How Public Procurement Mechanisms Can Be Used as a Tool for Developing Pro-Poor Food Value Chains: From Entry Points to Interventions

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Abstract: Smallholder farmers from developing countries are among the most vulnerable populations facing high food insecurity. Participation in agri-food value chains can offer a valuable pathway out of poverty for millions of poor households in these regions due to their trans-sectorial ability to create empowerment, inclusion, and economic value. Current urbanization rates and the advent of a growing middle class in developing countries make local value chains linked to regional and domestic markets increasingly valuable for smallholder farmers. Under this context, governments and institutions are key actors in influencing pro-poor value chains upgrading trajectories, and public procurement is a way by which these actors can direct participants. This study addresses an important knowledge gap in the possible practical approaches to designing and implementing such schemes. Informed by a literature review, a contextual appraisal of the major advantages and disadvantages of public procurement for the pro-poor development of value chains was conducted. A framework of analysis and intervention is then proposed and discussed. Based on the critical and contextualized analysis of the evidence, we address strategies for public food procurement, challenges, mitigation measures, supporting interventions, and considerations for planning. Overall, our analysis suggests that several existing initiatives still lack tangible results, partly due to gaps in the implementation of laws and regulations. We also highlight that, if implemented as a stand-alone intervention, it is likely that public procurement will not be effective. Additionally, we make an argument on the importance of engaging with the private sector in the process of devising an exit strategy as part that supports long-term sustainability.

Keywords: public procurement; value chains for development supporting interventions; implementation schemes; pro-poor interventions; smallholder farmers; analytical framework

1. Introduction

Nearly one in ten people, or between 702 and 828 million people, experienced hunger in 2021, and an estimated 2.3 billion people lacked regular access to food that was both safe and sufficient [1]. The number of food-insecure people has grown by about 150 million since the outbreak of the COVID-19 pandemic [1]. Existing inequalities are exacerbated by the persistence of the pandemic and by the Russia-Ukraine conflict that affects global food, production inputs (e.g., fertilizer), and energy prices, hampering recent progress toward fighting food insecurity and malnutrition. Bottlenecks in supply chains and transport are leading to rising inflation and food prices. Moreover, these shocks are responsible for worldwide economic recessions, increased unemployment, and, consequently, decreased incomes. At the same time, obesity and diet-related non-communicable diseases are common occurrences in all regions of the globe. Despite the critical role smallholder farmers...
play in global food security and nutrition as food producers and actors in the sustainable development agenda, they are often vulnerable and frequently overlooked by development policies [2]. According to [2], smallholders face a variety of obstacles that make them unprofitable. These authors noted that even though smallholder agriculture is frequently recognized as a critical sector for development, it lacks the legislative and institutional support needed to let smallholders and rural economies prosper. Smallholder farmers must be treated as viable companies if they are to contribute to a wider development goal. Improving the viability of smallholder farming might help to alleviate rural poverty, enhance food security and nutrition, and contribute to the accomplishment of the Sustainable Development Goals (SDGs). Smallholder farmers face a complex set of hazards and problems that jeopardize their livelihoods, food security, and nutrition. Smallholder research has traditionally focused on obstacles to their livelihood plans, such as a lack of human capital and restricted access to infrastructure, markets, and technology [3]. Smallholders, on the other hand, have been subjected to a variety of new climatic, health, pricing, and financial hazards and concerns. Not only can these stressors jeopardize the already vulnerable food supply chain, but the very possibility of them happening makes some smallholders more risk-averse and more inclined to engage in subsistence-oriented tasks, perpetuating their impoverishment [4].

When the United Nations approved SDGs in 2015, they achieved more than creating an agreed-upon agenda for 2030 [5]. Collaborations between the stakeholders and the United Nations are considered to be crucial in accomplishing SDGs. These ambitions include eradicating poverty and severe undernutrition while also making major advances toward sustainable development and greater human well-being. Many SDGs will not be met without advances in subsistence farming. Particularly regarding the ambition of achieving “zero hunger” by 2023, the 1.5 billion people who live in smallholder families [6,7], who make up much of the world’s poorest and hungriest people, should be addressed if severe food shortages are to be eradicated [8]. According to [5], development experts have long acknowledged the need to focus on smallholder farming to alleviate poverty.

It is commonly assumed that efforts would result in demonstrable changes in smallholders’ production and sales techniques, which will benefit both smallholders and other market players [9]. Value Chain for Development (VC4D) is a form of pro-poor intervention aimed at reducing poverty by improving the links between enterprises and impoverished families in the value chain [9]. The concept is rooted in development studies and therefore addresses the whole process of value creation along the chain and the broader issues such as development strategies, income distribution, and entry barriers. Under this context, value chains interventions are built on the assumption that development with smallholder-inclusion objectives and pro-poor growth objectives [10,11] contributes to reducing poverty, eradicating hunger and contributing to food and nutrition security [12–15]. Value chain principles reflect a significant shift in how farmers, merchants, processors, and consumers interact with agricultural developmental practices. Going further, [9] explained that a series of interconnected agents and marketplaces turn inputs and services into goods with features that customers are willing to pay for. Smallholders may profit from higher revenue, more reliable trade connections, and access to information and innovative production services.

Taking a value chain approach entails looking at all the elements that influence agricultural efficiencies, including end-market access and societal expectations, the legal, regulatory, and policy environment, industry cohesion, and the amount and quality of support services [16]. Therefore, farmers must understand that they are a link in the chain and that having much more prominent participation will benefit both them and the industry [16]. In the same vein, actors involved in governance and coordination may play a key role in preparing farmers for the market. The problem faced by companies in vertically connecting directly with many smallholders has made the assistance provided to horizontally organize farmers into larger organizations critical. Governments, lead firms, or donors can also aid in the fairness of farmer-firm negotiations by providing training to enhance farmers’ business and negotiating abilities [16], leveraging their bargaining power.
The significance of small-scale farmers in the development of value chains and a reduction in poverty in households clearly show the farmers to progress from subsistence to partial-to-full commercial production. Undoubtedly, integrating smallholders into local or global markets, spanning from informal value chains to formal local markets, is an important aspect of long-term hunger and poverty reduction efforts [10]. Understanding how to properly connect impoverished producers to markets, as well as determining which markets may benefit various types of producers, is a crucial step for the development community to take.

In this context, public food procurement can be a powerful tool to stimulate the development of food value chains, promote healthy diets, and underpins the achievement of associated benefits with a pro-poor lens [10,11]. However, despite the recognition that food buyers, such as governments or international organizations, can use public procurement as a mechanism for the pro-poor development of agricultural value chains, there is a knowledge gap on the possible practical approaches to implementing it. This study presents and discusses a framework aimed at guiding the establishment and operationalization of such procurement schemes targeted to smallholder farmers from developing countries, encompassing, e.g., objectives, modalities, and roles, and considerations ranging from the regulatory aspects to the necessary supporting interventions.

2. Conceptual Frameworks

2.1. Food Systems and Value Chains for Development: The Missing Assessment

The analysis of value chains as an approach for development has gained traction in recent times. It is indeed a valuable tool if one acknowledges that value chains are not a stand-alone composition comprised of multiple actors. Value chains are intertwined linear and non-linear vertical and horizontal interactions and are embedded in a context of a multitude of entities, elements, and networks, which is often called a food system. Food systems are these complex arrangements of interrelated actors, rules, activities, and entities. Food supply chains are often positioned close to the center of food value chains and food systems as they compose the core activities related to the production, transformation, transportation, consumption, and management of wastage. It also involves the myriad of services that support the development of these core activities. Nonetheless, the broad and complex system encompasses societal dimensions—such as organizations, policies, and cultural norms—and environmental dimensions—such as water, soil, and ecosystems.

The FAO’s “food system wheel” [17] depicts all these nuances of food systems, placing long-term objectives of poverty reduction, food security and nutrition, and sustainability performance as the central dimension. The “food system wheel” concept is a powerful representation for understanding that whatever piece of the system is analyzed is only one part of a broader context. It depicts that a sustainable food system has the potential to substantially contribute to multiple objectives in the 2030 Sustainable Development Goals (SDGs) agenda proposed by the United Nations. SDGs 1 (No poverty) and 2 (Zero hunger) are central in the wheel, but the whole system links with other goals in multiple dimensions. A well-functioning value chain—that is, the core system in the food system wheel—may support the achievement of SDGs such as those related to the natural environment [18–21], to economic activities [4,9,22,23] and social aspects [24–26].

The missing link that the chart does not depict is the role of the multiple agents in each area of the wheel, nothing more specific than surrounding the goals with the abstract concept of “behavior of diverse actors.” The activities and supporting services in the food value chains may be executed by multiple actors, interchangeable according to context and time.

Ref. [27] described and popularized the concept of the “value chain” as widely understood today. He described it as a sequence of activities that add value to a product, typically from raw materials to a final product, with the chain extending beyond one single company to involve the multiple entities engaged in the process. The value chain development method offers a holistic analysis of how value is created and distributed among the
n numerous participants in the context of food systems, from producers to governments to consumers [28], bringing the idea from the managerial sciences to the field of development studies.

Schematically, food value chains may be represented as divided into three sections: supply/production, demand/consumption, and business environment (Figure 1).

![Figure 1. Schematic food value chain. Supply: refers to the actual production of food. In terms of development, it entails measures to increase production through the adoption of good agricultural practices, improved techniques, and the use of adequate inputs. It also involves the process of aggregating the produce with reduced losses and guaranteed food quality and safety in the post-harvest phase. Demand: consists of initiatives to promote the connection of producers with stable and reliable markets, both in the public and private sectors. Business environment: stands for the multiple conditions required to support reliable and efficient operational conditions of the value chain. It ranges from an adequate regulatory framework to adequate available infrastructure to transparent and fair market conditions. Source: Authors’ elaboration.](image)

An initial glance at Figure 1 could suggest that public procurement initiatives are restricted to the “demand/consumption” section; however, the effects of those initiatives spread to the whole value chain. For example, a farmer organization holding contracts with the government may experience easier access to credit, hence improving “supply/production” conditions. Or when the government sets fair reference market prices for public purchases, the transparency of market operations is enhanced on the “business environment” side as well.

2.2. Public Food Procurement from Smallholder Farmers

Public procurement, according to [29], is a strategy for giving farmers access to markets by decreasing entry barriers. The significance of public food procurement in fostering social and economic benefits has increased recently. A range of policy objectives, such as promoting healthier eating habits, promoting agricultural expansion, and developing more sustainable food systems, may be supported by the size and value of government food purchases. The study is based on findings by [29], who argued that public food procurement is a multidimensional strategy that combines interventions in procurement schemes, agriculture, food security, and nutrition. Due to this, the success of public food procurement in boosting smallholders’ access to markets and livelihoods depends on coordinated efforts from a variety of partners and sectors. Governments may design and oversee the rules that govern public procurement, unlike the private sector, making them both a player and a decision-maker in markets. The creation of jobs, innovation, industrial expansion, environmental sustainability, and social integration are just a few of the development objectives that have been accomplished via the use of public procurement [30,31].

By mostly focusing on local and regional food value chains, public procurement schemes have the potential to promote development objectives from several perspectives, such as:

1. Cash injections into local economies have the potential to strengthen regional markets, motivate smallholders to increase productivity, and have positive multiplier effects
on the community’s economy, which can improve food security and livelihoods, transform rural areas, and create jobs [32]. Long-term, this may also improve the performance of macroeconomic indicators. Additionally, depending on the commodities bought, local and regional procurement may also encourage agricultural diversity and consumer demand for a variety of wholesome meals [32].

(2) Increased turnover for and involvement of local traders, promoting well-functioning local markets, and possibly lowering prices and boosting the purchasing power of recipients of cash-based transfers are all ways to strengthen value chain actors.

(3) Improved access to credit and inputs, capacity to improve quality standards, and engagement with other development partners, which results in increases in farmers’ production and productivity and the quality of their produce, enhancing their income-generating opportunities and livelihoods. Stronger and more stable market relations between final buyers, traders, and smallholder farmers.

(4) Improved performance of all market participants in the food value chains, leading to the supply and consumption of more nutrient-dense food, making food systems more resilient (e.g., through increased crop diversification), and sustainable (e.g., by enabling smallholders to engage in sustainable use of natural resources).

By purchasing food for an emergency response from regions of the nation where there are surpluses, public procurement of locally produced food may also be a significant factor in reducing the impact of crises on a country’s overall economy. Local purchasing can help disadvantaged and crisis-affected smallholder farmers access markets after a disaster, which will motivate them to resume production and rebuild their livelihoods. It can also serve as a way to foster collaboration amongst groups that are at odds with one another in specific situations.

Public procurement is commonly utilized to advance economic goals, particularly to promote the growth of small and medium-sized businesses. In theory, public procurement methods are intended to allow governments to acquire products and services as cheaply as feasible. In many nations, public procurement has traditionally played an essential role in combating prejudice and fostering social inclusion [31]. Northern Ireland [21], the United Kingdom, France, and Belgium [33], the United States [29], Canada [29], Brazil, China, and India [29], South Africa [22], Senegal, Ethiopia, Zambia, Kenya, Sierra Leone, and Cameroon are just a few examples of countries that have adopted public procurement policies [34].

According to an OECD report on public procurement, most nations have a strategy targeted at increasing small and medium enterprises’ access to public procurement opportunities [35]. Furthermore, governments use public procurement to achieve positive social results, including opportunities for underprivileged areas, as well as fair salaries and work environments [29]. More recently, under the umbrella of sustainable public procurement (SPP), governments have moved to encourage a more holistic way of tackling both social and environmental challenges through public procurement [23].

In recent years, the involvement of humanitarian and international governmental agencies in public food procurement has gained significance as a means of fostering a sustainable food value chain, as well as social and economic advantages. Illustrative examples include the World Food Program’s Purchase for Progress (P4P), the MERCY CORP’s Market Systems Development in Humanitarian Response, and the Making Markets Work for the Poor (M4P) initiatives. In a similar spirit to the advantages provided by public procurement on SME growth, linking public food procurement to domestic food production may be utilized to boost economic results. By supporting growth and job creation in the food industry, expanding marketing options for farmers and rural companies may help to enhance rural economies and communities.

Conversely, the logic of targeting smallholder farmers for public food procurement in many developing countries to enhance their economic participation and build local food systems is that offering an accessible market route and a source of revenue to farmers can lessen some of the uncertainties and hazards involved with market involvement. Increases
in family food consumption, dietary diversity, and larger investments in production and diversification can all result from more market involvement and an additional source of income [36]. In addition, changes in smallholder livelihoods can have a favorable impact on the local economy. Since it promotes smallholder livelihoods, food security, and nutrition, public food procurement can be categorized with other social protection programs as having the potential to create a systemic approach that does all three [20].

The concept that government purchases may be tailored to meet the nutritional needs of vulnerable communities via a direct link to local farmers will increase and contribute to better household status. These foods may be obtained from smallholder farmers and disseminated through various food chains and tactics, allowing for greater access to a wider range of foods while supporting production diversity and growth [20]. In addition, [20] noted that there is a growing trend in some nations (such as Brazil and the United States) to support the synergies between smallholder farmers, local food systems, and improved nutrition through public food procurement, which results in value chain development. According to [29], the 2015 policy recommendations of the Committee on World Food Security (CWFS) include initiatives to enhance ties between smallholders and public food procurement. A few ideas include focusing on direct purchases from farmers to support assistance programs, altering procurement procedures to make it simpler for them to engage in open food markets, and promoting more studies into open food procurement schemes. According to [37,38], and [30], open bidding is the main procurement method used by purchasing organizations in the majority of public procurement systems. The conceptual framework is captured in Figure 2.

**Figure 2.** Conceptual framework showing the interplay among the three entities in public procurement.

Figure 2 depicts the power of negotiation directly with the government driven by the smallholder farmers without barriers justifying the improved income, household, and livelihood levels. In addition, public procurements provide smallholder farmers inclusion in economic decisions with international agencies without barriers.

### 3. Material and Methods

Aimed at addressing the knowledge gap on how to guide the design of practical approaches to implement public procurement schemes that benefit vulnerable smallholder farmers from developing countries, this work followed a stepwise approach: (i) a dedicated review of the literature was conducted to capture major advantages and disadvantages of public procurement for pro-poor development of value chains; and (ii) a framework was proposed and critically discussed, building on the most relevant findings from the literature.
3.1. Scoping Review

A scoping review was conducted as a way of mapping and summarizing evidence-based research in order to identify the research phenomenon’s goals and gaps in order to influence policy evaluation and future research [39]. As defined by [40], this method delivered an overview of developing information from a variety of sources and was instrumental in guiding the results and discussion. As such, the dedicated literature search was conducted with the following specific keywords: “public procurement” AND “value chain development” AND “pro-poor intervention” AND “analytical framework” AND “policies” AND (“methods” OR “interventions”) (Table 1). This resulted in the collection of data as well as the evaluation of grey literature and internet material from different databases, namely Mendeley Library, Google Scholar, Emerald, Connected Papers, and Elsevier Publishing. Database searches were limited to English-language literature studies without restriction on publication year or author. During the screening, there was the inclusion of peer-reviewed publications such as scientific studies, research reports, policy notes, discussion/working papers, conference papers, and case studies. Thus, a synthesis of the literature on the role of smallholders in the value chain, challenges faced by smallholder farmers, sustainable development goals, and poverty reduction through the direct market purchase was carried out to provide an assessment of the scope and status of value chain development through direct market purchases reducing poverty level. The combination of the search topics and the guiding keywords that emerged in relation to the main objective from the initial searches (Table 1) triangulated down to 784 articles, thus through abstract and full content screening, 71 articles were found to speak directly to the research questions which the review was then based on (Full list provided as Supplemental Material). The content analysis looked at how the government and aid agencies work to buy from smallholders and contribute to value chain development through public procurement processes. This step consisted of selecting those studies mentioning or arguing about practical approaches to design and implement such schemes through full-text screening. Figure 3 depicts the PRISMA diagram.

<table>
<thead>
<tr>
<th>Topics for Search</th>
<th>Guiding Keyword for Inclusion/Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public procurement</td>
<td>Tenders, direct market, open market, purchasing power, purchasing goods and services</td>
</tr>
<tr>
<td>Value chain</td>
<td>The food system, agricultural diversification, sustainability</td>
</tr>
<tr>
<td>Development</td>
<td>Smallholder farmers, household status, food security</td>
</tr>
<tr>
<td>Horizontal policies</td>
<td>Economic and social policies, environmental policies</td>
</tr>
<tr>
<td>Procurement methods</td>
<td>Advertisement, public request for quotations</td>
</tr>
</tbody>
</table>

The goal was to look at a wide range of research publications on the subject, although it is conceivable that not every relevant item was found.

3.2. Contextual Analyses

This study reflects particularly on public procurement as one of the possible interventions, its impacts, and how to maximize the benefits for all the food chain actors—including all of us as consumers. The role of smallholder farmers in the value chain is identified, highlighting the challenges they face and flagging their needs in achieving the SDG of reducing poverty and hunger as an engine to contribute to sustainable development in general. It also discussed the framework by which aid organizations and government agencies use public procurement procedures to support value chain growth, playing a role in poverty reduction and food security through direct market purchases from smallholders.
4. Results and Discussion

4.1. A Scoping Review of the Literature

The critical role of smallholder farmers in the value chain development cannot be overemphasized in attaining global food security. According to scholars, smallholder farmers are a disadvantaged group that needs to be brought to the table. A synergy between smallholder farmers and public procurement is essential in the value chain development. Based on the dedicated literature review conducted, the pros of public procurements through smallholder farmers and barriers to implementation are summarized in Table 2.

Table 2. Summary of major findings, advantages, and disadvantages of public procurement for pro-poor value chain development.

<table>
<thead>
<tr>
<th>Main Findings</th>
<th>Advantage(s)</th>
<th>Barrier(s)</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder farmers play a major role in attaining global food security and nutrition</td>
<td>Agricultural growth has been proved to be a significant aspect of the early stages of transition from smallholders to large-scale commercial entrepreneurs</td>
<td>Smallholders are a disadvantaged group that is frequently overlooked by development policies</td>
<td>[2]</td>
</tr>
<tr>
<td>Smallholder farmers are the primary food producers, increasing agricultural outputs</td>
<td>More food entry into the market, more revenue generation, economic upliftment, and household food security stability and household food security</td>
<td>The link and synergies for farmers between agriculture, nutrition, and health is a doubting task</td>
<td>[3,19,35]</td>
</tr>
<tr>
<td>Smallholder farmers are a time link in the value chain</td>
<td>Resilient to shocks and improve production and livelihood</td>
<td>Owing to limits and obstacles, many smallholders in developing countries are unable to engage in the value chain</td>
<td>[41]</td>
</tr>
<tr>
<td>Smallholders, if accorded the opportunity, can overcome constraints if they are involved in the structural reforms for vertical and horizontal synchronization</td>
<td>Opportunities for financial assistance through group loans, rural marketing cooperatives, and producer groups</td>
<td>Smallholders do not attain the support of working from big companies because companies prefer to work with farmers who have certain non-land assets</td>
<td>[42]</td>
</tr>
</tbody>
</table>
Table 2. Cont.

<table>
<thead>
<tr>
<th>Main Findings</th>
<th>Advantage(s)</th>
<th>Barrier(s)</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder involvement and vigorous encouragement of participation in development programs</td>
<td>Benefits through lower transaction costs, enhanced market knowledge, and stronger bargaining power</td>
<td>Lack of collaterals for business and transaction costs</td>
<td>[43]</td>
</tr>
<tr>
<td>Technological development will provide smallholder farmers with a multitude of options to obtain actual farm market intelligence</td>
<td>Investments in ICT will provide farmers with information such as pricing, demand, quality requirements, weather forecast, etc. Better processing and distribution decisions in the value chain using the gained knowledge will be observed</td>
<td>It is capital intensive Inadequate knowledge of post-harvest handling and storage is predominant among many smallholder farmers in developing nations</td>
<td>[44,45]</td>
</tr>
<tr>
<td>Smallholders’ profit potentials are hampered by a lack of post-harvest capacity and infrastructure</td>
<td>The agricultural extension helps in overcoming these constraints and challenges</td>
<td>Inadequate access to post-harvest technologies Lack of education</td>
<td>[18]</td>
</tr>
<tr>
<td>No one-size fit all strategy, different support plans for an individual smallholder farmer to afford the proper transition to commercially-focused lucrative agricultural systems</td>
<td>It improves the advancement of small farmers who have the capacity to become profitable through production</td>
<td>Time-consuming to individually treat farmers compared to being in a focus group</td>
<td>[2]</td>
</tr>
<tr>
<td>Linking smallholder farmers to a contemporary agri-value chain is crucial for enhancing agricultural production</td>
<td>Merging financial and non-financial solutions will create an ecosystem that allows risk management</td>
<td>Such systems require strong institutional capability and a supportive policy setting</td>
<td>[2]</td>
</tr>
</tbody>
</table>

To alleviate poverty, there is a need for government agencies, the private sector, and other donor agencies to focus on smallholder farmers. A collaboration between smallholder farmers and NGOs has enhanced their social and environmental performance.

Market-driven strategies for agriculture by the world bank, donor agencies, and government agencies forming partnerships will be a major stem of achieving household food security and stability.

Market mechanisms alone would not transcend the numerous types of market disasters | [46,47] |

After a collective analysis of Table 2, the results show the main findings that are instrumental in guiding the development of a framework of analysis and action.

4.2. The Role and Benefit of Smallholders in the Value Chain Development

Despite the critical role smallholders play in attaining global food security and nutrition, according to [2], they are a disadvantaged group that is frequently overlooked by development policy, and they account for the majority of the world’s poor and hungry. To properly comprehend the significance of smallholders in a country’s growth, it is necessary to first consider the larger backdrop of agricultural development. In many nations, agricultural growth has been proven to be a significant aspect of the early stage of transition. Agriculture’s expansion will eventually benefit the economy by providing capital, job opportunities, and foreign exchange through import and export commerce.

One out of three workers in the world is engaged in agricultural activities. In developing countries, this rate is even higher, with people of working age often engaging in informal or unpaid family-based agricultural activities. In sub-Saharan Africa, over 60% of the workforce is involved in agriculture [48]. The regions of the world with the highest share of the workforce engaged in agriculture are not only the poorest but also those with the highest demographic growth expected for the next decades [49]. Agricultural spending plays a key role in developing countries and is one of the most important tools in promot-
ing agricultural development and enhancing rural viability [50]. Growth in agriculture is two to four times more effective in raising income among the poorest compared to other sectors [7].

In the context of agricultural development, one of the most relevant components is improving the conditions of smallholder farmers and connecting them adequately to markets. This fact has been acknowledged by the United Nations with the declaration of the “Decade of Family Farming 2019–2028,” including a comprehensive global action plan to contribute to the 2030 Agenda through the increase in farmers’ livelihood conditions [17]. In developing nations, smallholder farmers are the primary food producers; increasing smallholder agricultural output means more food enters the market, resulting in cheaper food prices and healthier diets [19].

Smallholder farmers’ productivity, according to [35], may readily be incorporated into national and global value chains by involving smallholders; they deliver productivity and wealth advantages to smallholders. Smallholders have the capacity and resources to create in response to the needs of value chain participants or may obtain such using fair effort and money. The task of smallholder farmers is to maximize the links and synergies between agriculture, nutrition, and health [3]. As smallholder farmers become more involved in the food system, their agricultural activities have a greater influence on food safety while also being impacted by food safety requirements. Smallholders must be linked to agri-food value chains if they are to be more resilient to shocks and improve their production and livelihoods. However, owing to limits and obstacles, many smallholders in changing and transformed countries are unable to engage in value chains.

4.3. Challenges and Constraints Faced by Smallholder Farmers in Value Chain Development

Companies prefer to work with larger farmers initially and favor farmers with certain non-land assets, such as irrigation or access to paved roads, for obvious reasons [42]. Smallholder involvement in local and foreign markets is hampered by these choices. Structural reforms for vertical and horizontal synchronization among smallholders, such as group loans, rural marketing cooperatives, and producer groups, are needed to overcome these constraints. Smallholder farmers will benefit from lower transaction costs, enhanced market knowledge, and stronger bargaining power as a result of these processes. To achieve maximum value for smallholders, such coordination structures require strong institutional capability and vigorous encouragement of smallholder participation—not simply membership—within these organizations [43].

Similarly, ICTs may provide smallholder farmers with a multitude of options to obtain actual market intelligence, such as pricing, demand, quality requirements, and weather forecasts. Farmers may make much better processing and distribution decisions and engage more actively in value chains using this knowledge [45].

Access to these technologies must be supported by governmental and private sector initiatives to improve both the information content of ICTs and the capacity of potential users to use them. A related challenge in today’s agri-food supply chains is that nearly one-third of worldwide food produce is wasted globally on the way from farms to consumers’ tables [44]. Due to factors such as inadequate post-harvest handling and storage, which increase crop sensitivity to bio-deterioration, pests, and adverse weather, most post-harvest losses in developing nations occur before the farmgate (rather than at the consumer level, as in affluent countries) [51].

Smallholders’ profit potential, protection of natural resources, and participation in high-value markets are severely hampered by a lack of post-harvest capacity and infrastructure, as well as the resulting loss of productivity. Smallholder farmers are confronted with the problem of post-harvest losses. Agricultural extension services are a fantastic instrument for overcoming this limitation. Extension agents can assist smallholder farmers in improving their post-harvest crop management abilities and harnessing the advantages of post-harvest technology by educating them [18].
4.4. Development Pathways for Smallholders in Value Chain Development

It is vital to note that there is no “one-size-fits-all” strategy as stakeholders continue to discuss action plans for supporting sustainable smallholder farmers. Each smallholder farmer’s growth route and livelihood strategy should be tailored to its unique characteristics and stage of economic change in the country. Smallholder farmers should be supported in either transitioning to commercially focused or lucrative agricultural systems.

In agricultural-based economies, it is indeed critical to focus on initiatives that favor the advancement of small farmers who have the capacity to become profitable by improving their production. It is equally important to help such small farmers move up in both changing and reformed economies by encouraging high-value agriculture and developing ties to urban and global markets. Smallholders can also participate in value chain development by promoting land rights, creating an efficient market, improving risk management, and developing adaptation plans.

Linking smallholder farmers to contemporary agri-food value chains is crucial for enhancing agricultural production, food security, and nutrition [2]. Furthermore, institutional innovations for cooperation among smallholder farmers, such as group loans and producer associations, are required to overcome hurdles to entering contemporary value chains. Such mechanisms require strong institutional capability, as well as a supportive policy setting that encourages private-sector investments tailored to smallholder agricultural requirements. Smallholder farmers can also benefit from ICT by lowering transaction costs, increasing bargaining power, and having access to real-time market information. Financial services and investments in rural infrastructure must also be expanded. An ecosystem that allows for robust risk management alternatives may be developed by merging financial and non-financial solutions [52].

Small-scale farmers play a vital role in development. Smallholders, on the other hand, are not a uniform group, and development programs should not approach them as such. Instead, smallholders’ growth paths are made up of phases that change depending on the restrictions they experience and the degree of economic transition they are in. While some smallholder farmers have the capacity to engage in successful agricultural–commercial enterprises, others should be assisted in finding success. The findings also suggest a wake-up call of what multi-stakeholder procedures can achieve; these tie to a larger discussion calling for a more in-depth examination of inclusive value chain development.

4.5. The Role of the Government and Aid Agencies in Poverty Reduction of Smallholder Farmers

The SDGs’ demand for multi-stakeholder partnerships as a major development mechanism stems from a growing consensus that governments alone would not be able to handle today’s huge problems. Development experts have long emphasized the need to concentrate on smallholder farming to reduce poverty. Many governments, donor organizations, and other organizations tested what [53] refers to as “market-driven” strategies for agriculture in response to all of these demands, but [5] note that there is a twist on these strategies. Market mechanisms alone would not transcend the numerous types of market disasters that smallholder agriculture is subject to, as has long been recognized [46].

There are several schemes that make an effort to link smallholder farmers with businesses and non-governmental organizations (NGOs). For instance, the German development agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) established the Better Rice Initiative Asia as a regional partnership to foster collaboration between private and public sector organizations in order to promote economic growth in the rice value chains in Indonesia, the Philippines, Thailand, and Vietnam [5]. According to the organization’s website [5], Agrifocus is a Dutch-led “international multi-stakeholder network in the agri-food sector comprised of farmer entrepreneurs, private sector firms, governments, knowledge institutions, and civil society organizations” active in Africa and Southeast Asia. Grow Asia is a Southeast Asian regional program developed by the World Economic Forum in collaboration with the ASEAN Secretariat as part of its New Vision for Agriculture [5].
Finding parties with a common interest in a significant issue is the first step in the partnership process. Maintaining food security, promoting greater living standards for their most vulnerable citizens, and finding effective solutions to minimize harmful externalities in smallholder agriculture are all important goals for governments. One justification is to encourage private sector participation and investment in agriculture, which is something that typical donor-driven development initiatives seldom achieve. Part of the motivation for cross-sector collaboration in SDGs stems from the belief that private-sector participation is required to achieve the SDGs’ finance requirements. Traditional development actors—governments, funders, and development NGOs—are likely to seek to collaborate more with businesses to achieve the SDGs.

Another justification is that it provides a valuable platform for starting a conversation with agribusinesses on what successful agriculture policy looks like for them. Several non-governmental organizations (NGOs) are working with corporations to improve their social and environmental performance rather than lobbying against them [47,54]. As a result, for market-driven cooperation between smallholders, government, NGOs, and other assistance agencies to be successful, the commercial element of the strategy must also be implemented.

5. Towards a Framework of Analysis and Intervention

5.1. Strategies for Public Food Procurement

Based on the above, there are three possible strategies to implement public food procurement: direct purchases, indirect purchases, and enforced legislation.

5.1.1. Direct Purchases

This strategy consists of the government entities deploying their purchasing power directly to buy food from targeted groups, mostly smallholder farmers. Underpinning specific rules and regulations may be defined globally or for a specific government entity (e.g., strategic national food reserves), depending on the context. This strategy often brings targeting on both ends: suppliers and food recipients. School feeding is one of the most common environments for direct purchases, but they are also seen for hospitals, prisons, and other public institutions, as well as to build national food stocks for selected crops.

Direct purchases can be promoted through different methods:

Dedicated process: a certain procurement process is conducted exclusively for the targeted suppliers. Leading to the same outcome, one or more lots of a normal process can be set aside for purchases from the targeted suppliers. The advantage of this method is that it guarantees exclusive access to the market for selected groups. On the other hand, it must be carefully designed to avoid side effects such as price increases or market distortion.

Differential process: targeted suppliers participate in the procurement process, competing with regular (non-targeted) suppliers. However, differential treatment is guaranteed to the former groups in the tender evaluation process (e.g., additional points or discounts on the offered prices). This method is indeed more in favor of “value for money” as a principle and reduces the probability of price increases. Nonetheless, finetuning the parameter for the differential treatment becomes a major challenge with risks to the competitiveness of the targeted groups, hence risking the fulfillment of developmental goals.

Examples of direct food purchases are observed in many countries (Table 3): Brazil (Home Grown School Feeding and “Programa de Aquisiscao de Alimentos” [Program of Food Purchase]), European Union, Uruguay and Paraguay (all types of government food purchases) and USA (Child Nutrition Programs), among others [55]. The details provided in Table 3 are instrumental in informing the design of the framework.
Table 3. Illustrative examples of direct food purchases across the globe that can be used as a reference to develop pro-poor solutions.

<table>
<thead>
<tr>
<th>Country</th>
<th>Details</th>
<th>Source</th>
</tr>
</thead>
</table>
| Brazil        | - Preferential purchases from family farmers for national food assistance schemes;  
| EU (multiple countries) | - Tendering and pricing criteria consider life-cycle perspective to promote green and sustainable procurement  
| Ghana         | - Caterers contracted by the government for school feeding have to source ingredients from local producers | http://schoolfeeding.gov.gh/ (accessed on 10 September 2022) |
| India         | - Food Corporation of India buys grains directly from farmers with minimum prices | http://fci.gov.in/procurements.php (accessed on 10 September 2022) |
| Paraguay      | - Simplified procurement processes to purchase from family farming for school feeding schemes | https://www.plataformacelac.org/ley/58 (accessed on 15 September 2022) |
| Peru          | - Food for school feeding systems is purchased from local smallholder farmers’ organizations | http://www.qaliwarma.gob.pe (accessed on 19 September 2022) |
| Thailand      | - Suppliers have to source a minimum percentage of the raw milk from farmers’ organizations | http://www.dpo.go.th/wp-content/uploads/2014/09/final_original.pdf (accessed on 6 October 2022) |
| USA           | - Preferential procurement of local, unprocessed foods for the Child Nutrition Programs | https://www.fns.usda.gov/2015 (accessed on 5 November 2022) |

Public procurement is not restricted to the governments alone, but also some innovative procurement schemes are also observed among international organizations with humanitarian goals. UNICEF has been active in implementing aspects of sustainability through indirect purchases of goods, services, and food. UNICEF has implemented a Sustainable Procurement Framework to guide corporate procurement processes of over USD 3.5 billion per year. The framework incorporates social, economic, and environmental impact considerations to the usual principle of “best value for money” [56].

5.1.2. Indirect Purchases

Instead of going directly to the market to purchase food, governments impose conditions on their suppliers so that they are obliged to source food items (or raw materials) from targeted groups. This strategy takes advantage of the flexibility and agility of the private sector procurement practices and avoids the public procurement rules that can be cumbersome, even when subject to preferential conditions as those in the direct purchase strategy. On the other hand, much effort must be put in place by the government for control and oversight of the entire process to avoid misconduct and make sure that suppliers abide by the procurement rules during implementation.

Indirect purchases are commonly observed in school feeding programs, in which governments hire caterers to deliver food to schools and enforce that the ingredients are purchased from local smallholder farmers. Examples include the national program in Ghana and the School Milk Program in Thailand [55].
Among international organizations, the World Food Program’s (WFP) corporate policy on Local and Regional Food Procurement defines the strategy to deploy its purchasing power in contribution to the achievement of the SDGs, particularly SDG 2 (zero hunger). The WFP purchases around 1.8 million metric tons from local food suppliers in countries of operation, but less than 5% of this quantity is purchased directly from smallholder farmers. In this context and to “boost pro-smallholder farmer procurement while allowing the WFP to continue buying at scale from traders who ensure a high degree of food quality,” the organization introduced innovative indirect contracts that “enable WFP to buy from traders while ensuring that fair prices are paid to farmers and guaranteeing transparency and control concerning the transactions between traders and farmers or farmer organizations” [57].

5.1.3. Regulatory Intervention

The third strategy consists of the government developing specific regulations applicable to private sector players to stimulate or enforce purchases from a specific category of suppliers. The conditions may be, for example, fiscal benefits or even authorization to commercial operation subject to compliance with the rules. Since it does not involve public money to buy food, one could argue that it should not be labeled as a category of public food procurement. Still, the government uses its regulatory prerogative to enforce or stimulate private sector players to buy food from targeted groups, even if the food does not flow to government stocks or targeted beneficiaries. The strategy differs from other regulatory frameworks (see “regulatory aspects” below) because it is a direct intervention in the food value chain in favor of commercial transactions between buyers and specific suppliers. Examples of this strategy are more common for the procurement of goods and services rather than food. Several countries (e.g., Australia, Ecuador, European Union member States, and Tanzania) have laws to enforce a minimum share of local content not only for public procurement but also for companies running a business under government concession, particularly in the oil and gas and mining sectors. Brazil is one good example in the renewable energy sector: private biodiesel producers in the country can only access the market if they purchase a minimum share of raw materials from smallholder farmers. When it comes to food, very often, governments exercise regulatory interventions tacitly, pushing private companies in the food industry to structure their raw material purchases from targeted groups.

5.2. Challenges and Mitigation Measures

Regardless of the chosen strategy to implement public food procurement, realities in food value chains impose multidimensional challenges to attain the desired objectives. Setting procurement schemes favorable to selected target groups is a clear intervention in the “demand/consumption” section of the food value chain.

Still, farmers may face entry barriers that prevent them from fully participating in the procurement process, let alone the challenges they face within the “supply/production” section. In other words, even if produce is available at the farmer’s plot and public purchases are organized, barriers exist in the connection between the supply and the demand sections. Table 4 summarizes some of these barriers, as well as respective possible mitigation measures.

5.3. Supporting Interventions

In most cases, public procurement is not enough as a stand-alone public intervention. Due to the interconnected nature of the value chain operations, the effectiveness of policies focusing only on solving the “demand/consumption” section is inevitably constrained by deficiencies in the other two sections. It is, therefore, important to have a holistic approach and consider supporting interventions to be coupled with the implementation of procurement schemes.
Table 4. Challenges and mitigation measures for market access.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to information: probably the most basic of all the requirements,</td>
<td>Implement communication strategies to ensure that the targeted groups are informed</td>
</tr>
<tr>
<td>farmers may simply not be aware that the public purchases are taking place and are accessible to them.</td>
<td>about procurement plans and that this information reaches the farmers promptly vis-à-vis the harvest calendar.</td>
</tr>
<tr>
<td>Tender conditions: procedures and requirements may be too cumbersome for farmers to comply with.</td>
<td>Simplify procurement processes, from the tender qualification step to the contract documents, to allow smallholder farmers to understand and be able to participate.</td>
</tr>
<tr>
<td>Size of contracts: lot sizes and quantities may be so large that smallholder farmers are not able to meet the demand.</td>
<td>Carefully plan the procurement process to balance the operational efficiency and the accessibility of the farmers considering the local context of the value chain.</td>
</tr>
<tr>
<td>Payment terms: payment method and time may be operationally or financially unfeasible.</td>
<td>Analyse alternatives to expedite payments and be flexible in terms of payment methods (e.g., mobile money).</td>
</tr>
<tr>
<td>Food specification: farmers may not be able to deliver food with stringent or too specific conditions.</td>
<td>Evaluate specification requirements and adapt procurement plans to the production and delivery capability of the targeted groups.</td>
</tr>
</tbody>
</table>

Source: Own elaboration; and [58]

- Regulatory aspects: as the government has the prerogative to establish regulatory frameworks, this entry point is more often deployed. Public agents may develop sets of rules and regulations that promote an enabling environment for food value chain activities, for example, with legislation to promote food quality and safety or green value chains. Policies and regulations directly influence the environmental and economic perspectives, defining rules for access to natural resources or imposing constraints on market operations.
- Capacity building: food value chains in developing countries, particularly those based on small-scale farming, often present structural weaknesses requiring investments. Not only are the individual farmers fragile, but the other actors, from the farmers’ organizations to the private sector players, face multiple challenges to operate efficiently and to be competitive in local and regional markets, let alone global value chains. It is not uncommon that a significant part of public expenditures is spent on activities aiming at building the capacity of the agricultural value chains, including advisory services.
- Infrastructure: in addition to capacity constraints, often the lack of appropriate infrastructure also impedes the efficient operation of these food value chains. Roads are poorly constructed or maintained, warehouse capacity is substandard, and both cold capacities and processing tools or facilities may simply not exist. The public sector may directly invest in infrastructure components to promote value chain development.
- Input and credit provision: small-scale farmers face difficulties accessing inputs for agricultural production at the right time, being it due to lack of accessibility or lack of resources. They are often also not the most welcome clients to attain credit from banks. Even when microcredit is offered, a lack of trust from the farmers often hinders the operation due to fear of losing their assets if they fail to comply with hidden interest rates and other commitments. There are several examples of public schemes implemented to support them in overcoming these challenges. Governments may offer inputs for free—or at subsidized prices—and may also develop specific credit lines to support small-scale agricultural production.
- Agricultural research: government institutions may be sponsored by the public budget to conduct agricultural research designed to improve food production in each context.
of interest. This entry point is relevant in poor countries where access to technology and innovation is limited, and yield gaps are more prominently observed.

5.4. Planning Public Food Procurement

Public procurement schemes shall not be an end goal per se but rather a part of a toolkit to promote agricultural development. It is, therefore, important to start with a thorough planning phase, as the one suggested in Figure 4.

![Planning phases for public food procurement](image)

**Figure 4.** Planning phases for public food procurement. Source: Author’s elaboration.

5.4.1. Define Strategic Objectives

The very first step is to establish the desired long-term outcomes of the procurement intervention and the alignment to developmental priorities, which could be guided by the three-dimensional framework of sustainability: social, environmental, and economic.

Sometimes choosing the priority among the possible goals is not easy, and the fact that trade-offs exist may be subtle. An interesting example that is worth mentioning: there are three contemporary trends in food consumption, particularly in developed countries, that go in favor of sustainability of food value chains but with different and somewhat competing objectives: (i) bio/organic (focus on consumer health, with some concern on the producer health), (ii) km zero/buy local (focus on environmental impacts), and (iii) fair trade (focus on social sustainability).

Targeting is another key—and often challenging—component at this strategic level. Smallholder farmers are the main target of public food procurement operations; however, there is no universally agreed-upon definition of what constitutes a smallholder farmer, and not all nations have their own national definition. The existing ones typically refer to multiple variables such as land size, the profile of labor involved in farming, and revenues generated by the activity [6].

Even when a national definition exists, it may still be challenging for governments to develop and manage a database that allows them to properly monitor the targeting during the implementation [59]. Therefore, governments shall evaluate the existing knowledge of the targeted groups and the public ability to control and enforce whatever conditionalities are part of the planned intervention.

5.4.2. Context Assessment

One of the key parts of the planning process for developing a public procurement scheme is to proceed with a careful analysis of the value chain of interest. The findings of this analysis inform not only the choice of the right strategy for the purchases but also the necessary supporting interventions.

There is a wealth of knowledge on value chain analysis in the literature, with several development institutions sponsoring or executing the analysis, particularly in developing
countries. As an example, the United States Agency for International Development (USAID) has sponsored valuable regional and national-level value chain analysis for Eastern African countries in the context of a program for competitiveness and trade expansion for staple food and other agricultural products in the region [60–62]. Another interesting example is the technical report done for the SADC countries with a focus on the maize value chain, exploring the potentialities of formal cross-border regional trade [32].

Since the value chain involves many activities, the analysis provides findings from multiple perspectives, depending on the focus of the research. From a public food procurement perspective, one key outcome is to understand the distribution of margins and profits throughout the value chain. When public funds are injected into the value chain—directly from the farmers or indirectly using intermediaries—it is important to identify how efficiently these monies are being captured by farmers themselves.

In general, each actor engaged adds value to the final product as it moves up the value chain from the point of original production to the customer, for instance, through primary production, aggregation, food quality assurance, liquidity, transportation, storage, or packaging.

As a result, it is reasonable to anticipate a rise in aggregated tonnage, quality, and price as one advances along the value chain. However, it is important to understand that inefficiencies and imbalances exist in most of the contexts of agricultural value chains in developing countries:

Efficient/inefficient value chain: the numerous actors in the chain are linked and knowledgeable, which facilitates effective operations and prevents prices from being inflated by unneeded costs of value chain actors. An inefficient value chain, on the other hand, compels different players to pay extra expenses, which results in an uneven allocation of advantages, such as a higher price passed on to the ultimate customer. A lack of communication and information exchange is one of the most frequent causes of value chain inefficiencies that result in unequal benefit allocations. Prices are too high as a result of the dangers involved, and no actor gains at the expense of another. In a context such as that, all players can be expected to benefit from improved public procurement practices, and a higher level of cooperation may be expected.

Balance/imbalanced value chain: the various players have equivalent levels of alternative consumers and suppliers, as well as equal access to pertinent information. The participants’ share of the earnings is fairly distributed, giving them fair rewards that take into account the investments they each made or the value they each brought to the final product. Contrarily, if value chains are unbalanced, the distribution of profits frequently does not account for the value that each player contributes. Farmers and smallholder farmer organizations typically receive the lowest revenues relative to the value they offer since returns are typically higher for players closest to the end consumer. This context is more challenging for the public sector to implement procurement schemes, as a strong reaction from the other players is expected as margins and profits are transferred to farmers.

In addition to characterizing the value chain in terms of profits and margins distribution, the analysis shall map the root causes for the inefficiencies and imbalances to inform developmental priorities and guide supporting interventions in the other two sections of the value chain—supply/production and business environment.

Finally, the context assessment includes an evaluation of the ability of the public sector to implement a food procurement scheme. Among other parameters, funding perspective and long-term demand plan must be considered since they are mandatory conditions to provide farmers with stable and reliable market access.

5.4.3. Intervention Outline

The outcome of the process is the selection of the most appropriate strategy for procuring food. Indeed, societal elements of the food system need to be adapted to underpin the chosen strategy, namely the framework of policies, laws, and regulations governing related public activities. Moreover, a set of necessary supporting interventions
accompanies the public procurement intervention to guarantee sustainability on the public sector side.

6. Conclusions

6.1. Public Food Procurement as a Development Tool

Public procurement of goods and services stands for a considerable share of government expenditure, being as large as 50% in developing countries [7]. The significant size of this purchasing power is often used as a tool to promote development objectives in multiple economic sectors.

The widely-adopted general rule for public procurement is the open and non-discriminatory procurement regime that promotes the best value for public money. However, several international agreements have acknowledged the importance of flexible transparent schemes for public procurement that couple the principle of “best value for money” with strategic developmental objectives [63].

Public procurement of food is only a small part of this toolkit, and it is widely recognized as a policy instrument to support smallholder farmers and integrate them into markets, hence a powerful driver for the development of local food value chains—and ultimately of local food systems [51].

Among the agricultural development initiatives typically led by the public sector, public food procurement schemes are prominent due to their potential to entail self-sustained long-lasting commercial operations. Very often, public intervention is necessary to compensate for imbalances or inefficiencies in the value chain or severe constraints that prevent smallholder farmers—or other targeted groups—from actively becoming true value chain players. However, a solid exit strategy has to be thought of since the early stages of the planning phase, and the engagement of the private sector as a buyer is the pathway for long-term sustainability.

Public sector purchasing power shall be a catalyst for development and a strategy to stimulate the responsible participation of the private sector in the market. In other words, looking at the demand/consumption section of the value chain, one shall see farmers’ sales steadily migrating from the public sector to the private sector as the value chain operations develop and government intervention may phase out and be diverted to other chains or development interventions as required.

6.2. Long-Term Sustainability: Private Sector Engagement

No matter how effective a public procurement scheme is, it is not enough to guarantee the long-term sustainability of the initiative. The engagement of the private sector is one key component to support the continuation of the positive effects in the post-intervention period.

The share of the public sector as a buyer in the food value chain is indeed considerable; hence it is important for development. However, it should be mostly used as a catalyst to trigger the improvement of the farmers and their connection with private sector buyers based on commercial transactions that are economically viable. When public funds are used as the sole driving force on the demand/consumption section, there is a risk that producers become dependent on the public sector as a buyer. Instead, a viable exit strategy must be embedded in the intervention from the beginning; obviously, there is more and more room for promoting private sector engagement in developing countries. Mainstream consulting companies have dedicated analyses and published reports on the food value chains and the importance of cooperation and sustainability [64].

Global companies in the food sector have been deepening commitments to the 2030 Agenda and promoting sustainability through their value chains. Brewery companies are good examples, especially due to their operation in cereal chains in developing countries. ABInbev, Heineken, and Diageo—three of the largest brewing groups in the world—have publicly established corporate goals regarding their relationship with smallholder farmers:
ABInbev: “By 2025, 100% of our direct farmers will be skilled, connected, and financially empowered.”
Heineken: “Deliver 60% of agricultural raw materials in Africa via local sourcing within the continent.”
Diageo: “Source 80% of our agricultural raw materials locally in Africa by 2020.”
International organizations have also become dedicated to supporting the engagement of the private sector in value chain development. The United Nations Industrial Development Organization has recognized the importance of private sector participation in the development of agribusiness as a pathway for development in Africa [65]. More recently, the International Finance Corporation has edited a handbook specifically aimed at food chain companies interested in structuring their operations with smallholder farmers [66].

6.3. From Entry Points to Interventions

This study contextualizes the centrality of value chains in food systems and the interconnected nature of their activities, highlighting the importance not only of contextualizing value chain interventions in a broader perspective but also of understanding public food procurement initiatives as part of a holistic toolkit deployable for agricultural development. If implemented as a stand-alone intervention, very likely it will not be effective as other constraints in the value chain will prevent farmers from operating as planned. From smallholder farmers’ standpoint, public food procurement represents an opportunity to access a stable market for their products, which helps to build the conditions for them to invest in their production. This positive effect spreads through the value chain, and other fragile actors—such as small local service providers and small enterprises—also find improved conditions for enhancing their business activities with reduced risks. More productive investments lead to better quality products and diversified production; hence income increases, poverty is reduced, and food systems improve (Figure 5).

![Figure 5](image-url)

**Figure 5.** Food public procurement mechanisms as a tool for pro-poor development: from entry points to interventions in value chains. Source: authors’ elaboration.

From all the above, there is hope and confidence that public procurement of products and services directly from smallholder farmers would lead to improved household status and communal poverty reduction. The Sustainable Development Goals (SDGs) establish an internationally recognized baseline with specific indicators for optimal long-term development. As a result, determining the characteristics that make such collaborations more likely to succeed is an important topic of research.
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