UNLOCKING THE HIDDEN MIDDLE: RECLAIMING THE ROLE OF INTERMEDIARIES IN AGRIFOOD SYSTEMS[1]

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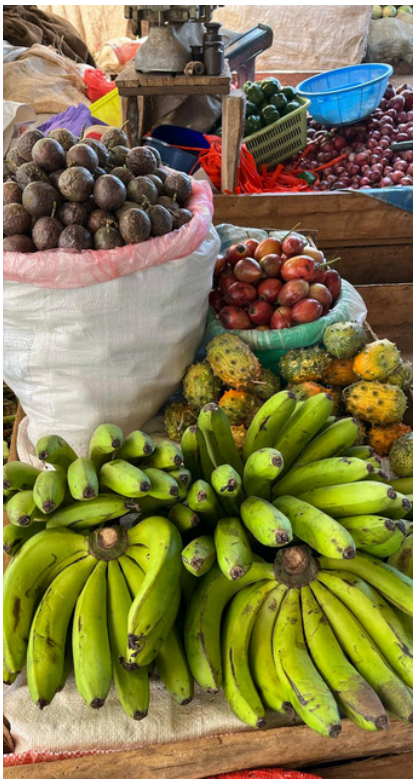
This policy paper focuses on evidence-based interventions focused on hidden middle interventions that aim to improve smallholder participation in agrifood markets, focusing on mechanisms that enhance income, reduce losses, and support food security. The analysis covers post-harvest infrastructure interventions (storage, cold chains, transport, and processing), market integration mechanisms (contract farming, commercialization incentives, and producer clustering), and the role of intermediaries, wholesale systems, and food retail. It also examines multi-stakeholder partnerships as cross-cutting enablers. Evidence on the midstream segment is scarce, fragmented, and rarely disaggregated. Few interventions explicitly target midstream actors, and even fewer provide clear insights into the effects of these actions in isolation from broader programs. Reviewed studies suggest that isolated interventions often yield uneven or unsustainable results. Durable impact depends on bundling services, addressing structural barriers, and embedding solutions in inclusive, locally grounded governance arrangements.



INCATA: Linked Farms and Enterprises for Inclusive Agricultural Transformation in Africa and Asia

Project funded by the Gates Foundation and implemented by Rimisp, MSU, IFPRI-Asia and Tegemeo Institute

Project objective

The INCATA initiative examines the relationship between commercial small-scale producers (cSSPs) and micro, small, and medium enterprises (MSMEs) in the hidden middle of agrifood value chains to explain how it underpins and contributes to an inclusive agricultural transformation.

Work streams

The project works around two work streams, (i) LSMS-ISA data analyses for six African countries, and (ii) Horticulture and aquaculture value chain analyses in Kenya (led by Tegemeo Institute) and in Odisha, India (led by IFPRI), and aims to answer four research questions:

Research questions

1. What are the prevailing patterns of commercialization among small-scale producers (SSPs) and the key policy- and non-policy-related factors that shape their engagement with "hidden-middle" MSMEs?
2. Which cSSPs and MSMEs succeed in raising incomes, investing, adopting new technologies, and accessing larger or higher-value markets during the transformation process—and why do others lag?
3. To what extent does a greater commercialization of SSPs and the expansion of MSMEs translate into poverty reduction and advances in women's economic empowerment (WEE)?
4. **Which investments and policies have the most significant potential to accelerate the symbiotic co-development of cSSPs and MSMEs?**

[1]Policy brief based on the INCATA working document: Espinoza, Trivelli & Fuica (2025) "Overlooked and Understudied Evidence on Policies for Strengthening the Hidden Middele in the Global South".

POST-HARVEST INFRASTRUCTURE

Post-harvest infrastructure, such as storage, cold chains, transport, and processing, can improve food security and smallholder incomes by reducing losses, preserving quality, and enabling better market access. However, the evidence shows that impacts are highly dependent on design, targeting, and complementary services: addressing capital, coordination, and institutional constraints is essential for the effectiveness of the implementation.

Where does post-harvest infrastructure show a positive impact?

- **Income and commercialization:** Storage, cold chains and transportation interventions allow farmers to time the market and retain the quality of products, reducing post-harvest loss and the dependence on immediate sales. It also allows for higher volumes of sales, expanded market access, and, as a result, better prices.
- **Productivity:** Processing technologies (such as mechanical graters, dryers, and smokehouses) help raise output and product quality while reducing costs and labor burdens.
- **Food security:** modern storage facilities, such as metal silos, increases storage periods and lowers the need for market purchases.

Adoption constraints remain a key limitation. Transport services scale where infrastructure is accessible and prices are affordable. Processing technologies tend to reach wealthier, credit-accessing households. Cold chains, though promising, rely on electricity and maintenance. Targeted subsidies and finance are key to overcoming these barriers and broadening smallholder access.

Although there is little evidence of their impact, in India, cold storage hubs evolved into unexpected centers for marketing, finance, and speculation, offering new income streams through direct sales and informal credit. Yet, these benefits also exposed less-capitalized farmers to greater risks, underscoring the need for strong regulation and inclusive design.

Effective governance is also critical. Ethiopia's agro-industrial parks show how centralized processing hubs can create jobs, promote value addition, and connect smallholders to export markets. Supported by public-private partnerships, farmers adopted regenerative practices and secured organic certifications. By contrast, weak implementation can erode outcomes. In India, decentralized oversight in a cold transport program allowed social ties to compromise quality controls. Similarly, in Tanzania, logistical bottlenecks and poor organizational targeting blunted the impact of a once-successful storage initiative.

MARKET INTEGRATION MECHANISMS

Contract farming, commercialization incentives, and cluster-based initiatives can link smallholders more directly to structured markets, buyers, and value chains. When designed inclusively and supported with complementary services, these institutional mechanisms improve farmer incomes, production practices, and access to technology. However, outcomes vary across contexts, and impacts on food security, equity, and sustainability are not guaranteed.

Where do these integration mechanisms show a positive impact?

- **Income and sales:** linking smallholders to companies, markets and value chains through contract schemes, institutional buyers, or associative schemes can increase product quality and input use, while reducing volatility. In turn, farmers can access better prices, technical training, stronger social networks and more sustainable practices.
- **Post-harvest losses:** Market-based incentives tied to quality standards, such as the provision of information on buyer requirements, can reduce spoilage and align practices with market demands. However, effects on income and prices are not consistent.

One approach to shifting from subsistence to market-oriented agriculture has involved organizing producers into clusters of high-value crops, as in Ethiopia's teff and malt barley initiatives. These clusters have led to greater commercialization, improved market access, and higher incomes. Yet, the uneven performance of horticultural clusters highlights that success depends not just on the model but also on the crop, the quality of delivery, and local institutional capacity.

METHODOLOGY

The review screened over 1,200 abstracts, eventually retaining 276 documents (229 impact evaluations and 47 systematic reviews) based on rigorous methodological standards. Studies were identified through public databases such as 3ie, IFPRI, CGIAR, OECD, and the World Bank, supplemented by targeted searches on Google Scholar. Priority was given to studies published from 2010 onward. While offering robust insights, the review is constrained by regional concentration (notably in Sub-Saharan Africa), potential publication bias, and difficulty in isolating the effects of multi-component interventions.

Improved access to inputs, mechanization, and extension services—combined with stronger collective bargaining—can drive commercialization and income gains. However, these benefits may take time to emerge, and the type of contract matters. In Senegal, productivity-focused contracts raised incomes but reduced dietary diversity, while marketing contracts improved food security.

Similarly, dairy contracts managed by women led to stronger seasonal deliveries. These cases highlight the need to align income strategies with broader food security goals.

Contract farming tends to benefit wealthier, better-educated, and more market-oriented producers, especially in well-connected areas. Without deliberate inclusion strategies, these mechanisms risk leaving behind less-connected and more vulnerable farmers.

Finally, weak design and poor enforcement can undermine contract schemes. In Kenya, vague terms and lack of legal recourse led to side-selling, payment delays, and eventual disengagement. Transparency, enforceability, and strong local institutions are essential for contracts to succeed.

INTERMEDIARIES

Intermediaries—traders, aggregators, and wholesalers—are vital connectors in agrifood systems, channeling goods, credit, and information between smallholders and markets. Far from static, they adapt to shifts in infrastructure, logistics, and demand. Policies that bypass them risk ignoring their essential role and innovative potential. The focus should be on modernizing, regulating, and integrating them into inclusive value chains.

Where do these integration mechanisms show a positive impact?

- **Bargaining power:** Improved infrastructure and technology, such as highways and irrigation, can reshape producer–intermediary dynamics by increasing competition and lowering transaction costs, often to the benefit of farmers. However, these gains tend to favor better-off and male-headed households, raising important equity concerns.
- **Producer prices and commercialization:** Investments in wholesale market infrastructure and digital platforms can raise farm-gate prices and profitability
- **Organizational participation:** Urban farmers' markets in Colombia supported direct producer-to-consumer sales, improved price-setting power, and fostered producer organization and civic engagement, though gains were limited and difficult to sustain.

Information alone is not enough to shift bargaining power. In West Bengal, SMS price alerts failed to reduce intermediary margins or farm-gate dependency because farmers lacked physical access to alternative buyers. In Turkey, legalizing direct sales to retailers lowered wholesale prices but left retail prices unchanged, as dominant retailers captured the gains. Without tackling market concentration, bypassing intermediaries may simply reallocate power rather than redistribute benefits.

Retail systems face persistent barriers to adoption and sustainability. In Colombia, digital platforms linking vendors to farmers saw limited use, as vendors favored traditional sourcing due to limited product variety. In India, food safety training improved knowledge among street vendors, but behavior changed little—consumer demand for safer food was weak, and vendors perceived upgrades as too costly.

Modernizing intermediaries, rather than displacing them, offers a more effective path forward. Public investments in logistics, governance, and market infrastructure outperform liberalization efforts lacking safeguards. Coordinated wholesale-retail systems, paired with inclusion strategies, can enhance both efficiency and equity across the value chain.

CROSS-CUTTING ENABLERS: MULTI-STAKEHOLDER PARTNERSHIPS

Multi-Stakeholder Partnerships (MSPs) align actors, technologies, and markets across the agricultural system to jointly design and implement solutions. When well-coordinated, they offer a pathway for inclusive and sustainable agricultural transformation. However, effectiveness depends on maintaining manageable scales, responding to local contexts, and ensuring that equity and sustainability are not sidelined in pursuit of short-term gains.

Where do MSPs show a positive impact?

- **Income and productivity:** when multi-stakeholder partnerships align technical solutions with market access, they can deliver substantial economic gains. In Ecuador, coffee producers secured 30% higher prices; in Rwanda, dairy farmers saw price increases of up to 900% through quality improvements and collective bargaining; and in potato farming, yields tripled when new varieties were matched with better storage infrastructure.
- **Social capital building:** Women farmers in India gained economic independence and confidence through mushroom-production collectives, while Nigerian cassava growers doubled their access to extension services.

Yet, their effectiveness declines when partnerships become overly complex, bureaucratic, or top-down in nature. Marginal returns and limited coordination can hinder long-term sustainability or dilute benefits for more vulnerable groups. Likewise, environmental outcomes are underreported, despite many MSPs prioritizing short-term economic gains over sustainability.