



Junior Scientists Tandems

Final Report

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Title: Understanding Behavioral Change Towards Agroecological Transition Among Key Stakeholders in Madhya Pradesh, India

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1. Introduction and Background

My name is Vrindaja Vikram, currently pursuing a master's degree in Agricultural Sciences at the University of Hohenheim, Germany. My academic interests converge at the intersection of sustainability, socio-economic systems, and agricultural development in the Global South. Through the ATSAF Junior Scientists Tandem (JST) Program, I undertook a six-month research stay with the International Food Policy Research Institute (IFPRI) in India, where I collaborated on a development-oriented study investigating behavioral and institutional dynamics in agroecological transitions.

My master's thesis was conducted as part within the CGIAR's One Agroecology Initiative, specifically Work Package 5, which focuses on the role of agency and behavioral change in agroecological transformations. The study explored how behavioral drivers, including motivation, attitudes, collective action, and perceived behavioral control, influence the adoption of agroecological practices among key stakeholders in Mandla District, Madhya Pradesh, India. Utilizing the ACT (Agency, Context, Transformation) framework developed by the Agroecology Initiative, the study contributes to emerging discourse on systems change, local agency, and the co-creation of knowledge in agri-food systems.

Thesis Objectives:

1. **Understanding Behavioral Change:** To analyze the mindsets, attitudes, and perceived behavioral control of key stakeholders—farmers, NGOs, local institutions, and market actors—towards agroecological practices in Mandla.
2. **Exploring the Role of Collective Actions:** To examine the role of collective actions in facilitating behavioral changes towards agroecological transitions among smallholder farmers.

2. Location and Host Institutions

The research was anchored in two primary locations:

- **International Food Policy Research Institute (IFPRI), New Delhi:** My time at IFPRI allowed me to engage with leading researchers, participate in seminars and policy dialogues, and observe how global food policy is shaped. The multicultural and interdisciplinary environment deepened my understanding of large-scale research ecosystems. Alongside the academic exposure, living in the hustle of Delhi gave me a very different but equally enriching life experience. I learned to navigate the bustling urban environment, developed everyday negotiation and bargaining skills with local market vendors, and immersed myself in the city's vibrant street life. Celebrating Diwali on the streets of Delhi and with IFPRI colleagues added warmth and cultural depth to my stay. These experiences, though informal, were formative in building personal resilience and adaptability.
 - **Mandla District, Madhya Pradesh:** This field site, characterized by tribal populations, socio-economic vulnerability, and a high dependency on rainfed agriculture, offered rich insights into the complexities of implementing agroecological practices. My local stay and fieldwork were supported by PRADAN, a grassroots development NGO, through their local office in
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Narayanganj block. With the assistance of PRADAN executives, I initiated contact with key stakeholders, including smallholder farmers, women's groups, and institutional actors. This support was instrumental in building rapport and enabling smooth access to remote field sites. Fieldwork across several villages allowed me to engage meaningfully with a diverse array of actors—ranging from SHGs and FPOs to CSOs and government officials—thereby grounding my research in lived realities and local socio-cultural dynamics.

3. Activities and Achievements

My research employed a qualitative case study approach. Primary data was collected through:

- Semi-structured interviews with over 20 stakeholders, including farmers, NGO representatives, local institutions, and market actors.
- Focus Group Discussions (FGDs) with members of Community Nutrition Gardens (CNGs) and women-led Self Help Groups (SHGs).
- Institutional interviews with MNREGA, SRLM, and PRADAN personnel.
- Participant observation and field immersion in selected sites (both successful and less successful).

Using the ACT framework, I will analyze key enablers and barriers related to behavior change. These included institutional support, economic incentives, social capital, gender norms, and perceived autonomy. Despite minor logistical issues, the field phase was successfully completed and yielded a robust dataset that now informs my thesis analysis.

4. Memorable Field Story

One of the most moving experiences came from a visit to a Community Nutrition Garden (CNG) managed by tribal women. Among the many touching experiences in Mandla, one stands out vividly. A participant expressed, *"We feel proud when you come to our fields to study from us."* This sentiment encapsulated the reciprocal nature of participatory research—where the researcher is also a learner. These women, most of whom were landless and illiterate, had collectively leased land to grow vegetables for home use and local markets. Their determination underscored how **dignity, solidarity, and local agency** are as central to agroecology as ecological practices.

5. Personal Experience

This JST experience was transformative both professionally and personally. Navigating between Germany and India, I developed a deeper cross-cultural awareness, honed my qualitative research skills, and cultivated the sensitivity needed to engage meaningfully with rural communities. Building trust, navigating language barriers, and understanding complex socio-ecological systems helped me grow as a field researcher.

Adjusting to life in remote villages of Mandla, where access to clean water, regular food supplies, and mobile connectivity was often limited, profoundly shaped my perspective. In these settings, I witnessed firsthand how communities work directly from food and fields, and



how non-timber forest products (NTFPs) remain vital to their subsistence and livelihoods. Limited digital access and infrastructural constraints were not just logistical hurdles—they were windows into the resilience, ingenuity, and self-reliant ethos of tribal life.

In addition to fieldwork, I had the unique opportunity to visit the Kanha Tiger Reserve, one of India's most renowned protected areas. Experiencing a wildlife safari through its dense sal forests and diverse ecosystems was exhilarating. It gave me a deeper appreciation for conservation efforts, biodiversity, and the interconnectedness of ecological and agricultural systems—reinforcing why agroecology must also account for environmental stewardship and ecosystem resilience.

This immersion taught me to embrace a simpler lifestyle, to listen more attentively, and to observe deeply. It reaffirmed that agroecological transitions are not only about technical solutions but also about respecting local knowledge, enabling agency, and building pathways rooted in social and ecological harmony. Living and learning in such contexts was a humbling reminder that sustainability must be both contextual and people-centered.

6. Conclusion and Acknowledgements

This research journey, made possible by the ATSAF JST program, has been a pivotal step in my academic and professional development. It re-affirmed my commitment to interdisciplinary research for sustainability and equity in agriculture. I now carry forward enhanced analytical capacities, practical fieldwork experience, and a renewed sense of purpose in contributing to the global agroecological transition.

Acknowledgements

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 - I thank **ATSAF e.V.** for facilitating this unique opportunity and believing in my potential.
 - I extend my heartfelt appreciation to the people of Mandla, especially the women farmers, whose stories and strength were the soul of this research.
 - I am deeply grateful to the **PRADAN field officials**, whose **unwavering support, logistical assistance, and deep contextual knowledge** made my fieldwork both feasible and meaningful.
 - Lastly, I thank my peers and the University of Hohenheim community for their continued support throughout this journey.
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Figure 1: Meeting with agricultural officials and male farmers



Figure 2: Tribal Hamlet



Figure 3: Visit to a Comprehensive Homestead Model site.



Figure 4: Women Farmers transplanting Paddy



Figure 5: Weeding operation conducted by female workers

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Figure 6: FGD with Women Self Help Group



Figure 7: Memorable photo with PRADAN officials