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Urban Markets in Honduras and Guatemala: Dynamics, Challenges, and Opportunities for Sustainable Healthy Diets

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Urban Markets in Honduras and Guatemala

Dynamics, Challenges, and Opportunities for Sustainable Healthy Diets

Abstract

This study analyzes the dynamics of urban food markets in Honduras and Guatemala, with the objective of understanding their linkages with smallholder farmers and their role in the availability of and accessibility to nutritious foods. The analysis was based on 86 interviews with retailers, smallholder farmers, and local agents, such as representatives from government programs and non-governmental organizations involved in market regulation, technical assistance, and support to smallholders. The study assessed factors that determine prices, supply stability, postharvest losses, and consumer preferences. The results show that intermediary actors are the main mechanism supporting local value chains, which connect rural production with urban markets; this ensures continuous supply but limits the direct participation of smallholder farmers. Seasonality, high transport costs, and lack of cold storage infrastructure contribute to price instability and losses of up to 40 percent for some products. Consumers prioritize freshness and appearance over nutritional attributes or local origin. Based on these findings, the authors suggest strengthening short value chains, investing in postharvest infrastructure such as cold storage units to reduce food loss, and raising awareness about healthy diets to promote sustainability and nutrition among urban consumers. These actions would contribute to more inclusive urban markets and resilient value chains, aligned with the expected outcomes of Area of Work 2: Market Systems for Better Diets under CGIAR's Better Diets and Nutrition (BDN) Science Program.

Introduction

The CGIAR Better Diets and Nutrition (BDN) Science Program seeks to transform food systems to ensure more diverse, safe, and affordable diets, particularly for women, youth, and vulnerable populations. Area of Work 2: Market Systems for Better Diets focuses on leveraging markets as platforms to improve the availability and accessibility of nutritious foods, while promoting economic inclusion and the sustainability of local value chains (CGIAR, 2025).

In Honduras and Guatemala, urban markets¹ play a strategic role in connecting rural smallholder farmers² with urban consumers by serving as key hubs for the distribution of fresh and staple foods. These markets are also a critical source of livelihoods for the thousands of vendors, retailers, and intermediaries who depend on daily market activity for income, contributing significantly to urban employment and informal economies. Global estimates suggest that up to 70 percent of food is consumed in urban areas (FAO, 2017; UNEP, 2023), though this proportion may differ in the two study countries. Traditional and informal markets continue to be the main source of food access for urban households (Reardon et al., 2019; GAIN, 2020). In both countries, the bulk of food sold in these markets is supplied through intermediaries and regional wholesalers that aggregate production from multiple farmers, both small and large, ensuring continuous availability for consumers. However, structural barriers such as high logistical costs, limited access to finance, and insufficient infrastructure reduce the ability of many smallholder farmers to participate directly in these supply chains, which in turn influences the diversity, freshness, and price of foods available to consumers. These constraints increase postharvest losses, reduce rural profitability, and can ultimately hamper the availability of fresh local products in urban markets.

From a nutritional perspective, both countries face critical challenges: 46.5 percent of Guatemalan children and 23 percent of Honduran children suffer from chronic malnutrition (UNICEF, 2021; WFP, 2022), while more than a quarter of adults suffer from obesity, a rate which is almost double the global average (FAO, IFAD, PAHO, UNICEF and WFP, 2025). This reflects a dual nutritional challenge: persistent undernutrition and food insecurity among low-income rural and urban populations coexist with a steady increase in overweight and obesity among adults and children, particularly in urban areas. Although the prevalence of overweight among children in Guatemala and Honduras remains below the global average of 5.5 percent, adult obesity rates are nearly twice as high, reflecting a growing imbalance between food availability, dietary quality, and nutritional awareness. In this context, this study generates critical insights on marketing mechanisms, logistical challenges, and opportunities for smallholder inclusion in urban food markets in Honduras and Guatemala. It also examines factors that shape affordability, price stability, and consumer preferences, with the aim of informing market strategies through context-based evidence.

Methodology

The research followed a qualitative and exploratory approach, using semi-structured interviews and field observations to understand the dynamics of urban food markets in Honduras and Guatemala. The aim was to capture the perspectives of three key groups of actors within the urban food system: retailers,³ smallholder farmers (individuals and associations), and local agents or institutions linked to rural development, marketing, and food security.

First, interviews were conducted with urban market retailers to analyze food distribution, price formation, product availability and quality, and supply mechanisms. Second, interviews with individual smallholder farmers and associations documented their experiences with access to urban markets, negotiation conditions, entry barriers, and improvement strategies. Finally, interviews with public institutions, nongovernmental organizations, and development projects identified as relevant local support agents helped triangulate the structural challenges of the marketing system and identify opportunities to strengthen links between smallholder farmers and urban markets.

Geographic coverage and sample

In Honduras, interviews were conducted in urban markets in Tegucigalpa, Santa Rosa de Copán, Comayagua, and Danlí, as well as with smallholder farmer organizations and cooperatives such as Empresa Campesina Asociativa Regional Agroindustrial (ECARAI), Asociación Regional de Servicios Agropecuarios (ARSAGRO), and Red de Comercialización Alternativa Campesina (Red COMAL), which supply vegetables and grains to formal chains (supermarkets and institutional purchases such as the national school feeding program) and, to a lesser extent, to urban markets. Local supporting institutions, such as the Honduran Institute of Agricultural Marketing (IHMA, Instituto Hondureño de Mercadeo Agrícola), and development projects supporting agricultural value chains were also interviewed.

In Guatemala, the study was conducted in the markets of Guatemala City, Chimaltenango, Quetzaltenango, Totonicapán, Huehuetenango, Zacapa, and Chiquimula, and with smallholder farmers organized into cooperatives and local associations supplying both wholesale centers and national programs run by government bodies such as Ministerio de Agricultura Ganadería y Alimentación and Ministerio de Desarrollo Social, as well as supermarkets. Organizations from the highlands and eastern regions working to integrate smallholders into markets, particularly for vegetables, maize, and beans, were interviewed to capture the view of local support agencies.

Table 1. Interviews by actor type and country

Type of actor	Description of interview	Honduras	Guatemala
Urban market retailers	Distribution, prices, availability, and perceptions of quality	34	28
Individual smallholder farmers and associations	Market access experiences, negotiation conditions, and entry barriers	6	10
Public institutions, non-governmental organizations, and development projects	Structural challenges and innovation opportunities	3	5
Total		43	43

Source: Authors own elaboration based on semi-structured interviews (2025).

Instruments and data collection

Interviews were conducted between June and September 2025 by national consultants with experience in agrifood systems research. The study focused on commonly traded fresh products in urban markets, including tomatoes, onions, peppers, potatoes, and carrots, whose primary supply comes from national smallholder producers. A semi-structured guide was used, organized into five thematic blocks:

1. Product supply and origin
2. Factors determining prices and affordability
3. Supply consistency and postharvest losses
4. Product quality attributes and consumer preferences
5. Commercial relationships and innovation opportunities

The interviews explored which products sold in urban markets come from smallholder farmers, the main factors influencing prices and availability, and the challenges of maintaining a stable supply of fresh foods. They also addressed how consumer preferences such as freshness, price, and local origin influence purchasing decisions, and the type of relationships that exist between smallholder farmers, intermediaries,⁴ and retailers.

In both countries, field observations and photographic records were also collected on infrastructure, conservation conditions, and handling practices. Respondents were selected through purposive sampling to represent the main actor types, products, and production zones linked to urban markets.

The information was then analyzed using a thematic approach, which identified common patterns and differences across countries to triangulate the perceptions of retailers, smallholder farmers, and institutions. Emerging categories were related to structural access factors, intermediation mechanisms, sales and conservation strategies, and consumer-valued attributes.

Results

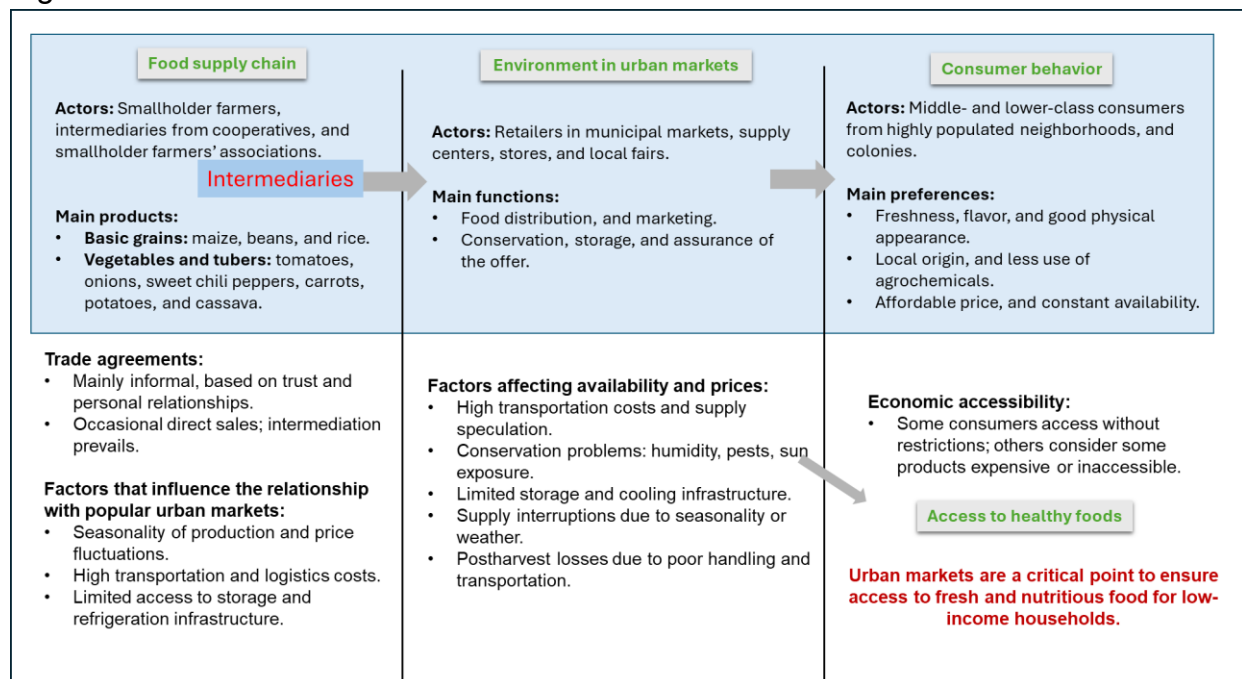
Urban markets and the food system

Urban markets are essential spaces for the supply of food in Honduras and Guatemala: these markets link rural production with urban demand and play a central role in shaping local food systems. These spaces comprise hundreds of small retail stalls offering a wide variety of products, including white maize, red and black beans, tomatoes, onions, sweet peppers, carrots, potatoes, and cassava, as well as animal-source foods and basic goods such as sugar, oil, and flour. To capture market dynamics, the study interviewed key actors involved in these markets, including retailers, national smallholder producers of fresh products, and local institutional agents.

Figure 1 illustrates the flow of urban food systems from production to consumption, highlighting interactions among smallholder farmers, intermediaries, and urban markets that primarily serve low- and middle-income families living in urban middle- and lower-income neighborhoods. The diagram reflects the central role of intermediaries in ensuring a continuous supply of staple foods, while also revealing structural gaps in logistics, information flow, and commercial equity that affect the direct participation of smallholder farmers and consumer access to healthy foods in urban areas.

The following sections present more detailed information on each component of this system, including supply sources, price formation, postharvest losses, and consumer preferences. This information provides insights into the connections and constraints within urban markets in both countries.

Figure 1. Structure and flow of food in urban markets in Honduras and Guatemala



Source: Authors own elaboration based on semi-structured interviews (2025).

Supply of products from smallholder farmers

The findings show that direct connections between smallholder farmers and urban retailers remain limited in urban markets in Honduras and Guatemala. In most cases, commercial interactions are facilitated by intermediaries. Although some vendors consider farmers to be a “complementary source” of products, main supply channels rely on intermediaries and wholesalers that aggregate volumes, ensure continuity, and bear the risks of transport and storage. This structure maintains the flow of food but restricts contact between farmers and markets, thereby limiting price transparency and farmers’ bargaining power.

Smallholder farmer organizations with stronger technical and logistical capacities mainly participate in formal channels such as supermarkets and private chains that cater to higher-income consumers. For example, in Honduras, organizations such as ECARAI, ARSAGRO, and Red COMAL sell 60–75 percent of their products to chains such as Walmart and La Colonia supermarkets, while farmers’ markets or urban markets represent less than 5 percent of sales. When marketing to supermarkets, these organizations generally offer products that meet specific quality and safety requirements, such as uniform size, appearance, and packaging. Products that do not meet these specific criteria are sold through alternative outlets. Either directly or through intermediaries, this surplus produce is usually redirected to urban markets, where lower aesthetic standards and greater pricing flexibility allow it to be absorbed. Thus, urban markets serve as a complementary or offset channel. The limited direct participation of cooperatives in these markets is mainly due to the stability and better price margins provided by supermarket contracts, which incentivize long-term formal arrangements.

Similarly, in Guatemala, cooperatives and associations channel production through wholesale centers or supermarket contracts, as municipal markets demand year-round supply but offer no guarantees of stable prices or fixed purchase volumes, creating barriers for smallholder farmers. This lack of predictability makes crop planning difficult and generates economic uncertainty, especially for organizations. In contrast, supermarket chains such as Walmart or La Torre establish contracts that ensure consistent volumes, quality, and delivery schedules, often through more stable collective agreements. These factors explain why cooperatives, despite their production capacity, find it preferable to engage with structured buyers that offer sustained demand and predictable payments, rather than relying on municipal markets where commercial stability remains limited.

Direct trade between smallholder farmers and urban retailers is further constrained by the lack of cold storage, long distances between production zones and urban centers, and high transport costs. “Sometimes freight costs almost as much as the cargo, especially from the west,” noted a Guatemalan smallholder farmer. This reinforces reliance on intermediaries who assume logistics costs and storage risks but raise the final price for consumers.

The urban supply system in Honduras and Guatemala exhibits a structural duality: intermediaries ensure a continuous supply by aggregating products from dispersed smallholders, which fills the gaps in scale and coordination that individual farmers cannot meet. However, their dominance limits the direct participation of smallholders in urban markets, particularly that of farmers who cannot meet requirements for volume, standardization, and continuity. At the same time, the consumers served by these markets are often more price-sensitive than supermarket shoppers, which reduces incentives for higher-quality or differentiated products and reinforces dependence on intermediate supply channels.

Consumer preferences and value attributes

Retailers agreed that consumers in urban markets in both countries prioritize freshness, color, and good physical appearance. These visual cues serve as immediate indicators of quality and safety, outweighing information about origin, certification, or production methods. Constant availability and affordable prices were also key factors for purchasing decisions.

In Honduras, consumers show a preference for fresh products, even if these are slightly more expensive. “Customers don’t mind a small price increase if the quality is good,” said a vendor. In Guatemala, price sensitivity is higher, with greater attention to uniformity and visual presentation. “People want it to look nice, same size, same color—if not, they won’t buy it, even if it’s cheaper,” explained a Chimaltenango retailer. Differentiated attributes such as local origin, agroecological production, or certifications were mentioned only marginally.

Factors determining food availability and prices

Results indicate that in urban markets in Honduras and Guatemala, food availability and price are determined by a combination of seasonal, structural, logistical, and environmental factors that interact throughout the year.

Agricultural seasonality strongly influences availability and prices, particularly during holidays and peak consumption seasons. Retailers reported increased sales of staple vegetables such as tomatoes, sweet peppers, and onions during December and Holy Week, a trend driven by the preparation of traditional dishes. “At the end of the year we always sell more; people buy more tomato and pepper for meals,” explained one retailer. Climatic conditions have a direct impact on food prices and product availability in Guatemalan and Honduran markets, mainly through effects on agricultural supply and logistics costs. During the rainy season, excessive rainfall, high

humidity, and poor road infrastructure lead to significant losses in crops such as onions, broccoli, carrots, and potatoes. These conditions reduce the availability and quality of products reaching markets and increase transportation costs from rural areas to urban centers, resulting in higher consumer prices but lower margins for farmers. Intermediaries assume greater risks and logistical expenses during this period, and they often transfer these costs to the final consumer. In the dry season, market prices can rise due to reduced yields in staple grains such as maize and beans, which are highly dependent on rainfall and vulnerable to high temperatures. Limited water availability and declining soil moisture further constrain production, while the depletion of smallholder grain reserves lowers supply and intensifies price volatility. In both cases, price increases are primarily driven by decreased supply and limited market availability, whether from production losses or logistical challenges, leading to marked seasonal fluctuations in food prices across urban markets.

Beyond seasonality, structural and logistical constraints play a decisive role in shaping food prices and market stability. By lengthening distribution chains and reducing smallholder farmers' profit margins, intermediary action remains the most influential factor. Transport costs and poor road infrastructure further raise prices, particularly during the rainy season when mobility and product preservation become more difficult. Competition from imported products during domestic harvest periods adds pressure by lowering local prices and discouraging local production. Institutional interventions, such as those by IHMA in Honduras, help stabilize prices but involve slow and bureaucratic payment processes that discourage smallholder farmers. Finally, the lack of adequate storage and refrigeration infrastructure was identified as a key determinant of final prices, market stability, and product availability. These challenges, combined with climate variability such as floods, droughts, and temperature extremes, generate price volatility and affect food quality.

Postharvest losses

Postharvest losses represent a structural challenge affecting both vegetable and grain value chains in Honduras and Guatemala. Losses of 20–40 percent are common and result from excessive humidity, inadequate handling, lack of refrigeration, sun exposure, delayed sales, pest infestations, and unsuitable packaging. These conditions not only increase losses but also heighten food safety risks, particularly when products remain exposed to heat, moisture, or poor handling practices.

Table 2. Main postharvest problems

Postharvest problem	Manifestation	Products most affected	Losses reported by country (%)
Excessive humidity in storage	Mold, softening	Tomato, onion, potato	Honduras (5–30%), Guatemala (2–5%)
Poor handling during transport	Bruising, loss of firmness	Tomato, potato, cassava	Both countries (3–10%)
Lack of refrigeration	Accelerated deterioration	Carrot, broccoli	Guatemala (2–8%)
Sun exposure	Dehydration	Tomato, onion	Guatemala (2–15%)
Oversupply or delayed sales	Product spoilage	Tomato, potato	Both countries (3–10%)
Storage pests	Weight loss	Maize, beans, rice	Guatemala (1–10%)
Inadequate packaging	Spillage or physical damage	Tomato, beans	Guatemala (3–5%)

Source: Authors own elaboration based on semi-structured interviews (2025).

Note: Percentages indicate postharvest losses (%) reported by retailers.

Retailers and smallholder farmers described the problem vividly. In Honduras, losses were reported of up to 30 percent for potatoes and 20 percent for tomatoes and sweet peppers, mainly due to heat and delayed sales. “When it’s hot, vegetables don’t last two days; if they’re not sold fast, they’re lost,” said one retailer. In Guatemala, losses reached up to 40 percent in maize and beans, 15 percent in onions, and 8 percent in potatoes due to humidity, pests, and poor storage. These issues are linked to deficient rural infrastructure and weak logistics. Poor road conditions and a lack of refrigerated collection centers cause products to deteriorate before reaching urban markets. In many cases, freight costs are nearly equivalent to the cargo’s value, drastically reducing margins.

Guatemala faces additional challenges from the absence of cold chains and product grading. “The main cause is no cold rooms... poorly sorted products and bad handling,” reported one organization. Some cooperatives are investing in agro-industrial processing to add value, though such initiatives remain limited.

Retailers' strategies to cope with variability

Retailers and smallholder farmers who sell directly in markets implement a range of adaptive strategies to cope with seasonality, price volatility, and postharvest losses, with the aim of maintaining a stable supply and reducing economic risk. Common measures include diversifying suppliers, adjusting prices according to supply, rotating perishable goods quickly, and selling early or at discounts to avoid spoilage. "If I don't sell fast, quality drops; I'd rather sell cheap than lose it," said a Honduran retailer.

Other retailers establish informal agreements with transporters and wholesalers or buy from different regions to ensure a constant supply. These trust-based networks, founded on personal relationships and reciprocity, are vital for the functioning of urban markets but highlight the absence of formal coordination and financing mechanisms. Smallholder organizations (such as cooperatives or associations) adopt more structured approaches, such as crop planning to respond to supermarket demand, adoption of quality and safety standards, and diversification into value-added products. Although primarily oriented to formal markets, these initiatives show potential for linking with urban markets based on freshness, local origin, and community trust, specifically by enabling smallholder organizations to channel surplus or standardized production into traditional urban markets through established local sourcing and trust-based exchange mechanisms.

Discussion

Urban markets demonstrate a remarkable capacity to adapt to climatic and economic variability, sustained by informal networks of cooperation among smallholder farmers, intermediaries, retailers, and consumers. Their role is essential not only to maintain a steady flow of staple foods but also to ensure daily access to fresh and nutritious products, especially for low- and middle-income urban households. Nevertheless, the study's findings highlight the need to strengthen their functioning through strategies that foster more inclusive, resilient, and health-oriented market systems in Honduras and Guatemala.

In this context, three interrelated lines of action are proposed: strengthen linkages between small-scale smallholder farmers and retailers in urban markets; improve food availability, accessibility, and price stability; and promote greater awareness of healthy diets among consumers. These areas of intervention aim to balance the interests of smallholder farmers and consumers, thus enhancing the sustainability of urban food systems and the equity in access to nutritious foods across different income groups.

Strengthening linkages between smallholder farmers and retailers

To move toward more equitable commercial relationships, dedicated spaces or sections for local smallholder farmers should be established within urban markets, which would be jointly managed by municipalities and retailers' associations. This would foster direct sales, reduce dependence on intermediaries, and improve income distribution within the system. It is also necessary to promote cooperative mechanisms and local supply agreements that facilitate more stable relationships between smallholder farmers and retailers. These arrangements could take flexible forms, such as seasonal contracts or advance purchase agreements, providing security for both parties. Their implementation requires institutional support, sustained incentives, and the strengthening of local capacities in negotiation, planning, and commercial management to build trust and reduce existing gaps along the value chain.

Improving availability, accessibility, and price stability

To address challenges related to seasonality and infrastructure, investment is needed to create or reactivate collection centers equipped with refrigeration units along strategic rural–urban corridors to reduce postharvest losses and mitigate supply fluctuations. Similarly, strengthening logistical coordination through shared freight systems and intermediate collection nodes could help lower transportation costs.

To improve market information, existing national systems could be strengthened by improving their coverage and linkage with urban markets. In Honduras, the Agricultural Products Market Information System, managed by the Honduras Foundation for Agricultural Research (Fundación Hondureña de Investigación Agrícola, FHIA, compiles prices in major wholesale markets, although its reach to smallholder farmers and retailers remains limited. In Guatemala, the World Food Program operates a food price monitoring system, which is available on the Humanitarian Data Exchange platform. This system could be adapted to include a broader range of fresh products and local markets. Improving these systems would entail expanding their geographic and product coverage, training market actors in the use of simple digital tools and integrating national systems with regional platforms such as the Mesoamerican Market Information System for Agricultural Products (SIMMAGRO), coordinated by the Central American Integration System and the Inter-American Institute for Cooperation on Agriculture (SICA & IICA, n.d.). These actions could promote greater transparency, predictability, and price stability, contributing to a more continuous and affordable supply of healthy foods in urban markets.



Promoting sustainable healthy diets

The strengthening of urban markets must be accompanied by strategies that stimulate demand for healthy foods, improve perceptions of quality, and increase nutritional awareness among consumers. Nutrition education campaigns should be implemented within markets, using accessible tools such as informational posters and cooking demonstrations. Likewise, simple labeling systems could be introduced to highlight product attributes such as “local,” “low in agrochemicals,” or “rich in micronutrients” to help consumers identify affordable healthier options. Organizing healthy food fairs and seasonal produce baskets can also strengthen the connection between local smallholder farmers and urban consumers, combining affordable prices with practical education on healthy eating and dietary diversification.

Finally, strengthening urban markets requires coordinated action among public and private institutions, including the Ministries of Agriculture, Economic Development, and Health; municipal authorities; cooperatives; and smallholder farmer organizations. It is recommended to move toward comprehensive public policies that recognize the strategic role of these markets in urban food and nutrition security to promote their modernization, sustainability, and social inclusion and thereby ensure equitable access to fresh, diverse, and nutritious foods for the entire population.

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END NOTES

- ¹ Urban markets are traditional or informal food markets characterized by high consumer turnover, small-scale retailers, and the sale of fresh and staple foods for low- and middle-income households.
- ² The term "smallholder farmers" refers to rural producers who manage small-scale family farms.
- ³ Retailers are market vendors who sell directly to consumers in popular urban markets, including stallholders and small shop owners.
- ⁴ The term "intermediaries" refers to midlevel agents who purchase products from smallholder farmers and distribute them to urban market vendors or wholesale markets.

About BDN

The CGIAR Science Program on Better Diets and Nutrition (BDN) identifies, co-designs and tests consumer-oriented solutions to ensure sustainable healthy diets for all while enhancing livelihoods, social equity, and environmental sustainability. Through evidence-based research and collaboration, BDN supports country-led food system transformation in low- and middle-income countries. To learn more about BDN, please visit <https://www.cgiar.org/cgiar-research-portfolio-2025-2030/better-diets-and-nutrition/>.

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