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Unpacking the informal midstream: how the informal economy could contribute to enhanced food system outcomes

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Informal traders, street vendors, and transporters — known as midstream businesses — play a critical role in food systems in the Global South, providing affordable food to low-income households. However, negative impacts relating to these businesses may occur because of unregulated activities, for example, poor working conditions, operating outside of regulation food safety policies, and lack of knowledge around and incentives to enforce adequate hygiene standards. Knowledge on effective approaches to reach out and include informal businesses in enhancing food system outcomes and reducing negative impacts is lacking. This is leading to missed opportunities in achieving zero hunger — Sustainable Development Goal (SDG) 2 — and other SDGs. There is a need for improved understanding of the motivations, organization, and governance of informal businesses, so policies and interventions can be adjusted to their realities.

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The important role of informal midstream actors on food markets

Worldwide, there is an urgent need to transition toward healthier, more inclusive, and sustainable food

systems [1–3]. Informal businesses — understood as unregistered or legally unprotected actors operating food business in trading, vending, transporting, or other roles — play a critical role in food supply chains in the Global South (a term that, according to the United Nations Conference on Trade and Development definition, broadly comprises countries in Africa, Latin America and the Caribbean, and Asia and Oceania with a relatively low level of economic and industrial development), from food production up to distribution to the consumer [4–6]. For example, informal food vending is an important source of affordable and nutritious food for low-income households in urban areas [7–10] and is an important source for protein intake [11]. Moreover, much of the midstream informal food system is reported to be in retailing, traditional food processing, and the provisioning of basic services such as transport, and accounts for a significant share of employment and hence livelihoods within the informal sector [12–14].

The informal economy is significant in many regions of the world. Globally, the contribution of informal businesses to national gross domestic product is estimated at around 60% [12]. The magnitude of the informal sector in terms of employment, including agriculture, varies across regions, but is the largest in Africa — which, in 2016, was estimated at 86%, followed by Asia and the Pacific (68%), Latin America and the Caribbean (53%), Central Asia (43%), Eastern Europe (32%), Northern America (18%), and Northern/Southern/Western Europe (14%) [12]. Given their numbers and significance, it is key for informal economy actors to be included in any transition for improved food system outcomes.

The food system midstream includes all intermediary activities before and after the farm gate, such as the supply of inputs, trading, storing, processing, and distributing food to the consumer [15]. The role of the midstream in food systems in the Global South is expanding parallel to growing urbanization, rising incomes, changing diets, and growing demand for value-added products, such as processed foods and foods prepared and consumed outside of the home [16–18]. Many recent studies investigating food system midstream sectors have made little explicit distinction between formal and informal businesses, or are mainly focused on formal sectors [6,15,19,20]. This means the precise contribution

of global informal midstream agribusinesses to food system outcomes is unclear [21]. However, food system midstream actors can support many Sustainable Development Goals (SDGs), including SDG1 (no poverty), SDG2 (zero hunger), SDG5 (gender equality), and SDG8 (decent work and economic growth) by contributing to job creation, improved incomes, and enhanced connectivity of food production and consumption [9,10,22]. If governments, investors, and development practitioners aspire to have a significant, large-scale impact on food system outcomes, the perceptions and understanding of informal food system midstream actors need to change. Food systems cannot be made sustainable by only using the power of the formal economy [4,23]. This article highlights the key characteristics of the informal midstream and explores how its actors can be effectively involved in food system transformation processes.

Views on the informal economy: a stage in development or set to stay?

The informal economy comprises all forms of ‘informal employment’: employment without contracts or social protection, both inside and outside informal enterprises, including self-employment in small, unregistered enterprises and wage employment in unprotected jobs. Workers in the informal economy often have no legal recognition or protection because the employment relationship is not formally acknowledged. There are degrees to which a business can be considered informal: legal, fiscal, and labor informality, and businesses can either be informal across all dimensions or just one or two [24].

The prevalent perception of the informal economy is largely negative, because informal businesses are associated with low productivity, poor labor conditions, poverty, and inequality [25–27]. Governments have no control over how informal businesses operate, which means they cannot enforce safe and fair labor conditions and food safety regulations [28–30]. As such, informal workers can be vulnerable to illegal practices or human rights’ violations [31,32]. Combined with low and irregular earnings, this makes them vulnerable to health and other livelihood shocks. Informality also creates an unequal competitive environment for formal businesses,

especially those that are already financially constrained. Because the cost of operations is significantly lower for informal businesses, they can outcompete even the most innovative and productive formal firms. Furthermore, the large proportion of informal economy in Africa, Asia, Latin America, and the Caribbean also means governments are missing out on significant tax revenues.

However, negative perceptions do not consider contextual factors and why businesses operate informally in the first place. Such contextual factors are, for instance, that people (especially traders and vendors) can support themselves monetarily even when formal economic systems are not in place (self-sufficiency), or they prefer to avoid paying taxes to an incompetent and corrupt government [5,24]. There are broadly four theoretical explanations that help in understanding why the informal economy exists (Table 1). One common element is that the informal sector is a counterpart to the formal sector, as they are undeniably linked: the scale and scope of the informal economy may indicate that the state’s service provision for businesses is lacking or too complex, or that there are other issues preventing people from finding employment in the formal economy. The question then becomes whether we should strive to eradicate informality, or target issues relating to the informal sector through increased economic development, improved governance, and enhanced public services in general.

The fact that the formal and informal economies are intertwined highlights the uneasy relationship between governments and informal economic sectors [35]. Governments naturally prefer a large formal sector, as it generates tax revenues and businesses can be held accountable for evading or violating laws and regulations. Governments also fight informality because of their assumption that countries with large informal sectors tend to grow below their potential. Informal firms typically remain small, with low productivity, limited access to finance, and no social protection, while informality is also associated with gender inequality [5,36].

A common assumption is that businesses make a rational cost–benefit analysis in their decision to become formal or informal. This is why governments attempt to regulate

Table 1

Views on the role of informal businesses in the economy [24,33,34].

Exclusion	Businesses are excluded from state benefits due to high entry costs (e.g. burdensome entry regulations) and therefore forced to operate informally.
Exit	Businesses voluntarily choose to operate informally after assessing the costs and benefits of formalization. This may relate to the poor quality of state service provision.
Dualist	The formal economy is not established enough to employ the whole population. The informal sector houses the ‘overflow’ of workers and businesses.
Structuralist	Informal businesses and workers provide low-cost inputs and flexibility to the formal sector and are therefore key for the formal sector to function.

the informal sector through interventions such as cutting costs and simplifying procedures to create lower entry barriers, thereby increasing the benefits of formalizing and the level of enforcement and audits. Despite these interventions, informality among small-scale firms remains widespread [26,37], indicating that entry barriers are not the only reason that businesses choose to operate informally, but that the motivations for business informality are heterogeneous — ranging from a need for income to the inability to find formal employment and the appeal of running their own business [38].

Understanding the governance of informal economic sectors

The informal economy manifests a considerable degree of governance, self-organization, and structure. Informal regulation originates from a variety of nonstate actors and informal institutions, such as powerful entrepreneurs and religious leaders, but also trade unions and associations. ‘Hybrid governance’ is a more accurate depiction of actual economic governance, whereby the state has no exclusive regulatory authority over economic activities, and nonstate institutional arrangements provide a form of economic order [39,40]. For example, informal midstream actor networks or associations are important governance structures that provide vital functions — such as market regulation, service provision (water, security, and electricity), finance (joint investments), and resource allocation. In addition, social networks facilitate community cohesion and solidarity among group members. This also highlights the relational and social embeddedness as important factors determining the form and impacts of economic exchange in informal economic sectors [41,42].

Case study evidence provides a good entry point to understand the structure and governance of the informal midstream, which differs per country and context [43]. In Ghana, ‘market queens’ oversee, protect, and promote market spaces to the public and government, as they have traditionally dominated the Ghanaian trading scene. These market associations are particularly crucial to women traders as they offer savings, insurance, and credit services, and provide an informal safety net for market traders [40]. A blend of formal and informal arrangements can also lead to a thriving local economy, as demonstrated by a case study on bulk trade in sunflowers in Northern Uganda [44]. Formal contracts are combined with informal agreements between traders and farmers on supply, prices, and input supplies (e.g. seeds), where trader–farmer linkages are mainly based on local trade practices that have evolved.

Such hybrid forms of governance, in which formal and informal actors make agreements with each other, increase the opportunities for small farmers to enter

market transactions. A broad literature review study with examples from many countries in the Global South shows that small- and medium-enterprise (SME) transactions in the food sector without formal contracts with smallholders benefit both groups [22]. Smallholder farmers gain access to yield-enhancing inputs and can sell their products in more distant markets, while reducing transaction costs and risks. Food trading and/or processing SMEs also provide smallholder farmers with many of the additional services normally only available through formal contracts with larger companies — such as credit, logistics, information, training, and the provision of inputs. The authors found that interactions with medium-sized businesses benefit farmers in most cases and conclude that the provision of these services — especially by small traders, processors, and cooperatives, but also by larger parties running formal agribusinesses — contributes to the well-being of farmers through technology adoption and productivity growth.

However, the high degree of informality also has a downside. Liverpool-Tasie et al. [22] argue that the perceived lack of trust between traders and producers, for example, may reflect the prevalence of informal contractual arrangements. They claim that low trust combined with an unstable market environment and information asymmetry due to weak institutional arrangements creates room for opportunistic behavior from all parties. However, it is questionable whether the informal economy is characterized by weak institutions. [41] for example, state that entrepreneurs consider ‘rules of the game’ in economic exchange, based on, among other things, family, ethnic, community, religious or political ties, and norms. However, these agreements are not always as visible as formal market institutions such as a bank or a written contract. How such ‘non-market’ institutions emerging from social, cultural, and political structures influence economic growth, wealth distribution, and other outcomes of the activities of informal economic actors in the food system requires further research.

Incentivizing the informal midstream to enhance food system outcomes

To improve food system performance, it is necessary to work with and for the informal economy, which implies that governments will have to recognize the importance of informal economic activities in providing affordable and healthy food for low-income households and as a source of livelihood for the same group. Enhancing food system outcomes, such as making more healthy food available and affordable to the urban poor, cannot be achieved without including actors in informal sectors in the processes of food system transformation. Policies aimed at increasing the contribution of the informal food economy to food system outcomes need to be based on

facts rather than on perceptions. However, to date, there is little empirical evidence of policy measures and interventions that encourage the contributions of actors in informal sectors to food value chain development. Nonetheless, it is possible to use the available evidence to propose areas of attention in designing policies and interventions.

Businesses are more efficient when they operate in a well-established enabling environment, for example, with functioning roads, market infrastructure, energy supply, and information and communication technology (ICT) services. For example, the use of mobile phones among midstream actors has been associated with stable price setting and reduction of food waste, because of improved flows of information [45,46]. The proliferation of ICT technologies also contributes to the financial inclusion of the informal sector in low- and middle-income countries through mobile money, credit, and savings [47]. Resilience and efficiency among informal midstream businesses can also be enhanced through targeted and context-specific policies and interventions addressing the digital divide. The potential to incentivize positive behavior, such as adopting better hygiene practices or waste reduction measures, through digital means, is promising.

To support informal workers' livelihoods in the agricultural and food sector, policies should ensure productive social safety nets and economic integration programs for the poor, and social insurance combined with productivity-enhancing measures for nonpoor individuals working in the informal food economy [31]. To reach these actors, interventions require data to identify informal workers and firms, their locations, and characteristics. Having access to data on informal food businesses is not only useful to support their economic performance through tailor-made interventions, but also in providing them with social protection in times of shocks and crises, such as the COVID-19 pandemic. Yet, there remains tension between the goals of government and those of businesses operating in informality, which affects mutual trust and willingness to cooperate.

Besides government policies, many stakeholders in the food system can provide incentives to actors in informal sectors to contribute to food system outcomes. Consumer associations may call for more healthy food or supermarkets may introduce measures to reduce food waste. This can lead to new quality standards and packaging requirements. Actors in the informal economy can be assisted with knowledge, information, credit, or other services to meet the demands. It is yet not well-understood how the large diversity of stakeholders in food systems can provide incentives to actors in informal sectors, which relate well to their motivations and strategies. This issue needs much more research.

Complementary to government policies and the provision of financial incentives, private actors in the informal economy support each other [22,48,49]. Networks of midstream actors can be a source of social and financial protection in times of need. Network members can also inspire each other to adopt innovations or adhere to certain quality standards. Understanding the relations in these networks is key to stimulating the improvement of food system outcomes. These food value chain actors should be seen as government allies in the development of food system transformation agendas.

The above also shows that interventions to improve food system performance should not only be aimed at individual actors but also focus on changing existing relationships and local institutions that make the informal economy work but perpetuate poverty and do not help improve food security [50]. The behavior of actors in informal sectors of the food systems is also influenced by their — mainly informal — institutions. To improve food system outcomes, these informal institutional logics have to change. How different actors in the food system, ranging from government to consumers, can encourage such changes aiming to support economic exchanges that foster food and nutrition security and other food system outcomes, needs more research and practical experiments.

We conclude that food system transformations require the inclusion of actors in informal sectors if large-scale and sustainable impacts on outcomes are to be achieved. Governments must provide incentives in terms of enabling environments and include such actors in informality in the design of policies and interventions. But tensions between government goals and actors in informality will persist, often obstructing direct cooperation. Other actors in the food system are often well-positioned to provide direct incentives to actors in informal sectors to enhance their contributions to improving outcomes. Yet, more research is required on the interplay between individual actors, social structures of communities they live in, and current (often hybrid) governance forms to identify effective approaches how to incentivize actors in informality through either government or other food system stakeholders.

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Data Availability

No data were used for the research described in the article.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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