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“Reconcile land system changes  
with planetary health”

## Co-creation across continents in practice: A citizen science approach to assessing socio-economic impacts of agroforestry

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### Abstract

Despite positive attitudes of researchers towards participatory approaches in tropical agricultural research, a large share of today's research is still done *for* farmers rather than *with* farmers. This is problematic, as projects that do not involve farmers in research-related decision-making are likely to reproduce colonial structures through creating extractive researcher-respondent relationships. Moreover, they tend to generate little impact because the problem framing and the resulting innovations often do not match the farmers' realities. Many researchers agree that participatory approaches, including citizen science, have the potential to increase the relevance and effectiveness of research projects. Yet, structural reasons – including lack of resources or methodological skills – often prevent intentions to work in a participatory way from being put into practice.

We argue that it is worth looking for co-creation opportunities even under imperfect research conditions. While it would be ideal to involve farmers already at proposal development stage to ensure that their needs and priorities inform the research design, we are keen to explore ways to create spaces for joint decision-making in given research settings.

Our research on socio-economic impacts of agroforestry is situated within the Horizon Europe project “AfroGrow” that investigates agroforestry outcomes and supports the adoption of agroforestry in six African countries: Botswana, Côte d'Ivoire, Ethiopia, Kenya, Sénégal, and Zambia. A central feature of the project is the involvement of societal stakeholders through so-called Living Labs, i.e., innovation environments that locally connect citizens, public authorities, private stakeholders and research institutions. While co-creation thus is at the heart of the very project idea, the remote nature of the collaboration with colleagues based in different African and European countries poses challenges, including the limited technology access of some of the farmers involved.

In our Tropentag contribution, we present our research approach – a mixed-methods longitudinal design including participatory cost-benefit analysis – in an early stage of the project, contributing to the discourse around participatory research in agriculture while aiming to learn from perspectives of interdisciplinary colleagues and facilitating a lively and enriching discussion.

**Keywords:** Africa, living labs, participatory research, socio-economic impact assessment, sustainability, wellbeing