

Sustainable practices improve farmers' well-being

June 28 2022



A nature-rich farming landscape in northern Kilombero, Tanzania. The well-being of smallholder farmers in this landscape is interlinked with multiple environmental and socioeconomic factors. Credit: The authors

Small-holder farmers in rural Tanzania can improve food security and their well-being by adopting agroecological practices, new research funded by UKRI Global Challenges Research Fund has shown.

Led by Newcastle University, the study reveals that agroecological practices, such as agroforestry, have a variety of positive impacts, with significant improvements for the material indicators, such as financial savings, [land area](#) and household assets. Another area with strong positive links to agroecological practices is security, which includes providing for dependents, security from theft and a higher number of different livelihood-generating activities.

The research team conducted 467 household surveys in rural Tanzania and found that most farmers applied at least one agroecological practice in their farms. The most common agroecological practices were mulching, intercropping, and post-harvest use of residues.

Published in the journal *Agronomy for Sustainable Development*, the findings show that a transition to more ecological farming can have positive impact on human well-being, even if that transition complements rather than fully replaces conventional farming. The research also highlights the importance of fundamental technical training and capacity building of smallholder farmers for the uptake of sustainable agricultural practices.

Relevant land use and management policies

Lead author, Dr. Marion Pfeifer, Associate Professor, Landscape Ecology and Management at Newcastle University's School of Natural and Environmental Sciences, said: "We show that practices taking advantage of nature's contributions to people within agricultural systems can contribute positively to [food security](#) and human well-being of smallholder farmers in rural landscapes of the tropics.

"The findings are important for the formulation of policies relevant for land use and management, such as how to manage rural landscapes for biodiversity and well-being outcomes. During the past year, we have

been working with partners in government and industry as well as farmers to exchange and discuss our findings. We will continue to work with them to identify pathways that allow to increase adoption of agroecological practices, where feasible. As an added bonus, this may well allow us to increase or conserve the trees planted on and around farmed land, adding climate change mitigation values and opportunities for potentially tapping into carbon payment schemes."

More information: Sergio G. Milheiras et al, Agroecological practices increase farmers' well-being in an agricultural growth corridor in Tanzania, *Agronomy for Sustainable Development* (2022). [DOI: 10.1007/s13593-022-00789-1](https://doi.org/10.1007/s13593-022-00789-1)

Provided by Newcastle University

Citation: Sustainable practices improve farmers' well-being (2022, June 28) retrieved 20 May 2024 from <https://phys.org/news/2022-06-sustainable-farmers-well-being.html>

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