KIT INSTITUTE

Understanding Smallholder Inclusion Efforts of the Private Sector

A grounded analytical framework

Authors: Jaap Voeten[1], Verena Bitzer, Greetje Schouten, and Ingrid Høgh Rasmussen
Date: 28 March 2025

1 Corresponding author: j.voeten@kit.nl

Abstract

Large (buying) companies in global value chains are increasingly seeking to integrate smallholder farmers into their supply chains. Accordingly, they have developed programs to promote smallholder inclusion through productivity growth, market access, quality improvement, and other initiatives. The complexity of these initiatives highlights the need for a deeper understanding of smallholder inclusion models, applying both theoretical and practical analytical approaches. This paper examines four KIT Institute case studies of smallholder inclusion initiatives, applying a basic microeconomic perspective alongside an analysis of the broader context, smallholder perceptions, and their agency. The paper concludes with an analytical framework for better understanding smallholder inclusion, grounded in the case study findings, and outlines four key questions for a learning agenda.

1 Introduction

Credits: Shutterstock

Smallholder farmers in low-income countries face widespread food insecurity and poverty (Giller et al., 2021). Often trapped in a vicious cycle of small-scale, low-intensity agriculture with low yields, limited access to stable markets and credit, and insufficient profits to make much needed investments, large groups of smallholder farmers barely achieve food self-sufficiency, much less to speak of a living income in many contexts (Meemken & Bellemare, 2020; Giller et al., 2021).

Integrating smallholder farmers into global agrifood value chains through vertical linkages arrangements, such as contract farming, has received much attention for decades as a key pathway out of poverty (Reardon et al., 2009; Otsuka et al., 2016). Being linked to formal agrifood value chains and producing a high standard product is assumed to offer higher returns to farmers than producing traditional food crops for local markets (German et al., 2020).

Large (buying) companies in formal agrifood value chains, on their part, aim to commit smallholder farmers to their supply chain. In this way, these companies satisfy their sourcing needs while providing market access and increased incomes to smallholder farmers. Accordingly, they have developed programmes for smallholder inclusion and sustainability focusing, amongst others, on agricultural productivity growth (e.g. through the adoption of good agricultural practices) and stimulating improvements in product quality. While ensuring stable supply, companies assume that offering a market for smallholder farmers and improved access to extension and input services will lead to higher income.

Various studies have explored how positive welfare effects can be achieved for smallholder farmers through inclusion efforts. While some findings are quite positive (Meemken & Bellemare, 2020), it is widely observed that achieving higher incomes remains challenging for farmers supplying global agrifood value chains (Waarts et al., 2019; Giller et al., 2021). These and other studies highlight a range of factors that prevent smallholder farmers from realizing higher incomes. Since the mid-2010s, literature has analyzed various economic, social, environmental, and political factors. These include limited access to markets (Stifel & Minten, 2008), lack of access to finance (Wenner & Proenza, 2007), vulnerability to climate change (Morton, 2007), land tenure insecurity (Lawry et al., 2017), and dependence on rain-fed agriculture (Rockström, 2010). Low prices is a recurring and complex issue (Molenaar & Huetz-Adams, 2022). Smallholder farmers tend to receive lower prices than larger farms, as the latter often have better access to multiple selling opportunities and timely price information (Ma & Sexton, 2021). Additionally, practical challenges such as small farm sizes often prevent farmers from achieving food security or a living income for their households (Giller, 2020). Overall, these factors suggest the need for taking a broad (holistic) view in understanding smallholder inclusion.

In sum, the literature on the efforts of lead companies in global agrifood value chains to promote smallholder inclusion programs highlights the complexity of these initiatives. Despite the vast amount of studies and analyses in inclusive value chain of the past 20 years, there is still need to understand smallholder inclusion models better involving (practical) analyses approaches, both theoretical and practical.

Credits: Shtuterstock

2 Objective and approach

At KIT, we conduct evaluation and impact studies for private sector actors and lead companies in global agrifood value chains. Our aim is to assess and review the terms of smallholder inclusion and provide practical, actionable recommendations to the private sector to increase smallholder incomes to a level that meets a living income. Having analyzed a number of smallholder inclusion effort approaches in studies that we conducted over the past years, we gained grounded insights for developing an analysis approach for smallholder inclusion efforts

For this analysis approach, we adopt the idea of Roozen (2021), amongst others, of a basic micro-economic perspective as a starting point: "a farmer's income is: volume times price minus costs".[2] This perspective helps to structure our understanding and identification of critical elements in smallholder inclusion efforts, focusing on production volume, price, and cost. Lead companies do support farmers in various ways to influence these factors, aiming to improve production volumes, prices, and cost management.

However, it is important to recognize that income generation is more complex in reality than a simple micro-economic perspective might suggest. A holistic view is necessary to understand that income effects do not always materialize as expected, or lead to unintended effects (externalities), referring the above mentioned range factors that prevent smallholder farmers from realizing higher incomes. By combining a narrow micro-economic perspective with a broader contextual analysis, we believe that we can provide a better-structured and realistic understanding, which markers and pointers what the private sector can do and what is beyond their sphere of influence, as well as position and role smallholders play.

In the next section of the paper, we present four cases of smallholder inclusion efforts derived from our evaluation work at KIT. The case descriptions discuss the promotion of production, price management, and cost addressing, as well as the contextual factors influencing anticipated income increases. In the subsequent analysis section, we summarize the findings into two matrices that facilitate the identification of patterns and trends useful for an analytical approach. We conclude the paper by proposing an analytical framework grounded in the case studies and key learning questions derived from our analysis. This framework suggests addressing production, pricing, and costs in a coordinated manner, or at least managing disruptive influences as a result of their operations. Additionally, the framework enables the articulation of the contextual limitations faced by lead companies, enhancing the understanding of their boundaries concerning their sphere of influence. It is essential to recognize that lead companies are not responsible for, nor can they be held accountable for, all contextual factors.

2 We acknowledge this a simplified view on farmers' income because it leaves out the macroeconomic dynamics of supply and demand, currency exchange rates, commodity futures, as well as important microeconomic variables, e.g. number of household members per farmer, contribution of other income streams, transport costs, etc.

3 Cases of smallholder inclusion in agribusiness value chains

3.1 HPW Fresh & Dry's smallholder inclusion efforts in Ghana

The first case involves HPW Fresh & Dry, a food processing company in Ghana with headquarters in Switzerland. The company produces tropical dried fruits, particularly mango and pineapple, for the global market, utilizing state-of-the-art fruit drying technology in Ghana. Through producers' organizations, HPW sources fresh fruits from smallholder farmers to secure inputs for its production, aligning with its social agenda. The company receives financial investments from the Dutch Entrepreneurial Development Bank (FMO), which also emphasizes the inclusion of smallholder farmers.

HPW promotes productivity among smallholder farmers by providing agronomic services, quality inputs on credit, and financial support. The company has a comprehensive agronomic support program to ensure a consistent supply of high-quality produce. Additionally, HPW offers pre-financed input provisions, including fertilizers, fungicides, and materials for flowering and planting. Regarding the pricing of fresh fruits, HPW adheres to the Fairtrade Minimum Price (FMP), the minimum price buyers must pay producers for a product to be certified against Fairtrade Standards. This floor price covers producers' average costs of production and ensures their access to product markets. The FMP protects producers from selling their products at unsustainably low prices when market prices fall below the FMP.

FMO engaged KIT to evaluate the impact of HPW's local sourcing on smallholder farmers. The field study found that HPW's support services contributed to improvements in both the quality and quantity of the fruit produced. Smallholder farmers rearranged their farms and adopted measures to become more efficient and productive. Simultaneously, HPW's sourcing activities spurred entrepreneurship among existing producers, encouraging them to expand production and attracting new producers. This growth created new employment opportunities in mango and pineapple production, particularly for young people, revitalizing these supply chains. However, certain contextual factors limited productivity increases among farmers, such as changing weather patterns (irregular rainfall) and diseases.

Additionally, the FMP did not apply in the Ghanaian context, as local market prices for mangoes and pineapples have been higher in recent years. In this market environment, Fairtrade certification does not provide financial benefits. HPW had to ignore the FMP and negotiated new prices with the producers' organization of the smallholder farmers, offering prices slightly above market rates to ensure the loyalty of producers supplying to HPW.

Despite the higher prices, the smallholders perceive the price-setting process between HPW and their producer organizations less positively, in that there is little space for negotiation. During these meetings, HPW presents its pricing proposal based on expected harvests, market outlook, and estimated cost structure for producers. Producer organizations, however, typically assess costs higher. In recent years, not all meetings have been conclusive, leading to HPW setting the price unilaterally. Some farmers are dissatisfied with their local producer organizations because of this or because of a lack of transparency about pricing. As a result, when opportunities arise, some farmers resort to side selling, which is problematic for HPW, as it relies heavily on securing its supply from smallholder farmers.

Lastly, smallholders have faced rising production costs due to high inflation in Ghana. Specifically, costs for agrochemicals, farm equipment, transportation, and labor have increased. The agrochemicals required by HPW are more expensive because they are of higher quality and produced by international brands. Initially, supplying to HPW

significantly boosted farmers' incomes, but recent trends have notably reduced this positive impact.

Despite this, smallholder farmers still prefer to supply HPW because of the stable market access it provides. The local market is considerably less attractive for mangoes and pineapples. Additionally, farmers appreciate the support services that HPW offers, which they do not receive from public extension agencies. Some farmers feel dependent on HPW for specialized services, including inputs and financial support for certification costs.

3.2 Ético's smallholder inclusion efforts in Nicaragua

The second case involves Ético, an international trading company based in the UK. Ético imports food products such as coffee, sesame, and nuts, produced by smallholder cooperatives in Latin America. To enhance smallholder inclusion and provide better incomes, Ético introduced a "collaborative supply chain" approach, which includes shared ownership between primary producers' cooperatives and secondary (exporting) cooperatives in Nicaragua. Ético receives trade credit on favorable terms from the Rabo Rural Fund of Rabobank, which supports Ético's efforts to include smallholders in the supply chain.

At the request of the Rabo Rural Fund, KIT assessed the impact on smallholder farmers within the supply chain, including cooperatives and buyers. The study explored key features of the collaborative model. Regarding productivity, although Ético supports local NGOs that conduct agricultural training on topics such as organic farming practices and harvesting techniques, and supplies pre-finance for increasing production, promoting productivity is not a primary element in Ético's collaborative supply chain approach.

A much more distinct feature of Ético's collaborative supply chain approach is how it handles price setting. Ético acts as an intermediary between the smallholder producers, united in cooperatives, and global buyers in the UK and Europe. Ético involves cooperatives and their members in an open and transparent price-setting process, taking into account the actual costs of production incurred by small producers. Information transparency is a key element of Ético's fair pricing and contracting practices, ensuring that farmer cooperatives have access to relevant information and facilitating instant payments to farmers upon delivery of sesame. Additionally, Ético negotiates prices with global buyers, typically just before the harvest, whereas conventional buyers do this earlier in the season. Setting the price just before the harvest enables the cooperatives to secure prices that adequately cover production costs, which can be difficult to determine at the beginning of the season due to fluctuations in local prices and input costs. Setting the price at the beginning of the season often negatively impacts smallholder farmers as inflation often hit harder than anticipated.

Regarding costs, Ético offers pre-financing for the purchase of inputs, reducing costs for farmers by enabling them to buy inputs in bulk and apply them at optimal times. These costs are monitored and factored into the price-setting process. The cooperatives present their calculations in production cost tables, which include assessments for unrecognized and previously unremunerated work, primarily performed by women (i.e., family labor).

The cooperatives confirmed that farmers, including smallholders, have experienced higher and more stable incomes due to Ético's price negotiation mechanism in Ético's collaborative supply chain approach compared to conventional traders. Farmers recognize the importance of being part of a stable, formal market through the cooperatives and Ético, which enables them to access export markets directly and build relationships with end buyers. This is further reinforced by Ético's provision of transparent information regarding world market commodity prices. The sharing of price information is a key factor in enhancing farmers' bargaining power, overcoming information asymmetry; buyers will less succeed in offering prices much lower than the market rate. Farmers and cooperatives view their involvement in price negotiations as essential for fostering a sense of ownership and control.

The case also highlights that weak management and financial problems within the cooperative

context can hinder the realization of higher prices for farmers. There is a degree of dependence, as Ético serves as the lead company in the supply chain, negotiating prices on behalf of the farmers and assisting cooperatives in developing management capabilities. Smallholder farmers perceive Ético's international trading contacts and negotiation skills as crucial to the success of the partnership.

3.3 A brewery's smallholder inclusion efforts in Rwanda

The third case involves a global brewery active in Rwanda. Its local subsidiary produces beer for the local market and plans to source barley locally from smallholder farmers in northern Rwanda. This initiative aligns with the company's ambition for local sourcing and its efforts to promote responsible business practices that include smallholder farmers in the supply chain. The brewery launched a pilot project to support interested farmers. Currently, most farmers in the region predominantly grow wheat and potatoes in rotation.

The brewery aims to encourage farmers to replace wheat with barley, enabling them to become suppliers. To support this transition, the brewery provided farmers with new barley varieties and essential inputs to optimize production. Furthermore, the brewery offered a price based on its processing costs and overall business model.

KIT was engaged to evaluate whether the price offered was "fair" for smallholder farmers and to assess its impact on their income.[3] The study found that barley was successfully introduced to farmers during the pilot project, achieving relatively high productivity levels. Farmers adopted the new varieties, which yielded strong results. They were offered a fixed price for the barley, set by the brewery, without the possibility of adjustments or negotiations. Regarding costs, the brewery provided several inputs, such as seeds and fertilizer, in bulk, reducing farmers' expenses, as they no longer needed to purchase these inputs individually.

KIT evaluated whether the proposed price was fair by comparing the income generated against the living income benchmark. The findings indicated that farmers with a minimum of one hectare of land could achieve a living income, as some economies of scale are necessary for cost-efficient barley production. However, for farmers with less than one hectare, attaining a living income was not feasible due to their limited land size.

In the context Rwanda, farmers continue to face rising production costs due to inflation, among other factors. The study noted that rising input prices, combined with the prevalence of small land plots in Rwanda, pose challenges to increasing farmers' incomes. If production costs continue to rise, even one hectare may no longer suffice to achieve a living income, as a larger land area would be required to meet this goal (currently, 70% of farmers in Rwanda have plots smaller than one hectare).

The farmers involved in barley production appreciated the support provided by the brewery. Many of these small farmers expressed a desire to become long-term suppliers, valuing the stable market access and the security of a formal buyer, which they preferred over selling in open markets. According to the farmers, being part of the brewery's supply chain reduces transaction costs of finding and dealing with many different and changing buyers.

Farmers were generally satisfied with the fixed price offered by the brewery, despite having no influence over the pricing. Some smaller farmers have begun organizing themselves into associations to participate more actively in brewery's sourcing efforts. For the upcoming season, several small farmers are considering forming an association, which would allow them to sign a contract with the brewery meeting the required minimum production volume per contract.

As input costs are expected to rise in the near future, stakeholders have raised concerns about the potential impact on barley production. Many farmers have already started planting barley for the next season, but there is potential for opportunism. If the price of wheat rises significantly, farmers may opt to revert to wheat production instead of adopting barley. While farmers are willing to continue with barley as long as the price remains stable, a sharp increase in wheat prices at the local market could

3 A living income is the net income a household would need to earn to enable all members of the household to afford a decent standard of living. This includes decent housing, nutritious food, healthcare, education, transport, clothing, and other essential needs, as well as provision for unexpected events. (Living Income Community of Practice, 2018).

lead them to reconsider their decision and switch back to wheat.

3.4 Nestlé's smallholder inclusion efforts in Côte d'Ivoire

The fourth case concerns a Nestlé program in Côte d'Ivoire. Nestlé collaborates with major international buyers, such as Cargill, to source cocoa from smallholder farmers, which is then exported unprocessed to the EU market. The cocoa farmers, organized into cooperatives, cultivate the crop. In line with its social agenda, particularly targeting higher income levels Nestlé launched a conditional cash transfer program that provides €500 to cocoa-producing households in the first two years of the program. After the first two years, households receive €250. The goal of these cash transfers is to help households eventually achieve a living income. In addition to the transfers, Nestlé implemented various activities to create a conducive environment for cocoa-producing households. These included training on pruning, the establishment of 'pruning service groups,' facilitating GALS and VSLAs, and providing income diversification training. Other initiatives included supporting School Management Committees, supplying school kits, and distributing and planting shade trees for agroforestry. . Nestlé partnered with KIT to evaluate the impact of the cash transfer pilot program.

Initially, there was some hesitation among farmers regarding pruning practices, as many feared it would damage their cocoa fields. However, over time, producers recognized the positive impact of pruning. The pruning groups now maintain other farmers' fields for a fee and food. Farmers were motivated to adopt pruning practices quickly as they observed significant production increases. Study findings indicate that pruning led to a nearly 20% increase in household productivity. However, in recent years, yields have been lower than expected due to challenges such as aging trees, drought and the "swollen shoot" disease. Many cocoa trees died as a result of the disease, affecting long-term production levels. Although this is beyond Nestle's sphere of influence, the pruning activities had a positive effect in battling these diseases.

The cocoa price managed by the Ivorian Coffee-Cocoa Council (CCC). This government body annually establishes a fixed price for farmers, which is paid by Cargill through cooperatives acting as intermediaries. The CCC price is based on global commodity market prices. Regarding production costs, farmer mentioned that the prices of inputs have risen. Many of them have stopped purchasing expensive inorganic fertilizers, opting for subsidized composting (by Nestlé) which involves organic input alternatives such as compost made from cocoa pods, leaves, and other plant waste.

The project has important impacts: school enrollment rates have improved, indicating the program's success in promoting education. Additionally, the pilot program has supported the development of alternative income sources, such as selling livestock. While cocoa remains the primary income-generating crop, the program seems to have reduced its dominance as the sole source of household income. The project has also fostered a sense of community within the village, promoting social cohesion and pride. By working together and meeting regularly, social interactions and connections within the villages have increased. Farmers have also become more entrepreneurial, exploring additional income-generating activities.

However, a significant increase in household incomes toward achieving a living wage has not materialized. An important issue is that farms are too small, making it nearly impossible for the vast majority of farmers to generate a living income from cocoa. In addition, yields are lower due to persistent cocoa diseases and aging trees. To date, the alternatives to cocoa have not been as profitable. Although farmers appreciate the project, particularly the pruning practices, some expressed concern that the fixed price set by the CCC is insufficient to cover rising production costs. As a result, they feel that the benefits of increased productivity, combined with rising living expenses (thus a higher living income benchmark), do not translate into substantially higher incomes, despite evidence from KIT indicating a positive impact of the program towards a living income. The contextual factors are a serious problem for the effectiveness of the program: climate change, old trees, CSSVD and increasing cost of living all affect the ability to support farm households earn a living income.

4. Analysis

The cases demonstrate how the lead companies have supported farmers in various ways. Table 1 summarizes these efforts according to productivity, address pricing, and manage production costs. The cases also highlight that income effects do not always materialize as expected.

Table 2 summarizes these contextual factors, along with farmers' perceptions and agency, which either hinder or facilitate the achievement of higher income. Table 1 and 2 allow us to identify a number of trends and patterns useful for inductively developing the analytical framework .

	Efforts of the lead company in:		
	Promoting production volumes	**Price setting**	**Managing production and other costs**
HPW (Ghana)	HPW provides extensive agronomic support to producers: provision of input and credit to increase production volumes.	HPW applies a fairtrade pricing practice. However, the FMP did not apply. HPW negotiated higher prices with the producer groups.	The supply of inputs reduces the cost for farmers.
Ético (Nicaragua)	Ético supports production training projects and pre-finance for increasing production.	Ético involves cooperatives and farmers in the price setting and aim to negotiate the best price at the end of the season.	Pre-finance for buying inputs in bulk reduces the cost of production for farmers to a certain extent. Costs of production internalized in the price via cost tables for the price setting.
Brewery (Rwanda)	The brewery supports farmers with new varieties and access to inputs to ensure high production.	The brewery sets a price based on the "fair" price ambition by internalizing the production costs of farmers.	The support in the supply of inputs reduced farmers' costs, as they did not have to purchase the inputs individually anymore.
Nestlé (Côte d'Ivoire)	Nestlé provided substantial investment in productivity increase (pruning) of cocoa and production of new crops and livestock.	The Ivoirian Coffee-Cocoa Council sets the farm gate prices based on world market prices. Production costs not included in the price.	The program provides subsidized access to organic input

Table 1: Efforts of the lead company in promoting production volumes, price setting, and managing production costs

	Critical contextual elements and perceptions/agency of farmers		
	Production volumes	**Price setting**	**Production and other costs**
HPW (Ghana)	Farmers applied the new production techniques and new varieties. However, climate change issues reduced the production as well as plant diseases	Farmers perceive a lack bargaining power loose trust in the farmer organizations. They become opportunistic and resort to side selling to middlemen. At the same time, they prefer to supply to HPW.	Farmers face increasing production costs due to inflation in the Ghanaian economic context.
Étic0 (Nicaragua)	Farmers agree with production plans and get engaged in targeted production.	Farmers have a say in the price setting, which creates a feeling of influence and ownership. The available price information strengthens their position on the price negotiation.	Farmer use the availability of pre-finance for inputs enabling them to buy inputs in bulk, and reducing costs of production.
Brewery (Rwanda)	The land size limits that production and production at scale. Farmers take initiative from production groups so that they can supply volumes at scale.	There is no participatory negotiation in the price setting with the brewery. Farmers accept the price because they see want to be part of the supply chain.	Farmers see the production costs rising due to inflation. Farmers prefer one stable and reputed buyer compared to other (open) markets, reducing transaction costs.
Nestlé (Côte d'Ivoire)	Farmers embraced the pruning practices. However, farm sizes are small, trees are aging and ('swollen shoot' disease) all keep production volumes low. Recent drought also lowered production.	Farmers do not have a say in price setting. Sometimes the price is too low to cover the production costs, which concerns farmers. They cannot influence the price.	Farmers face increasingly high production costs. .

Table 2: Contextual elements, perceptions and agency of farmers with regard to price setting, production, and costs.

Table 1 shows that the lead companies in all cases have made significant efforts to increase the production volumes of smallholder farmers, aligning with their need to source consistent quantities of specified quality. Farmers generally welcome support aimed at boosting production—such as training in good agricultural practices, access to quality inputs, and credit—and the resulting improvements in yield and quality are positive. When it comes to price-setting, the lead companies described in the cases apply various approaches. Some involve farmer cooperatives in price negotiations, leading to higher prices and a positive impact on farmers' incomes. In other cases, price-setting power remains with the lead firms, who either set contract terms and prices or follow global market rates. As for production costs, assisting farmers with cost management is often not a primary focus for lead companies in these cases. However, some companies do offer credit or pre-financing options to help farmers purchase inputs in bulk. The cases show that focusing on production while paying less or no attention to disruptive prices or costs will not result in higher incomes. All three aspects require attention and coordination.

The cases show that the smallholder inclusion efforts aimed at raising farmers' incomes do not always materialize as expected in the context of smallholder farmers. Table 2 outlines several context-specific examples in the cases that hinder production, including climate change, plant diseases, droughts, and more. The contextual factors are specific in each case and emerge often unanticipatedly for the lead companies. Smallholder inclusion efforts, in some cases, mitigate the contextual factors that would otherwise lead to even lower incomes for smallholders. Additionally, there are practical contextual limits to increasing farmer production growth due to small land sizes and limited opportunities for economies of scale. Prices in these contexts, due to volatile local markets, also pose a challenge, preventing smallholder farmers from achieving higher incomes. On the cost side, factors such as high and rising production costs, driven by uncontrolled inflation and import tariffs on inputs, further hinder smallholder farmers from realizing increased incomes. The cases show that understanding the contextual factors is essential in smallholder inclusion efforts, although often beyond the sphere of influence of the private sector actors.

Apart from the income effects, smallholder inclusion efforts also have indirect impacts on society, including both positive and negative social and environmental externalities. Higher productivity can lead to increased productivity of other crops and enhance the local food supply. There can be spillovers of agricultural knowledge and practices to neighboring farmers. Projects that focus on good agricultural practices (GAP) and agroforestry can improve soil health, increase biodiversity, and restore degraded land. These benefits extend beyond individual farms, contributing to environmental sustainability in the broader region. However, negative externalities can arise from the expansion of farming without proper planning, potentially leading to deforestation, soil degradation, and loss of biodiversity. Additionally, if smallholder programs increase the production of a particular crop, they may unintentionally lower market prices due to oversupply. In addition to income, it is important to consider both positive and negative externalities in the analysis of smallholder inclusion efforts.

The cases also show that smallholder farmers have their own perceptions of the inclusion efforts, which can differ from those of the lead companies or external evaluators like us for that matter. For instance, smallholder farmers may feel positively about being part of a large formal agrifood value chain, even if their incomes have not increased substantially. They may express trust and pride in supplying an international value chain. Similarly, when farmers have some control over price setting, it is generally viewed positively. In contrast, when prices are imposed, farmers perceive limited ownership and control.

Regarding their perceptions of inclusion efforts, smallholder farmers exercise agency rather than being passive actors. For example, to meet expected production volumes, farmers organize themselves to achieve higher outputs. When faced with prices that are too low, they may resort to opportunistic behavior such as side selling to middlemen, often driven by the urgency to secure immediate income, even if it means accepting lower prices. The agency of smallholder farmers is therefore a crucial element to consider in smallholder inclusion efforts.

5 Conclusions and forward-looking learning agenda

As outlined in the introduction of this paper, we combine a narrow micro-economic perspective focusing production volumes, prices and costs with a broader holistic perspective involving contextual factors, farmers' perceptions and agency, to understand smallholder inclusion efforts of the private sector actors. This analytical framework is depicted in figure 1.

In our view, this framework aids in structuring the analysis of the complex issue of smallholder inclusion by breaking it down into key elements: promoting production volume, price setting, and cost management, and examining the extent to which these elements are coordinated. Furthermore, the framework incorporates contextual factors that can either support or hinder the realization of higher incomes, as well as how smallholders perceive their inclusion efforts and exert agency. It is important to note that the elements within the framework are not static; rather, they represent a dynamic system characterized by the evolving efforts of the lead company on the one hand and the changing contexts, perceptions, and agency of smallholders on the other.

Regarding actionable recommendations for private sector actors, the analytical framework suggests addressing production, pricing, and costs in a co-ordinated manner, or at least managing disruptive influences within their control. Additionally, the framework facilitates the articulation of the contextual limitations faced by lead companies, enhancing the understanding of their boundaries concerning their sphere of influence. It is important to note that lead companies are not responsible for, nor can they be held accountable for, all contextual factors.

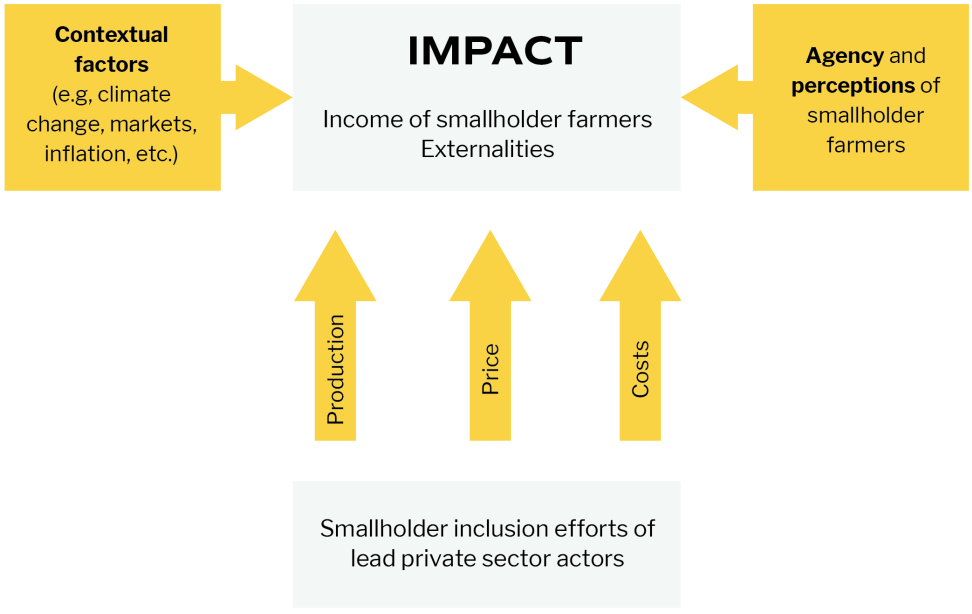

Figure 1: An analytical framework for understanding smallholder inclusion efforts of the private sector

The analytical framework allows us to formulate the following key questions for a learning agenda to support lead companies in formal agrifood value chains with their smallholder inclusion efforts:

1. Smallholder farmers are unlikely to raise their incomes if production volume, price-setting, and production costs are not addressed in a coordinated manner. How can lead firms adopt an integrated and coordinated approach in their sourcing strategies to raise farmer incomes?

2. While combining interventions to increase volumes and reduce production costs aligns with lead firms' interests, paying higher prices typically does not. This highlights a divergence between private and development goals, revealing the limits of win-win discourses. How can price-setting mechanisms be reformed (addressing power dynamics) to give farmers more leverage while balancing the short- and long-term commercial interests of lead firms?

3. Inclusion efforts also involve social and environmental externalities, which are closely linked to economic dimensions (Ros-Tonen et al., 2019). How can these social and environmental costs be addressed within an integrated approach to smallholder inclusion in lead firms' value chains?

4. Farmers' perceptions and agency are critical to securing their commitment to value chains and building long-term relationships with specific buyers. How can farmers' perceptions of and agency regarding control, power, trust, and ownership be fostered in lead companies' inclusion models?

Acknowledgements

We thank the KIT Knowledge Investment Fund (KIF) for funding this paper. Additionally, we thank our partners - HPW, FMO, Ético and Nestlé, and AIF - for allowing us to incorporate our collaborative work as valuable inputs. Lastly, we appreciate our KIT colleagues Rob Kuijpers, Nicola Francesconi and Rik Habraken for their review of the paper prior to its completion.

References

- German, L. A., Bonanno, A., Foster, L., & Cotula, L. (2020). Inclusive business in agriculture: Evidence from the evolution of agricultural value chains. *World Development,* 134, 105018.
- Giller, K.E. (2020). The food security conundrum of sub-Saharan Africa. *Global Food Security, 26,* 100431.
- Giller, K. E., Delaune, T., Vasco Silva, J., & et al. (2021). Small farms and development in sub-Saharan Africa: Farming for food, for income, or for lack of better options? *Food Security*, 13, 1431-1454.
- Lawry, S., Samii, C., Hall, R., Leopold, A., Hornby, D., & Mtero, F. (2017). Land tenure security and agricultural productivity in Africa: A meta-analysis. *Development Policy Review*, 35(1), 41-60. https://doi.org/10.1111/dpr.12240
- Living Income Community of Practice. (2018). What is a living income? Retrieved September 26, 2024, from https://www.living-income.com
- Meemken, E.-M., & Bellemare, M.F. (2020). Smallholder farmers and contract farming in developing countries. *PNAS, 117*(1), 259-264.
- Ma, M., & Sexton, R. J. (2021). Modern agricultural value chains and the future of smallholder farming systems. *Agricultural Economics, 52*(4), 591-606. https://doi.org/10.1111/agec.12637
- Molenaar, J. W., & Huetz-Adams, F. (2022). Price in global commodity value chains: Key to achieving a living income and living wage. Aidenvironment & SÜDWIND Institute.
- Morton, J. F. (2007). Climate change and smallholder agriculture in sub-Saharan Africa: A review. *Agricultural Systems, 104*(1), 24-32. https://doi.org/10.1016/j.agsy.2009.08.003
- Otsuka, K., Nakano, Y., & Takahashi, K. (2016). Contract farming in developed and developing countries. *Annual Review of Resource Economics, 8*, 353-376.
- Reardon, T., Barrett, C. B., Berdegué, J. A., & Swinnen, J. F. M. (2009). Agrifood industry transformation and small farmers in developing countries. *World Development, 37*(11), 1717-1727. https://doi.org/10.1016/j.worlddev.2008.08.023
- Rockström, J., Karlberg, L., Wani, S. P., Barron, J., Hatibu, N., Oweis, T., Bruggeman, A., Farahani, J., & Qiang, Z. (2010). Rainfed agriculture and food crisis: Lessons learned from Sub-Saharan Africa. *Water Resources Research*, *46*(4). https://doi.org/10.1029/2009WR008425

- Roozen, N. (2021). No need to question the relevance of fair pricing. Solidarity Network. https://www.solidaridadnetwork.org/news/no-need-to-question-the-relevance-of-fair-pricing/

- Ros-Tonen, M. A. F., Bitzer, V., Laven, A., & et al. (2019). Conceptualizing inclusiveness of smallholder value chain integration. *Current Opinion in Environmental Sustainability, 41*, 10-17.

- Stifel, D., & Minten, B. (2008). Market access and agricultural productivity in Africa. *American Journal of Agricultural Economics, 90*(3), 489-502. https://doi.org/10.1111/j.1467-8276.2008.01168.x

- Waarts, Y. R., Janssen, V., Ingram, V. J., Slingerland, M. A., van Rijn, F. C., Beekman, G., Dengerink, J., van Vliet, J. A., Arets, E. J. M. M., Sassen, M., Guijt, W. J., & van Vugt, S. M. (2019). A living income for smallholder commodity farmers and protected forests and biodiversity: How can the private and public sectors contribute? *White paper on sustainable commodity production*. Wageningen Economic Research; No. 2019-122. Wageningen Economic Research. https://edepot.wur.nl/507120

- Wenner, M., & Proenza, F. (2007). Access to finance for smallholder farmers: Learning from the experiences of microfinance institutions in Latin America and the Caribbean. *Journal of Development Studies, 43*(7), 1157-1178. https://doi.org/10.1080/00220380701406429

KIT Institute
P.O. Box 95001
1090 HA Amsterdam
The Netherlands

Visiting address
Mauritskade 64
1092 AD Amsterdam
The Netherlands

Website
www.kit.nl/institute

Follow us on social media
KIT
KIT

KIT INSTITUTE