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Capturing the economic potential of food systems for the poor

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About this report

The K4D Emerging Issues report series highlights research and emerging evidence to policymakers to help inform policies that are more resilient to the future. K4D staff researchers work with thematic experts and the funders to identify where new or emerging research can inform and influence policy.

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Key messages

- The available evidence shows that only the upper tier of small-scale farmers can access the more modern and commercialised food channels. Those that are asset-poor and live in remote rural areas do not benefit from any form of commercialisation. Therefore, commercialisation in the food system could result in a growing divide in rural areas.
- Diversification of rural household income remains an important livelihood strategy for small-scale farmers. However, there is no sign that this group will stop farming in the next ten years as they continue to rely on subsistence farming for their food security.
- Although the extreme poor and most marginalised groups will not automatically benefit from modernisation and commercialisation, others may benefit from the unrealised viable market potential within changing food systems. As the food chain grows longer, the market volume grows large enough, and economies of specialisation emerge in the midstream and downstream segments, there is a proliferation of midstream micro and small enterprises (MSEs) in food wholesale and processing, as well as upstream in input.
- There is a growth of rural-to-rural and urban-to-rural supply chains, which relates to an emerging rural middle class. The transition of the agricultural sector has given rise to rural towns and small urban centres, which are part of rural socioeconomic development. Hence, rural purchases of food are now substantial, giving job opportunities for the poor.
- Most of the jobs in developing countries in the food system are in rural areas, either directly in production links – input supply, processing, transport, and storage – or indirectly through the consumption demands for locally produced goods and services by farmers with incomes to spend. Many rural non-farm businesses use little capital, are labour-intensive, operate at micro-scale and may be seasonal as well, taking place in the slack seasons for farming.
- Evidence shows that most of the rural non-farm jobs are made up of services, rather than manufacturing. The dominance of services increases with economic growth and closer rural–urban links because when urban factories – or importers – can readily sell their products to rural populations, some local artisan manufacturing may not be able to compete.
- The majority of urban food service jobs are vendors in small shops, street markets or food stalls, or hawkers selling street food. These mostly informal activities are central to the urban food marketing system, providing the bulk of the urban food supply and are delivered mainly by women.
- The evidence shows that when women enter into global and other value chains in agricultural markets, the new structures of constraint include how those markets work to limit their bargaining power, exploit their effort, and ignore their responsibilities for the unpaid care sector.
- Commercialisation pathways within the transformation of food systems could create mainly new (and often low-paid) non-farm jobs for women, while they are likely to be pushed aside on ownership of commercial farming activities as men are more likely to take advantage of these opportunities.

Key lessons for policy interventions

- Getting the policy mix right in relation to the ability of smallholder farmers in the food system to “stepping up” or “hanging in” farming activities. For the “hanging in” (smallholder farmers that are not able to scale up and commercialise), social protection, safety nets and social services play a key role in building resilience and increasing incomes. In particular, social protection programmes need to be responsive to rural settings, gender sensitive, and consider the employment challenges of rural youth.
- To improve the low-wage structures and sometimes precarious working conditions in the food economy, governments should look at their labour policies. For instance, introducing minimum wages in the private sector; unionisation of the workforce, which could improve the bargaining power of the youth for better wages; and improving skill sets through on-the-job vocational training would be crucial. Health restrictions should be in place on the use of pesticides and toxic input products, and forced labour and child labour should be sanctioned.
- In Asia, decentralised approaches may offer greater benefits than centralised governments in terms of rural economic development outcomes. Evidence points to the positive contribution of community-driven development to service delivery outcomes, access to learning and information, and an increase in local procurement and local sourcing opportunities.
- The literature suggests that to increase better absorption in non-farm employment in the food system, continued investment is needed in productivity growth, infrastructure, access to finance, and higher education.
- The transformation of rural labour markets entails investment in rural skills development beyond agriculture. However, capacity development in rural areas rarely focuses on non-farm employment.
- Gender-sensitive interventions related to commercialisation and inclusive value chain approaches are important. Policies and investments that tackle gender-specific constraints and promote non-farm employment in food systems could have a particularly large impact on women’s economic activities and food economy development.

Contents

1. Summary

Food systems are changing and will continue to change in the near future, because of many transformative drivers, like population growth, globalisation, climate change, and pollution. The K4D DFID Learning Journey on Changing Food Systems examines several of these drivers and their impacts on food systems. This report provides an overview of the evidence of the economic potential of food systems for the poor for the next ten years. The review synthesises the literature from academic, policy, and institution sources on job creation in the food system. There is an abundance of literature and data on employment in agriculture; however, most literature and data on jobs in manufacturing and services in developing countries are not about the food sector. More recently, some literature on food systems and rural non-farm employment has been published.

The literature shows that understanding employment opportunities in the food system requires an understanding of food market transitions. It indicates that the labour force in agriculture is unlikely to shrink significantly over the next decade in developing countries as young people seeking jobs will have no other place to go because the service and manufacturing sectors (including the segments within the food system) are not predicted to absorb the new entries to the labour market. However, as this report shows, there are emerging opportunities in non-farm employment in food systems in low- and middle-income countries that could benefit rural and urban livelihoods.

The drivers of food system change

Continued population growth is creating a large youth bulge with a high demand for jobs over the coming decades. Between 2015 and 2050 the number of people between 15 and 24 years of age is expected to rise from about 1 billion to 1.2 billion. Most of these young people will probably live in the rural areas of sub-Saharan Africa and South Asia, where jobs will likely be difficult to find (FAO, 2017). At the same time, increasing overall populations, urbanisation levels, income growth, and more women working outside the home in urban and rural areas all increase the economic potential of food systems. Urbanisation means that households increasingly rely on markets and look for foods that are more diverse and convenient to buy, prepare, and consume. This transformation in local diets cuts across all countries and income groups, and involves a move towards increased consumption of higher-value perishable and processed products (Allen & Heinrigs, 2016; Staatz & Hollinger, 2016).

One of the questions this report explores is how many jobs a growing food sector could create in sub-Saharan Africa and parts of Asia. It is well understood that the above-mentioned drivers and technological change have triggered developing countries into various stages of a transitional phase in food systems. Transitional food systems are characterised by longer, but still fragmented, supply chains. Chain actors use a mix of labour-intensive and capital-intensive technologies, and there are emerging public standards of quality (Reardon et al., 2018). This transformation of food systems will have a significant employment impact in agriculture and non-farm employment in the next decades.

Agricultural transition and food systems

In the early stages of economic development, agriculture is the dominant source of livelihood and jobs – this is still found in lower-income countries today. Consequently, there has been a

tendency for development thinking and research to focus mainly on agriculture rather than the entire food system. As economies develop, it is well understood that the employment rate in agriculture falls as people move to manufacturing and service sectors. However, as Brooks (2018) shows, absolute employment in agriculture will continue to increase during this transition in sub-Saharan Africa and some parts of Asia.

Increasing the productivity in agriculture is a critical driver for wider economic development. However, the reality in sub-Saharan Africa is more complex. Collier and Dercon (2014) explain that a slowly changing number of poor small-scale farmers will continue to contribute most of the agricultural output over the next 50 years, with low yields, limited commercialisation, few signs of rapid productivity growth, and population–land ratios that are not declining. Food imports will continue to compete with domestic agriculture through better infrastructures, especially in rural areas. The authors do not observe any "radical economic transformation which would be appropriate over the next 50 years" for an agricultural-led economic growth strategy, with the exception of landlocked economies in Africa that have difficult relations with their neighbours, such as Ethiopia (Ibid., 2014, p. 92).

This does not mean that there is no sign of agricultural transition in sub-Saharan Africa. The data show that the majority of small-scale farmers do not benefit from current commercialisation trends in agriculture, like in Asia. Reardon et al. (2018) conclude that the upper tier of small-scale farmers who can access the modern channels, the urban markets, and the non-grain markets could benefit, but not those that are asset-poor and live in remote rural areas.

Non-farm employment in food systems

A critical follow-up question is how important the non-farm segments of food systems are for jobs and as a driver of inclusive growth. A number of figures help to provide some context. In low-income countries, approximately 60% of the population works in agriculture, while this declines to 40% for middle-income countries (ILO employment data). Of those employed in the food sector in low-income countries, 91% are employed in agriculture and 9% in food services and manufacturing (Townsend et al., 2017). In middle-income countries like Brazil, the distribution of employment changes substantially with 26% employed in the food service sector, 25% in food manufacturing, with 49% remaining in agriculture (Ibid., 2017). A higher Gross Domestic Product (GDP) per capita relates to better employment potentials in non-farm segments of food systems. For example, Cape Verde, Nigeria, Ghana and Mauritania are countries with the highest rate of non-farm jobs, in food processing, food marketing and in what is called "food-away-from-home" (restaurants and food stalls) (Allen et al., 2018). Food marketing (services) takes the largest share, followed by food processing and food-away-from-home.

The long-term employment opportunities in the food system can be considered in comparison with the United States where 11% of the workforce is in the food sector: 6.4% in food services, 2% in food manufacturing, and 2.6% in farming (US Department of Labor data). This is clearly a long way below the 60% of people currently employed in just agriculture in low-income countries, so caution is needed in seeing the food sector as a large employer in the long term. However, as economies develop, there is a clear transition period where food and agriculture retain a larger proportion of GDP, and employment in the food manufacturing and services are significant. Unfortunately, there is currently only limited analysis of the real scale of these opportunities in different economic and country contexts.

What seems clear from the available data, is that while the non-farm segments in food systems on their own are not a solution to the future jobs crisis, it can make a significant contribution, particularly in the first stages of the transition of the food system, which many low-income countries have now entered. This is what Reardon et al. (2018) refers to as the "Quiet Revolution" of micro and small non-farm food system enterprises. With urban supply chains developing, and consumers gradually purchasing more processed products, there is a proliferation of midstream MSEs in wholesale and processing, as well as upstream in input supply. Employment potential increases in formal and informal sectors within the food economy.

Data from West Africa show that 30% of all jobs in manufacturing and industry (the largest manufacturing sub-sector in terms of employment in most developing countries) and 31% of jobs in the service sector are related to food systems (Allen et al., 2018). Non-farm employment in food systems counts on average for 22% of total jobs (Ibid.). Most of the non-farm jobs are made up of food services rather than manufacturing, and are artisanal, micro and small-sized in the informal economy. They use little capital, are labour-intensive, and may be seasonal, taking place in the slack seasons for farming (Wiggins et al., 2018). The development of activities in food services and marketing (e.g. transport, storage, wholesale, retail) is closely linked to urbanisation and the reliance on markets for gaining access to food (Ibid.). Allen et al. (2018) foresee that food service activities will continue to grow and provide the largest number of non-farm food jobs in the years to come in West Africa. In urban areas, food services and food-away-from-home account for 57% of all urban food economy jobs in West Africa (Ibid.). The food-away-from-home segment is closely associated with incomes and is projected to grow faster than other food segments (Staatz & Hollinger, 2016). The sector is highly important for women's employment and generates high value added, also on imported products, and creates strong linkages with other food sources providing regular demand for other food system activities (Tschirley et. al., 2016).

As the food system modernises, the "Quiet Revolution" gradually ends and a challenge emerges with cheaper urban processed foods (with large amounts of imported ingredients) penetrating rural areas and displacing traditional small enterprises (Haggblade et al., 2007; Reardon et al., 2007b), as well as dis-intermediation and large-scale distribution firms displacing local small-scale traders. Furthermore, research shows that the debate about the economic potential of food systems should be linked with decent jobs as employment in food systems has been linked with low-income jobs, high labour instability and low working conditions – in particular, vulnerable groups such as migrants, women and children (ILO, 2013).

Interventions

The literature suggests that to increase better absorption in non-farm employment in the food system, continued investment is needed in productivity growth, infrastructure, access to finance, and higher education. The transformation of rural labour markets entails investment in rural skills development beyond agriculture. However, capacity development in rural areas rarely focuses on non-farm employment (Briones, 2018). Others suggest gender-sensitive interventions related to commercialisation and inclusive value chain approaches (Dancer & Hossain, 2018). Policies and investments that tackle gender-specific constraints and promote non-farm employment in food systems could have a particularly large impact on women's economic activities and food economy development (Allen et al., 2018).

Furthermore, job insecurities and low wages in food systems, plus the expected high rate of households remaining in subsistence farming, mean that social protection programmes should be more responsive to rural settings and gender sensitivities, giving particular consideration to the employment challenges of rural youth and women (Townsend et al., 2017). Social protection programmes with an expanding coverage of health centres and schools, particularly in dynamic agricultural areas, are specifically recommended.

2. Conceptual framing

This report tries to answer the question of whether and how food systems could absorb enough jobs given the expansion of the labour force, and the expected amount of independent small-scale farmers who will be gradually forced out of agriculture due to commercialisation. Reardon et al. (2018) show that the current literature mainly focuses on the farm segment of food systems, while research "needs to take into account the entire food system and its transformation" (Ibid., p.2). The importance of this is twofold.

- First, it will determine the future of farming, because innovations in farm technology and products lead to profitable marketed output by farmers and give rise to non-farm economic opportunities in the food system. As Reardon et al. signal: "Increasingly, the urban market, the food industry firms that mediate access to the urban market, input supply chains, and agribusiness firms that determine the development of input supply chains, set the market incentives and conditions for the affordability and profitability of new farm technologies, and thus their adoption" (Ibid.).
- Second, it will also signal the increasing importance of processing, logistics and wholesale (of outputs and inputs) in the food system. "Productivity of technologies for input manufacture and output processing, packaging, logistics, and commerce have equal weight in the performance of the food system relative to the farm sector" (Ibid.). Reardon et al. (2018) state that non-farm segments in the food system occupy 40–70% of value added and costs of food.

This report, therefore, focuses on the transformation of food systems and how this could increase the opportunities for decent jobs for the poor in food systems; and, how employment trends could have any impacts on livelihoods.

Food systems

Food systems have usually been conceptualised as a value chain, a set of activities ranging from production through to consumption (Posthumus et al., 2018). However, the increasing attention to unhealthy food, job creation, food security and food safety has expanded the understanding of food systems. Also, sustainable food systems are now seen as being key to delivering the global commitment to the UN Sustainable Development Goals, which has emphasised the interlinkages between eradication of hunger and poverty, sustainable use of natural resources, promoting healthy and prosperous lives and social justice (UN, 2016).

Concepts of food systems (Ericksen, 2008; Ingram, 2011; Van Berkum et al., 2018) show that a food system approach that, for example, aims to create jobs should look at the wider working of the food system and include all its activities for a better understanding of employment trends and linkages within the system. Furthermore, such a food system approach should look beyond the

food value chain and take into account the outcomes of all job activities on the food system; for example, as a contributor to poverty reduction, decent jobs, social welfare and food security.

Food markets

Food systems are changing, particularly in developing countries. There is a lot variation (e.g. timing and speed) in the transformation of food systems across products, regions, countries, and zones within countries. In general, the transformation is over three stages of change (Reardon et al., 2018, p.4):

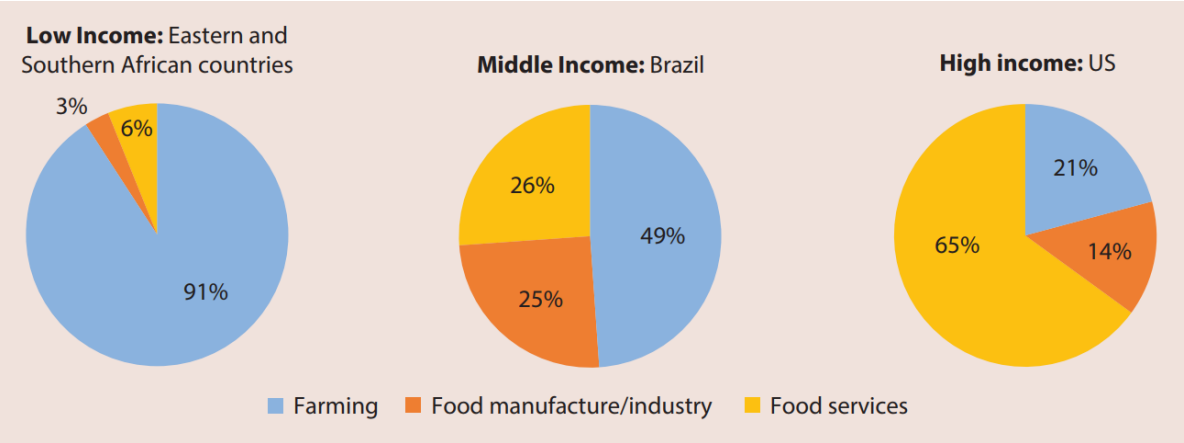
- The **"traditional" system** is the least advanced system, which tends to be spatially short ("local") and fragmented in structure, using technologies with little capital and much labour, with no contracts or formal standards, and spot markets linking all segments.
- The **"transitional" system** is the next stage in the transformation of food systems. It is spatially long (as cities grow and their catchment area is larger and larger) but still fragmented. Chain actors use a mix of labour-intensive and capital-intensive technologies. There are emerging public standards of quality. Spot market relations still dominate.
- The **"modern" system** is the most advanced system. It is usually spatially long, but is consolidating in various segments (such as in retail, the rise of supermarkets). There is also some "dis-intermediation" such as supermarkets buying directly from processors, or urban wholesalers directly from farmers. Private standards are emerging, and some use of contracts. Capital intensification is common as the modern stage tends to coincide with higher wages in the economy. More quality and safety control are demanded by the food industry.

Employment

The food system always has provided a wide variety of jobs, not only in farming, but also in the input sector and output sector. They vary from jobs in micro, small and medium size enterprises (MSMEs), of which many operate in the informal sector, to large and international corporations. The transformation of food systems comes with some important changes on jobs. The conventional development pathway for most countries show that agriculture employment declines as a percentage of total employment and in full-time equivalents (FTEs), while non-farm employment in the food system is on the rise, first in food manufacturing/industry and services, and in the later stages of development – overwhelmingly in services (see Figure 1).

The explanation is that the high-value diversification of food products and the large amount of activity outside the farm gate occasioned by longer and more developed supply chains, initially results in an increase in MSMEs' activities in the food system. This is what Reardon et al. (2018) refer to as the "Quiet Revolution" of micro and small non-farm food system enterprises. "As supply chains develop to cities, and gradually consumers purchase processed products, there is a proliferation of midstream MSMEs in wholesale and processing, as well as upstream in input supply" (Ibid., p.6). As the food system modernises there is, however, a challenge presented by cheaper urban processed foods (with large amounts of imported ingredients) penetrating rural areas and displacing traditional small enterprises (Reardon et al., 2007b), as well as dis-intermediation and large-scale distribution firms displacing local small-scale traders.

Figure 1. Examples of the composition of jobs in the food system between countries in different stages of development



Source: Townsend et al., 2017, p.7.[1]

Livelihoods

At the household level, the dynamics in the transitional food system create job opportunities in MSMEs resulting in household diversification opportunities in rural and urban areas. Although not all non-farm jobs are within the food system, many are and will be. Rural non-farm employment is roughly 40% of rural household incomes in Africa and Asia, and forms a much higher share of total cash available, far higher than migration income or credit flows (Haggblade et al., 2007). The complementarity between the non-farm activities and the farm activities of household members makes households less vulnerable to shocks and changes. Although non-farm work gains influence at the household level in rural areas through the opportunities arising from the transition phase of food systems, they do not abandon agriculture (Brooks, 2018).

Livelihood diversification studies have mainly focused on rural and farming households and far less on the urban poor. “These studies did not acknowledge the fact that livelihood diversification is not limited to rural households alone, but also a norm among urban households” (Ebenezer & Abbyssinia, 2018, p.237).

3. The food system and economic transformation

The drivers of food system change

The most important drivers that give rise to opportunities to develop the food system beyond agriculture are expanding populations, urbanisation, and technology. These drivers could impact positively (although not under all circumstances) the development of food markets and employment.

[1] From *Future of food: Shaping the food system to deliver jobs (p.7.),* by R. Townsend, R. M. Benfica, A. Prasann and M. Lee, 2017, Washington, DC: World Bank. © 2017 World Bank. Reproduced under CC BY 3.0 IGO.

Expanding populations

Over the next decades, the demographic transition in many developing countries is expected to be characterised by declines in infant mortality and fertility rates, resulting in a higher share of the population that is potentially economically productive and can create income. Between 2015 and 2050, in low- and middle-income countries, the number of people between 15 and 24 years of age is expected to rise from about 1 billion to 1.2 billion. Most of these young people will probably live in sub-Saharan Africa and South Asia, particularly in rural areas, where jobs will likely to be difficult to find (FAO, 2017, p.13). These two regions will continue to have the highest concentration of young people in the years to come (Ibid.), and the average age gap between these regions and the rest of the world is expected to increase. Over the next 15 years, the number of older persons is expected to grow fastest in Latin America and the Caribbean, with a projected 71% increase in the population aged 65 and above, followed by Asia (66%) and Africa (64%).

The expectation is that fertility rates will continue to decline in Africa and Asia, which could result in the number of working age adults relative to dependants increasing from 1.0 in 1985 to 1.7 in 2050. The potential impact on growth from these effects could be important. Drummond et al. (2014) estimate that a 1% increase in the working age population increases real GDP growth per capita by 0.5%. Income growth, along with increasing opportunity cost of time as women work outside the home in urban and rural areas, lead to diet changes, which will increase the economic potential of food systems. However, the demographic growth dividend remains negligible if fertility rates decline only modestly or if the labour market is unable to absorb the new workers in productive activities. For the food economy, this means an increasing demand for food from an increasing number of working age adults in low- and middle-income countries.

Urbanisation

Over the next decades, the urbanisation rate will increase mainly in sub-Saharan Africa and Asia. It is estimated that currently 60% of the locally produced and marketed food in developing countries is purchased in urban regions (Reardon & Zilberman, 2018). Therefore, a rise in urbanisation is a major opportunity for small-scale farmers to sell their crops and small-scale entrepreneurs upstream and downstream the value chain. Urbanisation means that households increasingly rely on markets and look for foods that are more diverse and convenient to buy, prepare, and consume. This transformation in local diets cuts across all countries and income groups and involves a move towards increased consumption of higher-value perishable and processed products (Allen & Heinrigs, 2016; Staatz & Hollinger, 2016). Higher urban wages also tend to increase the opportunity costs of preparing food and favour food products that have a large amount of labour embedded in them, such as fast food, store-bought convenience foods, and foods prepared and marketed by street vendors.

This shift in consumption patterns also means a shift in employment within food systems: fewer people work in agriculture and more work in transport, wholesaling, retailing, food processing and vending (Cohen & Garrett, 2009). The changes in what people consume and how they access food are driving demand for new and greater activities along food value chains (including through food import markets), the majority of which are in small-scale non-farm segments of food systems (Allen et al., 2018). The gradual improvement of infrastructure, which has reduced transaction costs, is the foundation for food supply chain development from rural areas to the burgeoning cities and towns. The proposition is that changes in the demand for food could propel

the development of agro-industrial production and marketing. “Small and medium enterprises account for a large and growing share of the agricultural sector’s value added and employment in low- and middle-income countries. Non-farm activities, such as handling, packaging, processing, transporting and marketing of food and agricultural products, provide multiple opportunities for employment” (FAO, 2017, p.90).

Technology

New technologies will continue to be introduced in food systems. Next to innovations in processing, storage, logistics, and packaging, in particular the importance of digital technologies (e.g. mobile and digital platforms, big data, blockchain) will change food systems in the next decades. Some elements of underemployment and seasonal labour constraints in agriculture are thought to be reduced through investments in technology, irrigation, mechanisation or mixed farming systems (crops and livestock), as well as through investments into improving market access (Allen et al., 2018). Digital platforms have the potential to improve market access of small-scale farmers, increase access to information and finance, and create jobs through entrepreneurial opportunities in food markets. However, the empirical evidence is very mixed (Duncombe, 2016; Deichmann et al., 2016).

Where these technologies are being applied – both where labour is becoming more expensive and in situations of cheap labour – there will be changes, such as the recent emergence of cashier-less supermarkets in India (Indiaretailing Bureau, 2017). The rapid rise of robots will have a series of consequences for the food system (such as a reduction in unskilled labour in all segments) and unforeseen and complex changes wrought on the structure and conduct (Reardon et al., 2018).

Challenges

The literature mentions many challenges that could reduce the optimism around the opportunities of changing food markets and growing demand. Most importantly there are capacity, finance, and infrastructure constraints. Challenges relate to competitiveness of the food sector as it relies more on imported food – for example, in food processing because quality is low, like the efficiency of local supply chains. Between 2001 and 2014, sub-Saharan Africa’s food import bill rose from US$6bn to US$45bn – a sevenfold increase over 13 years (Yeboah & Jayne, 2018a). According to Afful-Koomson et al. (2014), transport costs are a major issue affecting profitability for small-scale agro-food processors in sub-Saharan Africa. They obtain their raw materials from smallholders who are scattered in rural areas connected by poor feeder roads and who produce small surpluses of many crops (Ibid.). On the other hand, Ghana’s large-scale agro-processing capacity is located near the ports in Accra or Tema, making it easy for larger-scale agro-processing firms to rely on imported raw materials rather than those produced by small-scale farmers up-country (Hollinger & Staatz, 2015). This decreases the competitiveness of small-scale processors of domestically produced crops.

From an employment perspective, climate change is an important threat for the further development of food systems, in particular for small-scale farming and the actors in the informal food market systems. A combination of climate change and rapid population growth increases water scarcity, outbreaks of pests and diseases, and greater variability of temperatures and rainfall (Jayne et al., 2017). Sub-Saharan Africa also faces growing land scarcity and degradation resulting from population pressures. “Median farm sizes are shrinking to levels that generate little

or no surplus production in many countries due to inter-generational subdivision of land and greater competition for unutilised arable land" (Ibid., p.vi). Population pressures are also driving up land prices in the region, restricting access to land, in particular for the youth. For example in Ethiopia, research shows that there are major barriers related to access to suitable land that need to be addressed to ensure, firstly, that agribusinesses can create jobs and, secondly, that the youth are in a position to take them up (Ayele et al., 2018; Wossen & Ayele, 2018).

Structural changes in food markets

The "transitional stage" is the dominant situation now in sub-Saharan Africa and South Asia wherein tens of thousands of MSMEs emerge (Minten et al., 2010; Reardon et al., 2012; Reardon et al., 2014a). The literature shows that there have been waves of diffusion of food system transformation over space and products in developing regions. Reardon and Timmer (2012) show that in the 1980s, the transition first took off mainly in South Korea and Brazil. The second wave started in the 1990s and took off in Mexico and Central America and in parts of South America (such as Colombia, Chile), South-East Asia, and South Africa. In the 2000s, the transformation took off in China, Vietnam and India, and was "catching up" South American countries such as Peru and Bolivia. The fourth wave, in the late 2000s, includes parts of Africa, especially southern (Zambia) and eastern (Kenya), and also emerging in West Africa (Nigeria, Ghana, and Senegal). The transformation first emerges in the grain value chains, followed by animal products, and the latest for fresh fruits and vegetables (Reardon et al., 2018, p.5).

There are three important structural changes in food markets, mainly in the "industrial organisation" structure of food systems (Reardon et al., 2018), which are intertwined, driven by the transformation of food systems: long-distance competition, imports from urban centres and abroad, and the role of supermarkets.

- **Competition:** With urban markets becoming the main markets faced by farmers, urban traders seek a diverse set of zones to reduce seasonality and supply risk. They have the logistics and purchasing power to require that different regions compete for their procurement. This means that farmers and small rural processing industries from a given zone no longer have a "protected" (by transaction cost barriers) local market but are competing with others from other zones for the urban market (Ibid.).
- **Imports:** Local farmers and processors vie with imports for city markets and ingredients abroad. For instance, local farmers and rural processing enterprises face cheap packaged processed foods from urban areas (in part using imported ingredients) coming into rural areas, often via the conduit of secondary city/rural town markets (Reardon et al., 2007a). Examples are Indofoods' packaged noodles and drinks arriving in rural towns in Indonesia and Nigeria (Liverpool-Tasie et al., 2017), and Maseca's ready-made tortillas or mix coming into rural towns in Mexico (Rello, 1996).
- **Supermarkets:** The rise of supermarkets in developing countries increases the competition by a region for supplying to urban supermarket procurement centres, and becomes even more challenging with the imposition of private grades and standards. Reardon et al. (2007b) and Berdegué et al. (2005) illustrate this for the cases of Mexico and Central America. Large processing firms and supermarkets based in towns also tend to prefer supply regions with low transaction costs, and eschew contracting with farmers in hinterland zones (Barrett et al., 2012).

The initial transformational stage

In a local traditional short supply chain, very little of the value added of the chain is due to non-farm components of the supply chain – the midstream (wholesalers, logistics agents, processors) and downstream (retailers). Farmers sell the grain or milk to neighbours and transport it themselves. The consumers buy the raw product and processes it themselves. However, as the chain grows longer, the market volume grows large enough, and economies of specialisation emerge in the midstream and downstream segments, there is a proliferation of midstream MSMEs in wholesale and processing, as well as upstream in input supply. This creates many non-farm job opportunities within the food system (see Box 1).

Box 1. The emergence of micro and small businesses in food systems in developing countries

Examples of MSMEs emerging in the transitional stage of food systems in developing countries, mentioned in Reardon et al. (2018), include:

- There has been a rapid emergence of MSME potato cold storages in Bihar (Minten et al., 2014) and Western Uttar Pradesh near Delhi (Das Gupta et al., 2010). The storages diffused due to a confluence of trends – the rise of nearby cities, the improvement of road links and electricity grids, the introduction of disease-resistant and long shelf-life potato varieties by the National Agricultural Research System (NARS), and a flood of private investments by local small/medium entrepreneurs.
- There has been a proliferation of SME "outsourced agricultural services". Examples include SMEs providing mobile combine services for small rice farmers in China (Zhang et al., 2017) and Myanmar (Belton, 2017). There has also been a diffusion of "sprayer trader" services in mango areas of Indonesia and the Philippines: teams of skilled labourers go from farm to farm and prune, spray, harvest, sort, and market mangoes for small- and medium-sized farms, targeting demanding urban and export markets (Dela Cruz et al., 2010; Qanti et al., 2017).
- Minten et al. (2014) show that the value chain of *teff* (the leading cereal in Ethiopia) has developed rapidly over the past decade. There has been a proliferation of MSME mills-cum-retailers, wholesale and logistics firms spurred by the development of Addis Ababa and road improvements. Development of the *teff* value chain is in turn correlated with increasing adoption of modern inputs by farmers, and a shift from cheap red varieties to the more expensive, higher quality white *teff* varieties, and uptake of improved varieties of the latter.
- In Senegal in the past decade, the millet supply chain has rapidly transformed with the emergence of processed and prepared millet products. Badiane (2016) shows that this transformation has featured the development by small female-headed enterprises of branded packaged millet and millet-cum-dairy products for the Dakar market.

The later transformational stages

As markets expand further with longer supply chains, and especially where there are economies of scale or economies of scope, such as in processing or retail procurement and storage, large-scale firms are more efficient than small firms, and segment concentration tends to occur. In the transition phase, some segments of a chain may concentrate while others stay fragmented for some time. Large firms have a tendency to try to "cut out the intermediaries" and sell or buy directly – "disintermediation" (Reardon et al., 2018), which is done mainly to cut costs, as well as control quality or assure traceability. This shifts the market from more informal or semi-informal food markets to formal food markets. It also results in a shift towards more waged labour (see Box 2 for examples of this shift from small scale to large scale).

Box 2. Concentration in food markets

Examples that illustrate the shift from small enterprises in the food system to large-scale businesses operating in the food systems in developing countries, mentioned in Reardon et al. (2018), include:

- Larger wholesalers based in towns and cities in India have gone well along the path of eliminating use of traditional village brokers in order to buy directly from rice and potato farmers (Reardon et al., 2012).
- Supermarkets in Latin America, Africa, and China that use dedicated wholesalers to source produce according to the private quality standards of the chains (Reardon & Berdegué, 2002 for Latin America; Weatherspoon & Reardon, 2003 for Africa; Hu et al., 2004 and Michelson et al., 2017 for China).
- In the dairy sector in Zambia, some small farms sell to large processors who sell some of their output to supermarkets (Neven et al., 2017).
- In the Bangladesh rice sector, town-based larger wholesalers have competed out of the market many small rural brokers, but the wholesalers sell on to many small urban millers and small retailers (Minten et al., 2013).
- Supermarkets in Central America have shifted to buying directly from agribusiness firms for crops in which the latter are engaged (e.g. pineapples, bananas) (Berdegué et al., 2005).
- Supermarket chains in China that source mainly from large rice mills (Reardon et al., 2014a).
- Large logistic and wholesale multinationals as well as processors "follow" supermarket chains into emerging markets, in "follow sourcing", such as with Baakavor following Tesco into China (Reardon et al., 2007a).

Rural food markets

The literature shows that there is a growth of rural-to-rural and urban-to-rural supply chains. The increase in the rural market in value terms is greater than population growth, for in many areas rural incomes have grown over several decades, albeit with regional variation (Reardon et al., 2018). A rural middle class has emerged and, as Tschirley et al. (2015) demonstrate, 55% of the middle class in eastern and southern Africa (excluding South Africa) is in rural areas. According the Food and Agriculture Organization of the United Nations (FAO), the transition of the agricultural sector has given rise to rural towns and small urban centres, which are part of rural socioeconomic development. "This trend has been reinforced by stronger economic linkages between rural and urban areas, which have contributed to reducing poverty and, often, to closing the gaps between town and countryside in terms of quality of life indicators related to health, social welfare and livelihoods" (FAO, 2017, p.90).

Hence, rural purchases of food are now substantial. Recent data show high shares of purchased food in rural diets in Africa and Asia. Dolislager et al. (2015) show that rural households in eastern and southern Africa bought 44% (in value terms) of the food they consumed; Liverpool-Tasie et al. (2016) show the figure to be 70% in Nigeria. Sibhatu and Qaim (2017) show that 42% of calories consumed by rural households in Ethiopia are from purchased foods. In the Reardon et al. (2014b) Asian study, rural households' purchase share averaged 73%. There is also evidence that these purchases are mainly financed by rural non-farm employment as well as by agricultural product sales. Very little is purchased on credit, whether from informal or formal sources (Adjognon et al., 2017, for Africa).

4. Jobs in the food system

Employment downstream in the food system

Some recent data comes from West Africa: Allen et al. (2018, p.7) show that 30% of all jobs in manufacturing and industry and 31% of jobs in the service sector are related to the food system. Also, non-farm employment in the food system counts on average for 22% of total jobs (Ibid., p.10). Cape Verde, Nigeria, Ghana, and Mauritania have the highest rate of non-farm jobs in the food system, food processing, food marketing and food-away-from-home (restaurants and food stalls). Food marketing takes the largest share followed by food processing and food-away-from-home (Ibid., p.11).

Most of these jobs are in rural areas and are linked to agriculture, either directly in production links – input supply, processing, transport, and storage – or indirectly through the consumption demands for locally produced goods and services by farmers with incomes to spend (Wiggins et al., 2018). Most of the rural non-farm jobs are made up of services, rather than manufacturing. The dominance of services increases with economic growth and closer rural–urban links because when urban factories – or importers – can readily sell their products to rural populations, some local artisan manufacturing may not be able to compete (Haggblade et al., 2007). For example, local artisan making of baskets, pottery, and roof thatching are vulnerable to displacement by cheap plastic pails, metal pots, and corrugated roofing. Many rural non-farm businesses use little capital, are labour-intensive, operate at micro-scale and may be seasonal as well, taking place in the slack seasons for farming (Wiggins et al., 2018).

Food manufacturing/industry

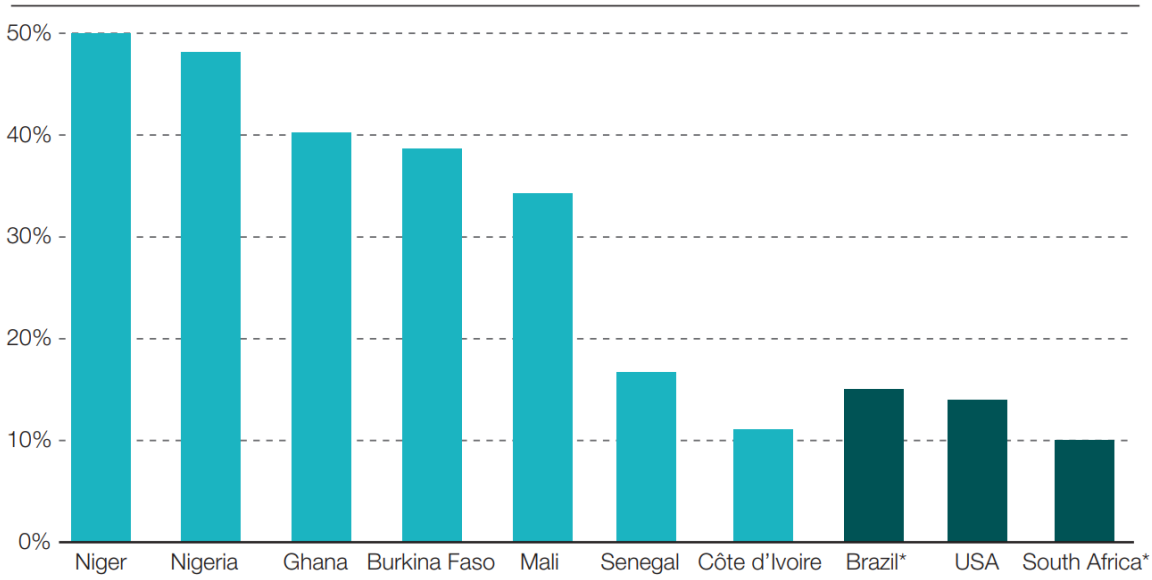
In many areas of sub-Saharan Africa, the value of agro-industries as a share of total manufacturing is significant, accounting for up to 60% in some countries (Roepstorff et al., 2011; Allen et al., 2018). The food processing sector is the largest manufacturing sub-sector in terms of employment in most developing countries. In Niger and Nigeria, food processing accounts for close to 50% of all manufacturing activities (this does not mean they all supply domestically); see Figure 2. Although most of these jobs are in artisanal and SMEs in the informal economy, a recent World Bank study looking at formal sector employment in Côte d'Ivoire shows that "food manufacturing is the most important contributor to value added and the second biggest contributor to employment" (Hebous & Tran, 2017, p.111). In Cote d'Ivoire, the share of firms in the agribusiness sector was only 4% in 2012, but it generated 18% of jobs (Hebous & Tran, 2017).

From a jobs perspective, the food processing sector has four important features:

- The agro-industries (e.g. millers, beer breweries, processors) are more likely than other industry sectors to locate outside primary cities, including in small towns and more rural areas (Christiaensen & Lawin, 2017).
- Food processing creates strong forward and backward linkages with other food and non-food system activities. The food processing sector is a growing outlet for agricultural products, resulting in more stable demand and potentially large employment effects in local economies (Allen et al., 2018).
- Employment in the processing sector is dominated by women and tends to be unskilled and labour intensive, which could provide more inclusive opportunities (Ibid.).

- The growth of large-scale industrial processors is impacted by an unreliable supply of local raw materials of consistent quality, resulting in reliance on imported commodity inputs. Hence, from an employment perspective, growth in this sector will crucially depend on the capacity of local processors and agribusinesses to source from domestic production (Staatz & Hollinger, 2016). For example, the International Food Policy Research Institute (IFPRI) Ghana Strategy Support Programme Policy Note concludes that "the main constraint to a vibrant processing sector is the low production and productivity, high cost, and poor quality of local raw materials" (Andam & Silver, 2016, p.1).

Figure 2. Share of food processing in total manufacturing employment in West Africa (2012-15)



Note: *2008
Source: Allen et al., 2018, p.12.[2]

The demand for food processing activities is projected to continue to grow over the medium term. For example in Nigeria, based on food demand projections, employment in food processing is expected to grow 13% over the next five years (Tshirley et. al., 2016). However, due to the informal nature of agro-industries, evidence is scarce on the exact number of jobs the sector creates, and food manufacturing activities do not rely on only domestic food supplies, but could also increase food imports.

Food services

The development of activities in food marketing (e.g. transport, storage, wholesale, retail) is closely linked to urbanisation and the reliance on markets for gaining access to food (Wiggins et al., 2018). The role of markets in accessing food has grown significantly across the region due to urbanisation, with increasing shares of food being purchased, as opposed to produced, within the household. More urbanised countries seem to have the highest shares of total food employment

[2] From *Agriculture, food and jobs in West Africa (West African Papers No. 14)*, by T. Allen, P. Heinrigs, and I. Heo, 2018, Paris: OECD Publishing. © 2018 OECD. Reproduced with permission.

in marketing activities, while least urbanised countries have a lower share (Ibid.; Allen et al., 2018). However, the literature also shows that food markets not only develop in urban areas; rural households also rely increasingly on markets to access foods in developing countries and on processed food. Allen et al. (2018) foresee that food marketing activities will continue to grow and provide the largest number of non-farm food jobs in the years to come in West Africa.

The food-away-from-home segment is closely associated with incomes and is projected to grow faster than other food segments (Staatz & Hollinger, 2016). In addition, the sector is highly important for women's employment and generates high value added, also on imported products (Allen et al., 2018). It also creates strong linkages with other food sources providing regular demand for other food economy activities (Tschirley et. al., 2016).

Food marketing and food-away-from-home account for 57% of all urban food economy jobs in West Africa (Allen et al., 2018). These jobs are closely linked to the size of food markets and vary greatly across countries. In Ghana, Senegal, and Côte d'Ivoire, 66% of employment in food marketing and food-away-from-home is in urban areas, compared to 52% in Mali, Niger, and Burkina Faso. The majority of these jobs are vendors in small shops, street markets or food stalls, or hawkers selling street food. These mostly informal activities are central to the urban food marketing system, providing the bulk of the urban food supply. In particular, poor urban households are dependent on these distribution networks, often purchasing small quantities on a daily basis and relying on street food vendors because of the costs of preparing one's own food and the lack of facilities to prepare and store food at home (Proctor & Berdegué, 2016).

The changing place of agriculture in the food system

The literature shows that in the conventional development paradigm, in order to develop, food and agriculture systems should become more capital-intensive, more productive, and better integrated with other sectors through markets (FAO, 2017, p.88). When small-scale farmers and members of their families gradually diversify their sources of income and employment, many of them would leave the agricultural sector entirely (Binswanger-Mkhize, 2012), while others change their practices, shifting from multiple crops to monoculture, and moving away from staples toward higher value foods and cash crops (FAO, 2017, p.89). Gradually, small-scale farmers could be able to integrate into commercial food systems, earning higher incomes and employing better technologies.

Box 3. Share of agriculture employment

Agricultural on-farm employment shares remain high, but have declined in most developing countries in the last 20 years. Data from the International Labour Organization (ILO) shows that on-farm employment is about 60% of total employment in sub-Saharan Africa, and almost 70% of total employment in low-income countries globally. Chad, the Central African Republic, and Malawi are amongst the countries with the highest level of employment in agriculture in sub-Saharan Africa with respectively 87%, 86% and 85% in 2016. Other high scoring countries are Niger (78%) and Mozambique (71%) in 2016. In these countries, with the exception of Mozambique, agricultural employment is stable over the last decades. Most countries in sub-Saharan Africa show a decline in agricultural employment, like Burkina Faso, Ghana, Ethiopia, Kenya, Mozambique, Nigeria, and Rwanda. Few countries saw employment in agriculture increasing, as in Senegal (from 43% in 2000 to 54% in 2016) and Mali (from 46% in 2000 to 62% in 2016). In Asia, Nepal, and Lao are among the countries with the highest employment rate in agriculture, respectively 72% and 62% in 2016. In all countries in Asia the agriculture employment rate has declined (e.g. Bangladesh, Pakistan, Thailand, Indonesia, India, Vietnam).

Source: ILO employment data for 2016.

A shift in the share of output coming from agriculture and other primary activities is expected to decline, as the share of output from other sectors like manufacturing and services will increase. Agriculture's share of GDP thus falls, although the sector continues to grow absolutely – just not as quickly as other sectors (Wiggins et al., 2018) (see Box 4 for data from high-income countries). Over the past 50 years, the relative contribution of agriculture to GDP decreased almost everywhere, however, particularly in East Asia and South Asia, and to a lesser extent in sub-Saharan Africa.[3] There was a corresponding movement of labour from agriculture to manufacturing and services, leading initially to a decline in the relative share of labour employed in agriculture, and eventually to an absolute fall in the farm workforce (Wiggins et al., 2018; Brooks, 2018); see Box 3. In the context of West Africa, Allen et al. (2018) show that Cape Verde, Nigeria, and Ghana have the highest GDP per capita as well as the lowest share of food agriculture jobs. Niger, one of the poorest countries in the region, has one of the highest shares of farming jobs. "The relationship is less clear between these extremes with other factors impacting labour shares" (Ibid., p.10).

[3] Data retrieved from World Bank Data (data from 2016): https://data.worldbank.org/indicator

Box 4. Employment in food sectors in high-income countries

Overall, in the UK 13% of the working population works in the food sector; in the US it is 11%. Employment in agriculture is very low in high-income countries. In the US, less than one million people are employed in the sector, counting for 2.6% of employment (US Department of Labor). In the European Union the average employment rate in agriculture is approximately 4.1% (ILO employment data, 2016). In the UK employment in agriculture and fishery is just 1.4% (UK Labour Market Statistics Q1, 2018).[4]

Most employment in the food economy is in food services. In the US it is 6.4% of the total employment, and in the UK it is approximately 10%. In the UK, half of the jobs in the food sector are in "non-residential catering" (e.g. restaurants) and approximately one third are in food wholesale and retail. In both the UK and the US, food manufacturing is even smaller measured in employment than agriculture, counting for 1.3% and 2% respectively of all the jobs. In the UK in Q1 2018, half of the food sector jobs were part-time. Women accounted for 56% of employees in food retailing and 52% in non-residential catering (UK Labour Market Statistics).

The different context of sub-Saharan Africa

Collier and Dercon (2014) mention that sub-Saharan Africa will not follow the historical path of most rich economies and the recent experience of fast-growing developing Asian economies. They describe the character of much of African agriculture as "a vast and only slowly changing number of poor smallholders contributing most of agricultural output, with low yields, limited commercialization, few signs of rapid productivity growth, and population–land ratios that are not declining" (Ibid., p.92). They do not observe in their research any "radical economic transformation which would be appropriate over the next 50 years" for an agricultural-led economic growth strategy. One important factor is the changing context of globalisation and the gradually improving infrastructure within Africa. The future comparative advantage for natural resource-rich or coastal economies does not mean that agricultural production will have to lead the growth process, let alone that it should be led by smallholders (Dercon, 2009; Gollin, 2010, chap. 73). Food imports will continue to compete with domestic agriculture and through better infrastructures also in rural areas. Only some landlocked economies in Africa that have difficult relations with their neighbours, such as Ethiopia, could have an economic transformation led by its agricultural sector (Collier & Dercon, 2014).

One could argue that by encouraging more labour resources into the high-return activities, taking away from the low-return resources, is a means of improving agriculture. However, Collier and Dercon (2014) also see no radical change to suggest that economic growth in other sectors allows agriculture to start engaging in a process of releasing labour via migration. "Growth in the rest of the economy can induce this movement, but it also important to get labor markets further integrated so that labor productivity gains elsewhere are transmitted across the economy into the rural sector. It is not altogether clear that this is indeed happening in the current agricultural sector dominated by smallholders" (Ibid., p.97). Some evidence from Tanzania shows migration in action but also how linkages back to the smallholder sector are not delivering much poverty reduction in the rural sector (Beegle et al., 2011).

[4] Retrieved from: https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-food-chain

Productivity growth

Agricultural productivity differences can have a significant impact on estimated employment shares. There is a growing body of evidence showing large agricultural productivity differences across countries and within countries (also mentioned by Collier & Dercon, 2014). One method of capturing productivity differences and their employment impact is to look at actual hours worked, or full-time equivalents (FTE), instead of declared activity (McCullough, 2017). Allen et al. (2018) show that in the seven West African countries for which data are available, those in agriculture work significantly fewer hours than those in downstream segments of the food economy. On average, farmers work 26 hours a week (first declared activity only), compared to 39 hours on average in downstream segments (Ibid., p.10).

This time-related underemployment in agriculture is linked to its seasonal nature and/or contexts where surplus production (and hence additional labour effort) does not pay because markets are absent or too costly to reach (Christiaensen & Premand, 2017). The higher share of non-farm activities in the employment structure using FTEs appears better aligned with estimated labour productivity differences across sectors and the distribution of value added between food economy segments, with non-farm activities estimated to account for 40% of the total food economy's value added in 2010 (Allen & Heinrigs, 2016).

Livelihood diversification

The above evidence links the already observed increase of non-farm economic activities within households in developing countries as mentioned above in the conceptual framing (see Section 2). Davis et al. (2017) showed that in sub-Saharan Africa, the rural non-farm sector is growing through diversification processes at the household level, although agriculture remains the single most important source of income for rural households. Evidence from the transition of food systems in many Asian countries – like India, Indonesia, and Vietnam – shows that the rural non-farm sector has expanded significantly due to economic transformation and urbanisation trends, gaining access to non-farm employment opportunities by the most vulnerable rural populations, which resulted in upward mobility (Briones, 2018). An IFAD report (Briones, 2018) on Asia suggests that proximity to towns and cities boosts non-agricultural activity as well as intensifies farming of products that specifically cater to urban demand. "In exceptional cases, expansion of the rural non-farm sector will be pioneered by manufacturing, thereby following the pattern of rural industrial clusters in East Asia. On the whole, though, the main pathway for rural non-farm growth in developing Asia is still expansion in non-tradeables (i.e. services)" (Ibid., p.4).

There is some evidence from Asia and Africa of improvement of household income from non-farm activities. For example, a study in rural Vietnam (Hoang et al., 2014) concludes that an additional household member involved with non-farm activity reduces the probability of poverty by 7–12% and increases the household expenditure by 14% over a two-year period, benefiting the rural economy. It also shows that non-farm involvement reduces the hours worked on-farm but not the household agricultural income (Ibid.). For Nigeria, Abatunde (2012) shows that non-farm income has a positive and significant effect on farm output and demand for purchased inputs. A study in Ghana shows that there is no evidence that non-farm earning has any negative effect on farm labour productivity (Dzanku, 2018).

Region-specific nuances exist. Increasing non-farm earnings reduces average farm productivity in poor regions, but not in rich regions in Ghana (Ibid.). Dzanku et al. (2019) used a dataset of six African countries to show that female-headed rural households gain the most from rural non-farm

activities, in terms of income and food security. The study shows that the rural non-farm sector in areas with high agro-ecological potential tends to be associated with greater poverty reduction among female-headed households than among male-headed households (Ibid.). A study in Nigeria concludes that differences in human capital, household composition and access to infrastructure, and "un-observable characteristics" such as ability and entrepreneurship skills, all play a part in how successful households are in benefiting from diversification strategies (Abatunde, 2012).

The future of small-scale farmers

From the evidence mentioned above it could be concluded that the economic transformation of developing countries and the related transformation of food systems give rise to job opportunities for small-scale farmers within the food system (on-farm and/or non-farm). Longer supply chains link rural areas to growing urban markets; diversifying food systems open opportunities to farmers to grow high value crops, meat, fish, and dairy. However, several recent reviews of the impacts of food system transformation on small-scale farmers find that evidence is mixed: "The available evidence shows that it tends to be the upper tier or half of small farmers who can access the modern channels, the urban markets, and the non-grain markets, as they require placement near enough to roads, water access, and specialized skills and equipment. Eventually as the chains modernize and increasingly demand quality and safety, those farmers reached must make basic investments in those attributes and that narrows the winners" (Reardon et al., 2018, p.10). Small-scale farmers can still be included, but not those that are asset-poor and live in remote rural areas (Reardon et al., 2009).

There is also evidence that increased non-farm job opportunities do not respond to a mass exodus from farming (see more details on the absorption level of non-farm segments in food systems in Section 5). Agriculture remains an important source of income and, importantly, for food security for small-scale farmer households (Lowder et al., 2016). The transformation of food systems in sub-Saharan Africa, and for a lesser part in Asia, shows that small-scale farmers will remain subsistence farmers for the next ten years (Fox et al., 2013; Collier & Dercon, 2014; Brooks, 2018). Commercialisation in the food system, therefore, could result in a growing divide between the farmers who are able to increase productivity and sell their produce to commercial food markets, and the ones who continue a livelihood strategy of subsistence farming combined with some additional income from low-paid non-farm activities.

5. What employment trends mean for the food system

The absorption level of the non-farm segment in the food system

Could the food system absorb enough jobs given the expansion of the labour force, and (in the hypothetic sense) the amount of independent small-scale farmers that will be forced out of agriculture due to commercialisation? The increase in the share of working-age population may not yield growth benefits, as evidence from Fox et al. (2013) suggests that there are speed limits with which the manufacturing and service sectors can absorb new workers: "The lack of demographic transition [in sub-Saharan Africa] complicates the employment transformation, because even with non-agricultural private sector enterprise growth as rapid and labour intensive as occurred in the last 20 years in East Asia, a similar employment transition [towards non-farm wage jobs] could not occur" (Ibid., p.7). Although the economic growth has been very strong in many sub-Saharan African countries over the past decades, the literature does not show a

significant change in output share of industry or in the export share of manufacturing products, including the food manufacturing (Fox et al., 2013).

Filmer and Fox (2014) show that the number of industrial sector wage and salary jobs is projected to increase 55% over the next ten years in sub-Saharan Africa. However, they also signal the problem that this growth starts from such a small base that it does not come close to absorbing the millions of young people entering the labour force each year (Ibid.). The share of wage jobs in the service sector is projected to rise from 13% to 22% over the next ten years in sub-Saharan Africa; however, this is also not enough to absorb the levels needed (Ibid.). Even under the most favourable projections, only about a quarter of the people newly entering the labour force will find wage employment in the formal economy (Jayne et al., 2017). In other words, the informal economy and subsistence agriculture remain important for employment.

Some literature shows that the agriculture sector in sub-Saharan Africa is able to absorb these levels, since about 70% of those who are expected to exit the labour force due to high age are now working in agriculture (Ibid.). The actual number of new entrants that agriculture needs to absorb is over 62 million in sub-Saharan Africa, or about 38% of the expected new entrants over the next ten years (Ibid.). Stronger growth in other sectors could push this number down slightly, but as Filmer and Fox (2014) show, it is unlikely that the labour force in agriculture will shrink over the next decade because young people seeking jobs will have no other place to go. Unlike other sectors in developing countries, the projection of new jobs in agriculture is not based on demand for labour in the sector, but represents the part of the labour force that cannot find a wage job or start a business.

Hence, Brooks (2018) states that Africa's agricultural labour force is rising absolutely while the share declines is not anomalous. "Quite the opposite – an absolute net flow of labour out of agriculture would be extraordinary given the size of the agricultural labour force relative to the receiving sectors of services, construction, manufacturing and mining. Even as these sectors grow and absorb labour, they are not yet large enough to support a net reduction in the agricultural labour force, particularly with the prevailing persistent high birth rates" (Ibid., p.184). Two important factors influence the absorption level:

- **The cost of withdrawing labour from agriculture** seems to have increased over time around the world (Timmer & Akkus, 2008). Over the past 50 years, the point at which wages in agriculture converge with those in non-agricultural jobs has been reached at later stages in the transformation of successful economies, suggesting that "globally industry is becoming less and less able to absorb labour" (Filmer & Fox, 2014, p.117).
- **The required expansion of farm size to increase yields and productivity could displace labour** precisely when demography requires agriculture to absorb labour. In parts of the world where farms have expanded from very small (two hectares and less) to mid-size holdings (5–100 hectares), labour has often been displaced (Filmer & Fox, 2014). The literature suggests that some countries in Africa have underused land that could be brought into production; however, if farm size grows through consolidation on land that is already farmed and is accompanied with a reduction in the cost of mechanisation, then bigger farms could be expected to displace labour. The literature shows that conditions in Africa offer opportunities for simultaneous increases in average farm size and in employment (Lowder et al. 2016; Jayne et al., 2017). However, the fact that the average farm size in Africa is now declining is an indicator that constraints on land markets are damaging the prospects for (young) people to access land, gradually

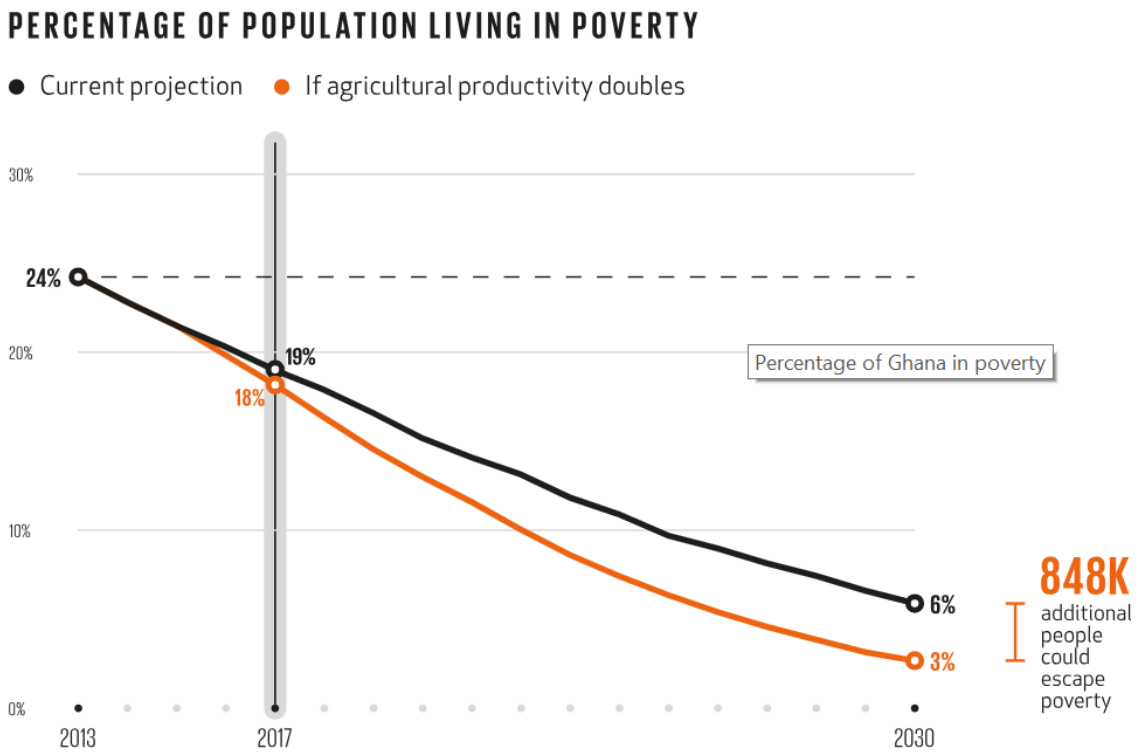
increase farm size through commercialisation and increase employment (Djurfeldt & Jirström, 2013).

An Africa-wide labour market study by the McKinsey Global Institute suggests that the largest job opportunities will still emerge in agriculture, but also in agribusiness manufacturing. According to the study, job creation in agriculture stems partly from area expansion on uncultivated land, and partly from a shift "from low-value grain production to more labour-intensive and higher-value-added horticultural and biofuel crops" (Fine et al., 2012, p.5). In manufacturing, "[c]ountries with large agricultural sectors can develop downstream agro-processing industries, such as food and beverage manufacturing, textiles, leather goods and wood products" (Ibid., p.6). A review of demographic and structural transformations in late-developing countries similarly concludes that agriculture and agribusiness manufacturing will likely play a dominant role in absorbing the growing tide of youth entering the workforce in sub-Saharan Africa over the coming decades (Losch, 2016).

Also, as a recent IFPRI study for Ghana shows, the transformation of food systems generates off-farm jobs for entrepreneurs who sell farm equipment and supplies, trade and transport food, and process crops into valuable commodities (e.g. tomatoes into tomato sauce). The non-farm elements of this system already employ more than 10% of Ghanaians. IFPRI's model to project the impact of agricultural development on Ghana's future shows that "a thriving food system could cut poverty in half, create hundreds of thousands of new jobs, and drive economic growth" (Thurlow, 2018). If Ghana achieves the Sustainable Development Goal for agriculture – a doubling of productivity by 2030 – poverty will not only fall from 6% to 3% (that is 848,000 more people escaping poverty), but would also create 671,000 new jobs, the vast majority involved in trading and transporting food to urban markets (see Figure 3). Moreover, other job opportunities will occur due to increases in smallholder farmers' income and spending, and lower food prices, which will especially help the poorest consumers (Ibid.).

Evidence shows additional years of schooling that impart actual competencies can promote a shift towards more job absorption in the local economy. Research has suggested that higher levels of educational achievement and cognitive skills are associated with overall economic growth (Hanushek & Woessmann, 2012), as well as with the employment of a larger share of youth in modern wage jobs outside of agriculture (Lee & Newhouse, 2012). If increases in educational attainment are not associated with a greater accumulation of skills, schooling will have a limited effect on overall growth and composition of employment. Therefore, the economy needs to generate new employment opportunities to make use of the learning and skills acquired by young people (Filmer & Fox, 2014).

Figure 3. Food system dynamics and agricultural productivity growth in Ghana



Source: Thurlow, 2018.[5]

Absorption levels can also be improved if competitive domestic agricultural production can be expanded. Evidence from Asia shows that broad-based agricultural growth tends to generate stronger income and employment multiplier effects that pull labour out of agriculture into non-farm jobs, and do so more effectively than when agricultural growth is concentrated among a small number of large farms (Lipton, 2006); see Box 5. Agricultural productivity growth, especially if broad based, will generate strong multiplier effects that expand employment opportunities in the downstream stages of the agri-food system and the broader non-farm economy (Jayne et al., 2017). Cross-country bivariate analysis shows that African countries experiencing the most rapid rates of agricultural productivity growth over the past 15 years have also enjoyed the greatest rates of non-farm labour productivity growth and the most rapid exit of the workforce out of farming (Yeboah & Jayne, 2016). “Over the past 15 years, African governments that have effectively promoted farm productivity growth (Ethiopia, Rwanda) have enjoyed faster poverty reduction, higher labour productivity in non-farm segments of the economy, and a more rapid diversification of the labour force from farming into the broader economy” (Jayne et al., 2017); see Box 6.

[5] From *Agriculture and poverty reduction in Ghana*. In: Goalkeepers, the stories behind the data [Blog post], J. Thurlow, 2018, https://www.gatesfoundation.org/goalkeepers/report/case-studies/ripe-for-reinvention. © 2018 Bill & Melinda Gates Foundation. Reproduced with permission.

Box 5. An example of different absorption levels at village level in India

The potential in the twenty-first century for agriculture to absorb labour while simultaneously increasing labour productivity can be seen in comparison with recent experience in the two Indian states of Gujarat and Maharashtra (Ahsan & Mitra, 2016). Since 1990, Maharashtra has achieved significant growth in labour productivity and incomes as labour shifted into the service industries, including tradable services. In Gujarat, in contrast, overall performance was even better than Maharashtra and derived significantly from productivity growth in agriculture. Ahsan and Mitra argue that a labour-absorbing transformation was accomplished in Gujarati agriculture through investments in infrastructure, agricultural science, education, water management, and policy changes that improved access to land and markets. According to Brooks (2018), the Gujarati experience "offers encouragement that a well-managed agricultural transformation can absorb labour while raising labour productivity. The opportunity to do so is enhanced when, as is the case in many African countries, baseline productivity per unit of land is low, intensity of land use can be increased through double cropping and intercropping, the commodity mix of production can shift to higher valued products, and land quality can be improved" (Ibid., p.185). Brooks (2018) also mentioned that, as noted in the Gujarati case, results require significant public investment and policy reforms to stimulate private activity. "The low levels of public investment and hesitant policy reforms noted in the African Union Commission's Biennial Review Report on the Implementation of the Malabo Declaration point to risk that growth of the labour force could outpace growth in output and thereby depress labour productivity (African Union, 2018)" (Brooks, 2018, p.185).

Across much of East and South-East Asia, productivity growth was possible with the introduction of machinery to save on particularly arduous tasks such as threshing. "Land preparation that was once largely by animal draught, is now carried out by powered tillers and smaller tractors. Much of the land remains in smallholdings that, if anything, have become smaller through time" (Wiggins et al., 2018, p.10). The faster agricultural productivity rises, the faster transformation can take place (Timmer, 2009). The literature also shows that when wealth is concentrated, additional incomes are less likely to be spent locally so reducing local multipliers. A more even distribution of assets may encourage more broad-based rural non-farm growth (Wiggins et al., 2018). In Africa, Malawi provides some evidence of greater growth of the rural non-farm employment in areas of tobacco growing by smallholders, compared to similar areas where tobacco is grown on estates (Ibid.). It also helps when settlement density is higher and road improvements reduce transport costs. Parts of rural Africa have weaker multipliers than applies in parts of Asia owing to sparse settlement and too few motorable roads (Headey et al., 2008).

Box 6. Increasing jobs in micro and small enterprises in Ethiopia

Evidence from Ethiopia shows that MSEs in the agri-food processing sector could increase job opportunities due to promoted farm productivity growth: 85% of the MSE jobs were created by enterprises related to the agribusiness sector (Wossen & Ayele, 2018). The study also provides further evidence on the relationship between agricultural transformation and youth employment in Ethiopia. Compared to small-scale enterprises, large- and medium-scale industries are largely ineffective in creating job opportunities (CSA, 2015). For example, in 2013/14, only 300,000 individuals were employed by such industries; however, 39% of these industries are in the agricultural sector, again suggesting the important role of agriculture-related activities (Wossen & Ayele, 2018). "[A]s agribusinesses have expanded and grown, more jobs have been created for the youth. However, it was found that the jobs created in such private enterprises were low-paying and less skill-intensive" (Ibid., p.26). Other evidence from Ethiopia revealed that US$1 of output generated in agriculture stimulated a further US$1.23 in economic activity in other parts of the economy (Townsend et al., 2017). Around 40% of increased economic activity arises from higher demand for inputs in agriculture and use of agriculture outputs in other industries, while the remaining 60% arises from consumption linkages caused by the increased demand for goods and services that results from higher agricultural incomes and associated spending effects (Ibid.; see also Diao et al., 2016). These findings, which are also consistent with Asia's economic transformation, suggest that "the rate of non-farm employment creation and labour exit from agriculture will depend greatly on government policies and programmes that affect the inclusivity of productivity growth in agriculture" (Jayne et al., 2017).

Low wages and working conditions

Employment and job creation is not only about quantity, but also about quality. Many segments of the food system are related to low-income jobs, high labour instability and low working conditions. The FAO and ILO describe working conditions in rural areas in developing countries as being "difficult, precarious and hazardous" because rural jobs are mostly informal, with no written contracts and little or no protection.[6] People tend to work for long hours, earning low and unstable incomes and often have to combine more than one activity to make a living. Agriculture, including many forms of food processing, is one of the most hazardous sectors in terms of work-related fatalities, non-fatal accidents, and occupational diseases. About 2.3 million people die every year from work-related accidents and diseases; some 317 million suffer serious non-fatal injuries and another 160 million fall ill from work-related causes (ILO, 2013). Out of the yearly 321,000 fatal workplace accidents worldwide, about half occur in agriculture (ILO, 2011a). Most of them live in rural areas of developing countries (ILO, 2011b). Workers face risks that include operating heavy machinery and equipment, lifting weights, and working with animals on a daily basis. They are often exposed to harsh climate conditions, excessive noise and vibration, chemicals, infectious agents, and dust and other organic substances. Yet, due to the remote nature of rural areas, agricultural workers often lack access to the necessary health, information, and training services to adequately respond to these health hazards (ILO, 2013).

For example, workers in agriculture run twice the risk of dying on the job compared with workers in other sectors. Fatal accidents in agriculture remained high over the last decade while having decreased in other sectors (Ibid.). Most of the 115 million children working in hazardous occupations are found in rural areas, particularly in agriculture, which accounts for about 59% (or 70 million) of all children aged 5–17 in hazardous activities (ILO, 2011b). High exposure to risks

[6] Retrieved from FAO website: http://www.fao.org/rural-employment/work-areas/working-conditions/en/

combined with low levels of social protection affect informal economy workers the most. Many of them operate in rural areas of developing countries where informality accounts for 35–90% of total employment (ILO, 2013).

A large number of workplace accidents within rural activities occur mainly among the most vulnerable groups, such as migrants and seasonal workers, the elderly, women, and children. Social and cultural gender-based criteria for the division of work expose rural women to particularly dangerous, stressful, and low-paid work, with dangerous repercussions on their reproductive health (Ibid.). Migrant workers are also exposed to high-risk and exploitative jobs with precarious and difficult working conditions that are often dirty, dangerous, and even demeaning. In most cases, rural workers are not covered by national occupational safety and health legislation, employment injury benefits or insurance schemes (Ibid.). Where national regulations do exist, their enforcement is weak due to insufficient labour inspection, lack of understanding and training among employers and workers on hazards and their prevention, and low levels of organisation among rural workers, particularly in agriculture (Ibid.).

Around 60% of all child labourers – 129 million girls and boys – work in agriculture.[7] More than two thirds of them are unpaid family members. The agricultural sector has the highest incidence of both unpaid child labour and early entry into the workforce, which often occurs between the ages of five and seven.[8]

Wage labour in many segments of the sector is low all over the world, from working in fishery, agriculture, processing, supermarkets, and restaurants. While the jobs in this sector are attractive at a managerial level, the pay is rather low at entry level. For example, in the Ethiopian cut flower industry as of 2013, the average monthly salary at the management level was 8,258 Ethiopian birr (approximately US$450) while the pay for production workers such as land preparation, fertilisation, and harvesting was only 760 Ethiopian birr (US$40) (Schaefer & Abebe 2015). Blattman and Dercon (2018) also reported that the working conditions in the cut flower sector are unpleasant and hazardous to health.

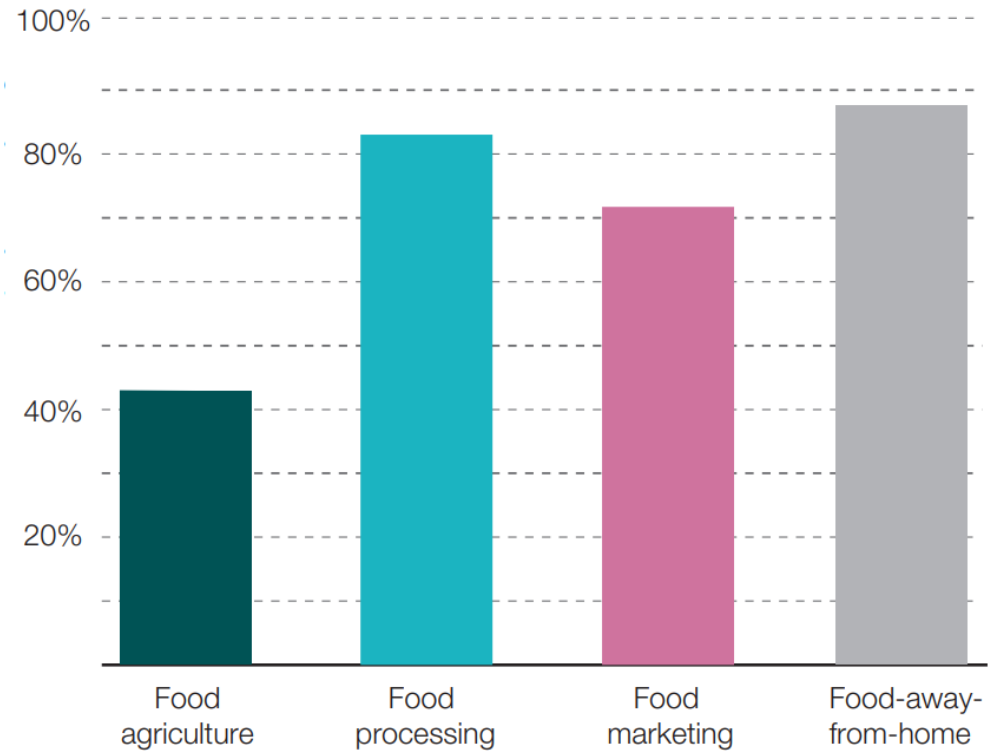
Women's employment in the food system

The concerns about "absorption" in the employment literature related to food systems are mainly about "youth" – generally implying young men – and in particular their unemployment (Dancer & Hossain, 2018). However, the growth in employment in commercialised agri-food enterprises shapes the nature and extent of women's participation in the food system. The data show that the food systems play a particularly important role for female employment: 68% of all employed women work in the food economy in West Africa (Allen et al., 2018). Although women in West Africa account for only a slightly higher share of total food system employment, they dominate employment in the non-farm segments. Women account for 88% of total food-away-from-home employment, 83% of total food manufacturing employment, and 72% of total food marketing employment (Ibid.); see Figure 4.

[7] Retrieved from FAO website: http://www.fao.org/3/i2490e/i2490e01b.pdf

[8] Ibid.

Figure 4. Share of women's employment by food segment in West Africa



Source: Allen et al., 2018, p.19.[9]

Most of the research on agricultural commercialisation does not have a gender perspective, and "[i]mportant bodies of work on the relationship between gender and agriculture in the liberal economic tradition have been primarily concerned with the effects of processes of agricultural commercialisation for individual economic outcomes" (Dancer & Hossain, 2018). Individual economic power is seen in this liberal tradition as the building block for women's empowerment; it is expected to improve gender equality, boost productivity, and enable sustainability, food security and nutrition (Ibid.). However, these relationships are not as linear or as close as many expect, and income is not the sole determinant (Bhagowalia et al., 2015; van den Bold et al., 2013).

Impact of commercialisation of food systems on women

A key gap in the liberal economic approach to women's empowerment until recently has been the neglect of women's responsibilities for unpaid care (Dancer & Hossain, 2018). Women may be particularly affected if more integration into agricultural markets for basic goods comes with more volatility in the costs of goods needed for care (Scott-Villiers & Kelbert, 2015). Other approaches have emerged to fill the gap by understanding the effects of participation in agricultural commercialisation on women's empowerment. The evidence shows that when women enter into global and other value chains in agricultural markets, the new structures of

[9] From *Agriculture, food and jobs in West Africa (West African Papers No. 14)*, by T. Allen, P. Heinrigs, and I. Heo, 2018, Paris: OECD Publishing. © 2018 OECD. Reproduced with permission.

constraint include how those markets work to limit their bargaining power, exploit their effort, and ignore their responsibilities for the unpaid care sector (Phillips, 2016). There are likely to be important domains of intra-household negotiation over control of the benefits of commercialisation, which will affect the empowerment of women and girls (Dancer & Hossain, 2018).

Women in rural areas

In rural areas, most female employment within the food economy is still in agriculture. However, women are significantly less likely to be heads of agricultural production units than men; they have less access to higher value land (in terms of equipment such as irrigation or land conditions), and usually have smaller farms (IPAR, 2015). Gender differences in access to productive resources and social norms and perceptions that encourage or discourage women's engagement in certain activities, lead women to invest in niche activities where entry barriers are less rigid (Ibid.). Therefore, it can be concluded that commercialisation pathways within the transformation of food systems could create mainly new (and often low-paid) non-farm jobs for women, while they are likely to be pushed aside on ownership of commercial farming activities as men are more likely to take advantage of these opportunities.

Women in urban areas

In urban areas, non-farm food activities can be highly profitable sources of income for women. Urban food processing and food-away-from-home services, in particular, are growing and lucrative activities for women. Yet, women rarely have access to the resources needed to develop their activities in relation to their potential and ambitions. Private sector institutions, like banks, are poorly informed about the potential of small- and medium-sized food processing enterprises and do not provide funding. Current conditions and obstacles to women's economic participation vary across countries and within countries, depending on specific value chains, trade network structures, barriers to mobility, etc. (Bouchama et al., 2018). "However, policies and investments that tackle gender specific constraints and promote non-farm food economy segments could have a particularly large impact on women's economic activities and food economy development" (Allen et al., 2018).

6. Policy interventions

Based on the evidence and trends mentioned in this report, the literature shows that the food economy has the potential to create jobs beyond agriculture and is an important development sector in the economic transformation. Most of the literature focus is on interventions in agriculture, like Jayne et al. (2017) who conclude that the evidence points to four strategic priority areas for interventions:

- Governments could promote long-term employment and livelihood objectives by mobilising more resources for education and skills development in agriculture and related agri-food systems. Successful agricultural production is increasingly knowledge-intensive.
- Governments must implement inclusive smallholder development policies that increase the incomes of millions of rural people engaged in agriculture and thereby generate the multiplier effects that expand employment opportunities in the rest of the economy.

- Innovative forms of public investment will be necessary to promote resilient and sustainable growth in agricultural productivity in the face of climate change. Soil amendments that hold moisture for longer periods and provide greater crop response to synthetic fertiliser are likely to be at the centre of climate-smart agricultural strategies.
- African governments have been slow to respond to changing circumstances in rural Africa, which has hastened youth migration. Access to land for the youth is essential in the context of increasing land subdivision, fragmentation, and concentration. Therefore, programmes to promote access to land for young people will become more important as young people are increasingly unable to inherit enough land to make farming a viable business.

Most of these priority points are also mentioned in other sources (Allen et al., 2018; Ayele et al., 2018; Briones, 2018; Townsend et al., 2017). Government actions that have the most significant impacts on agricultural productivity growth and poverty reduction are: agricultural research and development; physical infrastructure; policies that reduce the costs of private sector investment and promote competition; and agricultural service delivery and extension systems that facilitate farmers' access to productivity-enhancing technologies (Jayne et al., 2017).

Others emphasise gender-sensitive interventions related to commercialisation and inclusive value chain approaches (Dancer & Hossain, 2018) and that transformation of rural labour markets entails investment in rural skills development beyond agriculture. However, most capacity development in rural areas does not focus on non-farm employment (Briones, 2018). Other key interventions are related to improving infrastructure (roads, electricity, and telecommunications) to reduce transportation costs, increase rural–urban linkages, and reduce power outages. Improving existing infrastructure and continued investment would make agribusinesses more competitive and reliable (Ayele et al., 2018; Wossen & Ayele, 2018). Briones (2018) shows that improved road quality reduces damage to cargo, and creates a more predictable flow of transportation, which is needed in competitive markets. These investments could be combined with special agricultural cluster zones to create areas where different types of agribusiness are agglomerated. This would facilitate marketing and distribution and improve the supply of infrastructure and electricity-related services, which are critical in increasing productivity (Ayele et al., 2018; Wossen & Ayele, 2018).

To improve the access to land for the youth, Ayele et al. (2018) recommend allowing landowners to transfer their land use right to others (especially the youth) by sale or in exchange, and to relax restrictions on long-term rental markets. Furthermore, social protection plays a key role in building resilience and increasing incomes. A World Bank report stated: "Improvements in rural employment have been observed from social protection, either in directly creating jobs and/or prompting indirect effects on rural labour markets" (Townsend et al., 2017, p.25). However, most of the world's population still has no access to social protection measures, particularly those living in rural areas. Action areas that Townsend et al. (2017) mention to improve social protection, safety nets, and social services, include:

- To design social protection programmes that are responsive to rural settings and are gender sensitive, giving particular consideration to the employment challenges of rural youth;
- To design social protection programmes that combine protective, preventive, and promotional interventions, taking into account context-related opportunities;
- To integrate social protection programmes with broader growth, investment plans, and employment policies, in particular with agricultural programmes;

- To integrate a gender and youth employment lens in the monitoring and evaluation systems of social protection programmes to better understand impacts and what works for whom; and
- To expand coverage of health centres, and schools, particularly in dynamic agricultural areas.

To address the low-wage structures and sometimes precarious working conditions in the food economy, governments should improve labour policies. Ayele et al. (2018) mention the following interventions to improve pay for work in the private sector: introducing minimum wages in the private sector; unionisation of the workforce, which could improve the bargaining power of the youth for better wages; and improving the skill set of existing employees through on-the-job vocational training would be crucial. “The challenge with labour policies is to promote the protection of vulnerable populations without raising the implicit cost of labour to a point that induces significant shifts to mechanisation and away from labour-intensive agricultural practices” (Townsend et al., 2017). Minimum wage legislation, even if poorly implemented, can influence the level of provided wages and can help the poorest segments of the population, including youth (Ibid.). Furthermore, health restrictions should be in place on the use of pesticides and toxic input products, and forced labour and child labour should be sanctioned.

Financial infrastructure is a key constraint for small-scale farmers and for rural non-farm enterprises. Account penetration (percentage of all adults who singly or jointly have at least one account with a formal financial institution) averages 26.7% in Asia (Briones, 2018). As a comparison, a 2014 study in sub-Saharan Africa found that 29% had an account or a mobile money provider (Townsend et al., 2017). In particular, in Asia there is huge variation within the continent: in Republic of Korea and Singapore, account penetration approaches 100%, whereas the figure is under 5% for Cambodia (Briones, 2018). The proportion of enterprises with a loan or credit line from a financial institution ranges from 36% for East and South-East Asia to 30% for Central Asia; this is much greater than the share in sub-Saharan Africa (19%), but much lower in comparison with the share in Latin America and the Caribbean (Ibid.). Informal finance is often the only option for small-scale entrepreneurs and farmers in sub-Saharan Africa and Asia but is subject to high interest rates. Young women have lower access to formal finance, and gender dynamics constrain women’s access to finance in general. Townsend et al. (2017) suggest actions to improve access to affordable finance including:

- Encourage collaborations between governments, central banks, and telecommunications partners to enable the creation of mobile money platforms to deliver last-mile financial products and services;
- Consider removing legal restrictions on using alternative forms of collateral to lower the cost of credit in rural areas;
- Consider implementing and using biometric identification instead of land titles to open bank accounts for rural youth and women to increase access to the formal banking system, and reliably link credit history to individuals;
- Replicate and scale programmes that combine access to financial services with advice or mentoring targeted at rural youth and women; and
- Transition youth and women savings groups to offer credit by improving their inclusion in policy dialogue and programme design – in particular rural youth, who are often excluded from policymaking processes.

The experience in Asia is that decentralised approaches may offer greater benefits than centralised governments in terms of rural economic development outcomes, although the former are not free of institutional constraints to equity and efficiency (Briones, 2018). The two largest countries in Asia have embraced decentralisation. In China, it has been the institutional framework for industrialisation since the late 1970s; and at the time of its economic restructuring in the early 1990s, India adopted constitutional reforms towards decentralisation (Bardhan, 2002). In South-East Asia, Malaysia is constituted as a federal government, and Indonesia enacted a law in 2000 that radically devolves political power to local governments. Community-driven economic development is becoming widespread, especially with strong donor support for the strategy. Evidence points to the positive contribution of community-driven development to service delivery outcomes, access to learning and information, and an increase in local procurement and local sourcing opportunities (Briones, 2018). This all could result in investments and job creation.

Decentralisation may be prone to elite capture at the local level, which can frustrate goals of delivering social services, infrastructure facilities, and conditions conducive to local business development to the general population (Bardhan 2002). Such fears initially greeted the institutionalisation of the community-driven development approach in Indonesia; in fact, the participatory planning process promoted under community-driven development has been widely adopted by beneficiary communities in Indonesia and has been integrated into local development planning systems and procedures (ADB 2016).

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