



# How to engage informal midstream agribusiness in enhancing food system outcomes

What we know and what we need to know better

Daniel A. Mekonnen, Emma Termeer, Katrine Soma, Siemen van Berkum and Bart de Steenhuijsen Piters



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In this study we explore what roles informal midstream businesses have in food systems, and the outcomes they influence – such as food safety, food availability affordability and accessibility, various dimensions of livelihoods (including employment and labour conditions), and the environment. Informal businesses operate outside of the formal economy. They are often not officially registered, do not maintain bookkeeping, pay income taxes, or own a bank account, and do not hold official employment relations with their workers. There are multiple perceptions and theories on informality, but recent insights inform us that the informal economy can play a constructive and rational role in complementing the formal economy. Informality is not a stage in development, which will disappear with modernisation of the economy. Informality is an intrinsic part of the whole economy and therefore set to stay. Most efforts by governments to formalise the informal economic sectors have failed. Governmental efforts to regulate the informal economy come with significant risks and may have an adverse effect on economic growth and its inclusivity.

We conclude from this study that informal midstream businesses contribute in many ways to food system outcomes, such as access by poor consumers to affordable food. But they sometimes also constrain such outcomes by, for example, maintaining poor workers' conditions. As they operate outside regulation policies for food safety and may lack knowledge on hygiene standards, informal food provisioning may also come with higher health risks compared to formal food suppliers, such as supermarkets.

Social capital and trust have significant effects on the performance of informal businesses. This is related to the observation that informal entrepreneurs are often not only driven by economic rationale but also by social goals. Governments can support informal midstream businesses by improving infrastructure, but also including them in policy dialogue. However, the repertoire by governments of incentives that trigger informal midstream businesses to contribute to public goals is limited. Other actors in the food system, such as retailers, consumer (movements) and investors are better positioned to reach out to the informal midstream businesses.

Informal midstream businesses can have both positive and negative impacts on food system outcomes. We conclude that private sector-led innovation, in which informal businesses define their priorities, co-operate in networks, take the lead, and contribute to enhanced food system outcomes, is an important yet highly unknown area. If informal businesses are to contribute to enhanced food system outcomes, we must unpack that black box allowing better understanding of their roles, processes to involve them, and what can be done to stimulate them to contribute to enhanced food system outcomes.

Key words: Food systems, informal economy, private sector led innovation

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# Executive summary

Informal businesses operate outside of the formal economy. They are often not officially registered, do not maintain bookkeeping, pay income taxes, or own a bank account, and do not hold official employment relations with their workers. Examples of these businesses in the food sector are street vendors and market traders. There are multiple perceptions and theories on informality, but recent insights inform us that the informal economy can play a constructive and rational role in complementing the formal economy.

In this study we explore what roles informal midstream businesses have in food systems, and the outcomes they influence – such as food safety, food availability affordability and accessibility, various dimensions of livelihoods (including employment and labour conditions), and the environment. Informal midstream businesses can have both positive and negative impacts on all of these aspects. We conclude that private sector-led innovation, in which informal businesses define their priorities, co-operate in networks, take the lead, and contribute to enhanced food system outcomes, is an important yet highly unknown area. If informal businesses are to contribute to enhanced food system outcomes, we must unpack that black box allowing better understanding of their roles, processes to involve them, and what can be done to stimulate them to contribute to enhanced food system outcomes.

Key messages from the literature review are:

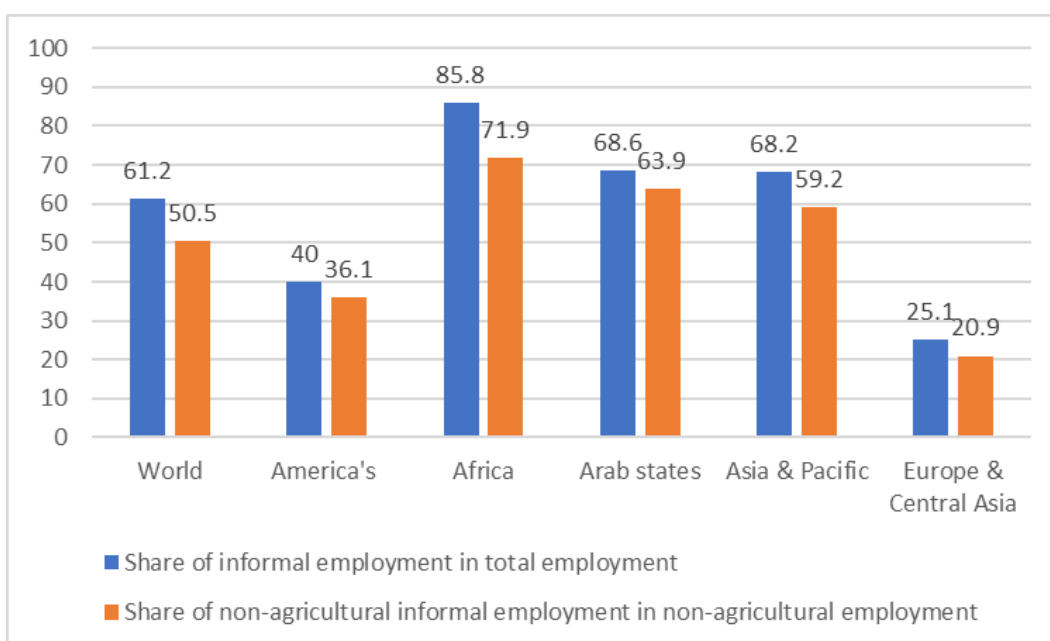
- Informal midstream businesses contribute in many ways to food system outcomes, such as access by poor consumers to affordable food. But they sometimes also constrain such outcomes by, for example, maintaining poor workers' conditions. As they operate outside regulation policies for food safety and may lack knowledge on hygiene standards, informal food provisioning may also come with higher health risks compared to formal food suppliers, such as supermarkets.
- Informality is not a stage in development, which will disappear with modernisation of the economy. Informality is an intrinsic part of the whole economy and therefore set to stay.
- Most efforts by governments to formalise the informal economic sectors have failed. Governmental efforts to regulate the informal economy come with significant risks and may have an adverse effect on economic growth and its inclusivity.
- Social capital and trust have significant effects on the performance of informal businesses. This is related to the observation that informal entrepreneurs are often not only driven by economic rationale but also by social goals.
- Governments can support informal midstream businesses by improving infrastructure, but also including them in policy dialogue. However, the repertoire by governments of incentives that trigger informal midstream businesses to contribute to public goals is limited. Other actors in the food system, such as retailers, consumer (movements) and investors are better positioned to reach out to the informal midstream businesses.

Suggestions for further research are to:

- Look more systematically at the typologies of informality in food systems and to define what it is and what it is not.
- Conduct context-specific analyses of the role of informal midstream firms in improving food system outcomes.
- Investigate how informal midstream business makes the market work for them; which institutional arrangements do they use, and when and in what context.
- Gain more insight into motivation, organisation and governance of informal midstream companies and their networks, as well as effective incentives to stimulate them to innovate and contribute to enhanced food system outcomes.
- Increase our understanding of country- and/or culture-specific characteristics that define the functioning of an informal economy.

# 1 Introduction

The importance of including actors in the informal economy in order to reach the Sustainable Development Goals (SDGs) has been frequently stressed (Vorley et al., 2020; Amarante, 2021). Globally, it is estimated that the contribution of informal businesses to national gross domestic product (GDP) is about 60% (ILO, 2018; Ohnsorge and Yu, 2021). The magnitude of the informal sector in terms of employment, including agriculture, varies across regions of the world but is largest in Africa – which, in 2016, was estimated at 86%, followed by Asia and the Pacific (68%), the Americas (40%), and Europe and Central Asia (25%) (ILO 2018).<sup>1</sup>



**Figure 1** The size of informal employment across regions of the world

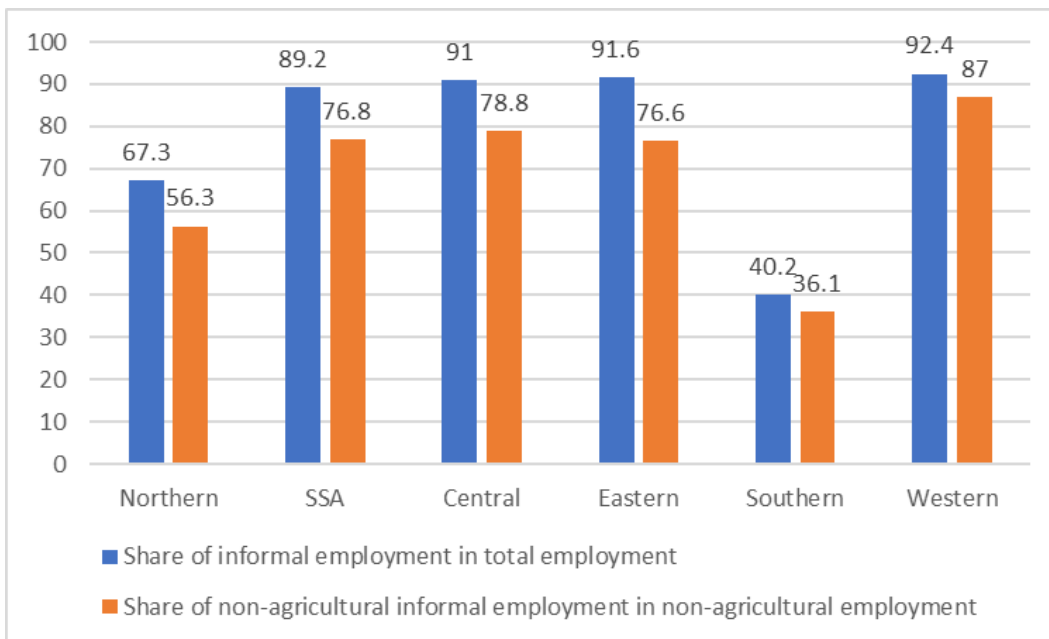
Source: ILO (2018).

Examining the African sub-regions (see Figure 2), the share of non-agricultural, informal employment ranges between 23% and 77%, with Southern Africa and Western Africa having the smallest and largest shares, respectively. These figures highlight the importance of the informal economy for employment and livelihoods in all regions of the world, especially in lower-income and emerging economies.

The midstream sectors in food systems – i.e. the entities and activities before and after the farm gate, which handle input supplies and trading, storing, processing, and distribution (IFAD, 2021) – have received increased attention in recent years, especially in the context of the SDGs. The midstream in food systems can support many SDGs by contributing to job creation, improved incomes, and improved connectivity of food production and consumption. The role of the midstream in food systems in developing countries is expanding in parallel to growing urbanisation, rising incomes, changing diets, and growing demand for value-added products, such as processed foods and foods prepared and consumed outside of the home (Allen and Heinrigs, 2018; Allen et al., 2016; Cockx et al., 2018; Vos and Cattaneo, 2021). Many previous studies investigating food system midstream sectors have made little distinction between formal and informal

<sup>1</sup> In this case, informal employment was defined in terms of the employment relationship. That is, 'for a job held by an employee to be considered as informal, the employment relationship should not be, in law or in practice, subject to national labor legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.)' (ILO, 2018).

businesses, or are mainly focused on formal sectors (Dolislager et al., 2020; IFAD, 2021; Liverpool-Tasie et al., 2020; Reardon, 2015; Reardon et al., 2021). Therefore, the precise contribution of informal midstream agribusinesses across the world to GDP and other food system-generated assets is unclear. If food system outcomes are to be enhanced then we must increase our understanding of the bottlenecks and opportunities pertaining to informal midstream agribusinesses.<sup>2</sup>



**Figure 2** Share (%) of informal employment in total employment in sub-regions of Africa in 2016  
Source: ILO (2018).

In this paper, we explore how contributions from informal midstream agribusinesses to enhancing food system outcomes - such as healthy diets, resilient livelihoods, and environmental sustainability - can be stimulated. The primary aim is to create a better understanding of informal midstream agribusinesses: who they are, their importance, how they are organised, and what drives them. Using this information, a research agenda has been identified to address the core challenges and opportunities of engaging these agribusinesses in food system transformations. The specific research questions explored in this paper include:

- What is informality and why is it problematic?
- What are the roles of informal agribusinesses in food systems and where could they enhance food system outcomes?
- What motivates informal midstream businesses to operate informally? How are they organised and governed?
- How can informal businesses be reached and stimulated to enhance food system outcomes?

This paper is based on literature reviews, including research reports (grey literature) and scientific articles. Our findings are illustrated using documented experiences with outreach to informal businesses in migration settlements in Kenya, as well as other contextual cases of the informal sectors in food systems (see Boxes).

The paper is structured as follows: we provide a definition of informality and present various viewpoints on the informal economy (Chapter 2), which is followed by an analysis of the informal sector's role in the food system (Chapter 3). Modes of organisation and the governance system of informal agribusinesses are then addressed (Chapter 4), before exploring approaches to reach out and collaborate with informal agribusinesses. Finally, concluding remarks define a relevant research agenda (Chapter 5).

<sup>2</sup> See <https://www.un.org/africarenewal/magazine/december-2021/cop26-africa-needs>.

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## 2 Definitions and viewpoints on the informal economy

### 2.1 Defining informality

The informal economy is recognised as the counterpart of the formal economy. The informal economy is comprised of all forms of 'informal employment' – that is, employment without labour or social protection – both inside and outside informal enterprises, including self-employment in small unregistered enterprises and wage employment in unprotected jobs (Chen, 2007). This informal economy definition includes both informal businesses as well as informal workers that are part of informal businesses. We can think of several degrees to which a business can be considered informal, namely legal, fiscal, and labour (Marusic et al., 2020), and businesses can be informal across all dimensions or just one (Table 1).

**Table 1** Degrees of informality

<b>Legal informality</b>	Is the business officially registered?
<b>Fiscal informality</b>	Does the business pay taxes, own a bank account, and maintain bookkeeping?
<b>Labour informality</b>	Does the business offer contracts and benefits to employees?

Source: World Bank (2020).

Informal workers can be understood to be those working within their own or others' informal business, or those that work on their own account, such as subsistence farmers and family workers – including children (Hussmans, 2004). These workers often have no legal recognition or protection, either because the employment relationship is disguised, ambiguous, or not clearly defined (Chen, 2007). This is the case for street vendors, for example, who often have a single supplier but no formal contract, or seasonal agricultural workers or day labourers who do not have a clearly defined employer. With 60% of the world's employed population earning their livelihoods in the informal economy (ILO, 2018; see also Figure 1), this means the vast majority of workers are operating outside of the government's view. Informality exists all over the world, although the prevalence is higher in low- and middle-income countries (LMICs). In Sub-Saharan Africa (SSA) for instance, the informal workforce represents an estimated 86% of all employees, making it by far the most important component of economies in the region (ILO, 2018).

**Informal businesses** operate outside of the formal economy. They are often not officially registered, do not maintain bookkeeping, pay taxes, or own a bank account and do not hold official employment relations with their workers. Examples of these businesses in the food sector are street vendors and market traders.

### 2.2 Viewpoints on informality

Initially, economic informality was considered to be something that hindered the poor from escaping poverty, and it was assumed to be an unproductive sphere that inhibited the economic development of wider society (Williams, 2015). These views arose, in part, within a number of influential studies, which found a negative effect on productivity when comparing the operations of multiple formal and informal firms across countries (Farrell, 2004; La Porta and Schleifer, 2008). In addition to low productivity, which has consequences on wider society, the large number of informal businesses in existence also implies that governments are lacking major tax revenues. Moreover, governments do not have control over how informal businesses operate, so cannot reinforce, for example, labour conditions or food safety regulations (Williams, 2015).

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Other critiques state that informality creates an unfair competitive environment for formal businesses, especially those which are financially constrained. This is because informal businesses may out-compete even the most innovative and productive formal firms, as the informal businesses save significant costs by operating in the informal economy, e.g. by not paying taxes.

Informal workers are often vulnerable to illegal working conditions and, in some cases, human rights violations, and often have no access to social protection. Low and irregular earnings are key characteristics of the informal economy, which makes workers vulnerable to health and other shocks that could threaten their livelihoods. This vulnerability is also often gendered: although the share of men and women in informal employment is similar, women often operate in situations that make them more vulnerable – such as to job insecurity and harassment - for example as domestic workers, home-based workers, or family workers (ILO, 2018).

For most of the 20<sup>th</sup> century, the modernisation theory depicted informal work as a product of underdevelopment. The accompanying assumption was that with increased economic development, the informal economy would slowly diminish and eventually disappear completely, as it could not be part of a modern economy (Williams, 2015). However, this view has been greatly challenged in recent decades, as the informal economy still contributes to a large share of global employment (ILO, 2018). Although there have been many policy interventions to reduce informality and strengthen the formalised economy, they have had very limited effects (Young and Crush, 2019). For example, one regularly adopted approach is to make it easier and cheaper for a business to formally register, which leads to a significant decrease in the average time spent and costs in starting a business. Yet, despite these initiatives, informality among small-scale firms remains widespread (Bruhn and McKenzie, 2013; Floridi et al., 2020).

**Informality is not a stage in development** that will simply disappear with modernisation of the economy; it is an intrinsic part of the entire economy, and therefore set to stay.

## 2.3 Theories on informality

To understand why informality persists, we must take into account the different theories of economic development and the role of the informal economy versus the formal economy. A study by Perry et al. (2007) highlights the *exit* and *exclusion* views on the informal economy. The classic stance contains that of *exclusion*: informal workers and firms are excluded from critical state benefits or the modern economy in general; for example, exclusions includes segmentation in the labour market and burdensome entry regulations which prohibit small firms from entering the formal sector. The *exit* view highlights agency: individuals and businesses choose their level of engagement with the state and make implicit cost-benefit analyses as to whether to cross over to the formal economy. Informal businesses' opting-out behaviours may relate to the quality of the state's service provision in countries with high informality rates. According to Perry et al. (2007), it is important to take both views into account when analysing the informal economy.

Aside from the exit and exclusion viewpoints, the *dualist* view states that, given the formal economy is not established or equipped enough to provide economic opportunities and jobs to the whole population, the informal economy houses the overflow of workers and small firms that lack access to the formal sector (Marusic et al., 2020). This view also suggests that further economic development will eventually absorb the informal sector (Young and Crush, 2019). In contrast, the *structuralist* view states that the informal sector is necessary for the formal sector to function, as the informal sector provides low-cost inputs and flexibility. In this view, informality can be seen as a result of systemic exploitation of labour (Young and Crush, 2019).

**Table 2** Views on the role of informal businesses in the economy

<b>Exclusion</b>	Businesses are excluded from state benefits due to high entry costs
<b>Exit</b>	Businesses voluntarily choose to operate informally after assessing costs and benefits of formalisation
<b>Dualist</b>	Businesses are forced to operate informally due to the lack of an established formal sector
<b>Structuralist</b>	Businesses provide low-cost inputs and flexibility to the formal sector

Source: World Bank (2020); Young and Crush (2019).

Theories on why the informal economy exists differ, and can relate to all or just some of the above views, depending on the region and context. Informal economies are so heterogeneous that generalisations are difficult, if not impossible to make – which makes analysis challenging as well as the explorations of potential solutions.

There are multiple perceptions and theories on informality, but all concur that the informal economy has a constructive and rational role to play in complementing the formal economy.

## 2.4 Government approaches to informality

Several approaches are taken by governments regulating the informal sector. Interventions aimed at formalisation can be categorised into three main approaches, some of which are accompanied by information and awareness campaigns (Floridi et al., 2020):

1. Cutting costs and simplifying procedures
2. Increasing benefits
3. Increasing the level of enforcement and visits by officers.

A common assumption around informality is that businesses make a rational cost-benefit analysis in their decision to become formal. For this reason, formalisation approaches have traditionally focused on cutting costs and increasing incentives, as well as regulatory reforms, simplified tax laws, and increased enforcement (Young and Crush, 2019). However, a number of studies find these approaches have little or no effect on the scope and size of the informal economy (Floridi et al., 2020; Rothenberg et al., 2016; Henrique de Andrade et al., 2013). There is some indication that increased formalisation rates are associated with policies to increase economic benefits, but the evidence is too thin to draw definite conclusions (Floridi et al., 2020). Firms are likely to compare the potential benefits of formalising to all related business costs. As a result, businesses that would benefit from formalisation choose to do so, often entering only partially – while less productive firms stay entirely informal (Bruhn and McKenzie, 2013). Therefore, lower productivity can be both a cause and consequence of informality. The question is whether attention should be paid to eradicating informality as such or, rather, on indirectly targeting issues faced by informal businesses through increased economic development, improved governance, and access to improved public services (Marusic et al., 2020).

Most government efforts to formalise informal economic sectors have failed. Government efforts to regulate the informal economy come with significant risks and may have an adverse effect on economic growth and its inclusivity.

### Box 1: Street vendors in Namibia

Text box Although street vendors are traditionally seen to have less power than formally registered firms, they may also show collective action. In Namibia, the informal food sector plays a significant role in making healthier food available and affordable to the urban poor. This is why the government decided on containment and enclosure of informal food vendors in several strategic locations in the city instead of being scattered around in many streets. However, street vendors responded by clustering outside of designated market spaces in order to choose locations with the greatest consumer demand. Ultimately, the Government of Namibia has had to acknowledge the importance of the informal food sector to the urban poor and tolerate informal practices across the city.

(Source: Kazembe et al., 2019).

One of the main ways informal food sector regulation takes place in LMICs is through the eviction of street traders and their relocation to markets (Young and Crush, 2019). These relocations often take place with force, resulting in significant impacts on livelihoods as property is sometimes destroyed or confiscated, and people can be fined or arrested. Often, these measures are supported by formal businesses who may complain to the state that informal businesses present unfair competition.

### Box 2: Informal businesses in Kibera, Nairobi

Kibera, one of the largest slums in Sub-Saharan Africa, is described as a densely populated informal settlement area in Nairobi. Residents face a range of challenges, including high levels of poverty and food insecurity, insecure land tenure, lack of adequate housing, poor infrastructure and drainage, frequent threats of violence, high crime rates, poor environmental conditions, frequent outbreaks of water-borne diseases, and inadequate access to basic goods and services, including sanitation, health care and education (Galleher et al., 2015; Achungo, 2014; Seal et al., 2018; Gitahi et al., 2018; Abuya et al., 2018). Literature on Kibera further states that slum households spend, on average, 40-50% of their income on food. Chronic food insecurity is a norm in the slums, given that the majority of the households are supported by informal employment, which offers irregular income (Mohamed et al., 2016).

Kibera is highly diverse in terms of people, ethnicity, cultures, food habits, business environments, etc., which has evolved over the years (Kibere, 2016). Despite the poverty, evidence illustrates a vibrant informal sector, composed of over 7,300 small enterprises (Desgropes and Taupin, 2011). Income is largely derived from wage labour (housekeeping, construction work, handicrafts) and small businesses or micro-enterprises selling groundnuts, fish, or fresh vegetables; preparing and selling street foods; making shoes and furniture; sewing; brewing alcohol; prostitution; selling drugs and medicinal plants; operating kiosks; and construction (Chege and Kimiye, 2010; Desgropes and Taupin, 2011; Kibere, 2016). In fact, it is noted that micro-enterprises help the Nairobi slum residents fight their war against poverty (Kibere, 2016).

Following Berner et al. (2012), the informal entrepreneurs in Kibera can be categorised as 'survivalists', because they are highly 'necessity-driven' in obtaining income to support their large families in the slum and rural areas. The informal sectors are easy to enter, especially when people are part of networks based on kinship, ethnic backgrounds, or religion. The sectors are inclusive of women (such as fish and water vendors), with neighbourhoods maximising security.

Young and Crush (2019) defined informal economies based on ways in which labour is exploited. In Kibera, the exclusion argument does not hold, as businesses are not excluded from state benefits due to high entry costs (in Kenya, it is easy and low-cost to register a firm). Instead, they are not acknowledged. For instance, it is highly disputed how many people live in Kibera; varying estimates of the population in Kibera have been provided over time, with figures ranging from 170,000 to 1.5 million (Dennery, 1996; Seal et al., 2018). Instead, businesses choose to operate informally after assessing the costs and benefits of formalisation, so the 'exit' argument is valid, and also the 'dualist' argument (see above). With the Government struggling with corruption, services are poor for those in Kibera, so formalisation can be a risk creating an extra burden and problems for people if the result is an increase in prices and reduction of access to those products.

Finally, according to the structuralist argument, businesses provide low-cost inputs and flexibility to the formal sector by fulfilling gaps that it does not sufficiently cover otherwise, such as water, energy, and sewage (Karanja and Nganga, 2008; Gallaher, 2012). As such, the characteristics of the informal sectors in Kibera may also relate to the functionality of the formal sector.

Source: Feeding cities and migration settlements, WUR.



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## 3 Informal businesses and food system outcomes

It is increasingly acknowledged that transitions towards more healthy, inclusive, and sustainable food systems are urgently needed to meet the basic needs of all segments of society. Food systems are generally considered to require drastic transformations, particularly in terms of climate change mitigation and adaptation (Dinesh et al., 2021), the meeting of global food and nutritional demands, and ensuring equal access to healthy food (Ingram, 2011). The concept of 'food system' puts a focus on the interconnected relationships of all activities in the commodity chain, and the interactions across scales and socio-economic, environmental, and political constraints and impacts (Ingram, 2011; Termeer et al., 2018). Enhancing food system outcomes requires all key actors to be involved in setting the agenda for desired change, but also in implementing agreed actions and mobilising human and capital resources.

In our exploration of how informal businesses enhance food system outcomes, we will focus on three areas: (1) nutritional demands, such as access to healthy food; (2) livelihoods, living income, and employment; and (3) environmental sustainability.

### 3.1 Contributions to food and nutrition security

Informal businesses play a key role in food and nutrition security in several ways: influencing the availability, access, utilisation, and stability of nutritious foods, especially for low-income households. Income generated by households from informal business employment enhances their purchasing power and food accessibility. Furthermore, informal businesses in food supply chains facilitate increased availability and accessibility of foods because they are often located in villages and street markets, at more affordable prices to low-income households (Petersen and Charman, 2018b), and hence, contribute to improved dietary intakes (Ambikapathi et al., 2021). For example, between 2008 and 2013, over 66% of households in low-income areas in Cape Town, South Africa, sourced some food from the informal sector (Battersby et al., 2016). Elsewhere, a Tanzanian study found that a greater presence of informal vegetable vendors within 500 m of a household was associated with a higher likelihood of vegetable purchases and lower consumption of carbohydrates (Ambikapathi et al., 2021). In India, Patel et al. (2014) highlight the significance of street food for providing access to ready-to-eat nutritious food to lower income urban consumers. Using the case study in Madurai city, in Tamil Nadu State, the study illustrates how the street food sector, operated by poor urban vendors selling ready-to-eat, healthy millet-based porridges, has improved access to nutritious foods and created livelihood opportunities for the urban poor. Referring to data from a series of cities in South Africa, Skinner and Hayson (2016) emphasised the importance of having access to informal markets and street foods, especially in low-income neighbourhoods where many food-insecure people live. The authors referred to several studies investigating the role played by informal retailers in securing consumer access to food – such as a Steyn et al. (2013) review drawing on 23 studies, mostly conducted in Africa (Benin, Burkina Faso, Ghana, Kenya, Mali, Nigeria, South Africa and Uganda), which assessed daily energy intake from 'street foods'. Whilst the authors noted significant differences between locations, overall, they found that the daily energy intake from street foods in adults was 13%-50%, and 13%-40% in children. Similarly, they calculated that street foods contribute significantly to daily protein intake, often 50% of the recommended daily allowance. Steyn et al. concluded that street foods contribute significantly to energy and protein intakes in developing countries and that their 'use should be encouraged', providing that 'they are healthy traditional foods' (Steyn et al., 2013; p1).

In addition, informal businesses working in food preparation and food delivery services improve food utilisation among lower-income individuals who may otherwise not have access to prepared foods. In South African townships, for example, local residents rely heavily on prepared foods from informal vendors, spending up to 30% of their incomes on such produce (Petersen et al., 2018). Finally, informal businesses which engage in traditional methods of food processing, including fermentation, contribute to the reduction in food losses and improved availability of food and nutrition for longer periods (Materia et al., 2021). This may support food and nutrition security, reduced loss and wastage, and enhances inclusive and equitable benefits of food systems outcomes by creating employment and fostering women entrepreneurship.



Food markets in the informal sector play a vital role in the livelihoods of the poor in developing countries. However, conditions under which the informal sector operates raise concerns relating to the safety and quality of food sold. Case studies conducted in sub-Saharan Africa show well-functioning national food safety control systems are a major challenge, as most foods of animal origin and fresh fruits and vegetables (which cause the most concern from a foodborne illness perspective) are produced by smallholder farmers and sold at informal markets (street markets) which makes control and inspection difficult (Randolph, 2021; Grace et al., 2019; Roesel and Grace, 2015). The literacy rate among farmers and food traders is generally low, leading to a lack of knowledge of standards and rules that must be met. Moreover, due to costs, trading places are not equipped to deal with food safety, test laboratories are inadequate and expertise for making analyses is often lacking. Existing food safety standards are poorly enforced as most sub-Saharan African countries have weak surveillance systems. Randolph (2021) and Grwambi (2020) point to the lack of funding for investments to improve administrative, technical and scientific capacities to meet food safety standards, and a weak education system that is unable to improve farmers' knowledge and awareness of food safety issues. These authors emphasise that LMIC governments should prioritise establishing effective food safety systems, not only from the point of view of quality and food security but also because, as consumers concern about food safety and standards continues to rise, there is a risk that informal producers and value chain actors will be driven from fast-growing domestic markets (Grace et al., 2019; Roesel and Grace, 2015).

Informal midstream businesses play a critical role in securing consumer access to food in LMICs. This role is even more prominent with regards to the provisioning of food and food-related services to lower-income consumers. Yet, as they operate outside regulation policies for food safety and may lack knowledge on hygiene standards, informal food provisioning may also come with higher health risks compared to formal food suppliers, such as supermarkets.

### **Box 3: Results from the global study on fruits and vegetables (de Steenhuijsen Piters et al., 2021)**

This study indicates that, in LMICs, informal fruit and vegetable supply chains represent over 90% of traded volumes. However, whilst most informal fruit and vegetable supply chains are considered effective, they are not efficient. Efficiency relates to the smooth operating of supply chains, resulting in low post-harvest losses, with actors being well-aligned and contributing to low transaction risks and associated costs. The biggest contributors to inefficiency in informal fruit and vegetable supply chains include farmers' dependency on traders, high uncertainty levels regarding sales and prices, and a lack of standardised grading and weighing systems. In addition to being inefficient, many fruit and vegetable value chains are not equitable in terms of fair pricing as a function of asset inputs, such as time and labour; this is particularly observed for women actors.

Informal markets involve informal businesses: mainly based upon non-regulated standards and a mix of formal and informal agreements, often based on network/kinship relations. These factors increase fruit and vegetable prices – as further described below – which are ultimately paid by the consumer.

Informal traders invest considerable resources in developing and maintaining personal relationships in supply chains. Observed in all country studies, fruit and vegetable traders spend a large amount of time obtaining market information and traveling to farmers to check potential supply quantity and quality; if the farmer has already sold to someone else, the trader cannot recuperate the investment. Moreover, fruit and vegetable perishability increases market uncertainty, as most products need to be traded and transported shortly after harvest. Traders have to set the highest possible sales price and the lowest sourcing price in order to cover risk of spoilage and price fluctuations, which impacts on the final retail prices.

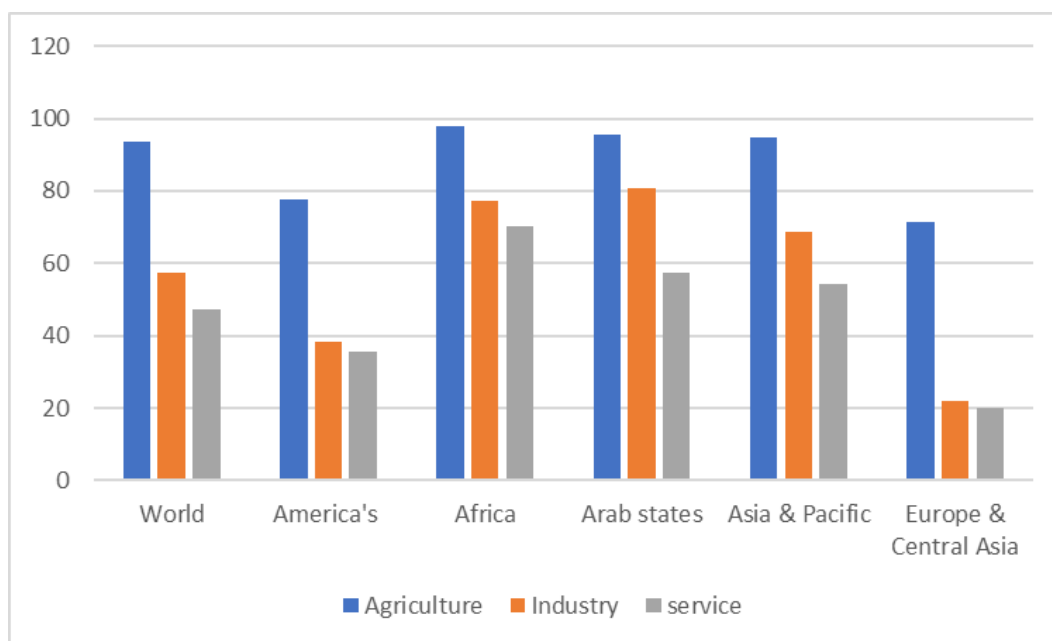
In informal markets, fruit and vegetable quality is generally assessed by appearance, with no standardised quality grades. Weighing traded produce is rare, and units of packing materials (e.g. basket, bags, sacks) are used. The lack of standardised packing, grading, and weighing results in disputes and adds to transaction risk, also resulting in higher consumer prices. For example, in Nigeria, unripe tomatoes are often packed at the bottom of raffia baskets, while the best quality tomatoes are packed on top; traders anticipate these practices by farmers and so compensate accordingly.

Many national governments fail to support informal fruit and vegetable supply chains. Traded fruits and vegetables are taxed heavily on roads and on arrival at markets. Midstream actors, notably wholesale traders, also have no information about consumer needs and preferences. In contrast, informal retailers often have direct contact with consumers, but there is little backward linkage of consumer information – hence why most fruit and vegetable chains are supply driven and do not respond to changing consumer needs and preferences.

## 3.2 Contributions to livelihoods, income and employment

Across socio-economic groups, ILO (2018) noted that young and older persons with lower education levels were more likely to depend on informal sector employment compared to middle-aged people with higher education levels. In countries that have the lowest level of GDP *per capita*, women were also more likely to be active in informal employment than men. Many socio-economic factors, such as unemployment, the low quality of waged jobs, the desire to achieve autonomy, and flexibility, could encourage engagement in the informal economy (Huang et al., 2018; Peprah et al., 2019). Yet, there is a clear positive relation between levels of poverty and informality, with the poor facing higher rates of informal employment (ILO, 2018).

ILO data shows a high concentration of informality in agriculture in each region, with 97.9% of agricultural employment in Africa being informal (see Figure 3). The rate of informality in Africa is relatively lower in the industry/manufacturing (77.4%) and service sectors (70.2%), but still very high. Data on informality in food trade (transport and distribution), retail, and processing is non-existent.



**Figure 3** Share of informal employment in sector employment  
Source: ILO (2018).

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. In South Africa, for example, retail accounts for around 46% of all employment within the informal sector (Battersby et al., 2016). Most informal businesses in the food value chain are small and operated by the owner or other family members, for example in Nigeria (Raimi and Aslani, 2018) and South Africa (Battersby et al., 2016; Petersen and Charman, 2018a,b). The majority of workers in the food retail sectors in South Africa and Nigeria are women – just like elsewhere in low-income and emerging economies, where the share of women in informal employment exceeds that of men (ILO, 2018).

Since a large share of the population, especially the poor, young, and women in LMICs, obtain their income from the informal sector, effective measures supporting informal businesses may contribute to the achievement of several SDGs, including SDG 1: No poverty; SDG 2: Zero hunger; SDG 5: Gender equality; and SDG 8: Decent work and economic growth. Such supporting measures may also have instrumental value beyond these goals. For example, when women have better opportunities and become economically independent, the benefits are far reaching – from children's and household well-being to societies at large (Annan et al., 2021; Newman, 2017). This is because women are more likely than men, for example, to

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spend their incomes on family food consumption and nutrition (Kurz and Johnson-Welch, 2001), which is relevant to SDG 2.

Studies by Reardon et al. (2015; 2021) describe the development of midstream activities in LMIC food markets over the past two decades. Many governments set up parastatals – companies which organise the purchase and sale of grains in particular, along with other important staple foods. These were mostly privatised in the 1990s and onwards, leading to the formation of many small- and medium-sized enterprises (SMEs), especially in low barriers-to-entry parts of the chain, such as informal food trade and retailing. However, a large informal sector continued to exist, working in parallel with public and formal private companies. Since the 1990s/2000s, governments, particularly in Asia, have invested extensively in public wholesale markets in rural towns. They have also asphalted rural roads and encouraged and facilitated the commercialisation and specialisation of trade and logistics resulting in an enhanced scale of operation, concentration, and formalisation of trends in midstream activities. Similar road and wholesale market investments in secondary and tertiary cities and rural towns in sub-Saharan Africa, such as in Ethiopia, saw induced proliferation of wholesale and logistics SMEs (e.g. in the teff and other cereal supply chains) and large aggregate investments by these SMEs in, for example, increased truck size. Examples from Chile, China and Guatemala highlight a rapid development towards highly concentrated wholesale markets, but literature demonstrates that the degree of consolidation among wholesale SMEs within wholesale markets and logistics varies between countries and products (Reardon et al., 2021). Examples from Nigeria on maize trade, for instance, indicate that urban wholesale trade is relatively concentrated in regions where maize is the main product, whereas in non-maize zones urban wholesale trade is largely in the hands of small traders, many of them operating informally (Liverpool-Tasie et al., 2017).<sup>3</sup>

Despite the tendencies of the scaling-up described above, the majority of smallholder farmers' value chain transactions are with midstream SMEs (Reardon et al., 2021; Dolislager et al., 2019). These transactions could benefit smallholders by providing access to yield-increasing inputs and enabling sales at more distant markets, while simultaneously reducing transaction costs and risks. SMEs also provide smallholder farmers with many of the complementary services that are normally only available through contracts with larger firms – such as credit, logistics, information, training, and input provision – mainly through informal (non-contract) arrangements (Liverpool-Tasie et al., 2020). The authors found that, in most cases, interactions with midstream enterprises benefit the farmers, and conclude that the provision of these services – mainly by small traders, processors and cooperatives, but also by larger parties leading a formal agribusiness – contribute to farmers' welfare through technology adoption and productivity growth.

However, the high degree of informality does have a downside. Liverpool-Tasie et al. (2020) stated that the perceived lack of trust between, for example, traders and producers may reflect the prevalence of informal contract agreements. Low trust linked with an unstable market environment, as well as information asymmetry due to weak institutional arrangements, creates space for opportunistic behaviour by all parties. In addition, a lack of trust between cooperative members and their leadership can result in non-compliance with agreements.

Another potential downside of informality is that labour conditions in informally-operating firms are not regulated or endorsed. This may create poor working conditions, occupational risks, and severe levels of exploitation and harassment of vulnerable people.

The informal economy is the largest supplier of employment in Africa, exceeding 90% in agriculture. Informal midstream businesses are mainly engaged in trading and retailing, processing, and food services. A downside of informality arises when levels of trust are low between value chain actors, such as traders and producers, resulting in opportunistic behaviour. Moreover, labour conditions of workers in informal businesses may be unregulated, meaning workers may be subject to exploitation, harassment, and other human rights' violations.

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<sup>3</sup> Liverpool-Tasie et al. (2017) found that an average urban maize wholesaler in Northern Nigeria (the main maize region) sold 735 tonnes per year, representing the output of about 370 small farmers; the average trader employed 5.4 permanent persons; the Gini coefficient over wholesalers' sales in those northern markets was 65%, hence quite concentrated; but in the non-maize zone in the south which mainly receives maize from the north, the average urban maize trader scale was 10 times smaller in yearly volumes moved, and the employee average only 1.6.

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### 3.3 Contributions to environmental sustainability

The activities of informal midstream agri-businesses can directly and indirectly impact the environment. Direct effects arise from technological choices – that is, how the businesses produce or offer services; for example, how efficiently they use their energy source. Informal SMEs can also influence the environment via their effects on farmers and/or other firms. Through their activities as traders and/or input providers, they stimulate the commercialisation of the agricultural sector and other chain parties, which can lead to more intensive use of inputs, where overuse leads to environmental damage – see Reardon et al. (2021) for examples. At the same time, there are ample examples demonstrating that farmers are given information and training by input providers on how to handle crop protection products, feed, and other inputs wisely (e.g. Liverpool-Tasie et al., 2020). Besides some anecdotal stories, literature shows very little empirical evidence about the environmental effects of informal agri-food SMEs, which is understandable given the lack of datasets available. A preliminary conclusion may be that the environmental impacts of informal SMEs are context specific and ambiguous – and can be both negative and positive – and that the informality of firms makes it difficult for governments to steer the sector through environmental protection regulation or price incentives.

Informal midstream business are observed to have both positive and negative effects on the environment and are context specific. Government attempts to regulate environmental impacts by informal businesses remain problematic.

### 3.4 Other contributions: market information, financial services, and logistics

Besides contributing to food and nutrition security and being a source of employment and livelihoods, informal businesses may enhance food system outcomes by providing complementary services to, for example, small-scale producers. For example, a scoping review of market links between value chain actors and small-scale producers in developing regions found that, just like larger formal businesses, smaller businesses (which are mainly informal) provide small-scale producers with credit, market information, and logistics in informal arrangements (Liverpool-Tasie et al., 2020). Such services contribute to increasing farm productivity and innovation. Productivity improvement may benefit farmers through improved incomes, as well as consumers through increased food availability and reduced prices. Other related contributions of the informal midstream include: enhancing smallholder commercialisation by linking low-resource endowed farmers to traders and markets, as per the case of 'middle men' in Ethiopia (Abebe et al., 2016) and Indonesia (Kok et al., 2020); and facilitating regional integration from the bottom (at grassroots level) through cross-border trade, as per the case of informal traders in the borderlands of Malawi, Mozambique and Zambia, (providing employment and livelihoods to the poor across borders; Nshimbi, 2020). Relatedly, informal savings organisations have long been viewed as survival strategies for the poor and marginalised in Africa (Verhoef, 2001); they contribute to food system outcomes and the growth of the informal economy by providing financial services to entrepreneurs (Bophela and Khumalo, 2019; Iwara et al., 2020).

Informal businesses provide a variety of services to other actors in the food system, including financial services, input supply and logistics, which are of critical importance to enterprise performance for these actors.

## 3.5 Limitations and main challenges

Despite their important role in food systems, especially for the food and nutrition security and livelihoods of lower-income individuals, informal businesses face many challenges. According to literature, these can be very diverse – including exclusion from basic service provisions, such as trading shelters with water and electricity connections (Masuku and Nzewi, 2021) and access to formal sources of business finance; competition from formal businesses in access to public services and infrastructure (Battersby et al., 2016); lack of access to education and training, resulting in financial illiteracy, vulnerability to bribe and excessive taxation; and lack of government support in times of covariate shocks, such as the COVID-19 pandemic and Ebola (Battersby, 2020; Guven et al., 2021; Rukasha et al., 2021).

In addition, informal sector actors are more likely to be exposed to occupational and other idiosyncratic risks. For example, because of regular travel to remote fishing camps to purchase fish, female traders in Zambia experienced HIV transmission, violence, and abuse in their interactions and relationships with fishermen (Hüsken and Heck, 2012). Women traders in Ghana face multiple physical, psychological, and economic risks associated with their informal business operations and involvement (Wrigley-Asante, 2012). Workers in the informal economy also face greater poverty and occupational risks which, combined with the lack of access to appropriate risk management instruments, such as social insurance and social safety nets, make them particularly vulnerable (Guyen et al., 2021; OECD/ILO, 2019).

Further, due to a lack of resources and basic service provisions (as described above), informal workers and firms may operate in unhealthy and unsafe environments. Besides the implied occupational risks to workers and business operators, this could also create a broader public health concern. For example, hazardous pesticide and faecal coliform contamination may occur via consumption of fresh vegetables produced in intensive urban and peri-urban smallholder agriculture, cultivated with informal wastewater irrigation (Amoah et al., 2006). A recent review of the inter-relationships between water quality and food systems activities found agribusiness activities may contaminate water in several ways, and that poor-quality water is used in post-harvest food value chains, including food processing (such as cleaning of equipment or food products) and food preparation (at home or by street vendors) in many LMICs (Linderhof et al., 2021). This situation exacerbates public health concerns, given the size of the informal sector in food value chains.

Informal businesses and workers experience more risks and challenges compared to their formal economy counterparts. Many of these challenges relate to the exclusion of informal businesses and workers from formal services, including finance, education, and social insurance.

### **Box 4: The midstream in the informal fish value-chain in Kibera, Nairobi (film: Link Kibera: KIBERA)**

Typically, slum fish traders are on the road by 5am. They travel by a rickshaw or motorcycle to the common bus stop at Makina, from which they take a bus or Matatu to the Gikomba market in Nairobi, where they pick up the fish delivered by their contact from the Busia fish market (close to Lake Victoria). The slum traders have established contacts with the Busia and Kisumu fish markets wholesalers, who send them the parcels of fish (in cartons). The vendors then travel back to the slum, where they process the fish (mainly cleaning and removing scales) and prepare it by sun drying, salting and deep frying, ready to sell. Sales are either made when the fish is fresh, or during the evening at the roadside as the working people arrive back after long days at factories. Since it is often not possible for traders to pay their market contacts before sale, they purchase on credit by transferring their payments for the fish by mobile money transfer a day or a week after they received the fish (Farm Africa, 2016).

While trading within Kibera is conducted by women, the transport, offloading and carrying of fish is done by young men. The fish is often transported over long distances by public transport, such as buses, or lorries, which arrive in Nairobi very early in the morning. Within Nairobi, transportation is made by means of human carriage, or motorbikes (Farm Africa, 2016; Awuor et al., 2019).

Source: Feeding cities and migration settlements, WUR.



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## 4 Motivation, networks and governance of informal agribusinesses

To engage informal midstream actors in enhancing food system outcomes, it is important that we deepen our understanding of their behaviour and motivations. When designing government policies, including investments, incentives, and regulations and their enforcement, the level at which informal businesses can contribute to improved food system outcomes depends a great deal on their acknowledgement as important economic actors and involvement.

Given that informality is seen as adverse to economic development, government attempts to regulate informal food sectors have mainly focused on formalising them (Section 2.4). However, as we have seen in previous chapters, informal businesses may resist formalisation, as they may not be able to compete in the formal sector or may have good reasons to operate informally. As the informal sector has an important role in provisioning multiple consumer segments with affordable food, formalisation approaches might not be effective when pursuing improved food and nutrition security. In the following sections, we explore some key features of informal midstream businesses: how are they motivated to operate informally? How important are social capital and informal networks to them? And how are they governed?

### 4.1 Motivation to operate in the informal economy

Motivations for why people choose to operate informally are heterogenous and range from a need for income, supporting family members to the inability to find formal employment and the appeal of running their own business, etc.

A typical distinction that can be made in motivations to operate in the informal economy is that of *survivalists* and *growth-oriented entrepreneurs* (Berner et al., 2012, see Table 3). Typically, the informal sector is thought of as necessity-driven, fuelled by individuals operating a business to support themselves and their families. However, there are many informal businesses that operate for profit and are growth-oriented (Dahles and Prabawa, 2013).

**Table 3** Typology of informal entrepreneurship

<b>Survivalists</b>	<b>Growth-oriented</b>
Necessity-driven	Opportunity-driven
Ease of entry	Barriers to entry
Female majority	Male majority
Maximising security	Willingness to take risks
Diversification strategies	Specialisation
Family networks	Business networks
Sharing generated income	Accumulate (part of) generated income

Source: Berner et al. (2012).

Understanding these motivations is key in identifying measures that stimulate informal midstream agribusinesses in contributing to enhanced food system outcomes. Although we acknowledge the importance of informal businesses in food systems, notably in LMICs, no sectoral breakdown currently exists. It is difficult to determine their exact size and relative importance, along with the types of informal enterprises and their relationships at different stages of food supply chains (Young and Crush, 2019).

In a survey conducted among informal food vendors in Maputo, Mozambique, survivalist motivation was found to be the most common incentive for starting a food vending business (Raimundo et al., 2020). Also relatively important were ambitions to provide the family with greater financial security and the inability to

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find another job. However, while most are in business out of need, the survey also found strong entrepreneurial motivations, such as wanting to run one's own business, having more control over one's time, and being one's own boss. The results of the survey present some crucial points to inform questions regarding food sector organisation and governance (Raimundo et al., 2020):

- Informal food vending, as an occupation, tends to be dominated by those with limited formal education and related to a lack of access to the formal employment sector.
- Although informal food vendors are running businesses, it is important to consider the interconnectedness to the household: household members may consume some of the goods and benefit from business income. Therefore, business growth is also constrained by a household's needs.
- Food vendors indicated that competition with other vendors is the biggest challenge they face. Key challenges relate to this, such as too few customers, customer debt, and suppliers charging too much.

These lessons suggest that, aside from interventions in the informal sector, related interventions would need to occur in the formal sector to positively impact food system outcomes – for example, ensuring sufficient employment with better labour conditions and job security. Significant investments in education are also required (Temkin, 2009). The strongest predictors of small business survival are entrepreneurial actions and business management skills, which can be classified as 'human factors' (Ligthelm, 2011). This is corroborated by other research, which reveals that the internal business environment is crucial for growth (Struwig et al., 2019).

Agribusiness entrepreneurs may choose to operate in the informal economy driven by necessity or by more opportunistic, growth-oriented motivation. Lessons from literature suggest that, aside from interventions in the informal sector, related interventions would need to occur in the formal sector to enhance the impact of informal businesses on food system outcomes.

## 4.2 What is the role of social capital to informal agribusinesses?

Social capital comprises the networks of relationships among people who live and work in a particular society, enabling that society to function effectively. When applied to informal agribusinesses, we can distinguish between the social relations internal to the firm, such as family members employed or benefitting by the performance of the business, and social relations between firms, such as various forms of networks.

Literature suggests that, in the absence of personal resources, such as formal employment contracts or capital savings, social capital plays a large role in sustaining the livelihoods of less endowed households. Several studies have looked at the role of social capital in the informal economy. Akintimehin et al. (2019) found that social capital had a significant effect on the business performance of informal companies, with internal social capital (relations between family and friends in financial loans and support) having a notable effect on non-financial performance, such as providing employment. Berrou and Combarous (2012) also highlighted the positive outcomes of strong social ties on economic performance: both the strength and proportion of business ties have a significant positive impact on economic outcomes. Although strong kinship networks are often associated with success in the informal economy, Berrou and Gondard-Delcroix (2018) found that such relations primarily provide stability before and during the launch of a business activity. In later stages, business ties become more important than kinship for an enterprise's successful development.

Trust between value chain actors, but also in government, also plays a significant role in informal economies – although it is theorised that increased trust can have diametric effects. Increased trust can lead to people exiting the formal economy, as trust can act as a substitute for official labour contracts. However, when there is more generalised trust in the government, tax morale is higher and the informal sector diminishes: D'Heroncourt and Meon (2012) found evidence for the hypothesis that more trust in the government is associated with a smaller informal economy, which suggests there is a willingness to pay taxes. Yet, the perception that a current regime is not stable, regulatory quality is low, and corruption is uncontrolled, are

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all associated with larger informal economies (Friedman, 2014). This also goes for corruption, quality of governance, the quality of institutional settings, and unemployment rates, all of which correlate with the size of the informal sector (Ouédraogo, 2017).

It is argued that the informal economy provides easier access to starting a business and experimenting with business concepts that may succeed in generating income compared to the formal economy. The common assumption that these entrepreneurs operate rationally, choosing the informal route because it maximises their profit, is challenged by research that shows not all informal entrepreneurs are commercially driven. Social rationales are often present in informal entrepreneurs, which means businesses' surpluses are invested in the community or the business itself to serve a social cause (Williams and Nadin, 2010). More deprived communities have more socially-driven entrepreneurs, while more affluent communities have more commercially-minded entrepreneurs.

Social capital and trust have significant effects on the performance of informal businesses. This is related to the observation that informal entrepreneurs are often not only driven by economic rationale, but also by social goals.

Roberts (1994) stated that the issue is not one of regulation *per se*, but of the form of regulation. All markets are regulated so the issue is the balance between formal regulation based ultimately on the state, and informal regulation based on personal relations such as those of kinship, friendship or co-ethnicity. Personal relations and the cultures that sustain them may, under certain conditions, prove more efficient in regulating economic activities than formal structures.

Social forces have the capacity to provide a flexible regulatory framework for doing business between informal value chain actors founded on solidarity and trust. Far from acting as obstacles to economic development, social networks are increasingly regarded as a source of social capital, capable of enhancing economic efficiency and growth independently of the state (Meagher, 2005). However, with special reference to sub-Saharan Africa, the relationship between social networks and well-functioning value chains is not well documented nor understood.

However, social relations and informal networks play a particularly important role in African trading, and successful traders often have longstanding relationships with farmers (KIT and IIRR, 2008). Most small-scale farmers rely on informal channels to trade produce, and informal markets provide an essential link between smallholder producers and the urban poor (Vorley, 2013). Informal trade typically offers the dynamism and flexibility required in food value chains in often difficult environments and can also be organised in networks. The trade relationship between smallholders and traders is beneficial for both in terms of business risk, as the farmer has a secure market outlet and the trader has a secure supply base. For example, cereal trading in Mali and Burkina Faso takes place through multiple farmer-trader networks and in both villages and bigger towns. These networks operate efficiently because of higher volumes, lower costs, and better accessibility: weekly contact between traders facilitates money transfers and farmers and collectors are kept up-to-date by phone (Vorley, 2013).

While networks can provide an informal framework for greater economic efficiency, they can also operate as mechanisms of patronage or clientelism, power inequality or collusion, which disrupt economic development and the inclusion of specific actors, such as women and youth. In other words, under certain conditions, networks constitute social liabilities rather than social capital. Informal networks can be 'anti-modern', in that they are used to corrupt formal organisations, as per the role of the Mafia in Southern Italy or Russia. Moreover, uncontrolled solidarity between family members needing consumptive investments, for example to purchase food in times of shortage or access medical help, may produce excessive, non-economic claims on an enterprise, hampering its growth or even survival.



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Sayer (2001) explained the ambiguity surrounding perceived positive and negative roles of networks as follows:

'Networks do not necessarily fuse the self-interest of different actors into a harmonious and egalitarian whole; they may be characterised by inequalities of power, strategic coalitions, dissembling, and opportunistic collaboration. Even where [business] groups are associated with kinship networks, as many are, they are likely to be characterised by power asymmetries and a sense of moral obligation. What appears to indicate trust may largely be a consequence of domination, lack of alternatives, or simple mutual dependency.'

Social networks can provide an informal framework in regulating and stimulating greater economic efficiency of agribusinesses and benefit sharing of financial gains between people. However, they can also reinforce power inequalities or impose excessive moral obligations, which hampers the economic growth of informal businesses.

### 4.3 Governance of informal networks

In the context of food systems and their transformation, governance refers to the formal and informal processes and institutions that shape investments, incentives and innovations, and that deal with 'the resolution of trade-offs, through the interactions between the laws, institutions, policies and other social norms that frame and influence decision-making' (Kennedy and Liljeblad, 2016). Governance is not just about the government: it extends beyond the public sector to multiple actors in civil society and the private sector. As various actor groups and individuals interact formally and informally – exchanging views, collaborating, negotiating, and entering conflict – they represent the different values and interests of diverse stakeholders (OECD, 2021). Governance is thus a concept that is applicable at different institutional levels, from global to local as well as levels in between, and to a multitude of issues.

Informal economies are not ungoverned spaces (Guijt et al., 2021). Indeed, informal economies manifest a considerable degree of governance, self-organisation and structure. Informal regulation emanates from a variety of non-state actors and informal institutions, such as powerful entrepreneurs and religious leaders, but also trade unions and associations, etc. 'Hybrid governance' is a more accurate depiction of actual economic governance, whereby the state has no exclusive regulatory authority over economic activities, and non-state institutional arrangements provide a form of economic order (Schoofs, 2015).

It is often thought that governments and the informal sector exist alongside each other and do not greatly interact, as informal businesses place themselves outside of formal economic and state structures. However, state and governmental institutions shape and govern the informal sector in a significant way (Roever, 2016), the clearest example being the interaction between local governments and informal market traders. In Africa, informal retailers play an important role in urban food and nutrition security, as they provide a critical link between agricultural production and consumers (Resnick, 2020). The level and scale of urban governance has a significant impact on informal food traders in several ways; for instance, in allocating trading space and the provision of infrastructure and services (Smit, 2016).

Informal food retailers deal with complicated state governance, as regulations are not always enforced structurally, and institutional and legal environments are complex. For example, city governments are not always well organised, and national regulations are not always well communicated (Resnick, 2020). On occasion, the state is also thought to take advantage of this through low-level harassment, confiscation of goods and arbitrary evictions. These actions can be referred to as 'informal government practices', as they do not adhere to written norms and regulations, and government officials are using their position of power to extract concessions, such as money or electoral promises, from street vendors (Roever, 2016). As street vendors and their families rely on these economic activities for their livelihoods, governing the public space where these take place and the lives of the urban poor is challenging.

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Local governments and informal traders often clash over the latter's presence in public space. Interestingly, these crackdowns take place less in electoral years, as traders comprise a large part of the electoral constituency (Resnick, 2020). The public space is usually that of the market, where city and national governments are not the only actors associated with management. Market associations play an important role – especially in West Africa – in acting as principal regulators and controlling who enters. Where city governments cannot provide adequate services in these spaces, such as water, infrastructure and garbage collection, market associations also take on this role and mediate with local government (Smit, 2016). Traders in marketplaces enjoy some level of protection thanks to these associations, but street traders are frequently on their own and therefore more vulnerable to evictions and forceful removals – which often coincide with a change in political power, taking on harsher measures with regards to the informal sector (Smit, 2016; Resnick, 2020).

In Ghana, an example of market associations can be found in the case of the 'market queens', women traders who oversee, protect and promote the market space to the public and government. Market queens have a level of authority inside and outside the markets, as they have traditionally dominated the Ghanaian trading scene (Britwum, 2013). As for their position relating to the government, one market queen cited in Hendriks (2017) stated: 'When the formal market stopped employing, we employ. When government deploys, we employ.' These market associations are particularly crucial to women traders as they offer savings, insurance and credit services, and also provide an informal safety net for market traders (Scheiterle and Birner, 2020).

Schoonhoven-Speijer (2021) shows that a blend of formal and informal arrangements between a processor/buyer, intermediary traders and small-scale farmers can lead to a thriving local economy as illustrated by a case study on bulk trade in sunflowers in Northern Uganda. The study explains the current market relationships from a historical development and emphasises the contextual side of market agreements. 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 over time. This example shows that agricultural markets can be represented by a mixture of formal and informal institutions, which indicates that a distinction between the two is not that straightforward. In addition, the study suggests that aiming for formalisation does not have to be the most important development strategy, as efficient market linkages also arise when agreements between market actors create sufficiently stable expectations about the behaviour of others.

Informal economies are not ungoverned spaces. Indeed, informal economies manifest a considerable degree of governance, self-organisation and structure. Formal and informal governance mechanisms co-exist in food systems and are interrelated.

## 4.4 Summarising: consequences for engaging informal businesses in enhancing food system outcomes

In this chapter, we have highlighted that agribusiness firms have various motivations to operate in the informal economy and that, for many firms, it is a deliberate and rational choice to remain informal. However, operating in the informal economy does not come without structure, norms, forms of regulation, and governance. On the contrary, informal economies are organised by a pluralism of social networks that interact in a complex socio-economic, political and cultural architecture. Formal and informal governance of food systems co-exist and the two are strongly related; and firms navigating this landscape adopt various forms of formality and informality depending on their motivation.

It has also been highlighted that informal midstream firms can contribute to enhanced food system outcomes but are sometimes themselves causing constraints to the well-functioning and economic benefit sharing of food value chains. As such, we consider two sides of informal businesses: providing income opportunities, absorbing the unemployed and providing opportunities for unskilled labourers. On the other side we consider

informal businesses as the source of economic insecurity, excluding sections of society that do not belong to well-defined networks, reinforcing unequal power relations (such as gender-based and generational inequalities), and disrespecting human rights. As such, informal economic networks have both light and dark sides.

To understand and identify the potential contribution of informal midstream businesses in food system outcomes, a normative assessment framework is required (see Figure 4). Such a framework helps distinguish between 'the good, the bad and the ugly': how and where in food systems do leverages occur for positive impacts by informal midstream businesses? How do we recognise features of informal businesses that define their potential to contribute? What are the motivations that can be influenced by public policy? Which incentives and regulations can be effective to reach and engage informal businesses? These questions will be explored in Chapter 5.

	Examples of negative impacts on food system outcomes	Examples of positive impacts on food system outcomes
Livelihoods	Poor workers' conditions, insecure jobs, low wages, discrimination and harassment	Good workers' conditions, job security, living wages, fair pricing, anti discrimination and harassment protocols
Environment	Environmental pollution, CO2 emission, resource depletion, loss of biodiversity	Environmental protection, CO2 emission reduction, resource and biodiversity restoration
Food and nutrition	Contaminated foods, unhealthy foods, high food prices, irregular food availability	Safe and healthy foods, affordable and available foods

**Figure 4** A normative framework to assess the potential contribution of informal businesses to enhanced food system outcomes  
 Source: authors' own.

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## 5 Reaching out to informal midstream businesses

Efforts to formalise informal midstream actors have proved ineffective, and there are multiple arguments and motivations for informal businesses to remain operating in the informal economy. This poses the question as to how policymakers, impact investors and other actors outside the informal economy can provide incentives and further measures to motivate informal businesses to adjust their operations. Such adjustment would result in improved food system outcomes, such as the provision of more healthy and safe foods, reducing environmental damage from food producers, or providing more employment to people under better labour conditions. Obviously, measures, regulations and incentives that are common in the formal economy are less effective in engaging and motivating informal businesses. So what alternatives are effective in reaching out to them?

Policy to improve the performance of the informal food economy must be built on evidence rather than perception, so that interventions can target hotspots of risk and unsustainability (Vorley, 2017). A recent review of evidence from agri-food, mining and forestry sectors showed that light touch approaches to formalisation can work, and do not always require regulation (Lewis, 2016). Recognition of the informal food economy and its actors is a key step – meeting farmers, traders, processors and vendors in their markets. We have to stop pretending that agriculture can be put on a sustainable footing by only leveraging the power of the formal economy (Vorley, 2017).

The African economy *is* informal, so enhancing food system outcomes is about working with informal businesses; governments and external partners recognising informal economic activity as a starting point, rather than wishing it away, is an important and positive development (Byiers, 2017); but it is only one step forward, given the challenges then faced in designing and implementing suitable support programmes. So, what do we know about measures, policies or providing incentives that are effective when working with informal businesses?

It is important to recognise that the African economy is an informal economy and that strengthening food system results is about working with the informal economy.

### 5.1 Improving the enabling environment for informal agri-businesses

Businesses, in general, are likely to be more efficient when they have better access to roads, market infrastructures, energy, ICT facilities, etc.; also referred to as the enabling environment, the result of which may improve both consumer and producer welfare. In India, for example, a seminal study by Jensen (2007) showed that mobile phone adoption among fishermen and wholesalers was associated with a dramatic reduction in price dispersion, the complete elimination of food waste, and near-perfect adherence to the Law of One Price. Despite issues regarding access, affordability, and digital skills (Deen-Swarrray et al., 2013), diffusion of ICT applications in low-income and emerging economies has proven useful for financial inclusion (e.g. mobile money, and mobile credit and savings) of the informal sector (Jacolin et al., 2021). Positive effects on informal businesses have also been recorded by other services, such as through the distribution of e-vouchers for fertiliser subsidy to small-scale farmers in Nigeria (Wossen et al., 2017), and the implementation of broader social policies, e.g., cash transfers in the humanitarian sphere (such as by the World Food Programme), or in public policy programmes such as Bolsa Familia in Brazil (Guyen et al., 2021; Kaplinsky and Kraemer-Mbula, 2022).

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Public sector support for informal businesses in lower-income countries is limited, partly because of constrained fiscal revenues (Qiang and Kuo, 2020). However, even when governments do aspire to extend support to informal businesses, they often lack the necessary information required for targeting, since informal businesses are not usually registered (since registration is typically associated with tax obligations and other regulations). For example, during widespread lockdowns during the COVID-19 pandemic, officials in countries such as Nigeria and South Africa had to use satellite imagery-based poverty mapping systems and digital technology to identify, register, and deliver relief packages to affected communities (Güven et al., 2021). Other policies using digital solutions to support the informal sector – without targeting – include a no-charge policy for mobile money transactions below a certain threshold in Kenya, and simplified ‘Know Your Customer’ requirements for mobile money in countries such as Egypt and Senegal (Qiang and Kuo, 2020).

Even if governments aspire to support informal businesses in lower-income countries, support is limited because governments often lack the necessary information required for targeting.

## 5.2 Policies and services for informal businesses

An intervention area that has potential benefit for informal midstream businesses is one that addresses the digital divide – not just of accessibility and affordability of ICT services, but also of human capital and skills. This is because digital technologies have four complementary benefits, including access to capital, inclusion gains, efficiency gains, and innovation gains (Nguimkeu and Okou, 2020). Studies also suggest that resilience and efficiency among informal midstream businesses can be enhanced with targeted and context-specific support systems. Productive social safety nets and economic inclusion programmes for the poor, and social insurance combined with productivity-enhancing measures for the non-poor working in the informal economy, are instruments that could put workers on a sustainable path to better livelihoods (Güven et al., 2021). Such interventions require data that can identify informal businesses – cutting across location, business characteristics, and socio-economic status of actors. For example, data resulting from a collaborative research project<sup>4</sup> involving participatory mapping of informal food vendors in selected low-income settlements in Nairobi provided data which helped local communities identify hazardous areas in relation to food spaces and infrastructure. This allowed them to prioritise areas for regular clean-up activities and enhance advocacy to improve these places in cooperation with local authorities (Ahmed et al., 2019). Having access to data on informal firms is not only useful in providing support for their economic performance through tailored interventions, but also to offer social protection in times of shocks and crises, such as the COVID-19 pandemic.

Resilience and efficiency among informal midstream businesses can be enhanced by addressing the digital divide and with targeted and context-specific support, such as productive social safety nets and economic inclusion programmes.

## 5.3 Targeted measures and incentives

Empirical evidence on measures and incentives that specifically target informal food system midstream businesses to enhance food system outcomes is limited. In Nigeria, a pilot project which tested the efficacy of using plastic crates compared to raffia baskets to reduce post-harvest losses in the tomato value chain found that informal retailers and traders adopted the innovation as they experienced the most financial gains

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<sup>4</sup> Collaborators include: the Kenyan Federation of the Urban Poor; University College London; International Institute for Environment and Development, London; Slum Dwellers International, Nairobi; University of Liverpool; International Livestock Research Institute.

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among value chain actors (Plaisier et al., 2019). Cost reduction and increasing saleable volumes proved to be incentives which appealed to informal traders.

The study by Liverpool-Tasie et al. (2020), discussed in Chapter 3, shows that midstream and downstream firms, even when not in formal contract relationships, can generally be helpful to small-scale producers offering services that increase productivity. The study's main recommendation is that these value chain actors should be considered as government allies (not as 'competitors' or 'missing') in the delivery of essential rural services. Governments and donors must facilitate their success by investing in hard and soft infrastructure, increasing their ability to address supply chain risks, and lowering SMEs' start-up and operational transaction costs. Improving access to credit, promoting climate-friendly practices, and reducing logistics and trade costs through improved infrastructure (such as roads and internet) are concrete ways in which governments can support informal SMEs in strengthening their role as economic drivers.

Evidence shows that midstream and downstream firms, even when not in formal contract relationships, can generally be helpful to small-scale producers offering services that increase productivity

## 5.4 What knowledge of instruments is still missing?

There are ample examples of innovations by or with businesses in LMICs that were successful in terms of generating economic gains. However, there is a lack of evidence of incentives and measures that deliver food system outcomes, such as food safety, healthy diets or reduced pollution. A lack of evidence is even more apparent in informal private sector-led innovations, whereby parties such as research and development agencies do not initiate, but only support the process. This area of private sector-led innovation, in which informal businesses define their priorities, co-operate in networks, take the lead, and contribute to enhanced food system outcomes, is the most unknown and therefore a 'black box' to outsiders. If informal businesses are to contribute to enhanced food system outcomes, we must unpack that black box allowing better understanding of these processes and what can be done to stimulate such informal businesses.

More knowledge is needed on how informal private sector-led innovations successfully lead to positive food system outcomes, such as food safety, healthy nutrition or reduced pollution.

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## 6 Conclusions: suggestions for further research

The main aim of this paper is to identify bottlenecks and highlight opportunities through which informal midstream businesses can be engaged to enhance food system outcomes. Ample evidence tells us that these businesses play critical roles in the functioning and performance of food systems – yet there is limited literature in terms of successful food system transitions with positive outcomes in which these businesses played an important role. This either highlights a lack of research, monitoring and evaluation, acknowledgement of the role of informal businesses, or their absolute absence as stakeholders in such processes. Given their importance, notably in LMICs, informal midstream businesses must be considered as key actors to be included in food system transformations.

We have explored what roles informal midstream businesses have in food systems, and the outcomes they influence – such as food safety, food availability affordability and accessibility, various dimensions of livelihoods (including employment and labour conditions), and the environment. Informal midstream businesses can have both positive and negative impacts on all of these aspects.

Based on the scoping and investigations conducted in this paper, a series of research topics require further attention in the future:

1. The definitions of informal businesses, informal sector and informal settlements are used throughout the paper. However, literature provides many different definitions of informality. For the purposes defined in this paper, it is recommended to look more systematically at the typologies of informality in food systems and define what it is and what it is not.
2. Food systems are broadly defined, and it is assumed that informal midstream businesses play an important role in enhancing outcomes. However, their exact role, along with how and whether they contribute to positive or negative impacts, is unclear. It is very likely that, within a food system, constraining and contributing informal midstream businesses coexist. As such, contextual analysis and assessments by typology will always be needed, which needs to be further explored and assessment tools developed.
3. In line with the aforementioned, we should address the question of how informal midstream business makes the market work for them. There is a need for further research into how informal markets work; for instance, investigating which institutional (e.g. cooperative or [semi-] contractual) arrangements – if any – they use, and when and under what possible contextually determined conditions. What is currently working successfully can provide insight into how the informal sector deals with certain challenges, such as access to credit or knowledge and information. The research approach can be a combination of conceptual work (top-down) and empirical case studies (bottom-up).
4. Literature regarding effective approaches, methods and tools on reaching informal midstream businesses is very scarce. As such, understanding of their motivation, organisation and governance needs to be enhanced in order to deploy effective measurements and incentives to reducing negative impacts and enhancing positive contributions to food system outcomes. This challenge likely constitutes the most important 'black box' that needs to be urgently unpacked.
5. Data suggest that some level of informality will always remain in economies worldwide, despite their development levels. While this paper focuses on sub-Saharan Africa, it is of high importance to understand how informality in, for instance, Asian and South American countries, differs from our findings.

Formal actors such as governments must adapt their attitudes towards informal actors; they must be taken seriously in the development of food system transformation agendas, being subject to more inclusive policies and having a say in their implementation. However, this will also raise questions regarding the legitimacy of representation of informal parties, as these informal actors do not always follow the principles of democratic voice or other well-established norms of inclusivity. This issue of legitimacy may well constitute one of the most prominent challenges of more pluriform processes of food system transformation: merging the interests, norms and values between very different actors to contribute together to improvements that serve their society at large.

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