Agroecology TPP

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Agroecology delivers on societal goals across economic, environmental and social domains

Key findings and lessons learned from applying TAPE in Benin, Ethiopia, Kenya, and Madagascar

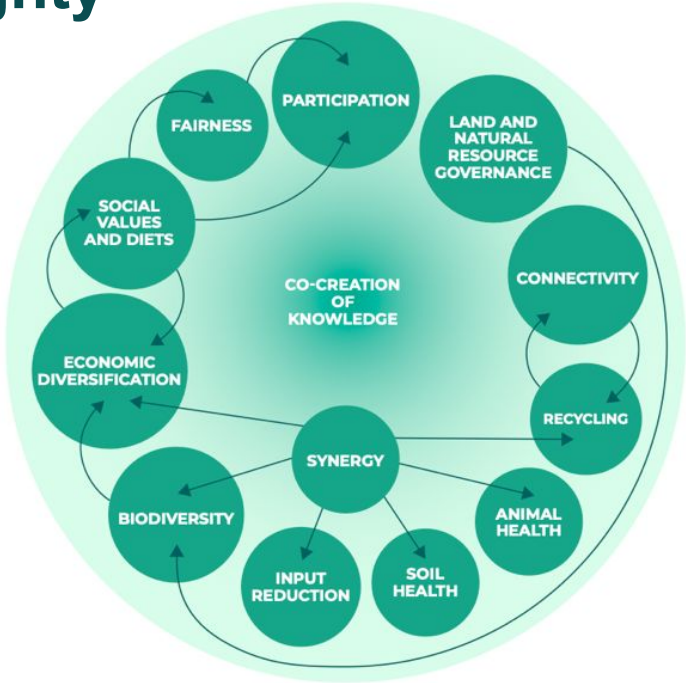
National Agroecology Symposium, 6th of November 2024

Matthias Geck

Agroecology and Food Sovereignty

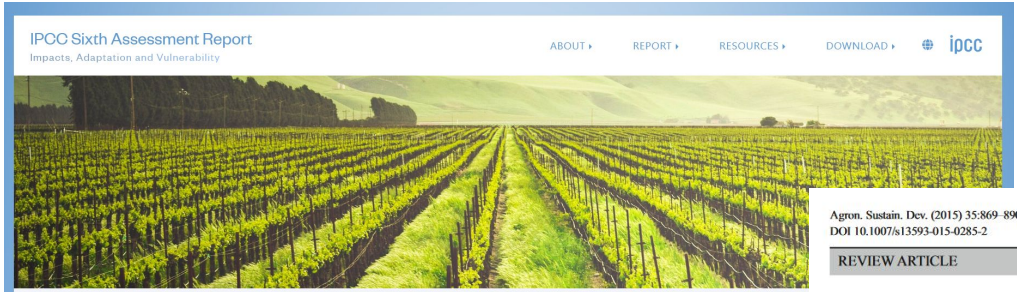
Food Sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

From the Declaration of Nyéléni, the first global forum on food sovereignty, Mali, 2007.



13 principles of Agroecology (HLPE, 2019)

Agroecology and Climate Resilience



Chapter 5: Food, Fibre and Other Ecosystem Products

Agron. Sustain. Dev. (2015) 35:869–890
DOI 10.1007/s13593-015-0285-2

REVIEW ARTICLE

Agroecology and the design of climate change-resilient farming systems

Miguel A. Altieri · Clara I. Nicholls · Alejandro Henao · Marcos A. Lana

Food and Agriculture Organization of the United Nations

biovision

THE POTENTIAL OF AGROECOLOGY TO BUILD CLIMATE-RESILIENT LIVELIHOODS AND FOOD SYSTEMS

BACKGROUND PAPER

World Agroforestry · Prifysgol Bangor University · CGIAR Research Program on Forests, Trees and Agroforestry

THE CONTRIBUTION OF AGROECOLOGICAL APPROACHES TO REALIZING CLIMATE-RESILIENT AGRICULTURE

Fergus Sinclair, Alexander Wezel, Cheikh Mbow, Susan Chomba, Valentina Robiglio, and Rhett Harrison

ELSEVIER
Current Opinion in Environmental Sustainability
Volume 62, June 2023, 101275

Agroecology as a transformative approach to tackle climatic, food, and ecosystemic crises

Rachel Bezner Kerr [1 # ✉], Julio C Postigo [2 #], Pete Smith [3], Annette Cowie [4], Pramod K Singh [5], Marta Rivera-Ferre [6], Maria Cristina Tirado-von der Pahlen [7], Donovan Campbell [8], Henry Neufeldt [9]

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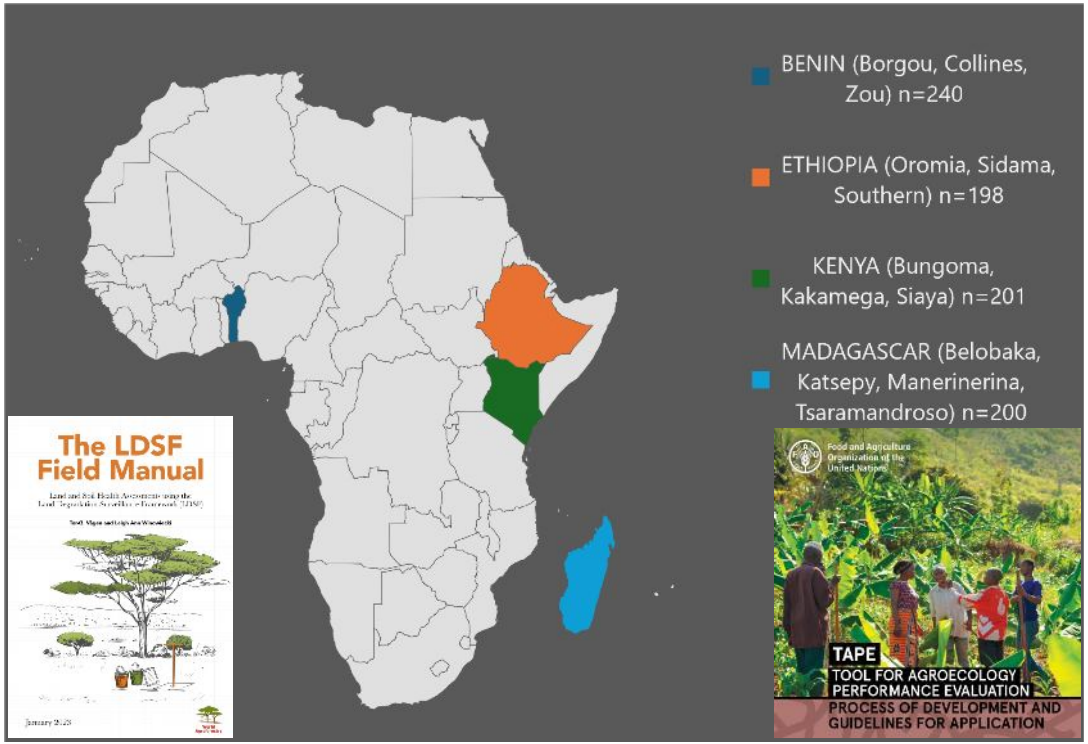
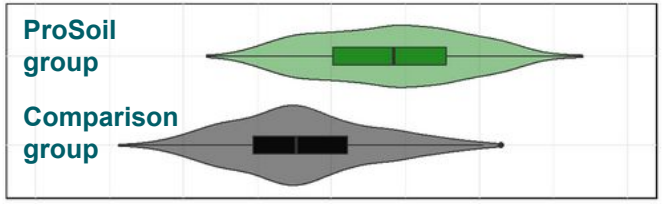
How do differing degrees of agroecological integration correlate with multi-dimensional performance?

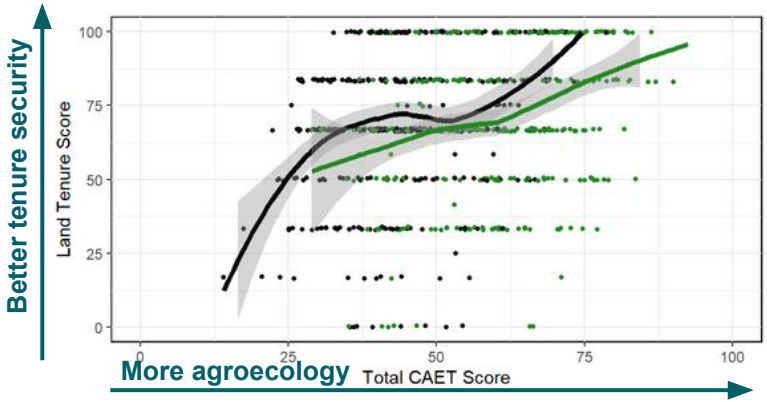


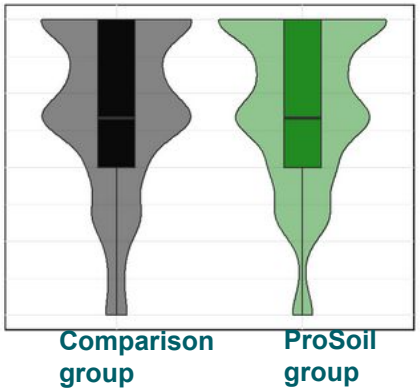
- **TAPE + LDSF applied on 839 farms in Benin, Ethiopia, Kenya, and Madagascar in the context of ProSoil/ProSilience**
- **'ProSoil group' (n=420): households that actively participated in ProSoil activities**
- **'Comparison group' (n=419): households without previous participation in ProSoil activities**

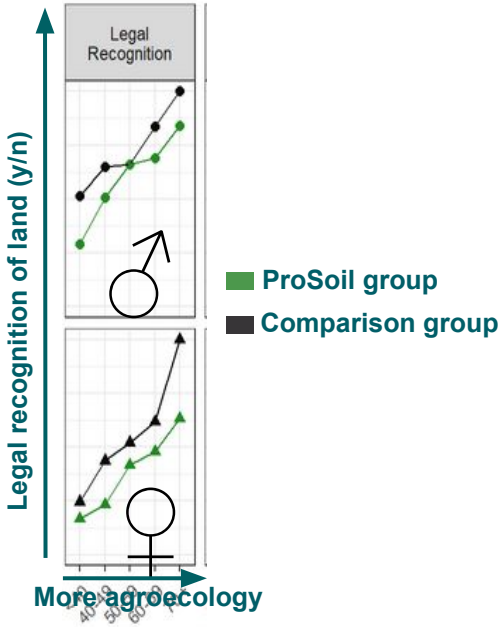
Secure land tenure critically important for agroecological transitions



Statistic	Non-ProSoils	ProSoils
Mean	70.3	71.8
Median	66.7	66.7
SD	27.3	26.8
IQR	50.0-100.0	50.0-100.0

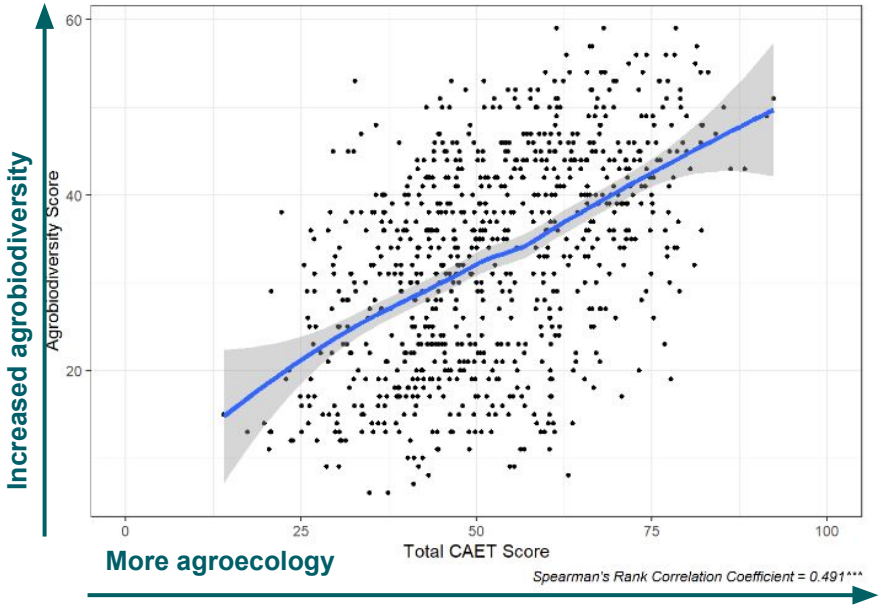


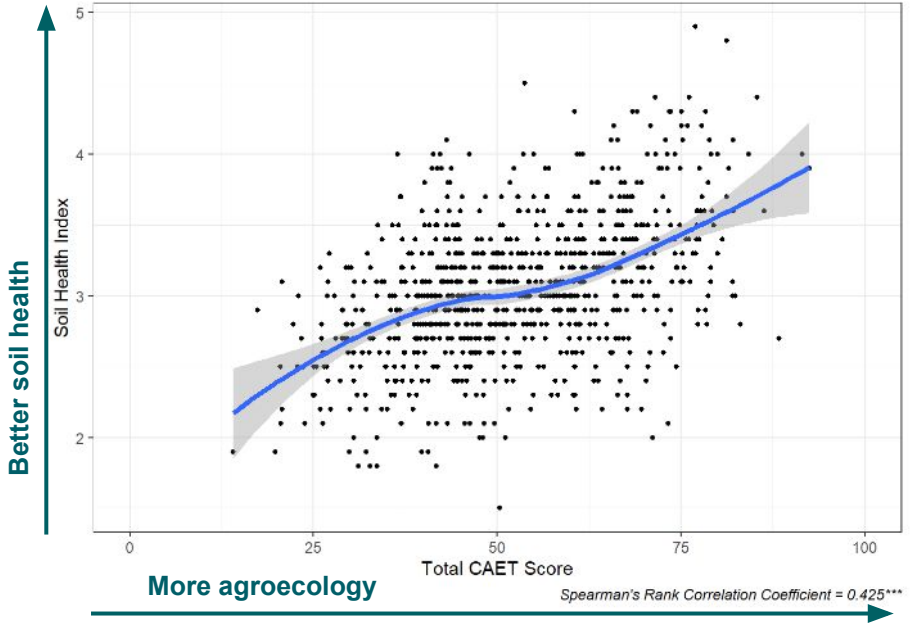




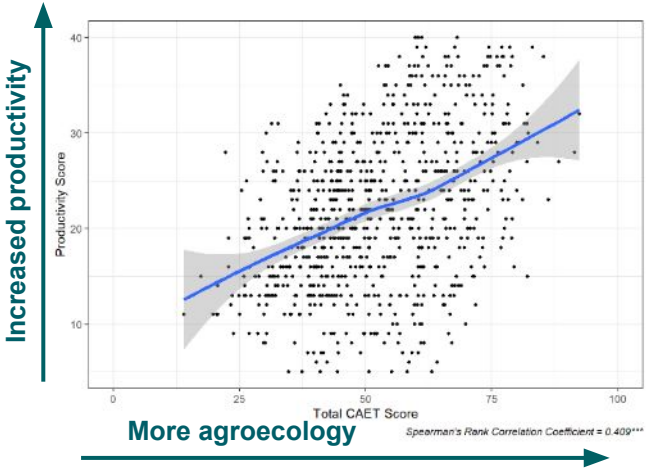
Very strong correlation between 'agroecologicalness' and legal recognition of land titles for both women and men, but percentage of women having tenure security considerably lower, particularly in ProSoil group.

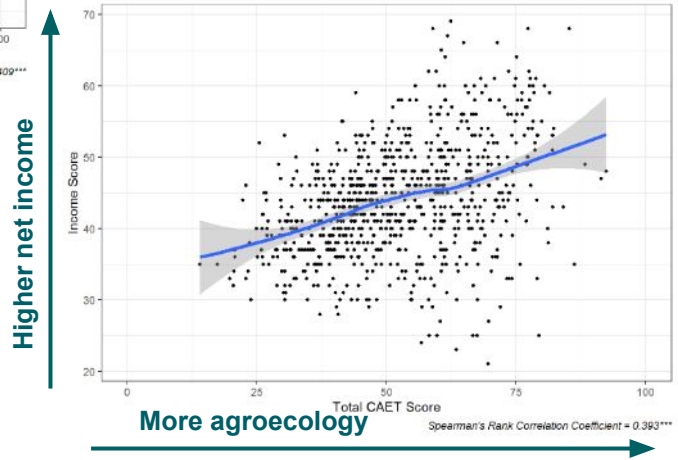
Agroecology is good for the environment, but not only!





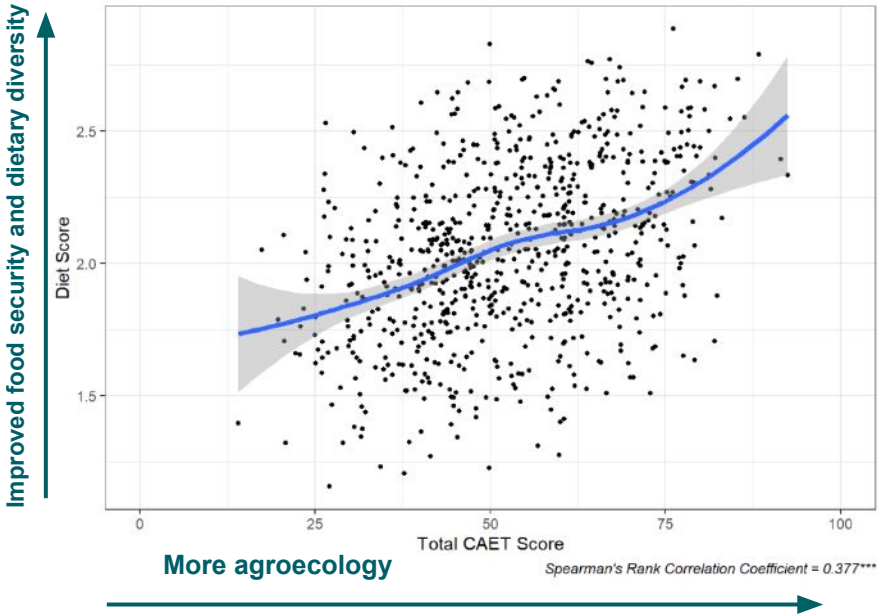
Agroecology status correlates positively with both productivity and income

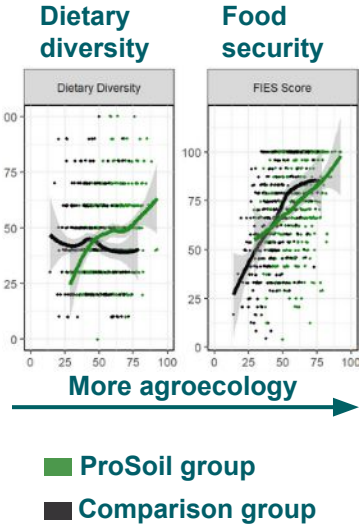




- In the study locations in Benin, Ethiopia, Kenya, and Madagascar fostering farmers' agroecological transitions appears to be an effective strategy for increasing households' net incomes and for significantly increasing the overall productivity of farming systems
- In combination with the agrobiodiversity results, this makes a strong case for agroecology as a key approach for achieving biodiversity targets in line with the land sharing paradigm

Agroecology status correlates positively with food security and dietary diversity





- On average more agroecological households perceive a significantly lower degree of food insecurity
- Only in ProSoil group ‘agroecologicalness’ also correlates strongly with dietary diversity

Some key take away messages

- In the study locations, agroecology seems to be a viable and effective approach to achieving improved food security and nutrition as well as increased productivity and incomes while creating important environmental co-benefits.
- More work needed, particularly in creating more enabling policy and business environments for agroecological transitions.
- When assessing the performance of agroecology it is pivotal to not limit agroecology to farming practices but take the socio-cultural, economic and political dimensions into account.

Agroecology TPP

bit.ly/AgEc_TPP

Above all, we extend our gratitude to the farmers and community members who participated in this study, to the community facilitators, key informant interview partners, and to the numerous workshop participants in all the four countries

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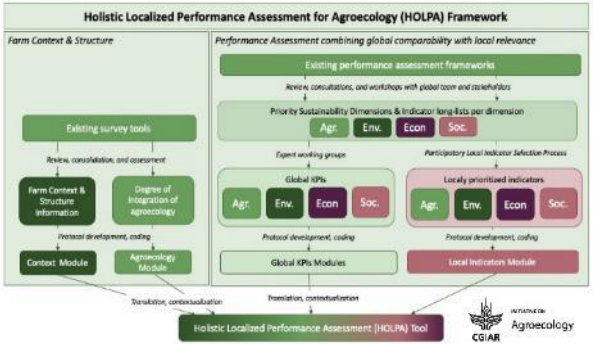
The MAP project is a collaborative effort of the Agroecology TPP funded by the Federal Ministry for Economic Cooperation and Development (BMZ), co-funded by the European Union (EU) and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

The ‘Metrics Domain’ of the Agroecology TPP



ELEMENTA
Science of the Anthropocene

Moeller, NI, et al. 2023. Measuring agroecology: Introducing a methodological framework and a community of practice approach. *Elem Sci Anth*, 11: 1. DOI: https://doi.org/10.1525/elementa.2023.00042

Outlook on Agriculture
Volume 52, Issue 3, September 2023, Pages 349-359
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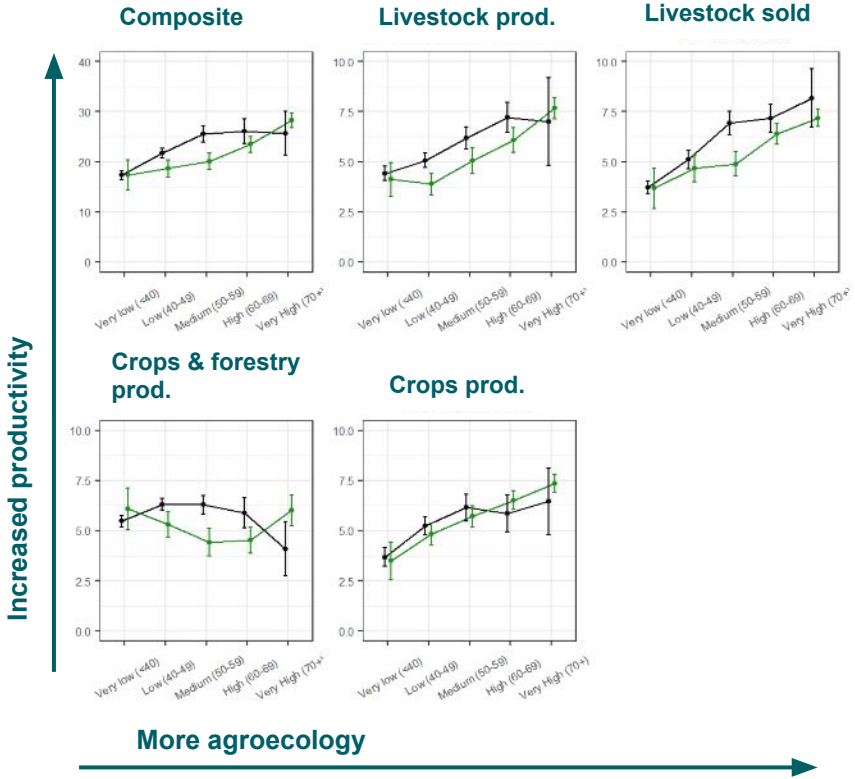
https://doi.org/10.1177/00307270231196309

Sage Journals

Perspectives

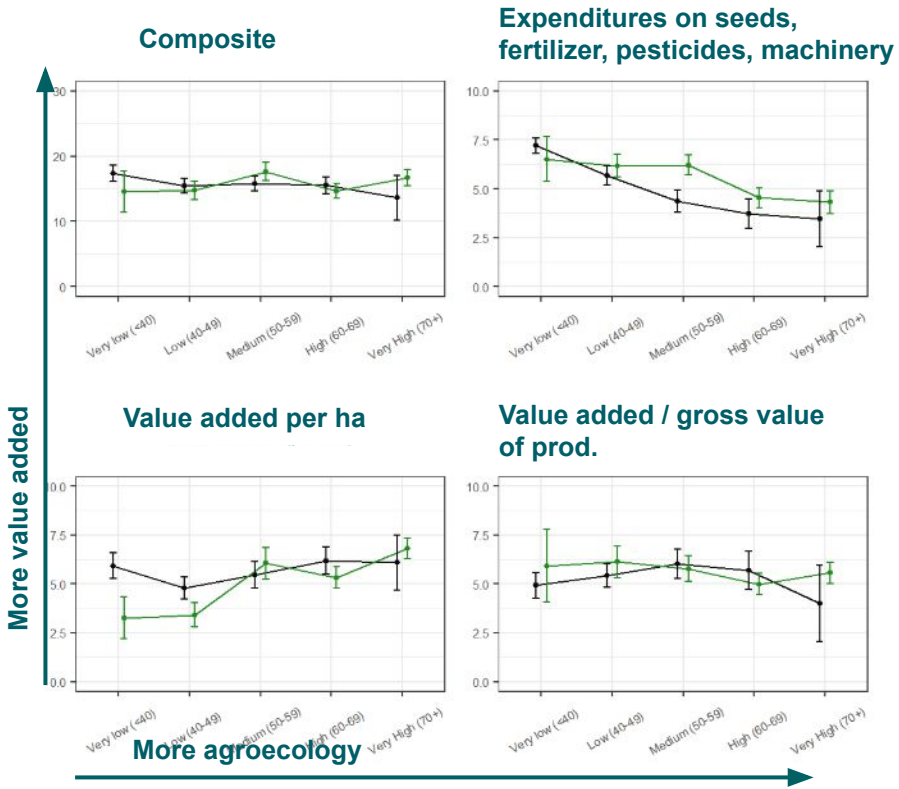
Measuring agroecology and its performance: An overview and critical discussion of existing tools and approaches

A closer look on productivity



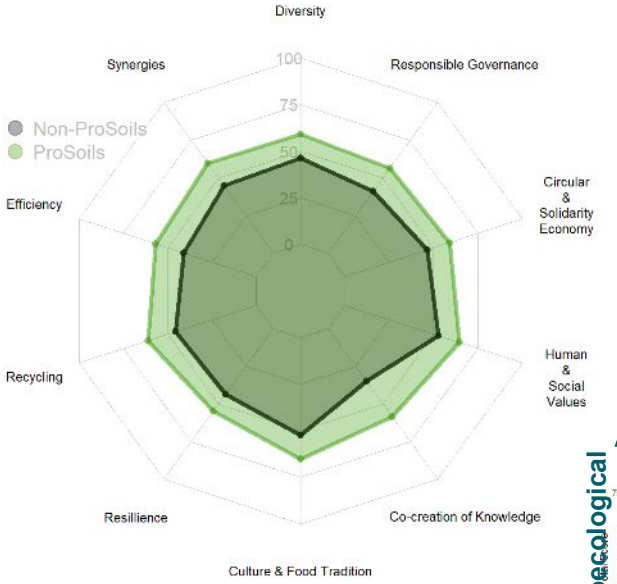
- Strong correlation between ‘agroecologicalness’ and all TAPE productivity indicators apart from value of forestry products
- This indicates that a more dedicated focus on timber and non-timber forest products, including through agroforestry, could further improve the productivity of agroecology in the study locations

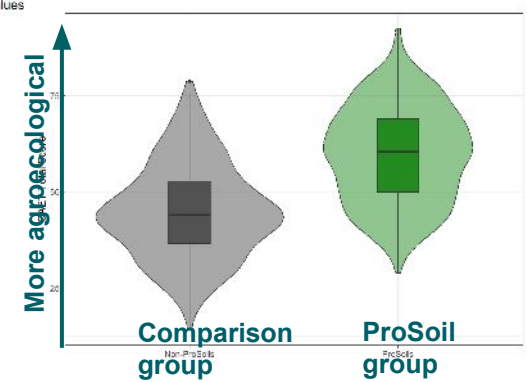
Little value added on farms and the need to reduce costs of inputs



- No significant results on the TAPE value added indicators
- 'Agroecologicalness' correlates with increased expenditures on inputs despite concept of reducing dependencies on commercial inputs
- Deliberate efforts needed to reduce costs of ecological inputs to further foster agroecological transitions

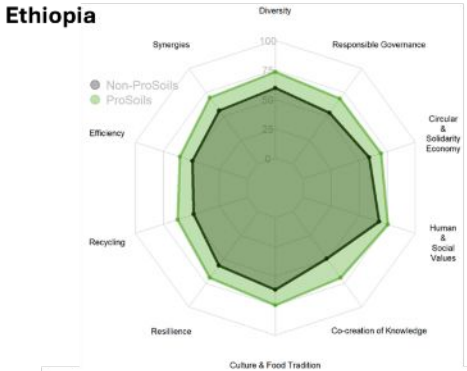
ProSoil supported farmers' transitions to agroecology in a holistic sense

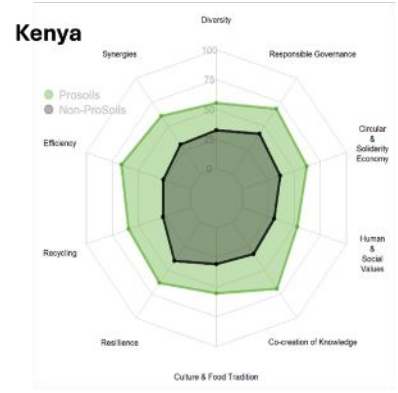


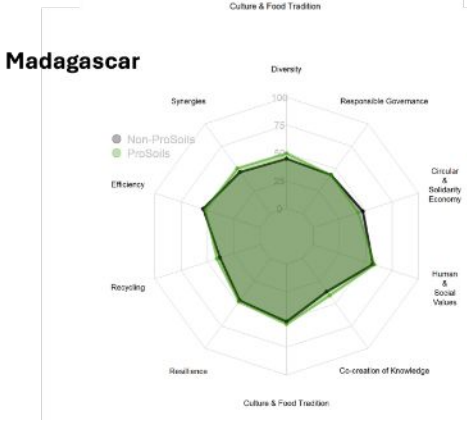


- The households in the ProSoil group consistently showed higher average CAET scores across all ten elements of agroecology than the households in the comparison group
- Also in the ProSoil group most households are still at an incipient stage of transition
- The difference between the two groups is most pronounced for the agroecology element co-creation and sharing of knowledge.

More deliberate food system focus needed to further support transitions







- **In Kenya the difference is largest, but average CAET scores are lowest -> interventions of ProSoil more effective in fostering agroecological integration at incipient stages of agroecological transitions?**
- **In contexts of more advanced starting points of agroecological transitions a more deliberate food system approach, focusing on the enabling environment – including policies and institutions, market development, business and investment environments, as well as research and extensions systems – may be required to further foster agroecological transitions**