Transition processes to dynamic agroforestry and the role of training in smallholder systems in Bolivia

Julia Männle¹, Johanna Rüegg², Joachim Milz³, Lorenz Probst¹

¹University of Natural Resources and Life Sciences (BOKU), Dept. of Sustainable Agricultural Systems, Austria ²Research Inst. of Organic Agriculture (FiBL), International Cooperation, Switzerland ³Ecotop Foundation, Bolivia

Contact: jmaennle@students.boku.ac.at





BACKGROUND

- Bolivian farmers face climate change, soil degradation & instable market prices
- In Alto Beni, local actors have promoted dynamic agroforestry as an alternative production system for almost 20 years
- Question: has the training and a possible transition to dynamic agroforestry changed farmers' socio-ecological realities?



OBJECTIVES

- Analyzing possible transition processes to dynamic agroforestry in Bolivian smallholder agroecosystems
- Understanding how a training program may have contributed to these processes

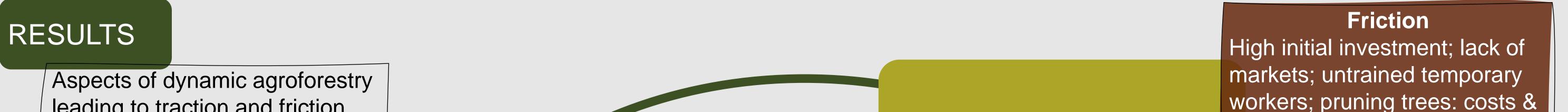
CONCEPTUAL FRAMEWORK

- Agroecosystems are not static but in constant **process of becoming** (Darnhofer, 2016)
- **Farming** is a dynamic, relational phenomenon including non-human agency (Darnhofer, 2020)
- **Transitions** can be described focusing on **political**, **practical and personal spheres** characterized by enabling or impeding processes of traction or friction (Gosnell et al., 2019)

Picture Farmer explaining her experimental plot installed during the dynamic agroforestry training program in 2019

METHODS

- Semi-structured interviews, narrative walks, mapping
- Respondents: training participants (farmers and/or technicians) (n=21) from Alto Beni, Palos Blancos, Caranavi, San Ignacio, Altiplano
- Qualitative content analysis



leading to traction and friction regarding an intended transition process

PRACTICAL SPHERE

Traction

Increased resilience of the farming system; pleasant to work in the shade; independence from external inputs; comunity creation: strong social relations between practitioners, family, training provider & farmer cooperative; practices of care (humans & non-humans)

lack of knowledge; lack of a social support system (family, community); lost relations with other participants & training providers; large geographical distance to training provider (Beni, Caranavi, Altiplano)

POLITICAL SPHERE

Friction

Beni, Caranavi, & Altiplano: lack of any form of supporting network; governmental discourse favoring technology- & inputbased agriculture

Traction

Recognition of positive effects of agroforestry by local government and local organic cooperative

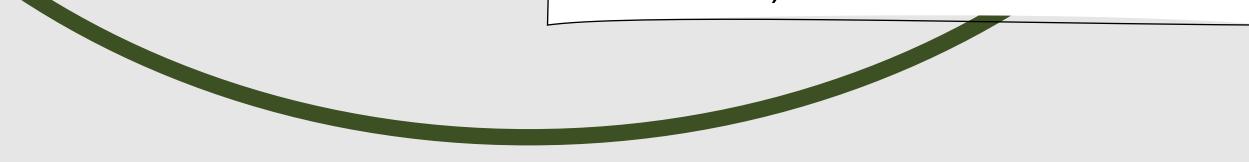
TRANSITION PROCESS

Traction Reconficuration of values; embodied positive experiences associated with the new system; feelings of kinship with nature; reformulation of personal objectives; relief: producing food sustainably; healthy food, negative past experiences (pesticides, soil degradation, pests, forest fire...)

PERSONAL SPHERE

Friction

Desire to have a "clean" field; lack of knowledge (pruning, plant species, sucesional processes); being used to traditional farming practices (slash & burn)



CONCLUSIONS

- Transition processes in agroecosystems are highly contextualized regarding social, cultural and political aspects
- The prevailing focus on technical knowledge limits longer-term resonance of learning processes
- Proximity to training providers and continuous support are key factors for lasting change in practices
- Training strengthens social and socio-ecological relations and sustains change by creating experiences in the personal sphere

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