WELFARE AND OPPORTUNITIES FOR SMALL-SCALE PRODUCERS AND MSMES IN RURAL AFRICA

DECEMBER 2025

Commercialization, Clusters, and Inclusive Rural Development

Evidence from Ethiopia, Malawi, Tanzania, Uganda, Nigeria, and Ghana

Key messages

- Across six African countries, households that sell crops and/or or run a Micro, Small, or Medium Enterprise (MSME) (hereinafter, "participate") have better inclusion outcomes: higher resilience, empowerment, food security, non farm income, and lower poverty.
- Participation in commercial agriculture / non-farm MSMEs positive associations are strongest in Nigeria and Tanzania, with gains of about 0.2 to 0.3 standard deviations in a composite Inclusion Index, and more modest but positive effects elsewhere.
- Women's empowerment and non farm income are the most strongly and consistently improved dimensions.
- Smallholders with little land also gain in most countries, so commercialization and MSMEs can be inclusive for very small farms.
- Positive correlation among per capita commercial smallholders, agri-downstream MSMEs, and their aggregate revenues allow the creation of a Cluster Index at a meso level.
- Territorial context matters: in Ethiopia, benefits of participation are larger inside dynamic agrifood clusters, while in Nigeria and Malawi, clusters create spillovers for both participants and non participants.
- In low income countries, highly clustered territories tend to be more unequal, while in middle and higher income countries, clusters are linked to lower inequality and broader inclusion.

Summary of INCATA Working Document "Welfare and Opportunities for Small-Scale Producers and MSMEs in Rural Africa: An Econometric Analysis" by Carolina Trivelli, Saweda Liverpool-Tasie, Thomas Reardon, Andrés Fuica, Mauricio Espinoza, Mingda Li and Jhonatan Clausen

WHY THIS STUDY MATTERS

Debates on rural transformation often contrast smallholder farming with large agribusiness, while paying less attention to the "hidden middle" of commercial small-scale producers and agrifood MSMEs. Most empirical work also focuses on households alone and gives little space to the territorial settings where they operate.

This study looks jointly at engagement in commercial agriculture and MSME ownership and how these relate to a set of inclusion outcomes: resilience to shocks, women's empowerment, poverty, food security and diet quality, and off farm income. It also adds a strong territorial lens through a Cluster Index that captures the density and revenue of commercial smallholders and agrifood MSMEs, and nighttime light data as a proxy for local economic activity. The analysis uses comparable multi wave survey data for Ethiopia, Malawi, Tanzania, Uganda, Nigeria, and Ghana to draw cross country lessons.

DATA AND APPROACH

The study relies mainly on LSMS-ISA style national panel surveys in Ethiopia, Malawi, Tanzania, Uganda, and Nigeria, and repeated cross sections in Ghana. These are combined with spatial layers for the agrifood Cluster Index and nighttime lights.

Inclusive development is captured through five dimensions:

- Resilience, built using a RIMA-II style index that combines access to services, assets, social safety nets, and adaptive capacity.
- Women's empowerment, based on an adapted A-WEAI that tracks decision making, control over assets and credit, and workload.
- Poverty, measured as extreme poverty below 2.15 dollars per person per day.
- Food security and diet quality, using the Food Consumption Score and an adapted Global Diet Quality Score where data permit.
- Off farm income, measured as the log of per capita non farm cash income.

These five dimensions are min max normalized and combined through principal component analysis into a single Inclusion Index. The main participation variable is a binary indicator equal to one when a household either sells any crop or runs an MSME. Two way fixed effects regressions by country control for household and farm characteristics, road density, and survey year. The authors also interact participation in commercial agriculture and/or owning a non-farm MSME with the Cluster Index and nighttime lights, run non parametric local polynomial regressions, and use the Cluster Index as an instrument for participation in an exploratory IV strategy.

MAIN FINDINGS

PARTICIPATION IMPROVES INCLUSION OUTCOMES

In all six countries, households that participate in commercial agriculture or MSME activities have higher Inclusion Index values after controlling for observed and unobserved household traits. Positive correlations are largest in Nigeria and Tanzania, with gains of about 0.2 to 0.3 standard deviations, followed by Malawi and Ghana at around 0.14 to 0.16, and smaller but still positive gains in Ethiopia and Uganda (Figure 1).

STRONGEST CHANNELS: EMPOWERMENT AND NON FARM INCOME

When the composite index is unpacked, the most consistent gains are in women's empowerment and non farm income. Participation is associated with large increases in empowerment in Ethiopia, Malawi, Nigeria, and Tanzania, and with higher non farm income in all countries. Food security and resilience also improve, although with smaller effect sizes, and participation is linked to lower poverty in several cases (Figure 1).

SMALLHOLDERS WITH LITTLE LAND ALSO GAIN

Results by land size show positive participation effects for most farm size groups. In Nigeria, the largest gains are for farmers with less than three hectares, often even less than one hectare, and similar inclusive patterns appear in Malawi, Uganda, Tanzania, and Ethiopia. This suggests that commercialization and MSMEs are not only for larger farmers but can also help very small producers.

TERRITORIAL CLUSTERS AMPLIFY OR SPREAD BENEFITS

The Cluster Index captures the density and revenue of commercial smallholders and agrifood MSMEs at territorial level (Figure 2). In Ethiopia, interaction results show that the gains from participation in commercial agriculture / MSMEs are larger in high cluster areas than in low cluster areas. In Nigeria and Malawi, the Cluster Index itself is strongly and positively linked to the Inclusion Index, which indicates spillover benefits that reach both participants and non participants. Nighttime lights show a similar but weaker and mostly non-significant patterns (only in Ethiopia the interaction between participation and nighttime lights is positive and significant), which suggests that agrifood specific clustering matters more than general economic activity alone.

CLUSTERS, INEQUALITY, AND OFF FARM OPPORTUNITIES

A comparison of high and low cluster territories shows that in low income countries such as Ethiopia and Malawi, highly clustered areas tend to have higher income inequality. In middle and higher income countries, clusters are associated with more equal income distribution. Across the board, high cluster areas generate at least 20 percent more off farm income and up to two and a half times more in Ethiopia. They also have smaller average farm sizes and higher shares of women owned MSMEs, pointing to their role as hubs of opportunity for small farms and women entrepreneurs.

ROBUSTNESS CHECKS AND CAUSAL SIGNALS

Alternative definitions of participation, including separate variables for commercialization and MSMEs, commercialization intensity, and broader participation measures, all support the main findings. MSME engagement often shows stronger links to inclusion than crop selling alone. Controlling for reported shocks does not change the main results, and there is some evidence of non linear commercialization profiles in Malawi and Nigeria, with lower gains at very high commercialization levels.

LIMITATIONS AND RESEARCH GAPS

Some index components differ across countries and waves, which required adaptations of standard frameworks for resilience and empowerment. The Cluster Index captures density and revenue of agrifood actors but not softer elements like governance, trust, or leadership inside clusters. Even with fixed effects and instrumental variables, unobserved time varying factors and reverse causality may still influence the results. Climate and agro ecological conditions are only partly captured, although they clearly influence both cluster development and inclusion outcomes.

Future work could use experimental or quasi experimental designs around new clusters or infrastructure investments, explore which household members gain most in terms of gender and age, and follow clusters over longer periods to see how and when they shift from unequal growth hubs to more inclusive territorial systems.

FIGURE 1. COEFFICIENT PLOTS FOR THE RESULTS OF INCLUSION REGRESSIONS BY COUNTRY.

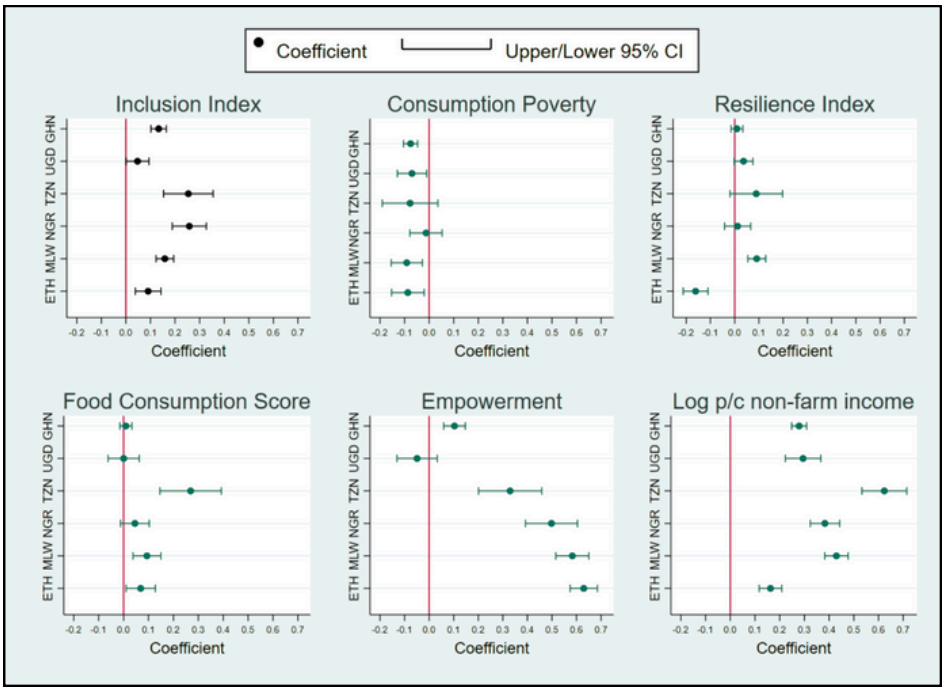
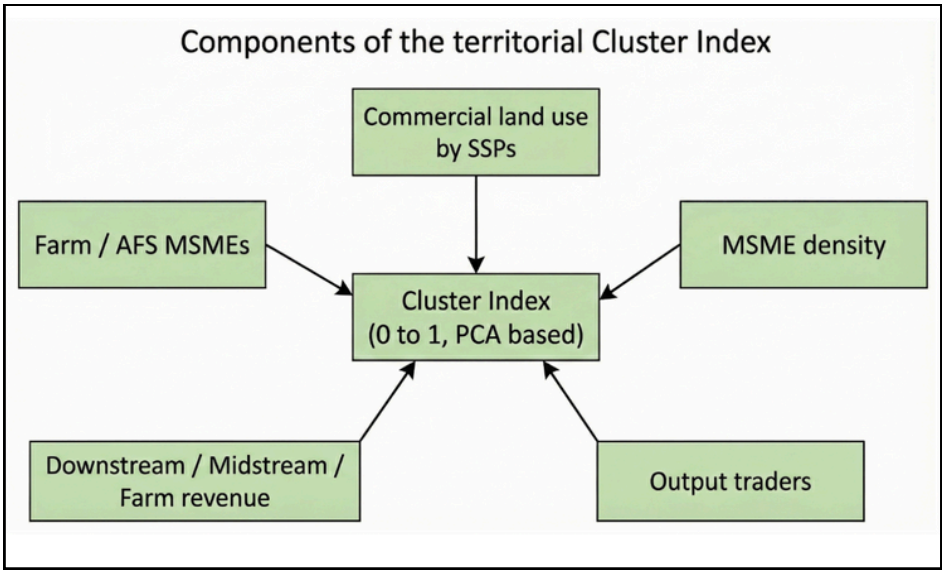


FIGURE 2. COMPONENTS OF THE CLUSTER INDEX



Note: Schematic representation of the indicators that feed into the territorial Cluster Index. Arrow widths and box sizes are illustrative only and do not reflect exact statistical weights.