition—it is deeply influenced by trust, social networks, access to fair markets, and the perceived benefits of support systems. This realisation has broadened my perspective on sustainable development and reinforced my commitment to contributing to research that elevates women farmers' voices and strengthens their agency within agricultural systems.

4. CONCLUSION AND FUTURE PROSPECT

This research stay has been instrumental in advancing my academic and professional development. The insights gained through fieldwork will not only strengthen my Master's thesis but also contribute to broader discussions on **designing context-specific incentives that support agroecological transitions and sustainable agricultural development**. I believe the findings offer valuable perspectives for policymakers, practitioners, and institutions working to strengthen women's roles in agroecology and enhance the sustainability of farming systems in India.

Looking ahead, I intend to disseminate the results through academic publications, presentations, and knowledge-sharing platforms so that the lessons learned can inform future agricultural programs. I also hope to continue engaging with smallholder farming systems, agroecology, and gender-responsive innovation—potentially through **doctoral research or professional collaborations** in the field of international agricultural development.

I am deeply grateful to ATSAF for their trust, support, and encouragement, which made it possible for me to conduct this meaningful research in India.

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Figure 1: Farmer interview



Figure 2: FGD in Hatgoan



Figure 3: FGD in Hatgaon



Figure 4: FGD in Shelu Bazar



Figure 5: Interview with market actor



Figure 6: interview with farmer