



Food and Agriculture
Organization of the
United Nations

STEPPING UP

EVERYONE AROUND THE TABLE FOR BETTER NUTRITION AND HEALTHY DIETS

STEP 1. The role of the private-sector – Focus
on small and medium enterprises

Report 1 of 3 | August 2021



gain
Global Alliance for
Improved Nutrition

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Abbreviations and acronyms

EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIRST	Food and Nutrition, Security, Impact, Resilience, Sustainability and Transformation
GAIN	Global Alliance for Improved Nutrition
IFBA	International Food and Beverage Alliance
IFPRI	International Food Policy Research Institute
ITFA	Industrially produced trans fatty acids
KFC	Kentucky Fried Chicken
M&A	Mergers and acquisitions
MNC	Multinational corporation
NGO	Non-governmental organization
SBN	SUN Business Network
SDG	Sustainable Development Goal
SME	Small and medium enterprise
SUN	Scaling Up Nutrition
WHA	World Health Assembly
WHO	World Health Organization

Six takeaways



Poor diets and the food systems that support them are major drivers of both ill health and environmental harm in every country. Food systems are not delivering to their potential and are not supporting the universal goals of better wellbeing for people and the planet.



In low- and middle-income countries, small and medium enterprises (SME) provide the bulk of the food that people eat, especially people who are resource-constrained. Unfortunately, not enough of the food that is available, affordable and desirable, from SMEs and other sources, is nutritious, safe and sustainable.



Though SMEs are engaged in and contribute to nourishing the world, they face many barriers. SMEs need more support and appropriate incentives if they are to underpin a positive transformation of the food system.



The risks of engaging businesses, large and small, are significant, but so are the potential rewards. If disparate stakeholders are to come together and positively transform food systems, they will require agreed-upon approaches to engage and manage conflicts of interest.



The COVID-19 pandemic places an additional strain on food systems. Interruptions to food production, processing, distribution and access are expected to damage health and nutrition, particularly for those in low-income households and in other vulnerable situations. SMEs are vulnerable to disruptions caused by COVID-19, and many need support if they are to maintain their operations.



Achieving access to universal, sustainable, healthy diets means addressing systemic failures to transform our food systems, which includes improving support to SMEs working to produce and distribute nutritious and safe food. Stakeholders from all sectors have a joint responsibility to step up.

1. Introduction

1.1. Objective and scope

This is the first of three background papers produced to inform the series of three virtual roundtables entitled “**Stepping up: Everyone Around the Table for Better Nutrition and Sustainable Healthy Diets: FAO/GAIN Roundtables with the Private Sector on Healthy Diets**” scheduled for mid-2020.¹ These papers and roundtables are intended to highlight current understandings, gaps and misconceptions about engaging with businesses in the food system. Together with all stakeholders we hope to identify paths leading to healthy diets for everyone, everywhere.

About the papers

STEP 1 (this paper) unpacks the role of the private sector, especially of SMEs, in sustainably nourishing the world. It reinforces the growing consensus that food systems, and the SME activities within them, must be transformed by stakeholders from all sectors.

STEP 2 sets out some channels to advance this agenda by improving the enabling environment – the policies, incentives, rules and regulations that shape behaviours (and enable good practice). Though governments lead in this area, there are clear responsibilities for all stakeholders.

STEP 3 looks more closely at what it means to go to scale with healthy diets and better nutrition, providing examples and reflections for all stakeholders to consider.

While the range of topics discussed is relevant to all countries, greater focus has been placed on low- and middle-income country contexts wherever possible, as well as on the experiences of SMEs. This area of focus was chosen because SMEs are critical to food systems in low- and middle-income countries. In some countries in Africa, for example, most food is obtained through various forms of markets and comes mostly from SMEs. This means SMEs can have a pivotal role in accelerating the delivery of the nutritious, safe and sustainable foods that make up a healthy diet. To make the most of this opportunity, however, we must understand, and ultimately transform, the political, social and economic contexts in which SMEs operate, as well as how they interact with other stakeholders across the food system, including governments, civil society, research institutes, larger local businesses, multinational corporations and consumers.

This paper briefly defines food systems and sets out their current failings. It points to the need for a food system’s transformation to support sustainable, healthy diets.

It looks at the role of the private sector, especially SMEs, in sustainably providing safe and nutritious foods. Selected drivers and motivations behind the actions taken by business are briefly profiled, including regulation, incentives, innovation, voluntary changes and shifts in response to consumer behaviour.

Examples of how SMEs contribute to better nutrition and sustainable healthy diets, through actions to enhance good practices and reduce bad practices, are provided followed by challenges and barriers facing SMEs. There are also examples of small enterprises challenged by the COVID-19

¹ This paper is produced concurrently with two other papers: *STEP 2. Shaping the enabling environment* and *STEP 3. Going to scale*.

pandemic. Finally, risks and trade-offs are identified and explored, followed by a brief discussion of managing conflicts of interest.

This paper concludes that while SMEs currently face significant challenges, they are critically important in our food systems. It is now more important than ever that all stakeholders come together to advance towards the common purpose of sustainable, healthy diets for all.

Defining small and medium enterprises

In the three papers on *Stepping up: Everyone Around the Table for Better Nutrition and Sustainable Healthy Diets*, SMEs refer to small and medium enterprises. While there are varying definitions of small and medium, the International Finance Corporation (IFC, 2012) defines SMEs as registered businesses with fewer than 300 employees. Small and medium-sized farms are those with fewer than 20 ha of land, including micro farms (Abor and Quartey, 2010).

Healthy diets and nutritious foods

A sustainable, healthy diet is one that is composed of foods and eating practices that promote all aspects of the health and wellbeing of individuals. Such a diet includes a diverse range of safe and nutritious foods that have minimal environmental impact and are easily accessible, affordable, safe, equitable and culturally acceptable.

The aim of a sustainable, healthy diet is to allow everyone to achieve optimal growth and development to support physical, mental and social wellbeing at all life stages for present and future generations. A sustainable, healthy diet contributes to preventing all forms of malnutrition (including undernutrition, micronutrient deficiency, overweight and obesity) – together with physical exercise and safe water, for example. It reduces the risk of diet-related non-communicable diseases while also helping preserve biodiversity and planetary health. A sustainable, healthy diet is one that considers multiple dimensions of sustainability, including health, environment, culture, economy and society (FAO and WHO, 2019).

1.2. Background

1.2.1. Defining food systems

Our food systems shape how we eat, determining which foods are available, affordable, convenient and desirable. At the same time, what we eat and what we choose to feed to those we care for shape our food system. This dynamic relationship makes for complex concepts of food choices and eating behaviours, regardless of whether options seem limitless or severely constrained.

Food systems have great potential to prevent malnutrition, to improve our welfare and the welfare of our planet. Currently, however, they are far from achieving their full potential.

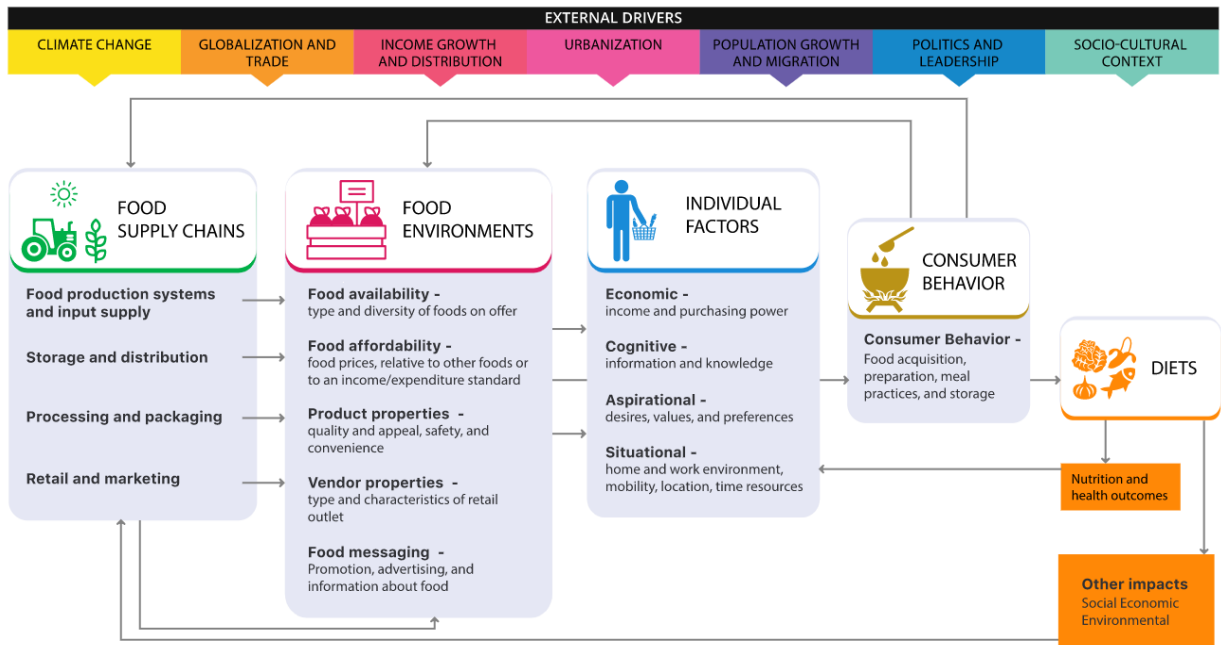
Box 1 explains what we mean by food systems, which encompass food supply chains, food environments and systemic drivers such as politics, culture and demography.

Box 1 What are food systems?

Food systems are often conflated with food supply chains or seen as separate to food environments when in fact they encompass both. Food environments are places and spaces where people interact with food. They are shaped by a combination of external factors (availability, prices, vendors, product properties, marketing and regulation) and personal factors (geographical access, affordability, convenience and desirability) that eventually influence people’s food choices, attitudes and habits (UNSCN, 2019).

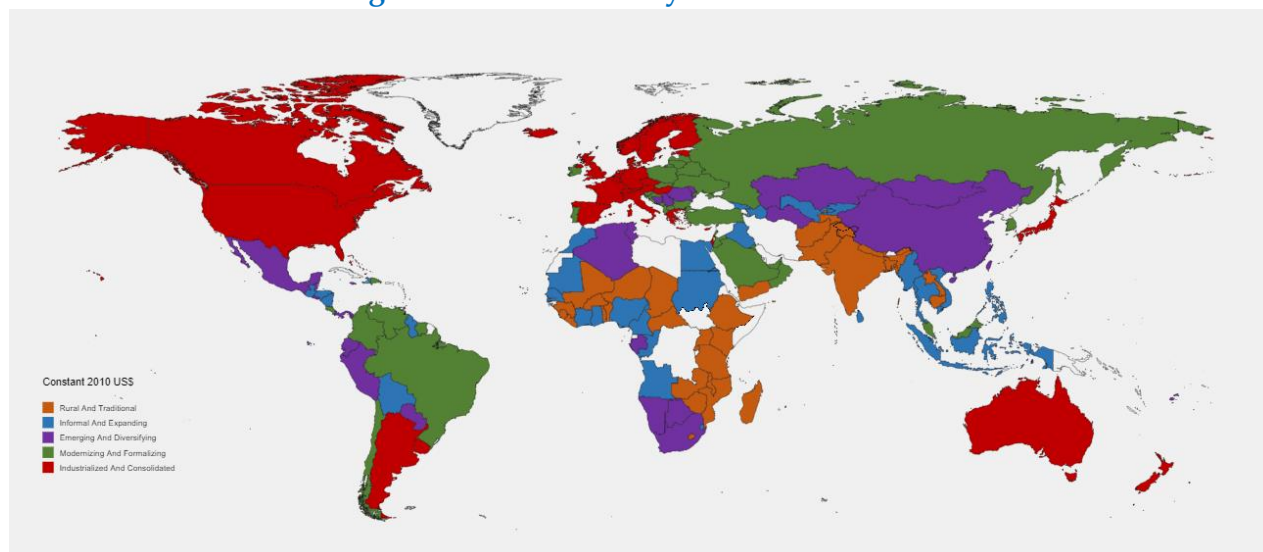
Food systems also include consumer and caregiver behaviour, diets and multiple drivers that are institutional as well as environmental, technological, political, economic, cultural and demographic. They encompass all the processes and players that feed us: growing, harvesting, packing, processing, transforming, marketing, consuming, feeding and disposing of food. The figure below shows the different elements that make up food systems.

A conceptual framework of food systems for diets and nutrition



Sources: Figure from Food Systems Dashboard, adapted from Figure 1 in HLPE, 2017; FAO, 2017; UNSCN, 2019.

Figure 1 National food systems classification



Source: Food Systems Dashboard. Modified to comply with [applicable UN map No.4170 Rev. 19, October 2020].

Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

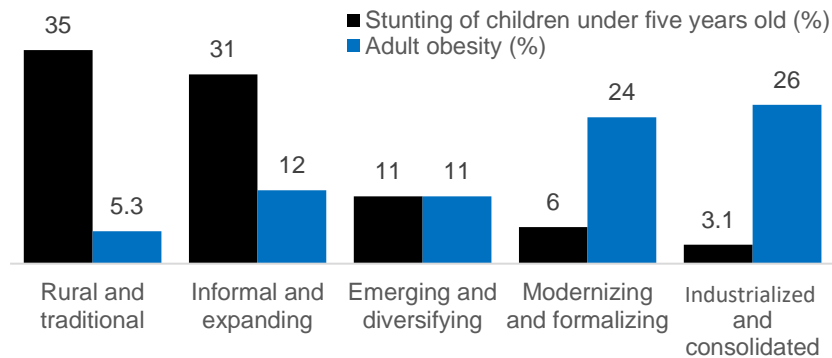
Note: Four indicators were used to create this categorization: agriculture value added per worker (in constant 2010 USD); share of dietary energy from cereals, roots and tubers; number of supermarkets per 100 000 people; and percentage of the total population that is urban.

Food systems are in flux. National food systems have been categorized by broad type, from rural and traditional, through emerging, diversifying and modernizing, and on to more industrial systems (Food Systems Dashboard);² see **Figure 1**. Many countries have already transitioned or are transitioning between these states (HLPE, 2017). At one end of the spectrum, more traditional food systems are characterized by more agrarian economies, local production and marketing, little food processing and storage, and a lack of safety standards (or where they exist, they are not enforced). At the other end of the spectrum, more modern and industrial food systems are characterized by global production sites, multiple access points, high-levels of processing (often to the point of ultra-processing, see Monteiro *et al.*, 2019 for a definition), secure supply lines and storage, high diversity, abundant marketing and high safety standards (HLPE, 2017; Food Systems Dashboard).

Food systems must seek to make nutritious and safe foods more available, affordable and aspirational – to make the **healthy choice** the **easy choice**.

This food system classification is strongly associated with nutrition outcomes; for example, child stunting is higher in more traditional settings and lower in more industrialized settings, while adult obesity is lower in more traditional settings and higher in more industrialized settings (**Figure 2**).

² The Food Systems Dashboard (available at <http://www.foodsystemsdashboard.org/>) provides an overview of five food system types along a continuum: rural and traditional, informal and expanding, emerging and diversifying, modernizing and formalizing, and industrial and consolidated.

Figure 2 Food system classification relation to child stunting and adult obesity

Source: Created with data from Food Systems Dashboard. **Note:** Data on stunting for all food systems is from 2018, except for industrial and consolidated, which is from 2016. All data on obesity are from 2016.

1.2.2. Failings of current food systems

Globally, food insecurity and malnutrition remain unacceptably high. Though some manifestations of undernutrition are improving, such as prevalence of child stunting, progress is too slow (FAO, 2019a). Moreover, once-rare forms of malnutrition are increasing, particularly in low- and middle-income countries, notably overweight, obesity and associated non-communicable diseases.

At present, one in three people worldwide is malnourished. Some 820 million people are chronically undernourished – one in ten globally, one in five across Africa. Almost two billion people are overweight or obese. Micronutrient deficiencies, often concurrent with other forms of malnutrition, are believed to affect around two billion people – though more accurate data is needed. Among children under five, 151 million are stunted, 51 million are wasted, and 38 million are overweight or obese. Many forms of malnutrition and food insecurity are concentrated in lower-income settings, but they are not geographically limited; some 8 percent of the populations of Northern America and Europe are food insecure (see FAO, 2019a).

When it comes to agriculture, growth in agricultural productivity has been impressive: cereals and other staple crop yields have substantially increased in the last decades, even in developing regions. World cereal yields grew from 1.35 tonnes per ha to 4.07 tonnes between 1961 and 2018. For Africa, the relevant numbers are 0.81 tonnes and 1.62 tonnes. Globally, less than one-third of the arable land area was needed to produce the same quantity of crops in 2014 relative to 1961 (FAOSTAT).

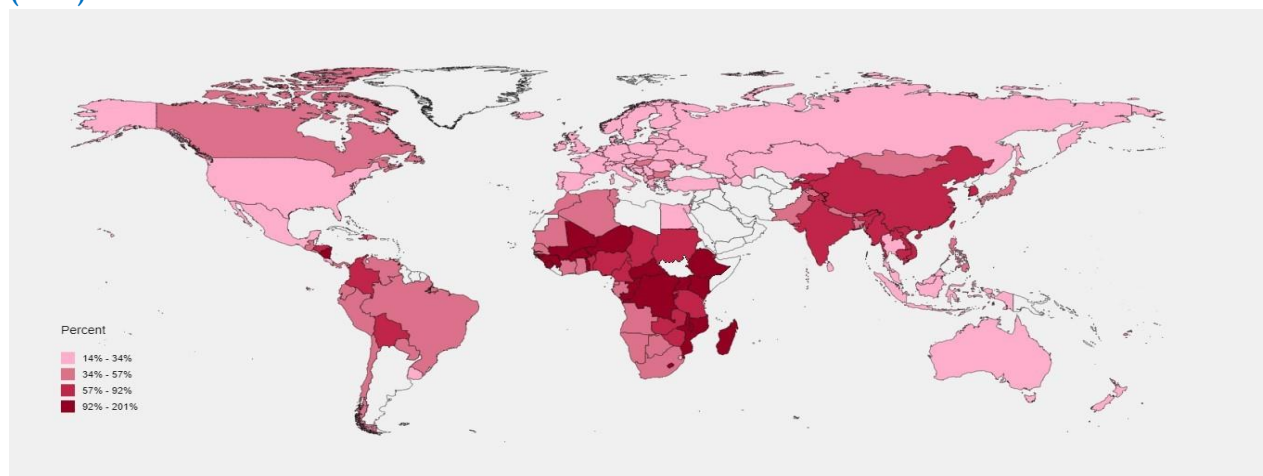
Calories have become increasingly more available and affordable over the last half-century,³ but healthy diets remain out of reach for many,⁴ especially in lower-income countries.⁵ Recent estimates of the cost of a nutritionally adequate diet put it over 100 percent of average household food budgets in 17 countries, and above 57 percent in 45 countries (**Figure 3**).

³ Global supply of kcal/capita/day was 2 389 in 1970, rising 20 percent to 2 884 in 2013 (FAOSTAT), over a time when the population almost doubled from 3.68 billion in 1970 to 7.19 billion in 2013.

⁴ For example, research from the International Food Policy Research Institute (IFPRI) and Tufts University finds the EAT-Lancet recommended diet for people and the planet (EAT, 2019) is unaffordable for 1.58 billion people, mostly in South Asia and Africa (Hirvonen *et al.*, 2020).

⁵ “While farming and fisheries already produce food in excess of global needs for human nutrition at the macro level (Berners-Lee *et al.*, 2018), for fruit and vegetables supply is only 42% of need across low-income countries, and 72% of need across all countries (Siegel *et al.*, 2014)” (Vermeulen *et al.*, 2019).

Figure 3 Cost of a nutritionally adequate diet as a percentage of household food expenditure (2011)



Source: Food Systems Dashboard. Original data source: Alemu *et al.*, 2019. Modified to comply with [applicable UN map No.4170 Rev. 19, October 2020]. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

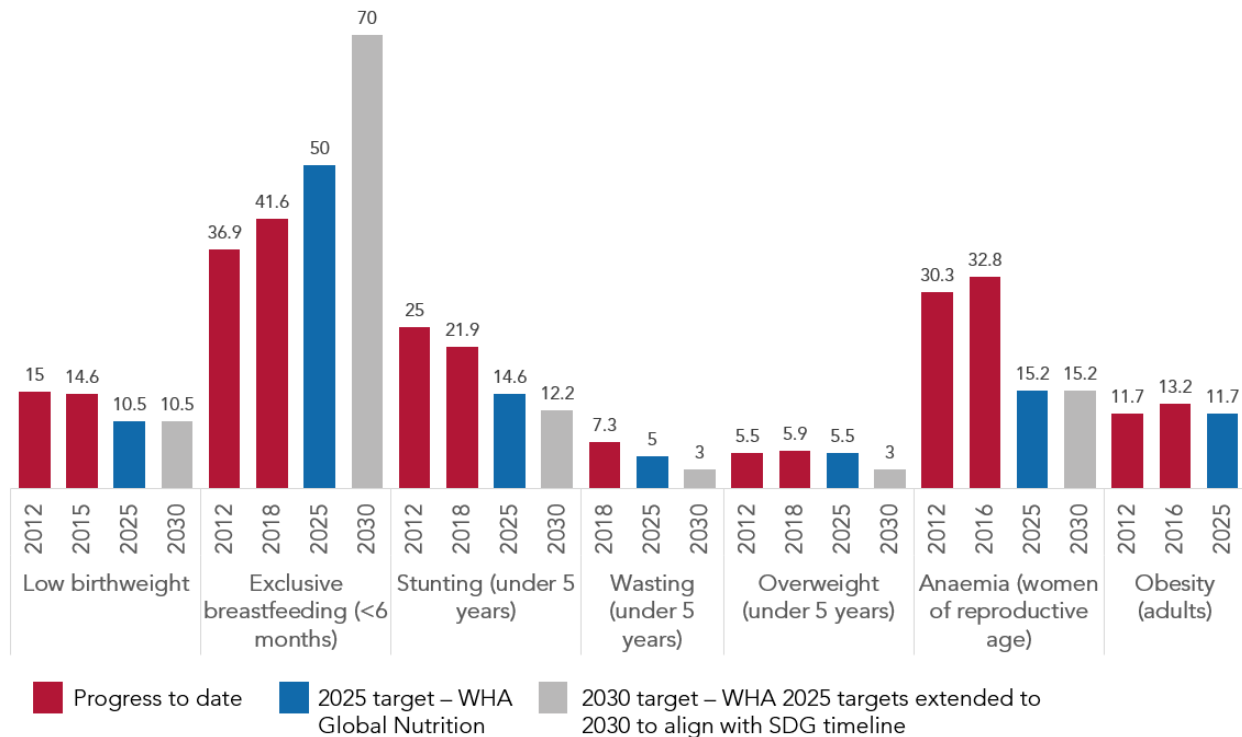
The State of Food Security and Nutrition in the World (FAO *et al.*, 2020) highlighted unaffordability as one of the biggest challenges. Healthy diets, it showed, are unaffordable for more than **3 billion** people, while more than 1.5 billion cannot even afford a diet that only meets required levels of essential nutrients.

At the same time, approximately one-third of food produced is lost or wasted before it is consumed. In addition, ecological and climate-related risks suggest we may struggle to maintain per capita food availability at current levels for future generations as the global population grows and the consequences and fallout of climate change intensify (FAO, 2017).

Unsafe food⁶ is another major challenge for our food systems. Every year, an estimated 600 million people fall ill after eating contaminated food, and 420 000 of them die; 40 percent are children younger than five years old (WHO, 2019a). Poverty is a major driver of food insecurity and malnutrition. Globally, poverty, including extreme poverty, has decreased over the past 25 years (World Bank, 2019). The World Bank data indicate that in 2015, approximately one-tenth of the world's population lived in extreme poverty compared to more than one-third in 1990. Despite these positive trends, the fight to end poverty is far from over. The number of people experiencing poverty remains unacceptably high, and more concerning is the fact that poverty rates appear to be stagnant or increasing in some regions or countries in the world. This finding is probably one clear factor explaining the uptick in rates of undernourishment over the past few years (FAO, 2019a).

Inequalities among countries in access to health care, schooling, public services, infrastructure and welfare outcomes are even starker than income inequality. On average, low-income countries have a lower life expectancy at birth (63 years to 81), much lower access to basic sanitation (30 to 99 percent), 40 times greater rate of maternal mortality, 13 times greater rate of under 5 mortality, 14 times greater rate of child stunting and 18 times greater rate of tuberculosis when compared with high-income countries. The mortality rate attributed to unsafe sanitation in low-income countries is more than 40 times higher than in high-income countries (World Bank, 2019).

⁶ Unsafe food containing harmful bacteria, viruses, parasites or chemical substances cause more than 200 diseases – ranging from diarrhea to cancers (WHO, 2019a).

Figure 4 Progress is too slow to achieve key malnutrition targets in 5 and 10 years

Source: FAO, 2019a: <http://www.fao.org/state-of-food-security-nutrition/en/> (for original sources see note to FAO original (Figure 15).

Note: * Because wasting is an acute condition that can change frequently and rapidly over a year, it is not possible to generate reliable global trends over time. As such only the most recent global and regional estimates were used.

We are off track to meet global nutrition targets

We are off-track to meet the World Health Assembly (WHA) global nutrition targets for 2025 (**Figure 4**), off-track to meet the 2030 Sustainable Development Goals (SDGs), and off-track to nourish the world's 9 billion people in 2050.

The food we produce and use (or lose and waste) has wider impacts than human health. Food and land use contribute around 30 percent of global greenhouse gas emissions, with food loss and waste contributing to 8 percent of that ([FAO, 2020a](#); Pharo *et al.*, 2019). According to the Food and Nutrition Security Impact, Resilience, Sustainability and Transformation (FIRST)⁷ programme analysis (FAO, forthcoming), the impressive gains in agricultural production (the result of increases in productivity but also of area expansion) have come at the cost of the depletion and degradation of natural resources, including reduced biodiversity⁸ and increases in agriculture's contribution to greenhouse gas emissions. More than 30 percent of total global land is degraded (Nkonya, Mirzabaev and von Braun, 2016), and 33 percent of soils are moderately to highly degraded due to erosion, nutrient depletion, acidification, salinization, compaction and chemical pollution (FAO and ITPS, 2015). At least 20 percent of the world's aquifers are overexploited (Gleeson *et al.*, 2012), and water stocks are being salinized in many dry areas and polluted with effluents from agriculture and other sources. Agriculture accounts for 70 percent of freshwater withdrawal (Pharo

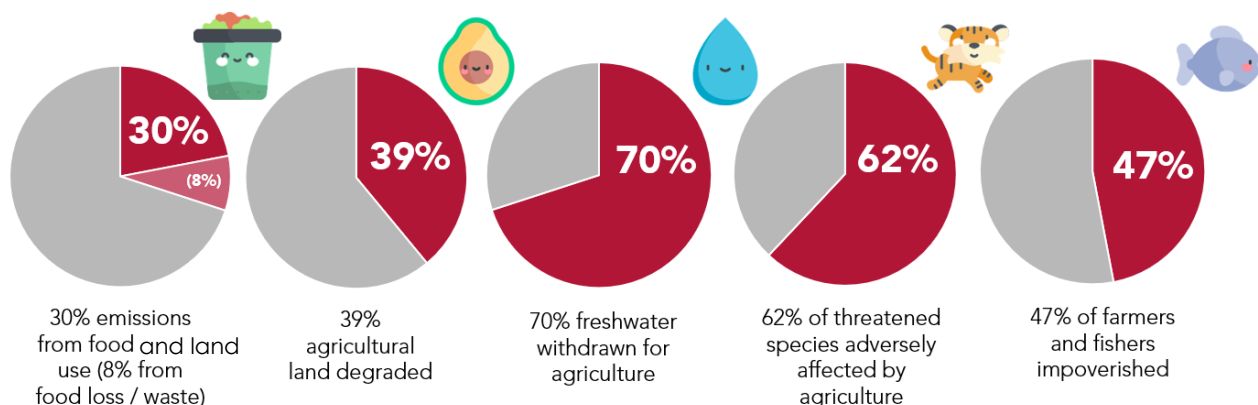
⁷ FIRST is a joint programme of FAO and the European Union (EU) that aims to contribute towards eradication of extreme poverty and hunger globally. More information about FIRST appears in *STEP 2. Shaping the enabling environment* and at this website: <http://www.fao.org/europeanunion/eu-projects/first/en/>

⁸ Some 62 percent of threatened species are negatively affected by agriculture (Pharo *et al.*, 2019).

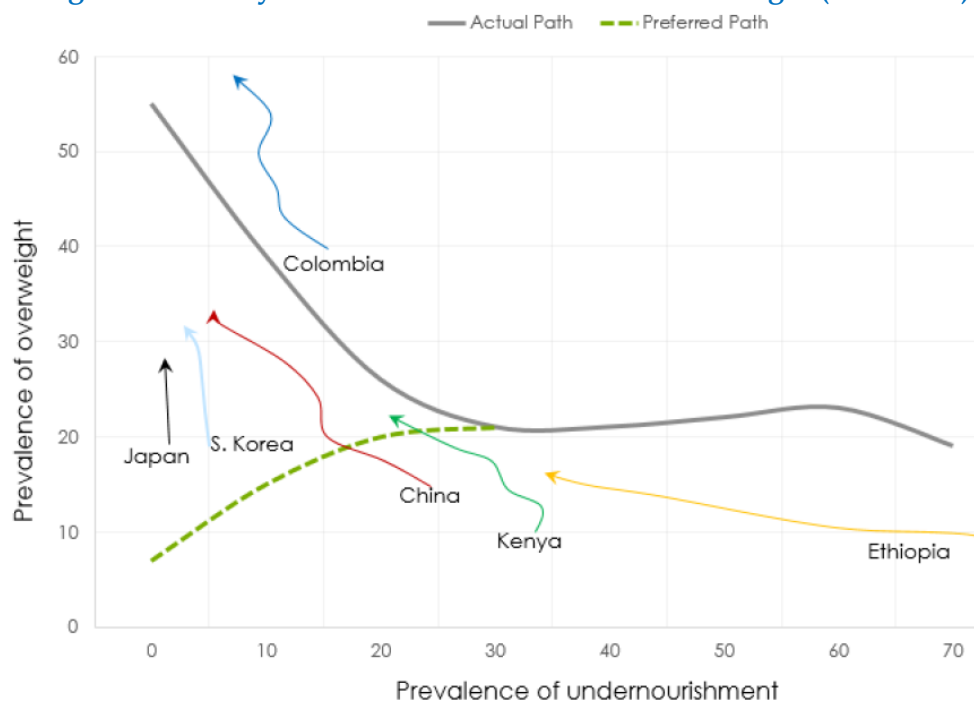
et al., 2019). Global forest area fell by 129 million ha (3.1 percent) between 1990 and 2015 (FAO, 2016). Up to 61 percent of commercial fish populations are fully fished, while 29 percent are overfished (FAO, 2014a). Agrobiodiversity is under threat globally, with only 30 crops providing 95 percent of human food and energy needs, and just five of them (rice, wheat, maize, millet and sorghum) responding to about 60 percent of the needs (FAO, 2019b). Moreover, food systems are failing to deliver on livelihoods, with more than 500 million farmers and fishers impoverished, or around 47 percent of farmers and fishers globally (Pharo *et al.*, 2019; Our World in Data; FAO, 2019c) (**Figure 5**).

According to cross-country analysis from the FIRST programme (FAO, forthcoming), countries are faced with a mammoth challenge: as they make progress over time in the fight against undernourishment, the prevalence of overweight escalates. Reducing the prevalence of overweight and obesity and the spread of diet-related non-communicable diseases, while at the same time reducing the prevalence of hunger and undernourishment, presents a key challenge. Countries face a policy dilemma whereby some of the policies (especially broad-based) to increase access to basic foods and calories may contribute to the increase in overweight and obesity among children and adults. This supposition is hotly debated and, at the moment, there is no consensus.

Figure 5 Food systems exert environmental and socioeconomic pressures



Source: Constructed with data from Pharo *et al.*, 2019; FAO, 2019c; Our World in Data.

Figure 6 Pathways from undernourishment to overweight (1990–2015)

Source: FAO and EU, 2019.

Figure 6 shows the actual path (grey) that countries have taken over time, reducing the prevalence of undernourishment but increasing the prevalence of overweight. The preferred path is highlighted by dots.

1.2.3. COVID-19 exposes and intensifies challenges for food systems

The emergence and spread of COVID-19 have shaken the world, disrupting systems across the board, and focusing attention on food systems around the world. The fallout of the COVID-19 pandemic has had significant implications for producers and consumers and everyone in between. With one-third of countries in some form of COVID-19 lockdown (as of mid-April 2020), nutritious and safe⁹ food availability, affordability and accessibility have become a heightened concern for millions of people across the globe. Countries previously considered to have robust supply chains are in unfamiliar territory, facing challenges of trade and logistics, a reduced workforce owing to illness, migration and travel restrictions, as well as demand surges in certain products and modes of delivery.

Measures to contain COVID-19 have disproportionately affected those who are already in precarious positions. Figures from the World Food Programme (WFP) indicate that 265 million people (up from 135 million) in low- and middle-income countries could face threats of acute hunger if action is not taken to limit negative impacts on their livelihoods (WFP, 2020). Increases in food prices also threaten diet quality, especially for low-income consumers, who may already find it difficult to afford nutrient-dense, perishable food or to access fortified staple foods and food products (FAO, 2020a; IFPRI, 2020; GAIN, 2020a).

⁹ Policies and practices that support proper food safety, handling and hygiene are key to ensuring that nutritious and safe foods remain available and affordable, especially as food producers, processors, retailers and consumers adapt to new COVID-19-related conditions.

According to a Food and Agriculture Organization of the United Nations (FAO) analysis of food systems in the face of COVID-19 (Stamoulis, Jafari and Callens, forthcoming), vulnerable children have been especially affected by school closures: millions were deprived of school meals, on which they depend for an important part of their food and nutritional intake. In some countries, disruptions in school feeding programmes have also affected smallholder farmers who were contracted to supply products for the school meals. COVID-19 is more likely to affect people living and working in poor conditions who lack basic services, or those with weaker immune systems or pre-existing health conditions such as obesity and diet-related non-communicable diseases (i.e. diabetes and cardiovascular disease).

The COVID-19 pandemic has highlighted the fragility and resilience of our food system, as well as the interconnected and global nature of our food supply chains. It has revealed all the people, places, businesses and organizations required to bring food from production through to consumption and shows that most of them involve the private sector.

The COVID-19 pandemic and other recent epidemics are rooted in environmental change and ecosystem disturbances. They originate from animals, wild and domesticated, but can also spring from the management of other parts of the food system (including wet markets). Therefore, there is a close link between the need to produce more food in the future and the risk of outbreaks, epidemics or pandemics originating in and/or propagated by the agri-food system.

While conventional wisdom links epidemics to zoonotic diseases, all sub-sectors of agriculture can be found at the source or expansion of human epidemics. The literature also shows that both intensive and extensive systems can be a source. At the root of both systems is the massive habitat conversion, contamination with animal waste and increasing use of agricultural inputs, such as pesticides and antibiotic growth promoters. Such factors can contribute directly to compromising human health (e.g. biochemical inputs) but also indirectly through their contribution to the emergence of wildlife diseases that constitute important sources of emerging infections in humans.

Agricultural growth through both extension and intensification reduces biological diversity in crops and animals. On one hand, intensification reduces the number of species and characteristics of crops and animals. A recent global meta-analysis (Rohr *et al.*, 2019) suggests that, based on the available literature, such biodiversity losses generally increase infections of wildlife and zoonotic infections of humans.

On the other hand, conversion of natural habitat to agriculture increases boundaries between ecological systems, changes species composition and reduces native biodiversity. The increase of such boundaries multiplies the risk of infections from wildlife to animal hosts or directly to humans. Conversely, encroachment of people and domesticated animals into natural areas can introduce devastating diseases to wildlife that reduce wild populations while creating reservoirs for the disease to be transmitted back to domesticated animals.

Ensuring that businesses of all sizes – especially SMEs – have the capacity and resilience to prepare for and respond to emergencies such as this is critical to ensure a continued supply of safe and nutritious food. COVID-19 has also shown that processed and packaged foods remain important during food crises, and not all of these foods are unhealthy. Beans, pulses, whole grains, fruits and vegetables can be dried or canned, extending the shelf life of what may otherwise be perishable, nutritious foods.

Looking to China as the first country to face the epidemic (as well as to the food system responses recommended – see e.g. Chen *et al.*, 2020) can be illustrative for other countries tackling COVID-19 and its food system implications. SMEs in China, which generate 90 percent of employment and

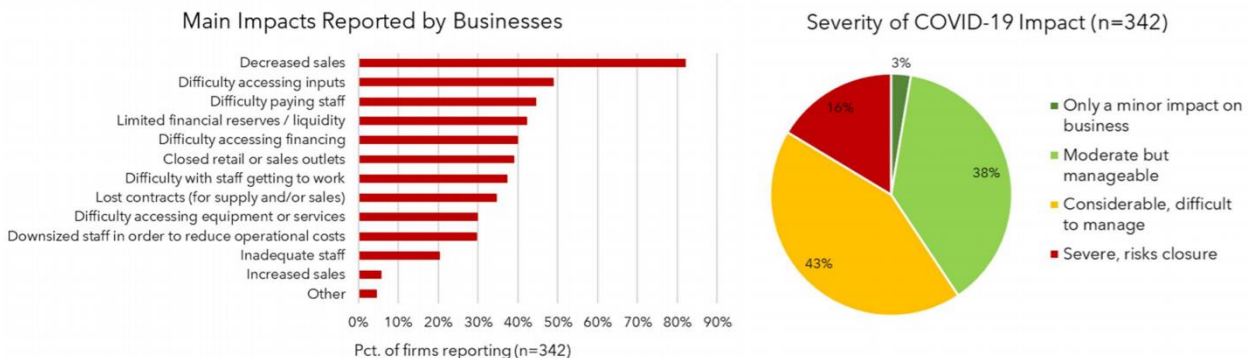
1. INTRODUCTION

80 percent of exports, and account for 70 percent of gross domestic product (GDP), have been hit particularly hard (Zhang, 2020). Barriers to business operations varied along the supply chain, with upstream firms mainly affected by labour shortages, while downstream firms faced more serious challenges related to supply chains and consumer demand.

Similar devastation is expected to hit and is already hitting economies all over the globe. A recent survey of SMEs in African and Asian food systems (GAIN, 2020b) found considerable impact already (**Figure 7**), concluding:

- Food system firms in low- and middle-income countries are suffering financial hardship as a result of the COVID-19 pandemic and related control measures.
- In many cases, the COVID-19 pandemic has resulted in decreased or stopped production, which could have negative impacts on the food supply in the short and medium term.
- A sizeable minority of firms also report or anticipate layoffs or pay cuts for staff, exacerbating the pain of the existing economic slowdown on workers.
- Many firms do, however, see opportunities for new business models or products as a result of the COVID-19 pandemic.

Figure 7 Impacts of COVID-19 on food system small and medium enterprises in 17 low- and middle-income countries, early May 2020



Source: GAIN, 2020b. **Note:** Countries included (in descending order of the number of SMEs responding) are Bangladesh, Kenya, Nigeria, Indonesia, Sri Lanka, Rwanda, Mozambique, the United Republic of Tanzania, Madagascar, Myanmar, Pakistan, Zambia, Malawi, Ethiopia, the Lao People's Democratic Republic, Burundi and Cambodia.

The impacts are likely to be largest in dense urban and rural peri-urban areas that are away from production points and also vulnerable from the epidemiological point of view in terms of human-to-human transmission (**Box 2** provides some discussion from the perspective of small cities and towns). Today, 55 percent of the world's population resides in urban areas, while 85 percent live in or within three hours of an urban center of 50 000 people (UN DESA, 2018). Urban dwellers consume up to 70 percent of food supply while in low- and middle-income countries, food expenditure in cities may be as high as two-thirds of total household expenditure.

In many ways, the functioning of modern supply chains is a logistical miracle. Low-cost food is one outcome. Consumers can find off-season items originating in faraway production points. Long supply chains and greater liberalization of international trade in foods helps exploit the diversity of agricultural cycles and could be fundamental in smoothing out supply shortfalls in some parts of the world, as well as price volatility.

What emerges from recent experiences is that both modern and traditional food supply chains are vulnerable to outbreaks and the spread of epidemics, with consequences for health, food security and nutrition.

Box 2 COVID-19 and small cities and towns

The Covid-19 pandemic and its related lockdowns stressed the fragility of our food systems. Lockdowns constrained poor people earning daily wages and interrupted school feeding programmes, while certain food prices increased in many locations. Local food production and short supply chains have been seen as a key factor in preventing possible shortages, and proximity between food production and consumption points, a great asset. In April 2020, FAO conducted a questionnaire to better understand how municipalities responded to ensure food systems functionality during the COVID-19 pandemic. Among the 860 respondents (including big, medium and small cities as well as villages), it appears that small towns (population fewer than 300 000) experienced the main mobility of urban dwellers to rural areas during lockdowns, underlying the “permeability” within the territory.

However, shortages have also been observed as food supply chains were “oriented” towards large cities. This points to efforts to better link territorial food economies in order to strengthen their resilience to shocks.

Source: FAO, 2020b.

1. INTRODUCTION

Global modern supply chains which seamlessly link farmers and consumers use the principles of **just enough, just in time**. Companies have worked hard to keep inventories (and the opportunity cost associated with them) low, timing shipments to balance supply and demand using knife-edge accuracy. This practice, while keeping food prices low, has contributed to disruptions seen during the COVID-19 crisis, with some essential food items in some places available only in short supply, at least for a period of time.

As supply chains become longer, more complex and extend beyond national borders, they are also more difficult to manage and regulate (e.g. in terms of food safety) since they are subjected to the jurisdiction of not always efficient or coordinated national regulatory and legislative systems. Global instruments¹⁰ are not always successful in stopping the genesis or spread of food chain related emergencies.

The retail and food service firms in modern food supply chains face fewer problems, as they tend to be less vulnerable to mandatory business closures and may face a lower risk of clients and employees contracting the disease. Supermarket chain stores can enforce the flow of entering customers and social distancing measures. Supermarkets and fast-food chains also have more control over the food safety and hygienic practices of their food supply chains, as they typically vertically coordinate with contracts and private standards. But serious disruptions may occur, particularly, for example, where the problem of highly industrialized food processing involves a high density of workers, as has been seen in the closure of slaughterhouses in the United States of America, for instance.

On the other hand, mostly informal-sector SMEs may be labour-intensive outfits with high densities of workers in small spaces. They have little control over the hygiene practices of their product suppliers or customer habits. Restrictions in mobility and measures imposing social distancing mean that more traditional systems can also become inoperable during a pandemic or epidemic.

As the effects from the measures to contain COVID-19 continue, we are likely to see increases in food and nutrition insecurity. The poor will be hit the hardest as physical labour and associated wages decline, constraining food budgets and leading to the consumption of more calorie-dense staples and fewer nutrient-dense fruits, vegetables and animal-source foods (Swinnen, 2020). Any responses to COVID-19, including economic and policy measures, must take into account food systems (FAO, 2020c; Davey and Steer, 2020). There is a real danger that this pandemic could result in intergenerational harm, including a new generation of children who will be irreversibly stunted as a result of COVID-19 and the ensuing economic downturn unless appropriate measures are taken in time.

According to the analysis of the FIRST Programme (FAO, forthcoming), solutions suggesting a reform of the agri-food system to make it more sustainable and resilient should consider the dynamic factors that shape the evolution of food systems (such as demographics and technology) and also what the world is expected to need to provide food and improved nutrition to more than 9 billion people by 2050, and more than 11 billion by 2100. For agriculture alone, this means production, broadly speaking, must increase by at least 50 percent between 2013 and 2050. Reports from countries where FIRST operates, however, show that with the focus on the crisis, structural and emerging challenges such as nutrition, climate change, biodiversity and

¹⁰ E.g. CODEX (see more information here: <http://www.fao.org/fao-who-codexalimentarius/en/>) or OIE (see more information here: <https://www.oie.int/en/food-safety/oie-activities/>).

environmental degradation are being left on the back burner. If this continues, important opportunities to reset our food systems, or to build them back better, may be lost.

Decision makers face challenges in ensuring food security and healthy diets, strengthening and supporting smallholder farmer productivity and access to markets and encouraging shorter supply chains. In this regard, some countries where FIRST operates, such as Myanmar and Cambodia, are exploring contract farming as a tool to modernize agriculture and increase farmers' access to markets.

Recent and current supply chain disruptions in countries where the FIRST programme operates are also raising discussions about the level and management of food reserves; how might these become part of a multi-purpose action plan that includes reductions in food waste and losses, strengthening local food supply chains, boosting food supply and increasing smallholder farmers' access to markets as well as their bargaining position in food supply chains?

1.2.4. Food systems transformation

Even before COVID-19 caused disruption to global health and food systems, it was clear that our food systems were not fit for purpose. Unless action is taken, our food systems (national and subnational) are not going to meet human and planetary health needs – and are hindering the progress towards global health, environment, equity and development goals. A recent analysis suggests that the hidden health, environmental and economic costs¹¹ of our current food and land use systems globally amount to USD 12 trillion, compared to a market value of the global food system of USD 10 trillion (Pharo *et al.*, 2019).

There is a broad and growing consensus¹² that food systems must transform to defeat hunger, improve human health, promote sustainable development and mitigate environmental damage. The private sector in all its shapes and forms plays a critical role in all parts of food systems. Because of the linkages between businesses of all sizes and the food we eat, the private sector must actively participate in food systems transformation, positively contributing to changes that lead to food systems that are good for people and the planet.

¹¹ Costs accrue from obesity, undernutrition, pollution, pesticides, anti-microbial resistance, greenhouse gas emissions, natural capital costs, costs to rural welfare, food loss and waste, and fertilizer leakage.

¹² See, for example, HLPE, 2017; EAT, 2019; Pharo *et al.*, 2019; WEF, 2020; Swinburn *et al.*, 2019.

2. The private sector in our food systems

2.1. The important role of small and medium enterprises in food supply

Enterprises of all sizes are engaged in the business of feeding the world. The private sector's role in providing food is critical, from farmers and fishers, to processors, packagers, wholesalers, distributors, and retailers. In low- and middle-income countries, a large fraction of food is produced, processed, transported and sold by SMEs. Consumers in low- and middle-income countries purchase more than USD 3 trillion worth of food and beverages through formal food markets each year.¹³ Nearly half (USD 1.2 trillion) is spent by lower-income consumers (Institute for the Future, 2018).

The private sector is complex

The private sector is not one thing; it is made up of a variety of businesses of all sizes, interacting everywhere along the supply chain, from researchers and developers, input providers, producers, processors, aggregators, transporters, distributors, marketers and retailers. The challenges and opportunities are not uniform across entities and locations. Likewise, not all SMEs are meek and of ethically sound practice; not all multinational companies run powerful operations lacking in ethics. A single business may contend with complex internal dynamics – resulting in excellent track records in some areas, in parallel with practices in other areas that attract heavy criticism.

On average, people across Africa obtain the majority of their food (80 percent to 90 percent) from SMEs (AGRA, 2019), i.e. from traditional retailers like small shops, groceries, street food vendors and hawkers. This share varies depending on locality – the share of people using more modern retail facilities such as supermarkets or hypermarkets is higher in urban areas and big cities, with some examples showing that it makes up as much as 40 percent of the total food obtained (Khonje and Qaim, 2019; Neven *et al.*, 2006). This share also depends on the type of food. Milk and dairy for instance are increasingly sold through modern retail (Euromonitor, 2019). About 30 percent of meat, milk and dairy are accessed through modern retail, whereas fruits and vegetables (about 90 percent) are mainly sold through traditional outlets (Wanyama *et al.*, 2019; Gomez and Ricketts, 2013). The type of household that purchases the food also makes a difference. Wanyama *et al.* (2019) showcase how low-income households in informal settlements in Nairobi and Kampala are especially reliant on traditional retail. More detail on the role of SMEs in supplying nutritious foods in Africa appears in **Box 3**.

The modern retail sector in Asia in contrast is responsible for a larger share of food sold. The supermarketization of much of Asia started earlier than in much of Africa (around the 1990s) and grew rapidly.

¹³ Formal markets and market activities are those that are monitored, regulated and/or taxed by government bodies in which prices and locations can be advertised. Informal markets and related activities are not monitored or regulated; they are often based on bargaining but do not include illegal activities.

Box 3 The role of small and medium enterprises in Africa’s nutritious food supply chains

A recent analysis (Demmler, 2020) reviewed understandings of the role of SMEs in Africa at different points in food value chains, including production, processing (including storage, wholesaling and logistics) and retailing. Looking at fruits and vegetables, animal-source foods, and cereals and legumes, it found SMEs to be important at each stage of the food value chain for each commodity type.

Processing and marketing of animal-source foods and cereals by large enterprises and modern retailers is increasing, but the role of SMEs remains important, especially for the poor, although the extent to which depends on the type of commodity and processing. Demmler (2020) found that, in general, the less processed a food (e.g. fresh fruits and vegetables, animal-source foods, legumes and nuts), the higher the share of products sold through traditional retail outlets, most of which are SMEs. More highly processed products, including dairy, fortified cereals, bread and pasta, are often bought through modern outlets. Policy and regulatory frameworks will be needed to ensure the availability of raw commodities while allowing the SME food processing sector to grow and add value to markets and economies.

Key statistics highlight the ways in which SMEs across Africa are critical to ensuring the availability and accessibility of nutritious foods:



SMEs are responsible for more than half the production of fruits and vegetables, animal-source foods, and cereals and legumes – micro-farms and SMEs together (<20 ha) produce 75 percent to 90 percent of all analysed commodities.



Over 85 percent of fruits and vegetables (by volume) are produced by micro, small and medium farms.



About 80 percent of animal-source foods, including milk and eggs, are produced by micro, small and medium farms.



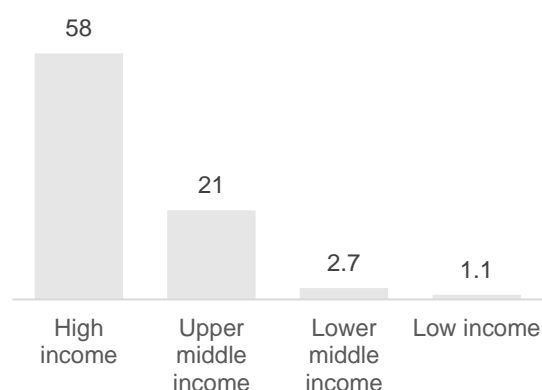
Micro, small and medium farms provide more than 85 percent of total cereal and legumes production.



Seventy percent to 100 percent of foods at the retail stage are sold through SME channels, depending on the food group and location.

This analysis also highlights the key role of SMEs at all stages in the food value chain. In the processing stage, more than half of each group analysed – fruits and vegetables, animal-source foods, and cereals and legumes – were produced by small and medium producers. Moreover, the traditional retail sector, including mainly SMEs and small vendors, plays the most important role in food retail, especially for low-income consumers.

Source: Demmler, 2020.

Figure 8 Modern grocery retailers per 100 000 people (2018) by country income level

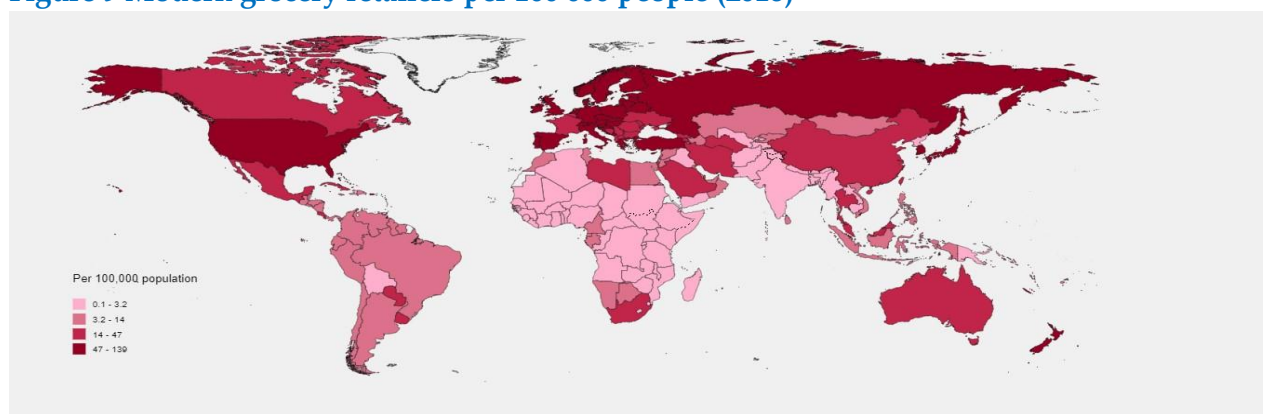
Source: Food Systems Dashboard, with data from Euromonitor and World Bank.

An early analysis (Reardon *et al.*, 2003) found the supermarket share in fresh foods to be roughly 15 percent to 20 percent in Southeast Asia and 30 percent in East Asia outside China and Japan. More recent figures show that in Thailand, for example, modern retail controls half the food sales, with traditional fresh markets remaining important (Kelly *et al.*, 2015). In East Asia and Latin America, traditional retail typically still serves more than 40 percent of total consumer packaged goods sales, with evidence it has grown faster in recent years than sales in hypermarkets (Ge *et al.*, 2020). There is a sharp difference in modern retailers by country income level (**Figure 8**), while a geographic division is also clear when data is mapped (**Figure 9**).

In terms of food processing in the middle segment of the supply chain (processing, storage, wholesaling and logistics), in Asian countries, SMEs are involved to a smaller extent than in African countries – perhaps as much as 30 percent to 40 percent in general, but with huge differences depending on the food group and, of course, local context¹⁴ (Reardon, 2015; Schneider, 2011; Punyasavatsut, 2008; Talib and Ali, 2009).

Owing to the important role SMEs play in feeding people – including most people in low- and middle-income countries – they represent an incredible opportunity to make nutritious and safe food desirable and available to all.

¹⁴ The evolution of Asian food systems from more rural and traditional to more modern and industrial started in Japan and Taiwan Province of China and South Korea, followed by the early-liberalizing countries of Southeast Asia, Malaysia, Indonesia, the Philippines and Thailand. These countries were followed by China and Viet Nam and finally India and the smaller poorer countries of Cambodia, the Lao People's Democratic Republic and Myanmar (Reardon, 2015).

Figure 9 Modern grocery retailers per 100 000 people (2018)

Source: Food Systems Dashboard, with data from Euromonitor. Modified to comply with [applicable UN map No.4170 Rev. 19, October 2020].

Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

2.2. What drives business action in the food system, and why?

Businesses have enormous potential to contribute positively to food systems that work for sustainable healthy diets. As the primary source of food for many low-income consumers, supporting SMEs in the nutritious and safe food business can pay off in terms of societal good (FAO and GAIN, 2018), including economic growth and reducing medium- and long-term health costs. However, businesses that produce and market low-nutrition-value foods are often more economically viable (in the short term). As a result, non-nutritious foods or those with low nutrition value tend to be more profitable because they have longer shelf lives and use cheaper ingredients, which allows for simpler supply chains and wider margins (Nordhagen, Condés and Garrett, 2019). This section will look at how and why the food industry takes action that can affect availability and affordability of sustainable healthy diets, and how these actions both shape and are shaped by consumer behaviour and preferences.

2.2.1. Regulating the food industry for sustainable healthy diets

One way to stimulate the production and consumption of nutritious foods is through regulation. Many companies have called for clear regulations to level the playing field (Global Panel, 2018). For example, food processors that fortify their products have higher operating costs than those that do not. If fortification is not mandatory for all processors, they may have to sell their products at a higher cost. This can work, but it requires that customers a) understand the added value of fortification and its positive nutritional benefits; b) are able to pay a premium price for fortified products; and c) are willing to pay that premium price. If a, b and c are untrue, the company would have to sell its products at a price that is competitive with cheaper, non-fortified products. This would reduce the company's margins, putting its profitability and sustainability at risk. For SMEs with fewer assets, this period of transition can be costly and potentially prohibitive. The same process and constraints would hold true for regulations that mandate the reformulation of products (e.g. to reduce sugar, salt or fats in products), to adhere to new labelling laws, to meet food safety and quality standards, or to become certified as fair trade or organic.

To help support SMEs to comply with new regulations and remain competitive with larger companies, governments, donors and civil society can help offset some of the initial costs through, for example, tax breaks, incentives, technical assistance and multilevel capacity development.

2.2.2. Incentivizing businesses to produce nutritious foods

For businesses of all sizes to meet the nutritional and personal demands of consumers for healthy sustainable diets requires the right balance of incentives and disincentives. They must be able to operate in a way that ensures the production of safe and nutritious foods, while also remaining profitable. As noted above, SMEs may require additional support and incentives to help bridge gaps in financial and human capital. This topic is covered extensively in *STEP 2. Shaping the enabling environment*.

If food systems are to shift from feeding populations at great human and environmental cost to nourishing people while protecting the planet, SMEs must be given **adequate incentives and must be supported** to sustainably provide healthy, safe foods.

2.2.3. Nurturing innovation

Another opportunity to offer incentives to businesses of all sizes is through public-sector investment in pre-competitive research and development, especially for new technologies. This is particularly important to help de-risk innovative approaches in their early stages (MQSUN+, 2018). **Box 4** discusses a scheme from Singapore's Health Promotion Board to support research and development into healthier ingredients and product reformulation. As noted throughout this section, a follow-up study found that SMEs face additional challenges in this area, identifying budget and technical knowledge as key challenges to this type of innovation.

Leveraging investments from governments, donors or other publicly funded entities reduces the pressure on businesses, especially on SMEs, to generate profits as the businesses introduce new practices, approaches or technologies into their operations and to the market and consumers. By allocating resources to public pilots and trial programmes via SMEs and local business associations, public or blended finance can help SMEs become competitive and formalized (Cohen, 2019). This can also allow for freer exploration of technologies with the potential for leapfrogging so stakeholders can prepare to implement them when they are cheap enough to be of value in low- and middle-income countries (like mobile, solar-based innovations). This approach can also have a longer-term, positive impact by contributing to an enabling environment that fosters trust and collaboration.

Box 4 Singapore’s Healthy Ingredient Development Scheme

In response to the 2010 National Nutrition Survey that found 60 percent of Singaporeans eat out for lunch and/or dinner at least four times a week, the government developed a series of schemes to encourage the production and consumption of healthier foods. The Healthy Ingredient Development Scheme was launched in 2017 to encourage “food manufacturers to innovate and develop a wider variety of healthier ingredients and products suited to local tastes, as well as [support] the industry in promoting the uptake of healthier ingredients in Singapore’s food service” (Ali, 2019).

The Healthy Ingredient Development Scheme provides funding of up to 80 percent of the total qualifying project investment, with scheme participants responsible for the remaining 20 percent of project costs. Activities in three categories are eligible: 1) product development, packaging and certification; 2) marketing and publicity; and 3) trade promotion. It covers products in oils, cereals, beverages, sauces and desserts. Corresponding nutrition guidelines for each product are provided and are expected to meet the Healthier Choice Symbol criteria.

Though it is too soon to determine the nutritional outcomes of this scheme, the research and training charity IGD and Food Industry Asia conducted a study to explore progress within the industry and to identify the areas where additional support could help further their efforts. Companies, especially small ones, said this research and development work would have been impossible to do without government support. Ninety-two percent of respondents said they would be encouraged to carry out additional research and development if there were additional incentives from the government.

Sources: FIA & IDG, 2018; Health Promotion Board, 2020.

2.2.4. Voluntary changes from the private sector

Many people in the international nutrition, health and development community are skeptical of the private sector and its motivations. It is often argued that it is impossible to reconcile profit-driven motives with positive public health outcomes.¹⁵ Rather than focusing on what cannot be, it could be more productive to focus on where opportunities for alignment and movement exist. Many companies, for example, have expanded their portfolio of products to include options that are healthier or more sustainable (e.g. plant-based, no added sugar or organic products). This shift has been taken in response to changing consumer preferences, which ultimately drive profit, but profit is not the only motivation.

The risks and tradeoffs of engaging with the private sector have been well covered across the nutrition community (Fanzo *et al.*, 2020; Drewnowski *et al.*, 2018; Kraak *et al.*, 2012). Rather than fueling the on-going debate, we want to go beyond this, acknowledge the inherent risks and stimulate more transparent dialogue that can help policymakers, non-governmental organizations (NGO) and similar stakeholders understand not only *why* but *how* companies change their strategic operations, manage profitably and provide healthier options for consumers. That way, the public sector and other interested stakeholders can identify effective drivers and levers to stimulate more positive change from businesses of all sizes.

Diversifying product portfolios

Mergers and acquisitions (M&A) are common in the food industry. These can benefit large companies, start-ups and small companies, and consumers. For larger companies, M&As allow for

¹⁵ Linked paper, *STEP 3. Going to scale*, discusses profit and justice motives with respect to business cases for scale.

portfolio diversification, bringing a greater variety of products to consumers while helping to boost the company's image in terms of commitment to health and wellness, sustainability and corporate social responsibility (Heneghan, 2015). For small companies, M&As may allow them to bring their product to new markets through their parent company's distribution networks, while also maintaining autonomy of operations. In recent years in high-income countries, large companies have been acquiring smaller health-conscious companies and brands that serve particular segments of the market.¹⁶ While there is ongoing concern that the food system is dominated by a select few corporate conglomerates, this also offers the potential to bring more healthy and sustainable food options to consumers.

Because we know that this M&A strategy is also deployed in low- and middle-income countries,¹⁷ it could also help make nutritious food choices more available and affordable to consumers in those markets. If there is more consumer demand for healthier foods – as has been happening in high-income countries – there is reason to believe multinational corporations (MNCs) would use similar approaches that allow them to capitalize on SME expertise in local markets and consumer preferences. Through M&As, franchising or other joint ventures, MNCs can empower SMEs to provide more nutritious and safe food that is desirable and affordable for local populations. To help shift consumer demand towards healthier foods and support a robust market for those foods, the public sector could look to implementing policies and programming to integrate food and nutrition education and promotion.

Managing company reputation and public perception

Companies are also motivated by more complex factors, including an intrinsic motivation to do the right thing or to improve how the business and its products are perceived. High-income countries have seen a significant increase in consumers demanding products that are both healthy and sustainable. Whether small or large, many companies want to present themselves as responsible to people and the planet. The transition from using language around corporate social responsibility to environmental, social and governance criteria demonstrates this more comprehensive approach to business practice. For businesses, this is useful not only for marketing, branding and public relations but also for hiring and retaining talented staff. As millennials and generation Z increasingly enter and dominate the labour force, so too will the way they approach and value work. A recent survey conducted in four high-income countries showed that, on average, 75 percent of millennials (those born between 1981 to 1996) want to work for an organization that is both purpose-driven and effective (Curry *et al.*, 2017). There is little evidence of similar trends in low- and middle-income countries at this time, but as many trends move from high-income countries to low- and middle-income countries there is reason to hope this pattern of consumer demand will be replicated, likely in the first instance among wealthier households in low- and middle-income countries, which often face fewer constraints to exercising food choice.

There are platforms and coalitions that bring together companies committed to achieving social good through their work.¹⁸ One example in the area of nutrition is the new Workforce Nutrition

¹⁶ For example, 301 Inc., the General Mills food incubator, invested in the healthy snacking startup D's Naturals; Jack Link's Protein Snacks acquired Grass Run Farms' meat snacks division; Hershey Co. acquired Amplify Snack Brands; Danone merged with WhiteWave Foods Co. to increase organic offerings; PepsiCo Inc. acquired Bare Foods Co., a baked fruit and vegetable snacks company. For more information: <https://foodinstitute.com/focus/own-small-food-company-to-be-acquired>

¹⁷ The Boston Consultancy Group conducted a study of 55 MNCs "representing sectors as diverse as consumer and industrial goods, telecommunications, and health care, that have succeeded in one or more emerging market" and found, "Depending on location and circumstances, such companies may opt for joint ventures, franchises, mergers and acquisitions, or greenfield investments in wholly owned enterprises" (Lang *et al.*, 2018).

¹⁸ For example, [World Business Council on Sustainable Development](#), [Consumer Goods Forum](#), [Business Fights Poverty](#).

Alliance in which companies around the globe, working in different parts of the food supply chain, will pledge to take action to improve the nutrition of employees and their families through healthy food at work, nutrition education, nutrition-focused health checks and breastfeeding support (Consumer Goods Forum, accessed 2020).

Data sharing and accountability

Because many consumers and potential employees have more access to information than ever before, companies must demonstrate how their business practices reflect their stated values. There is, however, still a great deal of misinformation and lack of transparency – perhaps more so in low- and middle-income countries. For that reason, building trust and transparency is particularly important. Within the nutrition community, the Global Nutrition Report, Access to Nutrition Index, Global Reporting Initiative and World Benchmarking Alliance all help to track business accountability for nutrition.¹⁹ While there is still room for improvement, these instruments can help set a baseline for monitoring progress against commitments, acknowledge both positive and negative behaviour, and help policymakers and the public easily see where more action is needed.

2.2.5. Responding to changes in consumer behaviour and preferences

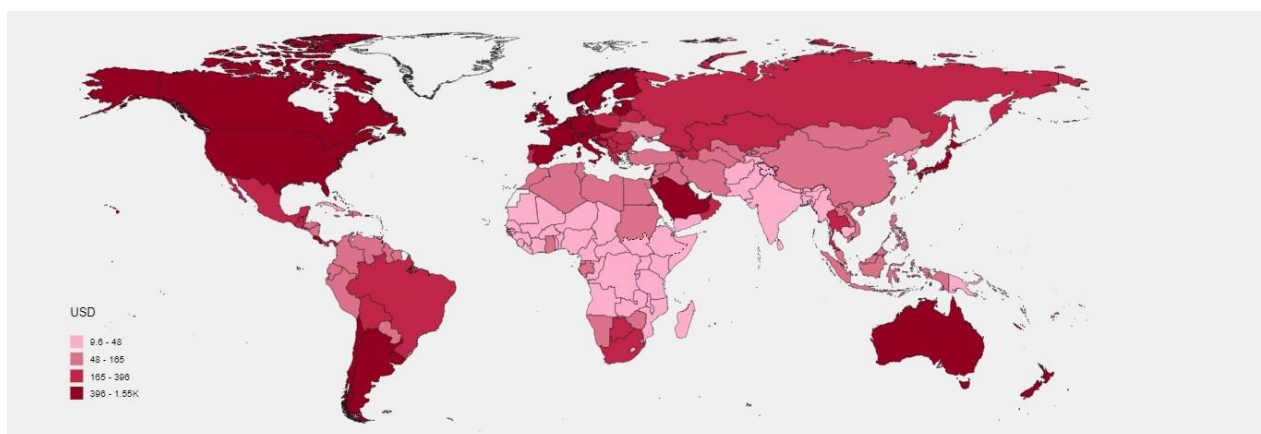
Eating outside the home, and globalization of diets

Few people produce all the food they eat. Instead, consumers source their food from a variety of outlets, including retailers like wet markets, supermarkets and restaurants, as well as from informal vendors, such as those selling street food.

This shift to eating more foods outside the home – whether traditional or western foods, from formal or informal vendors – has resulted in increased consumption of processed and packaged foods and beverages, often among already food-insecure populations, and those with existing overweight and obesity (Popkin, 2014). In low- and middle-income countries, purchases of ready-to-eat and ultra-processed foods have increased, especially in urban areas, where time and space to prepare meals is constrained (Global Panel, 2017). A review of 23 studies that included Benin, Burkina Faso, Ghana, Kenya, Mali, Nigeria, South Africa and Uganda found that daily energy intake from street foods ranged from 13 percent to 50 percent in adults and from 13 percent to 40 percent in children (Steyn *et al.*, 2014). Similar trends have been observed in Asia: in China, consumption of processed foods increased from 20 kg/capita to more than 80 kg/capita annually between 1999 and 2012, and in Thailand, it increased from 60 kg/capita to 110 kg/capita over the same time period (Kelly, 2016). Nevertheless, the latest figures still show a large variation by income level in terms of ultra-processed foods purchased (see **Figure 10**), which is also closely linked to income level. While the average retail value of ultra-processed food sales per capita in high-income countries was around USD 808 in 2018, it was only USD 24 among low-income countries, USD 39 among lower- and middle-income countries, and USD 178 among upper middle-income countries (Food Systems Dashboard).²⁰

¹⁹ Additional information on accountability mechanisms for nutrition are available at <https://nutritionconnect.org/accountability-mechanisms>

²⁰ The Food Systems Dashboard, launched June 2020, can be accessed here: <http://www.foodsystemsdashboard.org/>

Figure 10 Retail value of ultra-processed food sales in 2018 (USD per capita)

Source: Food Systems Dashboard. Original data sources: Euromonitor International, World Bank. Modified to comply with [applicable UN map No.4170 Rev. 19, October 2020].

Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Increased consumption of processed and packaged foods and beverages, which tend to be high in fat, sugar and salt, and low in nutrients, is linked to increases in overweight, obesity and other chronic diet-related diseases in low- and middle-income countries (Monteiro *et al.*, 2018; da Costa Louzada *et al.*, 2015; Poti, Braga and Qin, 2017). This puts greater pressure on already weak healthcare systems, which are not equipped to manage the health consequences resulting from poor diets while simultaneously treating patients with conditions ranging from acute malnutrition to hypertension, cardiovascular disease and type-two diabetes.

Because food is increasingly purchased through the market, businesses have the opportunity to both shape and be shaped by consumer demand. SMEs in particular have expert knowledge of local economic factors, as well as tastes and preferences. Using this information, they can provide food options that contribute to or go in opposition to sustainable healthy diets. As noted above, most people purchase most of their food. In Latin America and the Caribbean, sales of packaged processed food increased from about 10 percent to 60 percent of all food expenditures between 1990 and 2000, most of which was ultra-processed, unhealthy foods and beverages – and growth continues across the region (Popkin *et al.*, 2019). Similar increases have been found across Asia, Africa and the Middle East (Reardon *et al.*, 2003). These changes are happening more rapidly in cities, with increasing rates of urbanization, but these trends are also seen in rural areas across low- and middle-income countries (Hawkes, Harris and Gillespie, 2017).

Alongside this, many low- and middle-income countries have seen an increase in the availability of western-style fast food, which also tends to be ultra-processed and have high levels of fat, sugar and salt. While global companies are pursuing opportunities to find new and loyal customers in low- and middle-income countries (**Box 5**), many local fast-food chains have capitalized on this trend, serving western-style foods that are energy-dense but nutrient poor. The first fast-food outlets in Ghana, for example, were local chains serving western-style food.

While these trends are alarming from a sustainable, healthy diets perspective, emerging trends in high-income countries could be seen as more encouraging.

Because trends in high-income countries are often replicated in low- and middle-income countries, there is perhaps hope that a shift towards healthier diets could be coming. Since around 2018, fast-food and soda companies in high-income countries have seen declines in their sales and a weaker

performance on the stock market (Forbes, 2019; Trefis, 2018; Lovelace, 2018). While companies such as Coca-Cola and Yum! Brands Inc. (which operates KFC, Pizza Hut and other fast food companies) are still growing and profitable, the growth rates are slowing. While most data on these slowing trends is focused on high-income countries, the same could happen in low- and middle-income countries – hopefully before their rates of overweight, obesity and associated non-communicable diseases reach the levels seen in high-income countries.²¹

Box 5 New country, new customers: Why and how multinationals expand into emerging markets

Expanding markets

In 2016, The Coca-Cola Company was reported to be planning to offset slow sales in high-income countries (in the United States of America alone, per capita consumption of soda dropped 25 percent between 1998 and 2014) by investing more than USD 40 billion in developing markets across several countries within Africa, Brazil, China, India, Indonesia, Mexico and the Philippines. These investments were aimed at building bottling plants, creating distribution networks and advertising their products – targeting youth in particular.

Marketing practices

A 2017 study of marketing practices of Coca-Cola, McDonald's and Kentucky Fried Chicken (KFC) across six countries (China, Germany, India, Mexico, the Philippines and the United States of America) found marked differences. In wealthier countries, these companies showcase products they consider to be healthier, while in lower-income countries they advertise their philanthropic activities. Additionally, many of the so-called healthier options are not available in lower-income countries.

KFC has become increasingly popular in Ghana. The company has capitalized on changing diet trends in the country to open new outlets and launch strategic marketing campaigns, especially through social media, to entice youth and influencers to their brand. KFC has positioned itself as aspirational, promoting the brand as both socially desirable and safe. As mentioned above, so-called healthier options are not advertised in Ghana because they are not yet available.

Sources: Forbes, 2019; Center for Science in the Public Interest, 2016; Bragg *et al.*, 2017; Searcey and Richtel, 2017.

Similarly, there has been significant growth among food producers, processors and retailers towards more plant-based foods and food products. This encompasses high-tech innovation like the development of the Impossible Burger, down to family-owned restaurants that offer vegan options. While plant-based does not necessarily equate to healthier or more environmentally friendly, it demonstrates a shift in more health and climate conscious consumer preferences. That businesses have responded to, and helped shape, this demand shows the power of the private sector to change diets by making new products available and desirable, and over time affordable, to the general population.

²¹ Adult obesity among high-income countries was 25 percent in 2016, compared to 15 percent among upper middle-income countries, 7.7 percent among lower middle-income countries, and 7.9 percent among low-income countries. Child and adolescent obesity in comparison was 13 percent among high-income countries, 11 percent among upper middle-income countries, 3.5 percent among lower middle-income countries and 2.8 percent among low-income countries in the same year. Data on raised cholesterol among adults from 2008 show 56 percent of adults were affected in high-income countries, compared to 39 percent in upper middle-income countries, 30 percent in lower middle-income countries and 22 percent in low-income countries (Food Systems Dashboard).

The emergence and interest in competitions such as the SUN Pitch Competition, Sight and Life and WFP Accelerator programme²² are a positive indication that there are entrepreneurs in low- and middle-income countries looking to create and grow businesses that contribute to sustainable healthy diets. However, at present, the practicality of starting and sustaining these SMEs can be a challenge (key barriers for SMEs are detailed in section 2.4.1). More will need to be done to create an enabling environment for nutrition and business to coexist (*STEP 2. Shaping the enabling environment* covers this topic in depth).

Even in high-income countries, poor diets remain a challenge for all socioeconomic groups, but the poor remain the most vulnerable. With a concerted and coordinated effort, awareness of and demand for healthy food should continue to increase across income groups, and businesses of all sizes will be able and willing to stimulate this trend. Food consumption, however, remains a deeply complex and personal matter. Availability, affordability and desirability of food, all of which ultimately determine consumption, are influenced by an array of factors including personal or household economic situation, macroeconomic factors, government policy and more.

Building on the small victories that indicate an increased demand for nutritious foods, there is scope to prevent further ill health resulting from malnutrition in all its forms. The global nutrition community can take advantage of this situation by creating incentives and encouraging businesses of all sizes to do more to ensure that sustainable healthy diets become the new norm. Some opportunities for engaging the private sector for better nutrition are outlined below.



2.3. Examples of small and medium enterprises contributing to sustainable healthy diets

We know the private sector provides food, but does it nourish us? What are the different approaches it takes? While private sector actors of all sizes have roles to play in better nourishing our populations, the role of SMEs is the focus of this section. SMEs are involved in both promoting the positive and reducing the negative, to both a) improve the supply and demand of nutritious and safe foods or sustainable healthy diets, and b) reduce the supply and demand of energy-dense foods with low nutrition value or foods and diets associated with health or sustainability risks.

Five examples of promoting the positive, and five examples of reducing the negative (**Table 1**) are profiled in the following section. Since the private sector does not operate in isolation, some examples highlight how public-sector programmes, civil society organizations or MNCs can empower SMEs across the food system to do more for sustainable healthy diets.

²² SMEs that are working to contribute to healthier and more sustainable food systems can compete to receive training and resources through several innovative competitions. Such initiatives help address two of the major barriers faced by SMEs: access to finance and investments, and lack of technical expertise. Examples of these competitions include, for example. WFP Accelerator Hub: <https://www.wfpusa.org/innovation-accelerator-bootcamp/#>; FAO and the Federal Government of Switzerland International Innovation Award for Sustainable Food and Agriculture: <http://www.fao.org/innovation/international-innovation-award-for-sustainable-food-and-agriculture/en/>; Sight and Life Elevator Pitch Competition: <https://www.elevator-pitch-contest.org/>; SUN Pitch Competition: <https://sunpitchcompetition.com/>

Table 1 Examples of actions taken by small and medium enterprises

	Type of action	Example(s) of action
Promoting the positive 	Adding micronutrients to staple foods	<ul style="list-style-type: none"> Large-scale food fortification adds iodine to salt in Mozambique
	Improving supply of and access to foods rich in micronutrients, quality protein and fibre	<ul style="list-style-type: none"> Providing pre-packaged, smaller portions of chicken affordable to low-income consumers in Kenya
	Adding micronutrients to foods for special target groups	<ul style="list-style-type: none"> Fortified flour blend with a variety of vitamins and minerals for children aged 6–59 months in Malawi
	Reducing loss and waste of nutritious foods	<ul style="list-style-type: none"> Reducing food waste in Bogota, Colombia, from restaurants, cafes, etc.
	Incorporating nutritious or climate-smart foods into cropping systems	<ul style="list-style-type: none"> Small-scale cotton farmers in India intercropping with nutritious foods such as pulses
Reducing the negative 	Reducing supply of unsafe food that potentially contain pathogens	<ul style="list-style-type: none"> Milk vending machines selling pasteurized milk in Kenya to displace sales of raw milk
	Reducing supply of trans-fats	<ul style="list-style-type: none"> Working with businesses to replace industrially produced trans fatty acids in foods in Nigeria and Pakistan
	Reducing use of sugar	<ul style="list-style-type: none"> Formulating low-sugar yoghurts in Ethiopia
	Reducing use of agrochemicals	<ul style="list-style-type: none"> Supporting organic vegetable production in Palau
	Complying with the International Code of Marketing of Breast-milk Substitutes to avoid crowding out breast milk	<ul style="list-style-type: none"> A social enterprise selling healthy complementary foods in Ghana, in compliance with the International Code

Source: Authors' construction. **Note:** The International Code of Marketing of Breast-milk Substitutes is an international health policy framework to regulate the marketing of breast-milk substitutes in order to protect breastfeeding. Breast-milk substitutes include infant formulas, follow-on formulas, and any other food or drink, together with feeding bottles and teats, intended for babies and young children.

2.3.1. Promoting the positive – small and medium enterprise examples

Improving the nutrition value of foods or the diets of children²³ and adults generally involves fortification, biofortification or diversification.²⁴ There are many pathways to add more nutrition to food by reducing nutrient loss, reformulating products, and improving processing, transport and storage practices, access, and affordability, for example (Ridoutt *et al.*, 2019). Here we look at five examples involving SMEs taking positive action on food or diets.

1. Adding micronutrients to staple foods (large-scale food fortification) – example, salt iodization in Mozambique

²³ Except for children under six months of age, for whom exclusive breastfeeding is recommended.

²⁴ Supplementation may also be considered, though it is more closely aligned to health rather than diet.

Mozambique's salt industry is mostly small-scale: of the country's approximately 400 salt producers, more than 88 percent are classified as micro- and small-scale producers. While salt iodization²⁵ is mandatory, compliance and quality gaps remain. The large number of small producers must be aggregated somehow to improve access to premix and compliance with iodization mandates. The Global Alliance for Improved Nutrition (GAIN) has helped create two salt producers' associations in Mozambique's northern region and one in the central and southern region to improve access and affordability of iodized salt. GAIN facilitates salt producers' access to iodine, reducing their dependence on subsidies and donations (GAIN, 2019a).

2. Improving supply of and access to foods rich in micronutrients, quality protein and fibre – example, enterprise providing affordable animal-source protein in Kenya

Kulamawe Poultry Industries Ltd is a youth-owned, enterprise that aims to make quality and safe chicken meat available to low-income consumers by creating smaller pre-packaged portions of chicken pieces to be sold at an affordable price. The company raises, slaughters, processes and packages the meat. They are also in the process of developing a dried chicken powder for communities with limited access to power and refrigeration (Kulamawe Poultry Industries Ltd, accessed 2020).

3. Adding micronutrients to foods for special target groups – example, fortified flour blends for children aged 6–59 months in Malawi

Sir Hackson Processors in Malawi works with small-scale farmers who produce soya bean, cassava and maize to make a fortified flour blend that is a complete source of protein, energy, carbohydrates, fat and micronutrients for children aged 5–69 months. Fortified with a variety of vitamins and minerals, Soya Corn Blend Flour meets the World Health Organization (WHO) guidance for supplementary foods for children in this age group suffering from moderate acute malnutrition. They supply this product to homes, institutions and humanitarian agencies.

4. Less loss and waste of nutritious foods – example, food waste reduction from outlets in Colombia

Food loss and waste is a global issue, with almost a third of all food produced being wasted. Colombia is no exception; it wastes nearly 10 million tonnes of food annually, which is enough to feed the city of Bogota for a year. Several apps have been developed to help consumers and retailers combat this waste. Eat & Save is specifically designed to enable consumers to buy food that restaurants, cafes, hotels and bakeries fail to sell at the end of the working day. The food is in good condition, with some items priced at 50 percent lower than usual. In addition to benefits for consumers, companies selling excess food through the app are also presented with an opportunity to generate revenue from foods that would otherwise have gone to waste. Businesses of all sizes can use the app, allowing them additional exposure while preventing further damage to the environment. Eat & Save was selected as one of the five best start-ups in Colombia during the 2018 Chivas-Venture Global Final. The app's founders hope their product benefits individuals and businesses alike, and that Eat & Save will also promote social awareness about food waste and sustainability (Eat & Save, 2017).

²⁵ Iodine, an essential nutrient, is not present in sufficient quantities in many diets.

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5. Incorporating nutritious, climate-smart foods into cropping systems – example, cotton growers for Patagonia clothing company

Although cotton is not a consumable agricultural product, the way it is grown impacts climate and soil health, which affects the quality of the food we eat. Cotton is the world's most commonly produced natural fibre and only half-of-one percent is organic (SGB Media, 2019). Patagonia, the global outdoor apparel company, has long positioned itself as a leader in sustainable and ethical supply chains. In 1996, they shifted their production lines to include only cotton that was organically produced. Recently, they have taken their cotton supply chains a step further towards regenerative agriculture. In India, Patagonia piloted a programme for Regenerative Organic Certification through the Regenerative Organic Alliance.²⁶ Farmers involved in this pilot programme use traditional farming methods and integrated pest management, including planting cover crops such as chickpeas and turmeric to help improve nutrients in the soil. Between the extra 10 percent Patagonia pays them for their organic cotton, farmers have also almost doubled their income by selling these cover crops (Beer, 2019). This example is a triple win: it provides increased income for small scale farmers, reduces the environmental impacts of agriculture, and increases the availability of nutritious foods, such as chickpeas and lentils. Because this business model has been successful, Patagonia will increase the number of farmers involved in 2020 to 580, up from just 150 when they started. While the nutrition impact of this may be small compared to the other examples highlighted here, it demonstrates how even non-food-producing companies can play a role in improving nutrition.

2.3.2. Reducing the negative – examples of small and medium enterprises

Reducing potentially harmful or unhealthy food and diets for people over six months of age generally involves ensuring that food is safe, that breast-milk substitutes are not crowding out breast milk, that anti-nutrients and toxins are removed, that unhealthy fats such as trans-fats are minimized or removed, and that salt and sugar, commonly over-consumed among diverse populations all over the world, are reduced. Again, there are many potential pathways to achieving this and examples to be investigated. Here we look at five examples of SMEs involved in reducing negative actions linked to food and diets.

1. Reducing supply of unsafe food – example, milk dispensing machines in Kenya

In Kenya, around 85 percent of milk, primarily from cows, is sold raw and unpasteurized, raising concerns about food safety and public health. One of the reasons why milk is sold raw is because it allows people to purchase it in variable and smaller quantities, as opposed to in set-volume bottles, catering to customers with less spending money. Moreover, it tends to be 20 percent to 50 percent cheaper than pasteurized milk. Unfortunately, milk sold in this way is highly seasonal, but also it is unsafe; it is prone to adulteration (e.g. diluting milk with water). Dairies like Tarakwo, in the Rift Valley, are scaling up an innovative solution to improve milk safety. Tarakwo Dairies established a network of automated dispensing units to sell their milk. Consumers can choose the amount of milk they want to buy using the keypad on the machine. They pay, and the milk is then dispensed from a nozzle into a receptacle placed underneath. The dairy started this service in the town of Eldoret and its suburbs (Kenya's fifth largest town with around 300 000 residents), providing consumers with pasteurized milk in any quantity, at

²⁶ For more information, see <https://regenorganic.org/>

any time and at an affordable price. Ready-to-drink milk is available for as little as KES 5 (around USD 0.05) for an 80 ml cup, making this safe milk accessible and more competitive, compared to raw milk sold informally (GAIN, 2019b).

2. Reducing supply of trans-fats – example, working with businesses to replace industrially produced, trans fatty acids in foods in Nigeria and Pakistan

In Pakistan and Nigeria, the Scaling Up Nutrition (SUN) Business Network (SBN) and GAIN are piloting a project in partnership with the International Food and Beverage Alliance (IFBA) to support the replacement of industrially produced trans fatty acids (ITFA) by local companies in Nigeria and Pakistan. Workshops have been held in Lagos (October 2019) and in Karachi (February 2020) to gather representatives from local SMEs involved in oil-manufacturing and food processing, IFBA members, civil society and government to look at collective action around ITFA replacement solutions that are feasible and affordable for Nigerian and Pakistani companies. In Pakistan, by the end of the workshop, businesses reported their confidence that global commitments to reduce ITFA by 2023 can be met by 2023 in accordance with WHO goals, if there are joint efforts. Four companies signed a commitment to limit production to 2 g of ITFAs per 100 g of fat/oil by 2023, with several other companies considering signing soon (SBN, 2019; 2020).

What's so bad about trans-fats?

According to the WHO: “Eliminating trans-fats is key to protecting health and saving lives: WHO estimates that every year, trans-fat intake leads to more than 500 000 deaths of people from cardiovascular disease. Industrially produced trans-fats are contained in hardened vegetable fats, such as margarine and ghee, and are often present in snack food, baked foods, and fried foods. Manufacturers often use them as they have a longer shelf life than other fats. But healthier alternatives can be used that would not affect taste or cost of food” (WHO, 2018).

3. Reducing use of salt and sugar – example, reformulation of yoghurts for children in Ethiopia

In Ethiopia, dairy supply per person is low, despite its nutrition value. In 2017, GAIN established a nutritious dairy partnership called Access to Better Dairy.²⁷ The programme, which aims to produce and commercialize yoghurt that is appealing to children, hinges on business-to-business interactions between Ethiopian dairy processors and a global dairy company. The aim of this ongoing partnership is to help improve the diets of children and mothers, as well as the livelihoods of smallholder farmers, by introducing a locally produced yoghurt that is safe, affordable, desirable and convenient, but low in sugar and fortified with vitamins and minerals, into the Ethiopian market by 2020. The price per (80–100 ml) portion of yoghurt is expected to be around USD 0.25, thus affordable for many low-income consumers. In 2018, GAIN, with support and technical assistance from Arla Foods and DSM Limited Company, partnered with a local firm to develop strawberry, mango and vanilla fortified yoghurts that matched consumer tastes. Through fortification and the use of certain whey ingredients, the company was able to balance a relatively low added sugar content, mouthfeel

²⁷ Core partners include: GAIN, Arla Foods Ingredients – a subsidiary of Arla Foods, a global dairy cooperative owned by dairy farmers in six countries; DanChurchAid – a Denmark-based NGO working in Africa, the Middle-East and Asia; the Confederation of Danish Industry, a private organization funded, owned and managed by around 11 000 companies in Denmark's manufacturing, trade and service industries; and Loni Dairy, an Ethiopian dairy processor aggregating milk from hundreds of small-scale producers and operating in Sululta, north of Addis Ababa in the Oromia region. Funding has been provided by Denmark's development cooperation agency, DANIDA.

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and taste which improved the marketability of the product, especially to younger customers, without significant increases in the price.

4. Reducing use of agrochemicals – example, smallholder organic vegetable production in Palau

Palau's soils are poor quality, are highly weathered, acidic and clayey, and need to be improved to boost production. Between 2013 and 2015, FAO implemented a programme in Palau to strengthen capacity for sustainable organic crop production there. The programme targeted farmers in Babeldaob, anticipating that by the end of the project up to 12 national staff and more than 200 rural farmers and families would be trained in sustainable technologies and methods for soil improvements (FAO, 2014b).

Another example of organic farming on Babeldaob is Todos Farm, owned by Mr Amos Mesubed, who makes his own organic compost and grows a variety of vegetables, including napa (a kind of cabbage), radish, head cabbage and chili pepper inside greenhouses.

Mesubed is quoted as saying:

“My farm produces clean vegetables organically, which means no pesticides or other chemicals are being used” (Kesolei, 2016).

Mesubed was also assisted by investments approaching USD 500 000 from overseas partners and by six Chinese nationals with expertise in organic farming assisting him (Kesolei, 2016).

5. Complying with the International Code of Marketing of Breast-milk Substitutes to avoid crowding out breast milk – example, a social enterprise selling healthy complementary foods in Ghana

The WHO recommends exclusive breastfeeding from birth to six months, after which nutritious foods should be introduced alongside breast milk in a process known as complementary feeding (WHO, 2019b). The Ghana Health Services provides the same advice to mothers and caregivers in Ghana, while encouraging the promotion of “locally available, affordable and acceptable complementary foods” (GHS, 2020). Complementary feeding practices that ensure optimal nutrition remain a challenge; one way to address this is to build capacity among caregivers on how to appropriately use local foods to feed their children (Tampah-Naah, Kumi-Kyereme and Amo-Adjei, 2019).

Start Right Nutrition Limited in Accra, Ghana, is a small social enterprise that sells complementary food powders made from local foods such as orange-fleshed sweet potatoes, carrots, legumes and seeds that can be combined with breast milk, porridge or other staple foods to boost micronutrient and protein intake for babies older than six months. In addition to the two packaged products, Start Right also produces cookbooks with instructions for caregivers to prepare healthy and nutritious foods using local and affordable ingredients. Though a profit-driven company, Start Right seeks to promote better nutrition and health for infants and young children, while also complying with national and international recommendations (Nutrition Connect, 2019).

2.4. Selected challenges

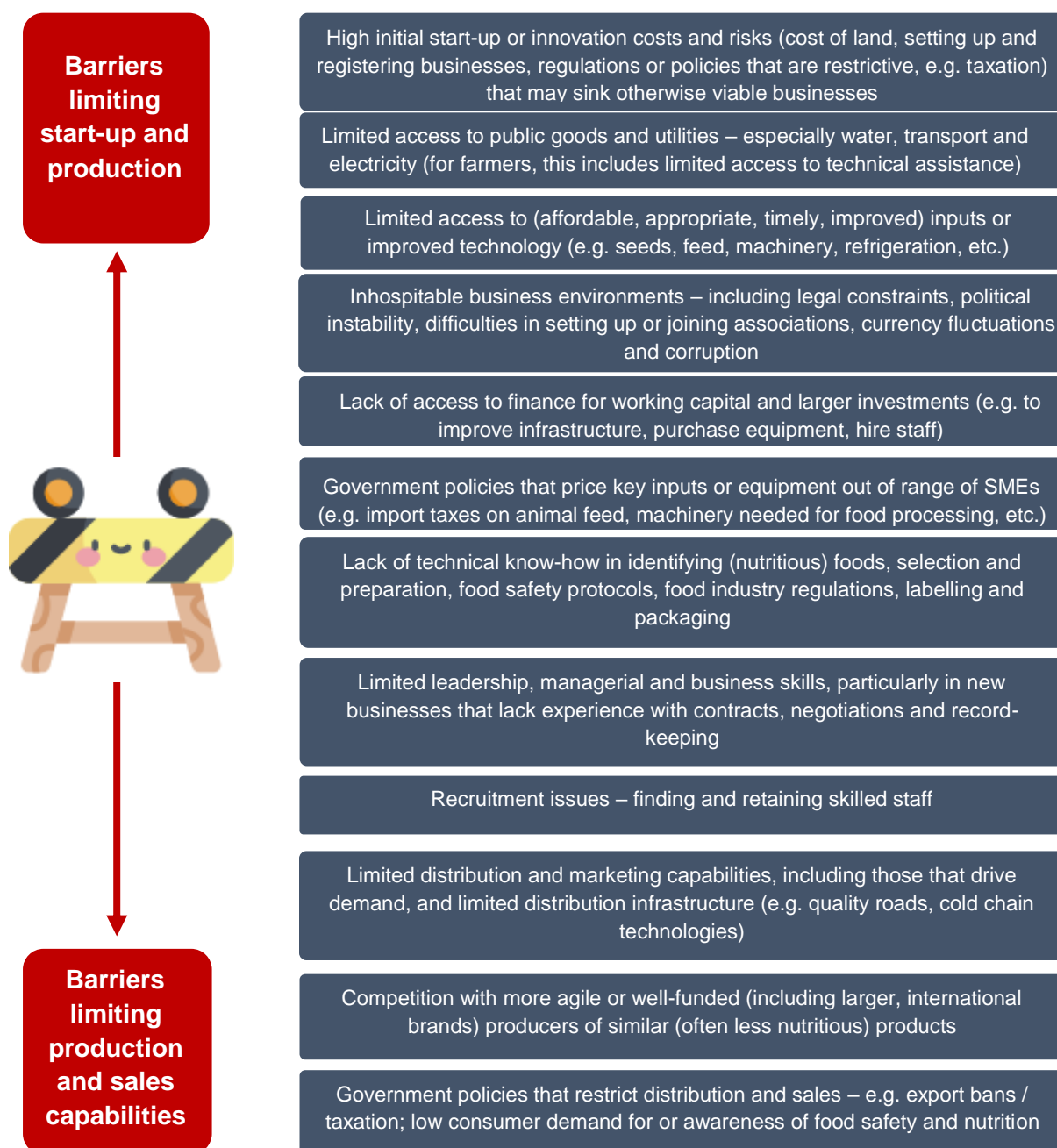
2.4.1. Key barriers facing small and medium enterprises working in the area of nutritious foods

There are significant barriers and challenges facing SMEs seeking to produce more nutritious, safe food in a sustainable manner or to make their current offerings more nutritious. SMEs must overcome the odds to be able to improve the supply of nutritious and safe foods for low-income people in often challenging contexts. A stock-taking exercise of some of the key barriers and challenges SMEs in this area face is framed in **Figure 11**. From top to bottom, challenges are presented to show whether they are more likely to limit a) start-up and production capabilities or b) production and sales capabilities of SMEs, though clear overlap exists.

These challenges and barriers do not affect all SMEs uniformly. SMEs in low- and medium-income countries face significantly greater challenges than those in high-income countries. Similarly, in many countries, female entrepreneurs and women-led businesses may be disproportionately affected owing to, for instance, constraints in land access and use, access to finance and social norms.

Regionally, **83% of economies** in sub-Saharan Africa, **72%** of economies in East Asia and the Pacific, and **65%** of economies in Latin America and the Caribbean **do not protect women** from gender-based discrimination in access to credit (World Bank Group, 2019).

Figure 11 Nutritious food producing small and medium enterprises face barriers along the supply chain



Source: Authors' construction, building on FAO and GAIN, 2018.

Table 2 Three vignettes describing the experiences of small and medium enterprises during the COVID-19 pandemic

SME description	SME experiences with respect to COVID-19 disruptions
Start Right Nutrition Limited, retailer of complementary food for young children in Ghana	This business (profiled in section 2.3.2) has been negatively impacted by COVID-19. Accustomed to serving large numbers of mothers across six regions of Ghana, their distribution has been limited by lockdowns preventing access to many areas. They are also struggling to source certain raw materials used in preparations, such as imported skimmed milk. Though mothers are demanding their products, the company is no longer able to supply them. Sales have declined, and they supply mostly only to greater Accra, where the company is based. They are focusing on sharing recipes made with locally available nutritious foods for children through social media platforms, particularly WhatsApp. They have also been able to supply to families who order online and pay through a mobile money network, using dispatch riders to deliver across greater Accra.
A small cooperative of fish farmers, raising tilapia in Rwanda's southern province	The company's main challenge is that there is not enough fish feed available, and what is available comes at high prices. This owes partly to restrictions on cross-regional and international travel, which are expected to continue. In addition, sales have decreased because customers have no money to buy fish, preferring cheaper foods instead. Their sales prices have fallen by 30 percent to 40 percent owing to lower demand and lower quality, which is owed, in turn, to insufficient, poor-quality feed. As a result, the company has reduced production. Amid limited production and sales, it is struggling to pay salaries and anticipates difficult months ahead with a continued inability to pay staff, with the fish they have continuing to lose weight because of insufficient feed, and with a lacklustre demand. However, they are optimistic that Rwanda's transition away from lockdown will improve their situation and are experimenting with new modes of operating, such as seeking alternative feed suppliers, offering door-to-door sales, and raising maggots and duckweed to supplement industrial feed.
A longstanding producer and retailer of food free from pesticides and chemicals in Bangladesh	While their retail outlet sales have been hindered by the lockdown, this business's online sales and delivery have been supporting them, thanks to a recent Dhaka police decree that permits online delivery services. They have been able to deliver products such as honey, cumin and mustard oil, and brown rice. Their main aim is to protect their employees and farmer-suppliers during the COVID-19 pandemic. However, sourcing highly demanded products such as mango and lychee has been nearly impossible, leaving them unable to meet certain customer needs.

Sources: Start Right, personal communication; GAIN, 2020a.

Examples of small and medium enterprises tackling challenges arising from the COVID-19 pandemic

As discussed in section 1.2.3, COVID-19 places considerable pressure on SMEs in low- and medium-income countries. Three examples of SME experiences are profiled above in **Table 2**.

2.4.2. Risks and trade-offs

It is well accepted that the private sector – including smallholder farmers and fishers, small processors and retailers, as well as large national and multinational companies – has tremendous influence on the food system. But there are also risks that arise when engaging the private sector. **Table 3** summarizes risks in eight areas, along with rewards. As in the case of barriers, risks and rewards outlined below do not apply evenly to SMEs and large national or MNCs. With limited resources and influence, as well as constrained cash flow and margins, SMEs are more vulnerable to changes – both positive and negative – and may be disadvantaged in comparison to larger businesses that have more efficient economies of scale.

Table 3 Risks and rewards for engaging the private sector in eight key areas

	Risk	Reward
Resources / money	<p>Most businesses of all sizes are ultimately profit-driven and will sell the products that make the most money. To increase profits and reduce costs, they may also take shortcuts (e.g. source and use suboptimal ingredients, commit product fraud or adulteration, violate environmental guidelines and policy regulations, and violate health and safety protocols).</p> <p>Large/MNCs have the resources to promote unhealthy and profitable foods to consumers, and they can make donations to influence research agendas or civil society positions.</p>	<p>Businesses of all sizes respond to consumer and market demand.</p> <p>Large/MNCs can mobilize resources, talent and technology to effect change. They act/react based on investor and shareholder pressure.</p>
Technology and expertise	<p>Businesses of all sizes can use innovation for positive or negative change. They could misuse personal data and could develop new food innovations and products of low nutrition value that are associated with health risks.</p>	<p>Businesses of all sizes often have more agile systems and approaches than the public sector and can respond and adapt more quickly to changing circumstances. Local companies are often engaged more directly with consumers in their communities and understand purchasing and consumption patterns, positioning them to help influence more positive dietary habits.</p> <p>Large/MNCs can provide technology transfer and business-to-business (B2B) learning, and they can relax intellectual property policies so their technologies can be replicated at lower costs in low- and middle-income countries.</p>
Policy influence	<p>Large/MNCs have resources to lobby governments and influence policy decisions to prevent regulations that would benefit public health and sustainability (e.g. taxes on unhealthy foods, subsidies on healthy foods, mandatory fortification and reformulation).</p>	<p>Large/MNCs, as well as business associations, have resources to lobby governments and affect policy decisions to implement regulations supporting businesses in providing safer healthier food (relevant fiscal policies and subsidies, etc.).</p>
Marketing	<p>Businesses of all sizes violate the International Code of Marketing Breast-milk Substitutes, market aggressively to children and adolescents, exploit people’s motivations for consumerism, make false or unfounded claims to be ethical, sustainable companies, and make false or unsubstantiated nutrition claims.</p>	<p>Businesses of all sizes have access to consumer data and have expert understanding of consumer preferences and behaviours within specific contexts.</p> <p>Large/MNCs leverage expertise, particularly around emotional marketing campaigns for healthy eating.</p>
Supply chains	<p>Businesses of all sizes could present health risks to consumers due to cold chain storage and infrastructure issues.</p> <p>Large/MNCs have enormous and effective distribution networks, which means that low nutrition value, ultra-processed foods are reaching even very remote rural areas. This, along with aggressive marketing techniques, could disrupt traditional patterns of purchasing and consuming nutritious foods.</p>	<p>Large/MNCs have supply and distribution networks that could be used for healthier foods. There is potential to create systemic change across value chains.</p>

Table 3 Risks and rewards for engaging the private sector in eight key areas

	Risk	Reward
Food safety	Businesses of all sizes do not always have proper equipment or training to ensure food safety, especially SMEs. Processed/packaged food is often considered safer than fresh foods with respect to storage, refrigeration, preparation and handling, contamination, shelf-life.	Businesses of all sizes use technology (e.g. blockchain) to trace food and manage any outbreaks. They implement improved agricultural technologies and techniques to reduce pesticide use and reduce potential contamination. Large/MNCs could provide B2B support to SMEs.
Research	Large/MNCs' investments in research can influence what is or is not researched, or which findings are published.	Large/MNCs have resources to conduct research, including product design and development, market testing, consumer perceptions and access to data.
Regulation	Businesses of all sizes fear over-regulation and oppose new measures (including trade measures) that would restrict their operations and impact profits. Verification and certification schemes may be out of reach for many companies, especially SMEs, even if they are complying with socially, environmentally and nutritionally responsible practices.	Businesses of all sizes can create a level playing field that stimulates competition and leads to more safe and nutritious food at more affordable prices.

Source: Authors' construction.

To help mitigate some of these risks and make private-sector engagement more fruitful, it is important to set out and adhere to principles of engagement (see Annex for an example from the SBN).

A lack of trust still hinders effective engagement between public and private sectors, but in the end, the biggest risk we face is the failure of inaction. If we do not come together to tackle malnutrition in all its forms by promoting sustainable, healthy foods on all fronts (affordable, available and desirable) the human, environmental and economic health of current and future generations will be at risk.

2.4.3. Managing conflicts of interest

For government, business, academia and civil society to come together and effectively and positively transform food systems in a way that supports sustainable, healthy diets, there must be agreed upon approaches on how to engage and manage conflicts of interest. Several sources (MQSUN+, 2018; GAIN & USCIB, 2018; Global Panel, 2018) set out best practices for initiating and maintaining partnerships (formal or informal) between stakeholders from the public and private sectors. While they vary slightly, they all have similar general principles:

1. Be clear. Set clear goals for any collaboration or partnership, including how action will be funded. This honesty among partners will also help to build trust and promote transparency.
2. Be open-minded. It is important to remember that stakeholders who are engaged in these types of activities and processes are likely to have the shared goal of improving

nutrition, but people may have different methods for how to get there. Consider alternative viewpoints, opportunities and barriers for each partner.

3. Be flexible. When rolling out a project, programme or policy, things may not go according to plan. Maintain open lines of communication and be flexible in how to adapt or respond to challenges as they arise.
4. Be patient. Supporting nutrition gives a high return on investment,²⁸ but it may take time to realize the impact. Establishing sustainable relationships, implementing policies and programmes, and changing behaviour require long-term investments of time, expertise and money. If possible, create synergies at multiple levels for each entity to help embed the partnership.
5. Be accountable. It is important for each partner and the overall project to track progress against goals and report back regularly, through both formal and informal mechanisms. This will help ensure that the project leads to effective and sustainable results and that any breaches in agreements can be addressed and managed.

While we believe partnerships have a role in food system transformation, we recognize that there remains suspicion about the motivations of the private sector and whether these are aligned with the public health goals of the nutrition community. The past and current behaviour of some businesses underlines why such skepticism continues. Fanzo *et al.*, (2020) discuss the historical difficulties of partnership, offering a pathway to help navigate these complexities while suggesting ways to build trust and accountability to help the transformation.

Given the private sector's influence across the food system, and ultimately the impact businesses of all sizes have on what and how people eat, engaging with the private sector is critical to making healthy sustainable diets the norm for everyone, everywhere. Determining the best way to engage with actors in the private sector to responsibly acknowledge, mitigate and manage risk will vary by context but understanding the opportunities, constraints, risks and rewards as outlined above can help lead to positive changes across the food system.

²⁸ It has been estimated that in Africa "every dollar invested in reducing chronic undernutrition in children yields a \$16 return. This is further supported by benefit cost ratios of up to 21.6" (Hoddinott, 2016).

3. Conclusion

Seismic shifts are transforming food landscapes around the world, particularly in the global South. This presents an opportunity for stakeholders from all sectors to act and encourage further efforts to support healthy, sustainable diets. With continued population growth, as well as increasing urbanization and globalization, comes increasing reliance on businesses – small and large – for food.

Businesses are at the core of which foods are being produced, as well as how they are produced, processed, distributed, marketed and delivered to consumers. There are many players of varying sizes that make up the private sector, from smallholder farmers and fishers, to medium-sized food processors and packers, to large international retailers.

Working with businesses, especially SMEs, offers enormous potential to help increase the production and consumption of safe and nutritious foods. Across Africa, most food is purchased through various forms of markets, most of which are sourced from SMEs. In East Asia and Latin America, traditional retail typically still serves more than 40 percent of total consumer packaged goods sales. Incorporating SMEs into local nutrition plans reflects the reality of people's interaction with their food environment and offers more opportunity for scalable and sustainable solutions to improving nutrition, now and in the coming decades.

To maximize the role and potential for SMEs in the food system towards healthy sustainable diets, they must be enabled to help improve the nutritional quality of the diets on offer, particularly so they are accessible and affordable to more disadvantaged groups of people. But there are risks to engaging with the private sector and many barriers for SMEs to overcome, which will require realigning or creating new incentive structures, as well as mechanisms to improve transparency and accountability.

This is more important now than ever, as we face the impacts of COVID-19 locally, nationally and globally. The role of the private sector in its many forms in feeding and nourishing us and the roles of others, particularly the public sector in times of crisis, have been thrown into sharp relief by the COVID-19 pandemic. Businesses, especially SMEs, will continue to be critical players in ensuring that safe, nutritious food remains accessible and affordable to everyone, everywhere.

STEP 2. Shaping the enabling environment looks in more depth at questions around the enabling environment for sustainable healthy diets and food and considers what constitutes an enabling environment and which roles different stakeholders will have to adopt to achieve it.

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Annex

Box A The Sun Business Network's principles of business engagement

The Scaling Up Nutrition Movement (SUN) was created to empower countries to drive their own nutrition strategies. “Led by governments, supported by organisations and individuals – collective action ensures every child, adolescent, mother and family can realise their right to food and nutrition, reach their full potential and shape sustainable and prosperous societies” (SUN, 2020). To help identify and facilitate shared goals and facilitate action across government, business and civil society, four networks were created: Business, Civil Society, Donor and UN.

To help guide the work carried out by the SUN Business Network (SBN) Secretariat, the SBN Country Network Principles of Engagement were created. The principles ensure that business contributions, while flexible, are for a common purpose, conducted in an ethical, transparent way and with mutual accountability. The SBN Country Network Principles of Engagement operate in tandem with the SUN Movement Principles of Engagement in addition to any principles that SBN Country Networks apply to their members at the time of joining. All Members of SBN Country Networks adhere to the following principles:

- Businesses should support and respect the protection of internationally proclaimed human rights and make sure that they are not complicit in human rights abuses.
- Businesses should comply with UN guidance on health and nutrition and the International Code on Marketing of Breast-milk Substitutes and World Health Assembly resolutions related to Maternal, Infant and Young Child Nutrition.
- Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- Businesses should uphold the elimination of all forms of forced and compulsory labour, the effective abolition of child labour, and the elimination of discrimination in respect of employment and occupation.
- Members of SBN and their subsidiaries cannot engage in the production of armaments, tobacco or pornography.
- Businesses should support a precautionary approach to environmental challenges, undertake initiatives to promote greater environmental responsibility, and encourage the development and diffusion of environmentally friendly technologies.
- Businesses should work against corruption in all its forms, including extortion and bribery.
- Businesses should engage in national SBN surveys to assess their business development, technical assistance and finance needs (or offer support in these areas).
- Businesses should support targeted actions and/or policies to address malnutrition in all its forms (food insecurity, undernutrition and obesity/overweight) and diet-related non-communicable diseases.
- Businesses should assess the potential to introduce workplace nutrition commitments (including breastfeeding support).

Source: SBN Principles of Engagement, <https://sunbusinessnetwork.org/join/>

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