

DOCUMENTING AND EVALUATING THE SOCIO-ECONOMIC VIABILITY OF AGROECOLOGICAL PRACTICES ACROSS AFRICA



Research within the framework of the Transformative Partnership Platform (TPP) on agroecological approaches to building resilience of livelihoods and landscapes.



RESEARCH
PROGRAM ON
Forests, Trees and
Agroforestry



The first research priority to be addressed by the Transformative Partnership Platform on agroecological approaches to building resilience of livelihoods and landscapes is **documenting and evaluating the socio-economic viability of agroecological practices across Africa**. This will be supported by French funding and co-ordinated by the agroecology research priority of the CGIAR programme on Forests, Trees and Agroforestry (FTA) of which Cirad is a managing partner.



Context

Agroecological approaches, based on principles of input reduction, recycling, biodiversity, animal and soil health, diversification, synergy, co-creation of knowledge, social values, connectivity, equitable governance and participation, are increasingly seen as being able to make a key contribution to transitioning to sustainable agricultural and food systems (HLPE, 2019ⁱ).

In sub-Saharan Africa, agroecological practices such as integration of crops and livestock (Vall et al., 2019ⁱⁱ), use of crop residues to produce compost (Blanchard et al., 2013ⁱⁱⁱ), use and management of woody perennials in fields and landscapes (Felix et al., 2019^{iv}), and conservation agriculture (Tiftonell et al., 2012^v) are promising means to sustainably increase productivity. There are some successful examples of adoption of agroecological practices in Africa, generally based on traditional practices in resource-limited contexts such as agroforestry with *Faidherbia albida* in savannas, and cereal legume intercropping; or intensive systems with specific markets for high value products such as push-pull vegetable production, or fruit-tree agroforestry.

Despite these success stories, there is still skepticism about the ability of agroecological approaches to transform African agriculture at scale (Mugwanya, 2019^{vi}). This skepticism is partly caused by lack of comprehensive assessments of the socio-economic performance of farming systems in terms of food security and income (Nyantakyi-Frimpong et al., 2017^{vii}) and concern that agroecological practices are sometimes labor rather than capital intensive (Place et al, 2003^{viii}). Given the unique demographic dynamics and low economic diversification in sub-Saharan Africa, it has been suggested that agroecological practices could play a role in absorbing the 14 million young people each year that reach working age (Losch, 2016^{ix}) but the returns to the additional labor remain insufficiently explored to confirm this (Nin-Pratt and McBride, 2014^x).

Systematic assessments of the socio-economic levers and lock-ins enabling or constraining agroecological transitions in sub-Saharan Africa are lacking. These include factors such as access to knowledge, given the knowledge intensive character of agroecological processes; the need to secure and access land; seeds; water; or biodiversity and the equitable (in terms of age, gender, religion, class, etc.) access to productive resources, decision-making, and task distribution (Anderson et al., 2019^{xi}). Access to market is another key dimension, not least because the willingness to pay for ecosystem services delivered by agroecological practices is closely related to their economic viability. Finally, farmer support and public incentives are largely directed at subsidizing industrial agricultural practices, thereby mitigating against adoption of agroecological approaches (Sinclair et al., 2019^{xii}).



Aim

The overall objective of this call is to better understand the socio-economic viability of agroecological practices and their livelihood system impacts across environmental and demographic gradients in Africa. This is a scientific and methodological challenge because of the lack of a clear set of metrics able to document all the dimensions of this viability over time.

The intention is to conduct an holistic evaluation including:

1. The quantitative and qualitative assessment of the labour (e.g. workload, employment, arduousness, skill level, meaningfulness) required by agroecological practices;
2. Income (including returns to labour) and food security outcomes for households with contrasted access to: income sources (non-farm and off-farm), markets and policy incentives;
3. Intra household levers and lock-ins (in terms of access to knowledge, land tenure, gender, risk aversion, religion and age equity); and
4. The economic value of ecosystem services and disservices relevant to the location of the case studies (this may include provisioning, regulating and cultural services).



Scope

the study will focus on the field to farm and household scales. Assessments at value chain or regional scales are beyond the scope of this specific call, but possible connections and interfaces with other work on socio-economic assessment of value chains and landscapes or territories will be welcome.



Modality

the study will be realized through a competitive call for selecting a set of case studies in Africa involving CGIAR and/or French teams and their partners. A three step process will be developed over three years:

1. Selection of case studies and protocol definition,
2. Implementation and reflection; and
3. Analysis across cases studies and synthesis of lessons learnt. This process aims to ensure complementarity and pertinence of the case studies and an efficient analysis across different agroecological practices and economic impacts.

Results will be discussed with key policy makers and widely disseminated, including through high impact scientific publications, policy briefs and a series of high profile events to share key messages emerging from the analysis.

Proposed schedule of activity

Analysis, synthesis and workshops

3 year
timeframe



Implementation and field work

Year 1



Core group **develops a paper setting out the initial scope of the evaluation**, the methods and metrics to be used and a draft protocol for conducting the evaluation. This is done through literature review, stakeholder engagement with key policy makers, private sector and civil society actors. Protocol is pre-tested.



A **design workshop** is conducted to consolidate methods and protocol, select the range of case study locations to be included in the evaluation, discuss and ensure adequate resources for implementing the protocol at each location and establishing a timeline for data collection.



A call is issued for case study locations where the protocol could be implemented. The intention here is to **generate data from locations where partners already have active agroecology programmes in different agroecological zones** (e.g. Maghreb, Sahel and dry East and Southern Africa, humid and sub-humid subSaharan Africa). This call will support analysis of existing data and experience using a common protocol.

Year 2



Reflection workshop to present results and evidence collected during the first round of implementation, discuss emerging trends, analyze the efficacy of the method, revise protocol as necessary and plan second round of evaluation at case study locations.



First round implementation of protocol at case study locations supported by the core methodological development group to ensure consistency.

Year 3



Synthesis workshop to collate data and perform cross-case analysis of data and experience.



Second round implementation of protocol at case study locations.

Wide communication and discussion of results with key policy makers including first class scientific publication and series of high profile events to share key messages emerging from the analysis.



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