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Assessing the impact of COVID-19 on agrifood manufacturing small and medium enterprises in sub-Saharan Africa

Recommendations for building back better

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Cover photograph: a worker at a milk processing facility in an Integrated Agro-Industrial Park in Ethiopia.

Contents

List of figures

List of tables

List of boxes

Preface

The widespread disruption resulting from the COVID-19 crisis highlighted the fragility of contemporary food systems. The impacts of measures taken by governments to contain the spread of the virus, including in the Africa region, continue to reverberate across the agrifood system. Food markets contracted, jobs and livelihoods have still not recovered to pre-COVID numbers, and countless tonnes of perishable food were spoilt while the prices of staples increased. The outfall from the pandemic has had a disproportionate effect on poor people, who already struggle to access decent jobs and nutritious and affordable diets.

As a result of the pandemic and subsequent lockdown measures, farmers, young agri-preneurs and employees across the agrifood system in the Africa region have seen their livelihood opportunities become increasingly fragile. The very survival of firms, especially micro, small and medium-sized enterprises has been compromised. Companies that were not able to organizationally innovate or access affordable investment for automated and digitalized business remodelling to cope with the crisis, had to close their farms and enterprises and discharge their workers. Those engaged in high-value, labour-intensive, perishable commodities essential to good nutrition (e.g. fruits and vegetables, meat and dairy, fish and aquaculture products) were inordinately affected. The fragility and scale of the informal sector across many countries have also been brought to bear, with the pandemic compounding existing pressures on already vulnerable livelihoods and enterprises.

In addition, the COVID-19 pandemic has underscored the reliance of national food systems in many African countries on imports of food and agricultural inputs. This has prompted a renewed examination of ways to establish shorter value chains as a means to increase market flexibility and predictability, with a view to creating domestic agrifood enterprise opportunities, increasing access to fresh and in-season food, and reducing food losses and transport-related emissions.

At the same time, agrifood enterprises have responded in adept ways to the ongoing disruption, as evidenced by the findings in this report. During lockdown periods many enterprises had to deviate from business-as-usual approaches, opting instead for creative solutions to maintain business operations. Firms resorted to alternative input-sourcing channels, reduced output, availed themselves of more localized markets and focused on inventory management. Investment plans also had to be staggered, while staff occupational health and safety practices and human resource plans were reviewed in the face of increased staffing needs and absenteeism. Such actions have longer-term ramifications, both positive and negative.

Opportunities have opened up for digitalization and in some countries policy development has propelled innovations forward.

This report, commissioned by Food and Agriculture Organization of the United Nations, United Nations Industrial Development Organization and the African Union Development Agency, aims to help the business enabling environment to continue to build-back better with a view to enhancing the role of agrifood manufacturers in sustainable food systems transformation. To this end, the report describes the impact of COVID-19-related restrictions on the agrifood manufacturing sector based on insights from agrifood manufacturers in six countries across sub-Saharan Africa. It also describes and ranks recommendations from these companies on measures they consider to be critical to their survival and growth. Ultimately, in providing recommendations to inform the implementation of tailor-made policies and programmes to relaunch the sector, this report contributes to enhancing the role that agrifood SMEs can play in sustainable food systems transformation and the achievement of the Sustainable Development Goals in the Africa region.

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The conceptualization of the research for the report was undertaken by Divine Njie, Deputy Director, ESF; Dejene Tezera, Director, Department of Agribusiness, UNIDO; Siobhan Kelly, FAO; and Fredrick Kongongo, Agribusiness Officer, UNIDO. Fredrick Kongongo and Siobhan Kelly led the overall research including the survey design and implementation. Acknowledgements are owed to the Statistics Division at UNIDO for support on the design and administration of the survey. Thanks are also owed to Markus Lipp, Senior Food Safety Officer, ESF, FAO; Jeffrey Lejeune, Food Safety Officer, ESF, FAO; Cassandra Walker, Agribusiness Officer, ESA, FAO; and Pablo Garcia Campos, Sustainable Food Systems Specialist, ESF, FAO; who provided technical input and feedback. Sincere gratitude is owed to FAO and UNIDO country staff in the target countries where the surveys were administered.

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Abbreviations and acronyms

AUDA-NEPAD	African Union Development Agency-NEPAD
FAO	Food and Agriculture Organization of the United Nations
ICT	information and communications technology
MFI	microfinance institution
PPE	personal protective equipment
SACCO	savings and credit cooperative
SME	small and medium enterprise
SSA	sub-Saharan Africa
UNIDO	United Nations Industrial Development Organization

Key messages

- Prior to the onset of the pandemic the role that agrifood SMEs play in food systems transformation was gaining increasing attention in the light of a growing body of evidence. The consequences of the COVID-19 crisis have served to reinforce pre-pandemic enabling environment recommendations that support the growth of agrifood SMEs, the continued absence of which has underscored the fragility of these enterprises, despite their role in food security and rural development.
- The COVID-19 pandemic has severely impacted agrifood manufacturing in sub-Saharan Africa (SSA), with over half of firms forecasting sharp reductions of more than 25 percent in annual revenues. The pandemic's impact differed by firm size, and compared to large firms, micro and small enterprises were more likely to reduce capacity, close business indefinitely or lay-off staff as a result of the prolonged disruption. The following key findings emerged from the survey analysis:
  - The factors impacting most on business-as-usual practices during the lockdowns were reduced demand from domestic markets, increased prices of inputs, difficulties accessing raw materials, and government restrictions related to the movement of people and goods within the country. These impacts highlighted the embeddedness of agrifood manufacturers in rural areas and their reliance on domestic economies, which has emphasized the need to reinforce enabling environments and value chain connectivity to reduce risks of enterprise closures and job losses during future disruptions.
  - Government restrictions aimed at containing the virus impacted the majority of agrifood enterprises surveyed, whereas the supportive measures enacted to protect firms from the fall-out from the pandemic reached only very few firms.
  - To deal with financial challenges, the majority of firms reduced their operational costs through measures such as layoffs or salary reductions. Reputation for quality and low prices were the main factors identified by the firms as advantages that allowed them to remain in business.
  - Among all government measures, transportation restrictions impacted agribusinesses the most during lockdowns, affecting the safety and quality of food, particularly for fresh food products, while also exacerbating existing logistical constraints present along the value chain.
  - In addition to access to long-term finance and support for market diversification and product development, agri-food processors also ranked access to short-term working capital as a priority to support enterprise recovery, the lack of which constrained the ability of firms to cover staff wages and social security and pay suppliers during lockdowns.

- Moving towards recovery, agrifood manufacturers will benefit from types of support to domestic value chains that focus on logistics, with a view to improving the flow of goods and people, and increasing digital connectivity. The evidence shows that agrifood processors are primarily embedded in and reliant on domestic economies and, accordingly, are more susceptible to national disruptions. Stimulating demand for domestically produced agrifood products therefore needs to be an essential component of building back better strategies for agrifood processors, where interventions can leverage public and private institutional food procurement programmes, such as school feeding programmes.
- Prioritizing the strengthening of linkages between enterprises and small rural banks, microfinance institutions, and savings and credit cooperatives will improve access to financial services and products, including access to working capital, thereby ensuring micro and small operations in the rural agrifood sector continue to be financed during disruptions. However, the micro financial services sector will also require sustained support during the recovery period due to the impact of the pandemic on the sector's reduced client creditworthiness and the greater risk environment.
- Facilitating access to affordable and tailored investment capital that complies with sustainability objectives will build resilience over the long term. Business models that are resilient in the face of disruptions are also strongly associated with innovation and diversification in products, services and markets. In facilitating access to long-term capital investments, governments can support the strategic reorientation of business models towards building back better objectives.
- Growth through innovation is related to a range of factors and is impeded by weaknesses in the wider environment, including infrastructure, institutional capacities, education and agrifood industry research. Promoting collaboration across institutions and companies on innovation and product development in order to serve changing consumer needs can stimulate companies to engage in incremental innovations that focus on sustainability in their innovations. In parallel, new investments can re-orientate businesses away from unsustainable pre-pandemic norms in order to reinforce a building back better approach.

Executive summary

Much has been written about the impact of COVID-19 on food systems and food security since the pandemic began in early 2020. The literature discusses the disruptions in food value chains caused by government restrictions, which are designed to control the virus and slow its spread. International and domestic transportation networks have been interrupted, food markets have contracted, and jobs and livelihoods have been lost, while perishable foods have spoiled and the prices of staples have increased – making it more difficult for populations to secure sufficient food supply. Preliminary assessments suggested that the pandemic could add between 83 million and 132 million people to the total number of undernourished in the world in 2020 (FAO *et al.*, 2020). Primary data are not yet available to confirm predictions but there is a large consensus in the nutrition community that the pandemic is likely to increase all forms of malnutrition (Béné *et al.*, 2021). Furthermore, COVID-19 and the accompanying restrictions, trade disruptions and job losses have plunged the SSA region into its first recession in 25 years, with activity contracting by nearly 5 percent on a per capita basis. While the economy is expected to strengthen, it is predicted that economic activity will remain well-below pre-pandemic levels at the end of 2021 (World Bank, 2021).

The impacts of measures taken by governments to contain the spread of the virus, including in the Africa region, are reverberating across the agrifood system (FAO, 2020a). Unprecedented disruptions have seen agrifood value chain actors impacted in a number of ways ranging from an increase in the consumption of home cooked meals, to greater demand for staples and non-perishable foods and a reduction in demand for fresh and perishable products. All actors along the food value chain were impacted by the fall-out from the pandemic to varying degrees depending on the commodity and the local and national context (Telukdarie, Munsamy and Mohiala, 2020).

For the most part, small food manufacturers[1] were allowed to remain open to ensure food security, but their operations were nonetheless hampered from a range of perspectives. The aim of this report is, first, to analyse how small food manufacturers were impacted by the fall-out from the COVID-19 pandemic and the effects of government measures enacted to halt its spread, and second, to provide recommendations that contribute to the recovery of the small food processing sub-sector in SSA. In so doing, the study identifies measures that can mitigate the disruptive impacts on agrifood manufacturers and which also contribute to building a resilient business environment for SMEs across agrifood value chains. It also provides data

[1] We use the terms "processor" and "manufacturer" interchangeably to refer to those enterprises that change agricultural raw materials and/or food ingredients into finished food products.

to inform the process of structural reforms and systems change needed at the national level of targeted countries.

Prior to the onset of the pandemic the important role that agrifood SMEs play in the rural economy was gaining increasing attention, with a growing body of evidence highlighting their role in driving rural transformation, generating rural employment and linking farmers to markets. Specifically, firms that add value to agrifood produce through processing, logistics, wholesale or distribution activities are "the biggest investors [...] in creating markets for farmers in Africa" and are expected to continue to play this key role over the next 10–20 years (Reardon *et al.*, 2019).

Agrifood manufacturing SMEs, in particular, fulfil a critical function within both economic and food systems, contributing to economic output and feeding the population – the latter a consequence of their largely domestic market focus. Not only do they supply manufactured agrifood products on which the population depends for food security and nutrition; they also provide jobs and income to a representative portion of the formally employed (Kelly and Ilie, 2021). These firms operate in the middle of the economic spectrum, which is above the subsistence level, and generates the bulk of economic output.

Against this background, the Food and Agriculture Organization of the United Nations (FAO), the African Union Development Agency-NEPAD (AUDA-NEPAD) and the United Nations Industrial Development Organization (UNIDO) carried out a survey to assess the direct and indirect impact of the pandemic on agri-food manufacturers in the food sector across six countries in SSA: Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Nigeria and Zambia.

Surveys took place between June and September 2020, with the compilation of results completed in December 2020. A total of 709 agri-food manufacturers, most of them small and medium enterprises (SMEs), provided responses to the surveys: 166 from Côte d'Ivoire, 103 from Ethiopia, 106 from Kenya, 83 from Madagascar, 141 from Nigeria and 110 from Zambia.

The report synthesizes the results of these surveys which cover (i) the impact of government restrictions on food manufacturers; (ii) the types and efficacy of public measures used to sustain enterprises during the pandemic; and (iii) recommendations intended to assist policymakers in developing an enabling environment that strengthens the resilience of food manufacturers during times of disruption and beyond the COVID-19 pandemic.

TYPES AND EFFICACY OF GOVERNMENT MEASURES IMPOSED ON AGRIFOOD MANUFACTURING

Restrictions across the six countries mirrored those that were enacted across the world to prevent the spread of the virus. While international borders were rarely sealed (aside from the case of Côte d'Ivoire) and maritime cargo and customs offices continued to operate, all countries experienced delays. These ranged from short ones in Kenya to considerably longer ones in Madagascar. Nigeria banned intra-country travel, while in other countries, provinces or states were selectively closed when cases of the virus were confirmed, as in the case of Madagascar.

Government measures were designed not to interrupt the transport of agricultural and agrifood cargoes; however, lockdowns, delays at checkpoints, curfews and quarantines naturally interrupted the circulation

of food. Restrictions curtailing the *transport of people and goods* undermined the supply chains of agrifood manufacturing SMEs, for example by disrupting the delivery of raw materials, or the aggregation of agricultural produce, and ultimately affecting food prices. Perishable and high-value agrifood value chains were impacted most, a consequence reflected in falling market prices for perishable items, such as fruits, vegetables, meats, poultry and fish. Meanwhile, prices for staples increased, mostly in line with seasonal norms, but in some cases above the expected range.

A*gricultural production* on the whole remained strong in the surveyed countries, with COVID-19 primarily affecting urban areas, at least initially. Planting in northern SSA countries and harvesting in southern SSA countries was for the most part completed when lockdowns were implemented in rural production areas. However, in certain agro-ecological zones the arrival of the pandemic did disrupt the distribution of production inputs and eventually impacted productivity. Production was also constrained by mobility restrictions which limited farmers' access to agricultural labour and extension services.

At the level of food retail, supermarkets remained open and access to traditional fresh food markets in urban and village environments was regulated to varying degrees. In Nigeria, for example, food markets opened one day per week while in Côte d'Ivoire closed markets were relocated to outdoor venues. Traditional food markets in Zambia practised a "business as normal" approach, with citizens encouraged to self-regulate.

GENERAL IMPACT OF COVID-19 RESTRICTIONS ACROSS THE AGRIFOOD SECTOR

The restrictions and changes in global and local markets impacted food manufacturers on a number of fronts: *demand and sales, procurement of inputs, supply of products to buyers and financial health*. The percentage of businesses operating as usual was small in all countries, with survey responses showing that over half of agrifood manufacturers were impacted in some way by government restrictions. Notably, while food manufacturers were not required to cease operations, the closures of non-food manufacturers that supply agrifood firms disrupted access to parts, machinery, packaging and other inputs needed to carry out their operations.

The factors that had the greatest negative impact were reduced demand from domestic markets, increases in the price of inputs and lack of access to raw materials, and the imposition of government measures related to the movement of people and goods within the country. Survey responses showed that constraints on "the movements of goods within the country" impacted 57 percent of agrifood manufacturers. The restriction with the second highest impact, with 47 percent of companies affected, related to curtailment of "the use of public transport and the general movement of people". Restrictions on "the number of staff able to work at the same time" in manufacturing facilities, and the closure of certain market segments, each impacted 45 percent of companies across the dataset.

Companies were severely affected in terms of revenues, capacity and cash flow, with 41 percent of firms in Ethiopia, 52 percent in Nigeria, 75 percent in Madagascar, 60 percent in Côte d'Ivoire, 62 percent in Zambia, and 6 percent in Kenya expecting over a 25 percent decrease in turnover.[2]

2 Ethiopia is an outlier throughout the study. However, the reasons underlying the difference likely relate to the higher proportion of large SMEs in the survey sample for this country – in contrast to the other countries where this trend was reversed. This factor is described as a limitation of the study in the Methodology section.

At least 50 percent of firms in all countries experienced cancellations or reductions in demand from local markets, with as much as 83 percent of firms affected at the country level. Since fewer agrifood SMEs export, the number of cancelled/reduced orders from international buyers was correspondingly smaller. Only in Kenya did order disruptions from the international market outpace those from domestic market partners. Similarly, at least 50 percent of firms in all countries were affected by increased prices for inputs and lack of access to sufficient raw materials. The principal obstacle in cost terms has been difficulties in paying staff wages and social security charges, followed by fixed costs and payments to suppliers

Firms used various *approaches to mitigate the impact of COVID-19* on their operations. For instance, the most common method to address shortages of inputs was reduction in production output. *Firms reduced operational capacity* to varying degrees: about 30 percent of companies reduced capacity by 30-60 percent, with another 25 percent reducing capacity by over 60 percent. Specifically, 30 percent of firms in Ethiopia, 65 percent of firms in Kenya, 60 percent of firms in Nigeria, 55 percent of firms in Madagascar, 50 percent of firms in Côte d'Ivoire and 55 percent of firms in Zambia had to decrease their capacity by more than 30 percent.

The results also showed that the impact of the pandemic differed by firm size, with micro and small enterprises being more likely to reduce capacity to a greater extent (by more than 30 percent) when compared with medium or large-sized companies, indicating that smaller SMEs were less able to adjust productively to the impacts of the pandemic. Across the whole sample, 13 percent of firms suspended their activity.

As productivity suffered, the expenses of firms also increased with the required use of personal protective equipment (PPE), private transport and measures put in place to ensure physical distancing in factories. Reduced liquidity created problems related to the payment of staff wages and social security charges, as well as payments to suppliers and fixed costs. The highest percentage of firms (over 60 percent) reduced operational costs as a means to cope with lack of access to finance and liquidity problems. These reductions led to layoffs, with 36-73 percent of the firms surveyed considering or having already implemented employee layoffs.

The period of time that companies expected their cash flows to sustain them under government restrictions varied, ranging from indefinitely to less than one month. From the perspective of size, companies with more employees anticipated being able to operate longer under the restrictions, compared to smaller firms. While nearly 60 percent of large SMEs expected to operate for over six months under the restrictions, less than 40 percent of smaller sized firms expected to survive for the same time period. A larger number of SMEs in Kenya and Zambia anticipated a sharp decrease than in other countries.

Even with reductions in orders, some firms could not satisfy market demand due to supply-related difficulties caused by reduced access to sufficient raw materials, a factor cited as the main challenge for companies in Côte d'Ivoire, Kenya and Madagascar. Meanwhile, increased prices for inputs was indicated as the main challenge in Ethiopia, Nigeria and Zambia.

While the large majority of firms felt the impact of government restrictions on their logistics and operations (at least 50 percent in all countries), only a small minority benefited from support measures (from 7 percent of companies in the Madagascar and Côte d'Ivoire to 30 percent in Ethiopia). The next section summarizes

the impact of these measures, with recommendations from the surveyed SMEs regarding the most useful instruments for building back better.

GOVERNMENT MEASURES ENACTED TO SUSTAIN THE ROLE OF SMES IN ENSURING FOOD SECURITY AND RURAL DEVELOPMENT

Support measures put in place by governments to buffer the impact of COVID-19 restrictions on SMEs included government guaranteed loans and dedicated support funds. Governments also reduced, suspended or deferred payments of taxes and fees, including for VAT, corporate income tax, turnover tax, flat-rate taxes and personal income taxes. Government-guaranteed loans were the most accessed support measure received by companies, with reduction or deferral of taxes reported as the second, and the restructuring of loans or partial debt relief indicated as the third.

SMEs were also able to avail themselves of governments measures that targeted the agriculture sector. For instance, Côte d'Ivoire launched investment funds for cooperatives, and in Nigeria initiatives facilitated the expansion of cultivated areas.

Support programmes that were initiated before the pandemic, such as initiatives supporting investment in youth entrepreneurship, rural value addition and start-up manufacturing firms for import substitution, were in some countries reoriented or accelerated to assist companies in coping with COVID-19 restrictions. SMEs also reported receiving support through reduced rent and utility costs as well as partial payment of salaries. On the whole, the greatest number of companies receiving government support rated the assistance as "beneficial".

The **support recommended by SMEs** to enable them to relaunch and build back stronger broadly matches the support provided by governments. In all countries, the highest percentage of companies identified access to investment capital as the primary form of support needed (46 percent of firms) – with the exception of Ethiopia – followed by assistance with market diversification and product development (26 percent), and working capital (25 percent of firms). Recommendations also referred to support with supply chain management, which was indicated as the main priority in Ethiopia, technical assistance in food standards and safety, and customer retention, among other topics.

RECOMMENDATIONS FOR MOVING FORWARD TOWARDS RECOVERY

Policy recommendations proposed on the back of the survey results suggest measures that can assist firms in relaunching and reorienting their businesses after succumbing to a shock or disruption in the agrifood sector, with a view to building back better. However, implementation of these recommendations should take into account the institutional and financial capacity of governments. Fiscal policy response measures are particularly challenging in SSA economies given their high foreign debt levels, which have worsened as result of the pandemic (Njoroge, 2020). Within their limited fiscal space, governments could focus on implementing administrative measures such as removing logistical bottlenecks including transport and mobility restrictions that impact raw materials, goods and labour.

Building back better will require government support to domestic value chains with a focus on logistics that improve the flow of goods and people, as well as digital connectivity. The evidence shows that agrifood SMEs are primarily embedded in and reliant on domestic economies and are therefore more susceptible to national disruptions. According to the survey responses, the government measures

with the highest negative impact on agribusinesses relate to transportation restrictions, which exacerbated existing logistical constraints present along domestic value chains. These constraints concerned the domestic and international movement of raw materials and goods as well as labour – both formal and informal. Stimulating demand for domestically produced agrifood products therefore needs to become an essential component of any building back better strategy for SMEs, including leveraging institutional food procurement and school feeding programmes.

A large number of companies stopped or reduced operations due to constraints on accessing working capital, indicating a need for strategies that ease access to affordable short-term capital. Among the most important financial challenges indicated by firms were the payment of staff wages and social security charges (as indicated by 66 percent of firms), followed by problems in paying fixed costs (43 percent of firms) and payments that use working capital accounts. Rural bank branches, microfinance institutions (MFIs) or savings and credit cooperatives (SACCOs) play an important role in the short-term financing of the agrifood sector, particularly micro-operations. However, the micro financial services sector will also require sustained support throughout the recovery period, as the impact of the pandemic on these sectors reduced client creditworthiness and heightened the risk environment.

The creation of a business enabling environment for small agrifood enterprises, with investment capital tailored to the need of small firms, will build resilience over the long term. Business models that are resilient to disruptions are also strongly associated with innovation and diversification – such as in products, services, markets or trade. Thus, in addition to facilitating access to long-term finance for capital investments, governments can provide support with strategic reorientation by providing market research and information, or networking opportunities in the form of trade fairs or knowledge events.

Growth through innovation is related to a range of factors and is impeded by weaknesses in the wider environment, including infrastructure, institutional capacities, education and agrifood industry research. Promoting collaboration across institutions and companies on innovation and product development in order to serve changing consumer needs can stimulate companies to engage in incremental innovations that focus on sustainable aspects of product and service development. Examples include the introduction of quality enhancement centres, extension services or technology support services. The establishment of investment funds that focus on sustainable innovations, with new investments reorientating businesses away from unsustainable pre-pandemic norms, will further reinforce a building back better approach.

Ultimately, agrifood firms will require a stronger foundation of infrastructure, local manufacturing of various inputs, and innovative investment capital in order to relaunch and reorient sustainable business practices. Expanding productive value chain-based infrastructure, including digitalization, will ensure greater connectivity and stability, facilitating linkages between value chain partners, boosting SME productivity and supporting SME resilience. Increased access to long-term finance will enable SMEs to fund their creative entrepreneurial innovations, while technical assistance to companies and the banking sector will be necessary to forge relationships between both parties.

Furthermore, efforts to look beyond the agrifood sector to support local and regional supply chains for non-agricultural goods, including for packaging and other inputs, as well as processing equipment, will strengthen domestic food manufacturing segments and reduce dependence on foreign imports of these items.

In conclusion, the consequences of the COVID-19 crisis have served to reinforce the same general pre-pandemic measures already recommended for the enabling environment of SMEs operating in the agrifood sector, the continued absence of which has underscored the fragility of the sub-sector, despite its central role in food security and rural development.

1.

Introduction

Much has been written about the impact of COVID-19 on food systems and food security since the pandemic began in early 2020. The literature discusses the disruptions in food value chains caused by government restrictions, which are designed to control the virus and slow its spread. International and domestic transportation networks have been interrupted, food markets have contracted, and jobs and livelihoods have been lost, while perishable foods have spoiled and the prices of staples have increased – making it more difficult for populations to secure sufficient food supply. Preliminary assessments suggested that the pandemic could add between 83 million and 132 million people to the total number of undernourished in the world in 2020 (FAO *et al.*, 2020). Primary data are not yet available to confirm predictions but there is a large consensus in the nutrition community that the pandemic is likely to increase all forms of malnutrition (Béné *et al.*, 2021).

Furthermore, COVID-19 and the accompanying restrictions, trade disruptions and job losses, have plunged the sub-Saharan Africa (SSA) region into its first recession in 25 years, with activity contracting by nearly 5.0 percent on a per capita basis. While the economy is expected to strengthen, it is predicted that economic activity will still be well-below pre-pandemic levels at the end of 2021 (World Bank, 2021).

This report contributes to this body of knowledge by focusing on the experiences of agrifood processors in SSA. The importance of agrifood SMEs in the rural economy is gaining increasing attention, with a growing body of evidence highlighting their role in driving rural transformation, generating rural employment and linking farmers to markets. Specifically, firms that add value to agrifood produce through processing, logistics, wholesale or distribution activities are "the biggest investors....

in creating markets for farmers in Africa" and are expected to continue to play this key role over the next 10–20 years (Reardon *et al.*, 2019).

Agrifood manufacturing SMEs, in particular, fulfil a critical function within both economic and food systems, contributing to economic output and feeding the population – the latter a consequence of their largely domestic market focus. Not only do they supply the manufactured agrifood products on which the population depends for food security and nutrition, they also provide jobs and income to a representative portion of the formally employed (Kelly and Ilie, 2021). These firms operate in the middle of the economic spectrum, above the subsistence level which generates the bulk of economic output.

Against this background, the Food and Agriculture Organization of the United Nations (FAO), the African Union Development Agency-NEPAD (AUDA-NEPAD) and the United Nations Industrial Development Organization (UNIDO) carried out a survey to assess the direct and indirect impact of the COVID-19 pandemic on manufacturers/processors – most of them SMEs – in the food sector across six countries in SSA. This study aims to contribute to identifying specific measures to mitigate these impacts while stimulating and facilitating transformation towards a viable and resilient business environment for SMEs across agrifood value chains. It also provides data to inform the process of structural reforms and systems change needed at the national level of various countries to build more viable, economically and financially resilient systems for SMEs.

Ultimately, the report provides a set of recommendations to inform the implementation of tailor-made policies and programmes to relaunch the sector in the immediate post-pandemic period, nurture reorientation strategies and support SME's resilience based on lessons learned during the COVID-19 crisis.

2. Methodology

The report draws on surveys of firm implemented in Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Nigeria and Zambia, and key informant interviews conducted with FAO or UNIDO country staff.

The interviews provided a background to the pre-COVID context, as well as information on the confinement restrictions implemented in the respective countries, the impact of the restrictions on the agrifood sector and the government support measures put into effect. The conversations also provided information on recent studies and reports on the impact of COVID-19 and country responses, which were not publicly available. The data harvested from these discussions and relevant documents was augmented through a general literature review on COVID-19 in SSA.

The questionnaires designed by FAO and UNIDO were administered from 22 June to 31 August 2020 by the FAO and UNIDO country offices. Enterprises were identified based on lists of registered companies from the SME agencies of the six countries, with a total of 709 surveys completed. All of the survey respondents were formal agri-food processors (i.e. manufacturers). Table 1 presents the number of companies that responded to the survey and the variation between countries in terms of women and young employees (under 35 years old). Madagascar edged above in terms of the percentage

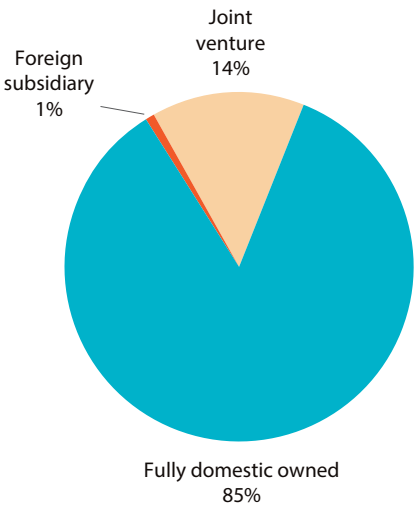
Table 1. Number of surveyed enterprises, average percentage of women and youth employees

Countries	Number of surveyed enterprises	Average % of women employees	Average % of young employees
Côte d'Ivoire	166	50	54
Ethiopia	103	40	63
Kenya	106	50	60
Madagascar	83	51	61
Nigeria	141	44	61
Zambia	110	43	62

of women employees, while Ethiopia led in terms of the percentage of young employees. Figure 1 and Figure 2 show the structure of firms in terms of ownership.

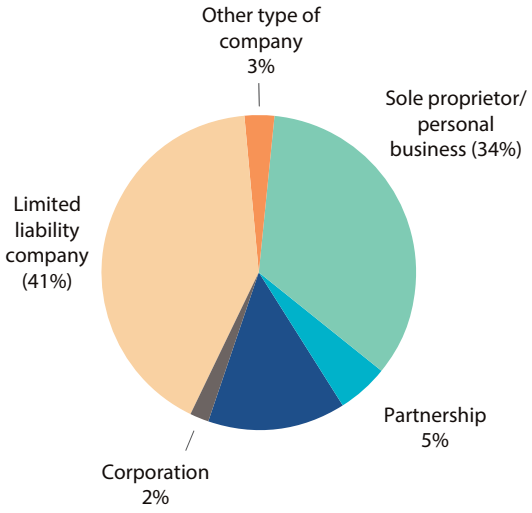
Each questionnaire had four sections: Section 1: Current impact of COVID-19; Section 2: Expected impact of COVID-19; Section 3: Building resilience in SMEs; and Section 4: Background information. The results of the first three sections are discussed in the analytical sections which follow. The final section allowed for the formulation of findings based on relevant firm characteristics.

FIGURE 1. Ownership structure of companies responding to the survey



Source: Survey data

FIGURE 2. Legal ownership model of companies responding to the survey



Source: Survey data

2.1 Limitations of the survey

The survey has several limitations which affect the results. First, survey implementation lacked uniformity due to **internet connectivity issues**. In Kenya, Nigeria and Zambia, all survey responses were collected via the internet using the SurveyMonkey platform. In Ethiopia, survey data were collected in person by government personnel. In Côte d'Ivoire and Madagascar, data collection occurred through a mix of hard copy response and e-mail/telephone.

Reliance on the internet also means that these surveys are biased against rural or smaller companies who lack access to information and communications technologies (**ICTs**).

Second, while the **definition of firm size** used in the survey follows international norms, it does not correlate well with firm sizes in SSA. The survey defines four categories using the number of employees to characterize size (rather than capacity or turnover). The categories use the employee breakdown common for micro-enterprises and SMEs in the global literature, with micro-enterprise defined as having fewer than 10 employees, small firms as having 10-49 employees, and medium firms as having 50-249 employees. Surveys were also collected from large companies with 250 employees or more. This international categorization does not always reflect the realities of SMEs in SSA (see Table 2).

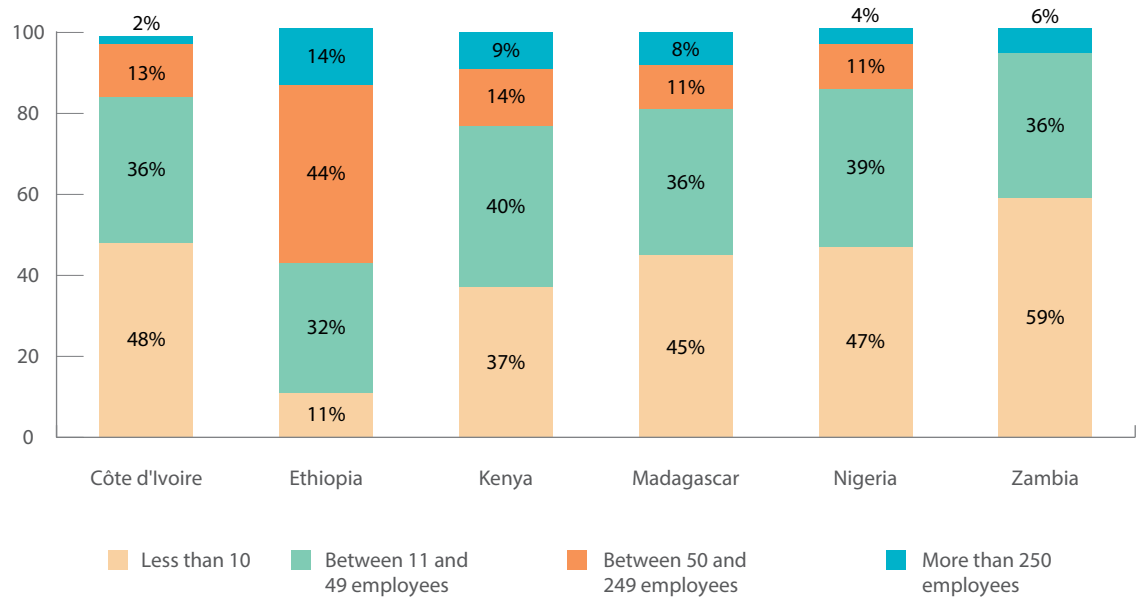
Table 2. Enterprise type by number of employees

Enterprise type	Number of employees
Micro enterprise	Fewer than 10 employees
Small enterprise	From 10 to 49 employees
Medium enterprise	From 50 to 249 employees
Large company	250 or more employees

Third, some of the figures showing sector-wide results from national datasets include **data from large companies**. Although large company respondents make up only 6 percent of survey responses, the findings are influenced by the (more extreme) values provided by these companies. Unless otherwise noted, figures show data from SMEs and large companies combined.

Fourth, throughout the discussion of the survey findings, the **results from Ethiopia stand out from those of other countries**, likely due to a difference in the composition of the firms surveyed. Micro enterprises (fewer than 10 employees) accounted for 41 percent of the firms responding to the survey overall, whereas in Ethiopia micro-enterprises represented only 11 percent of respondents – the lowest share across the six countries. Furthermore, in Zambia, there were no respondents from large companies. Figure 3 depicts the size distribution of the surveyed firms at the end of 2019.

FIGURE 3. Number of employees in firms at the end of 2019



Source: Survey data. Values have been rounded to the nearest unit. As a result, the sum of column percentages might not always add up to 100%.

3.

Overview of the agro-processing sector in sub-Saharan Africa

It is now well-recognized that small and medium-sized firms located in the middle of agri-food value chains, including transporters, processors and distributors, have become the largest investors in generating markets for agricultural produce in Africa. Food processors, in particular, receive 95 percent of agricultural raw materials produced by small farms in SSA (Reardon *et al.*, 2019). This "midstream" segment accounts for 30–40 percent of the value added and costs in food value chains, and its productivity holds important implications for food security in poor countries (Reardon, 2015).

Recent trends have benefited agrifood processors across SSA, stimulating their proliferation and growth. For example, urbanization and improvements in infrastructure have led to longer chains as more actors are needed to shift food from rural areas to towns and cities. Shifts in dietary patterns due to increasing incomes have led to increased demand for processed, ready-made food which accounts for 40-65 percent of urban and rural food expenditure (Tschirley *et al.*, 2015). While these changes, along with enlarging domestic markets in SSA, present an important opportunity for food processors, these are still constrained by "inadequate infrastructure, policies, prevalent risk, uncertainty, and corruption" (Reardon *et al.*, 2019, p. 29). Indeed, many African countries still process only a limited share of their agricultural products

due to high logistic costs, high taxes for processed goods, limited enforcement of food standards, lack of investment in marketing and so forth (Van Berkum, Achterbosch and Linderhof, 2017).

The COVID-19 pandemic has brought about disruptions in supply chains, volatile consumer behaviour and stringent government measures that are impeding food processors from continuing business as usual (FAO, 2020b). The six selected countries – Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Nigeria and Zambia – have different economic drivers and value chains with varying structures, thus providing a diverse representation of the SME agrifood manufacturing sector in SSA. In order to provide a useful perspective on the impact of COVID-19 on the continent's agrifood manufacturing SMEs, it is necessary to quantify the size and impact of the sector, as well as to provide background information on agriculture in the selected countries. This information is summarized below.

3.1 Agrifood sector background of the six surveyed countries

Côte d'Ivoire. Agriculture contributes 21 percent of GDP and provides 40 percent of total employment in the country (World Bank, 2019a). A large part of the agricultural sector consists of export-oriented cash crops: Côte d'Ivoire is the world's largest producer of cocoa and cashew nuts, the first African producer of bananas and the second African producer of palm oil (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020). While 66 percent of agricultural business entities in Côte d'Ivoire are active in cash crop production, the production of these crops has not contributed adequately to poverty alleviation in rural areas (ibid.). Beyond the major export commodities, the country has little diversification in terms of agricultural production and transformation as most of the available land is occupied by production of export-focused commodities and food crops, leaving little space for surplus production for manufacturing.3

Out of 30 000 registered companies in the country, 6 000 firms are engaged in agrifood manufacturing. Of all registered companies, micro-enterprises and SMEs make up 93 percent, with agrifood manufacturers comprising 2 percent. However, agrifood manufacturing accounts for a disproportionately high proportion of revenues, generating 7 percent of the turnover of all formal firms in Côte d'Ivoire. Economic activity is concentrated in the capital, with 80 percent of the private sector based in Abidjan (World Bank, 2019b).

Ethiopia. The agricultural sector contributes 35 percent to GDP and provides 67 percent of total employment (World Bank, 2019). The country's agriculture and food economy is dominated by five cereals (teff, wheat, maize, sorghum and barley), which account for 55 percent of real crop output (Bachewe *et al.*, 2015). The country is also a major livestock producer, which contributes 10 percent to its GDP. In addition, Ethiopia is a major producer of coffee, and exports primarily unprocessed commodities (coffee, pulses and oilseeds). Interviewed stakeholders note that particular contextual factors that undermine the growth of agrifood companies include a lack of sufficient storage infrastructure and challenges in access to credit. Ethiopia's agriculture is primarily rainfed, with one season per year, requiring companies to purchase large stocks to store for later processing. However, without access to credit, many SMEs cannot purchase supplies to stock, resulting in companies conducting manufacturing operations for only four to five months of the year.

Out of the 19 143 manufacturing SMEs in the country, 27 percent operate in agro-industry – compared to about 800 000 SMEs overall, and millions of micro-enterprises. Of these agrifood

3 Key informant interview.

manufacturing SMEs, 29 percent are located in Addis Ababa, with another 26 percent in the Southern Nations, Nationalities and Peoples' Region (SNNPR). [4]

Kenya. Agriculture contributes 35 percent to GDP and provides 54 percent of employment according to the World Bank (2019). The country is the world's largest exporter of tea (and second largest producer after India), with coffee and vegetables among the country's other major agrifood exports. In rural areas, most products are sold in raw form, while the government aims to encourage more cottage industries. According to key informants, entering the pandemic period, Kenya had the advantage of recent good weather and a plentiful harvest in the fourth quarter of 2019 (leading into COVID-19), and was in the process of overcoming a locust invasion that had lasted for several years.

There are 7.4 million micro-enterprises and smaller SMEs, accounting for nearly all enterprises in the country; only 2 percent of these are smaller SMEs (Ministry of Industry, Trade and Enterprise Development State Department for Industrialization, 2020). However, the number of larger SMEs is even smaller. Nevertheless, micro-enterprises and smaller SMEs generate 24 percent of GDP, accounting for 90 percent of private sector enterprises overall and employing 93 percent of the national labour force. Specific data on the agrifood manufacturing sector were not available. Micro-enterprises contribute 12 percent to GDP while small enterprises contribute 11 percent. Medium SMEs make up an even smaller portion of the overall number of enterprises, at 0.2 percent. Manufacturing (including but not limited to agrifoods) accounts for 11 percent of the activity of micro-enterprises and smaller SMEs. Only 67 percent of small enterprises are registered. SME activity is concentrated in the capital and major cities, with less value addition in the rural areas (ibid.).

Madagascar. The agricultural sector contributes almost 25 percent to GDP and provides 64 percent of employment according to World Bank data (2019). Rice is the main crop, grown on half of the agricultural land. Basic staples produced in the country include rice, cassava and maize. Important export products include vanilla, cloves, fruits, cocoa, sugarcane, coffee, sisal and cotton (International Trade Centre, 2021). According to key informants, SMEs target niche markets with products such as spices and essential oils, or export bulk commodities. Structural challenges SMEs face include a lack of agricultural land, a road network in poor condition and a lack of adequate food-testing laboratories. Due to laboratories being centralized in the capital, Antananarivo, SMEs often need to move products across the country to be treated or tested, and thereafter to a port, significantly increasing the cost of transport. Entering the pandemic period, Madagascar had the benefit of a strong agricultural season in 2019, as well as a strong offseason. In addition, a locust invasion which began in 2010 was in remission.

According to informants, about half of smaller SMEs and the majority of larger SMEs are registered. Most micro-enterprises sell or re-sell agricultural products directly without manufacturing, while those engaged in processing agricultural products are rare.

Nigeria. The country's agricultural sector accounts for 24 percent of GDP and provides 35 percent of employment (World Bank, 2019). Nigeria is one of the largest producers of rice and cassava in Africa; other major crops include also maize, guinea corn, yam beans and millet. Animal production, however, has remained rather underexploited (FAO, 2021a).

A 2017 national survey (Small and Medium Development Agency of Nigeria and National Bureau of Statistics, 2017) reported the total number of micro, small and medium enterprises in Nigeria as over 41 million, with 99.8 percent having fewer than

4 Government statistics provided through key informant interview.

10 employees. SMEs are widely distributed across the country and are found in substantial numbers in every state. While Lagos State has the highest number of companies at 12 percent, concentrations were also found in other states, including Oyo State at 8 percent and Osun State at 4.1 percent. Wholesale and retail trading is practised by 42 percent of SMEs and micro-enterprises, 21 percent of which operate in the agricultural sector and 9 percent in manufacturing. Average employment for SMEs was 40 people per company.

Zambia. Agriculture contributes only 3 percent to the country's GDP, and accounts for almost 50 percent of employment (World Bank, 2019). In Zambia, the mining sector is an important economic driver, accounting for 9.5 percent of GDP, and 75 percent of export earnings (African Development Bank, 2021).

The main agricultural crops are maize, sorghum, millet and cassava, while exports are driven by sugar, soybeans, coffee, groundnuts, rice and cotton (International Trade Administration, 2021). The majority of Zambian farmers are smallholders who produce staples for subsistence with occasional market surplus. Medium-scale farmers mainly produce maize or other cash crops for commercialization. Zambia has great potential for agricultural production but only 15 percent of agricultural land is under cultivation due to issues such as poor irrigation (ibid.).

A few thousand large SMEs and large companies employ 7 percent of the labour force, but only 2.5 percent of large companies have over 500 employees (Clarke *et al*, 2010). A group of about 200 enterprises across all sectors produce the bulk of industrial output. A few thousand larger companies, including large SMEs, are responsible for the majority of exports and tax revenues, and drive economic growth. Of SMEs, only 14 percent operate in agriculture, with 9 percent engaged in the wholesale/retail trade and 24 percent in manufacturing (ibid.). Interviewed stakeholders note that low-cost and relatively high-quality imported agrifood products from the sub-region, as well as from the Middle East and Asia, create a disincentive for Zambian enterprises in the domestic market.

3.2 Impact of COVID-19 on the agrifood manufacturing sector

The pandemic has affected food systems globally, negatively impacting all four pillars of food and nutrition security – availability, accessibility, utilization and stability (Laborde *et al.*, 2020) – with implications for the operations of food processors on both the demand and supply side.

IMPACTS ON ECONOMIC ACTIVITY, INCOMES AND FOOD PRICES

Access to food has been hampered primarily through reductions in economic activity and associated incomes. As result, many households have become more price sensitive and have had to significantly reduce spending. There seems to be agreement that increasing unemployment and an overall reduction in economic activity will reduce agricultural demand and trade (Schmidhuber, Pound and Qiao, 2020). These effects are expected in the context of SSA economies where activity in 2020 is projected to contract by 3 percent (IMF, 2020). Regional growth is expected to resume in 2021, but at a modest 3.1 percent, representing a smaller improvement than anticipated in much of the rest of the world, "partly reflecting SSA's relatively limited policy space within which to sustain a fiscal expansion" (ibid.). Other studies also surmise that SSA will be the region hardest hit in terms of people being pushed into extreme poverty, with Mahler *et al.* (2020) projecting a 22.6 percent increase in this group. Micro-evidence gathered so far also indicates that the crisis has taken a major toll on livelihoods, food security and human capital, particularly in urban areas of SSA (Paci, 2021).

Laborde, Martin and Vos (2020) find that income reductions and food price shocks disproportionately

hurt the poor since 70 percent of their income is spent on food. As result, consumer demand, particularly from poor and near-poor people, is expected to shift toward cheaper, less nutritious foods (Laborde *et al.*, 2020). Food processors that form part of traditional chains could thus suffer more in the long term than those operating in modern systems which cater to better-off populations with a greater capacity for resilience.

Looking backwards, the 2008 crisis also had serious repercussions in terms of food security, with significant price spikes in basic foodstuffs as result of many major producer countries imposing export restrictions on staple foods. With respect to the COVID pandemic, several countries initially announced or introduced (temporary) export restrictions covering almost 4 percent of the caloric value of globally traded food, but these have since been lifted (Laborde *et al.*, 2020), with no countries imposing trade restrictions today (Laborde, Mamun and Parent, 2020).

In contrast with the 2008 crisis, inflation during the pandemic has been led by altered consumption patterns due to income losses, disruptions in supply chains, or changes in supply and demand resulting from the lockdown measures. FAO's Food Price Index surged in February 2021, marking the ninth month of consecutive rise and reached its highest level since July 2014. The increase was driven by strong gains in sugar and vegetable oils sub-indices, while those of cereals, dairy and meat increased by a smaller percentage (FAO, 2021b). Several initial effects on food prices, based on interviews with key informants in the six countries under this study, are summarized in Box 1.

Prices were also affected by the loss in value of many currencies against the dollar, making imported raw materials and ingredients more expensive. Indeed, one of the immediate outcomes of the pandemic has been an adverse change in exchange rates. The trade weighted US dollar index climbed to an all-time high, indicating that low-income and food deficit countries could struggle to buy food even when international food prices are falling (FAO, 2020b). SSA economies are particularly vulnerable in this context due to their food import dependency.

Nonetheless, unlike the 2008 crisis, low-income countries face the prospect of an income-induced food security crisis rather than a price-induced one. This will likely take the form of a deterioration in the quality of diets rather than an increase in calorie deficits, given the large availability of staples and the fact that labour-intensive sectors (e.g. vegetables and dairy) are more prone to the impacts of the pandemic (Schmidhuber, Pound and Qiao, 2020).

AGRICULTURAL PRODUCTION

Agrifood processors are impacted not only by effects on demand and spending patterns, but also through their linkages with the agricultural sector. Several disruptions in agricultural production have been noted by interviewed sources.

As farming occurs in rural areas, and initially COVID-19 affected the more populous national capitals, production zones did not immediately experience disruptions. In East and West Africa, agricultural inputs were largely distributed and planting was underway before COVID-19 expanded to rural areas. However, even within countries, varying production calendars due to north–south climatic differences did result in some areas being affected by the pandemic before inputs were fully distributed. Additionally, in some climatic zones both yields and planted areas were affected by disruptions in the provision of extension services and the movement of agricultural labourers to farms.

In **Kenya**, for example, the planting of staple crops was not disturbed as planting occurred before restrictions were imposed. In **Nigeria**, COVID-19 appeared during the planting season in the southern part of the country, and so disruptions in agricultural labour supply and input disruption

Box 1. Pandemic effects on food prices

In **Madagascar**, the lack of storage infrastructure and cold chains contributed to price collapses as vendors had no means to conserve products. The FAO in Madagascar reported that the price of eggs, for example, fell by 20 percent. In an extreme case, the market price of carrots was reported to have decreased by four times.

Staple products saw the opposite price movement as perishables. The prices of these goods varied with the typical seasonal variation, sometimes increasing more sharply due to the pandemic. In **Madagascar**, the price of a 50 kg bag of cassava increased by two-thirds, independent of the sharp spike from panic buying. In other countries such as **Kenya**, prices of staple crops followed the usual seasonal increase. Similarly, in **Ethiopia**, cereals typically increase in July-September, as stocks are low in the run-up to the October-November harvest. The price increase in 2020 largely followed seasonal trends, with the pandemic elevating prices only slightly. As an exception, the price of a 100 kg sack of teff climbed about 20-25 percent more than in a typical year.

Prices for most staples in **Zambia** were also reported to have increased, with maize providing a specific case. The government is the largest buyer of maize, and sets a ceiling for maize prices, which it reinforces through mass purchases, stocking maize and reselling to millers. Zambia is essentially self-sufficient in this crop and does not import or export maize. However, during the pandemic funds normally designated for the purchase of maize were redirected to the health sector, leaving the government unable to undertake this operation as extensively as in past years. One observed result was the private sector exploitation of farmers, which caused the producer price of maize to fall.

In contrast, the prices of manufactured agrifood products generally remained stable. In **Madagascar**, the Ministry of Trade operated an observatory of prices and sanctioned price hikes for agricultural and processed agrifoods. With many lost jobs and reduced purchasing power, consumers also often refused to pay higher prices, preferring to go without. In **Kenya**, by contrast, some SMEs lowered prices to move stocks, or to liquidate perishable products. Inflation in the country remained stable at 5 percent, maintaining the costs of goods. Furthermore, in various countries the agrifood manufacturing sector became more competitive, with an influx of new small and medium enterprises (SMEs) offering products. As people lost jobs, some opened companies as an economic coping mechanism, leading to increased competition between similar products at a time of decreasing demand for the same items. Most existing SMEs chose to reduce capacity or close, rather than to compete with lower prices.

Certain basic agricultural commodities experienced sustained demand domestically, or even spikes of demand, while others struggled due to reduced demand and logistical blockages. While perishable products such as meats, fish, fruits and vegetables were more vulnerable to pandemic impacts, and demand for the more expensive meat products declined sharply, the impact was not universal, and livestock production showed resilience. In **Nigeria**, extensive livestock production, requiring low inputs, fared well during the lockdown. In the dairy sector by contrast, milk collection schemes did not function properly. In **Ethiopia**, the livestock population is managed largely by the pastoral community using grazing land, and there have been no shortages of milk, meat or other livestock products. Poultry farmers across all countries lost many birds which they were unable to sell during the pandemic period. In **Côte d'Ivoire**, cancellation of orders from fisheries led to rotting stock and the closure of fish markets. As the pandemic arrived at the start of the fishing season, fishing boats did not initially go to sea, resulting in blocked working capital. Local demand for horticulture products generally fell, although it was sustained in **Kenya**. Regardless, horticulture exports from Africa collapsed. In other countries, consumption of raw vegetables declined from rumours that they spread the virus. In contrast to the impact on perishables and more expensive foods, people prioritized staples and non-perishables for stockpiling, often leading to an increase in prices for these goods.

Source: Interviews with key stakeholders.

affected field crops and cash crops. The ban on interstate travel prevented in-country movement of migrant labour, which reduced the number of hectares that farmers could cultivate, affecting in particular subsistence crops such as millet, cowpea and cassava. Observers feared a 2020-2021 food shortage and a supply deficit of raw materials to agrifood manufacturing SMEs. Nigeria's exports of cocoa and oil palm were also expected to fall due to these labour and logistical restrictions.

Similar restrictions in mobility were also reported in **Ethiopia**, where massive numbers of informal workers were unable to travel to find work, including in the agricultural sector. Movement restrictions also interrupted the distribution of inputs in the country. In **Madagascar**, COVID-19 appeared during the harvest period of the primary food crop, rice; however, restrictions did not affect the main rice-producing regions until after the harvest.

Restrictions in movement between urban and rural areas were also observed to have affected the delivery of agricultural extension services, as many service providers are based in urban areas. The inability to conduct on-farm extension visits was credited with causing a 15 percent reduction in crop yields in **Kenya** (WCDI, 2020a). Such reductions may impact the availability and price of raw materials for manufacturers in the future. Movement restrictions also interrupted the ability of extension agents to reach fields in **Ethiopia** (WCDI, 2020b).

Nonetheless, the longer-term impact on the agricultural sector is not clear. As opposed to the 2008 food crisis, energy prices have declined as an aftermath of the pandemic. This implies lower energy costs for mechanization, irrigation and transportation, as well as lower costs for energy-intensive inputs such as pesticides or electricity. This translates into stabilized farm incomes and downward pressure on prices for basic foodstuff (FAO, 2020c).

The reduction in export earnings and reduced ability to import food may stimulate domestic production. Additionally, lower demand for labour in urban areas (which will experience a much higher increase in extreme poverty than rural areas) may push workers into agriculture, further contributing to expanded domestic food production. Nonetheless, individual incomes would remain low (Laborde, Martin and Vos, 2020). There is already evidence that more people are moving into agriculture in SSA as result of the pandemic (Amankwah, Gourlay and Zezza, 2021).

Having documented the general effects of the pandemic which hold implications for the agrifood sector, the subsequent sections of the report delve into the survey and interview results, assessing the impact of the overall crisis on firm revenue, cash flow and capacity. The report then looks at government measures implemented in each country and examines how these have affected agrifood processors. This assessment is followed by an examination of the disruptions that firms have experienced with respect to demand, supply and finance.

4.

Survey results

4.1 Agrifood manufacturing profile

This section of the report provides a categorization of the markets and supply channels of agrifood manufacturing companies, and describes the main buyers and supply sources. By classifying buyers and supply channels according to enterprise size, the report highlights the differences between SMEs and large companies. The section also classifies all agrifood segments included in the survey based on the following categories: (i) those with a higher percentage of exporting firms; (ii) those with a higher percentage of firms selling domestically, but using imported inputs in production; and (iii) firms focused on the domestic market that source raw materials from domestic suppliers.

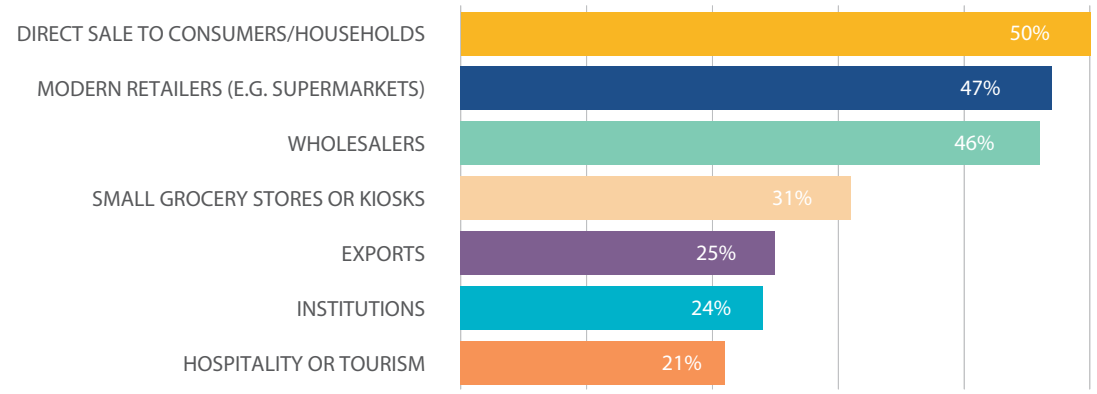
MAIN BUYERS

The greatest percentage of agrifood manufacturers sell directly to households or consumers (50 percent), and retailers (47 percent), followed by wholesalers (46 percent).

As expected, a smaller percentage of firms ranked "export" as a primary market channel. Few firms reported hospitality sector businesses or institutions as among their primary buyers, which partially shielded the majority of agrifood manufacturing SMEs from the closure of these sectors during the COVID-19 pandemic. Figure 4 presents the primary buyers of SMEs.

When the data are disaggregated by company size, the contrast between SMEs and large companies

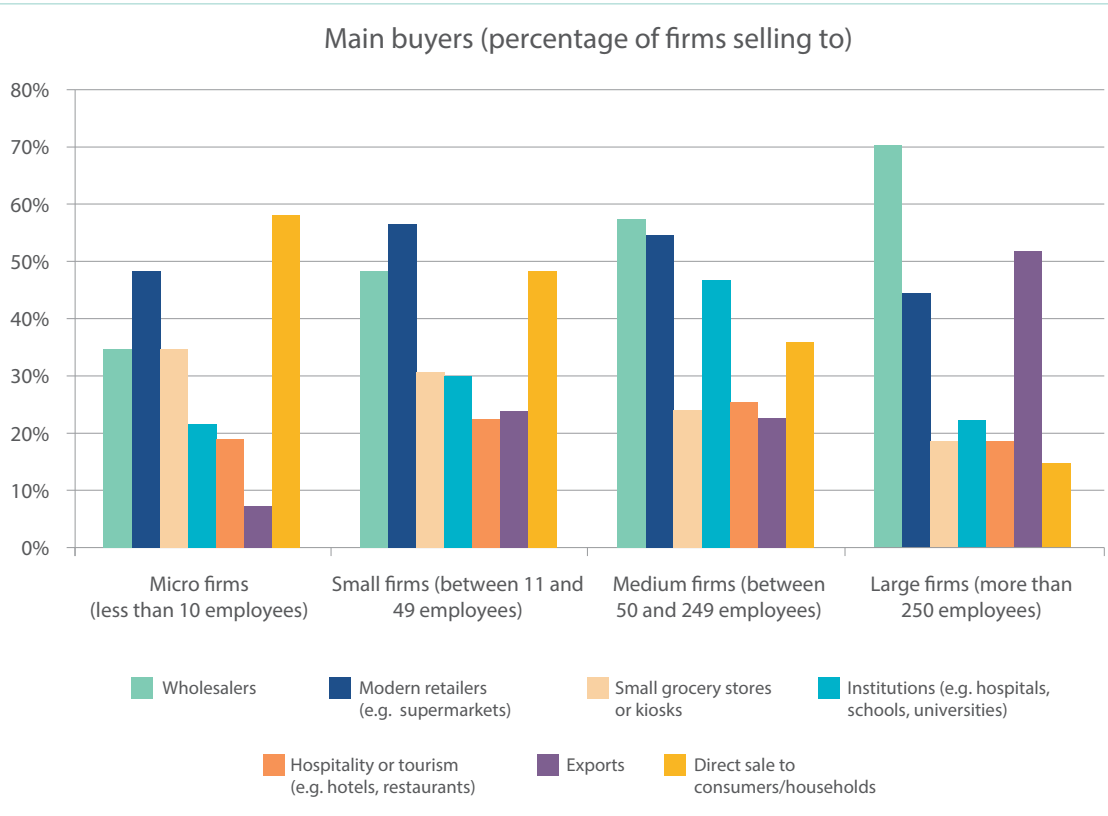
FIGURE 4. Main buyers by sales volume, 2019



Source: Survey data

becomes apparent: larger firms are more likely to export and to sell to wholesalers. Small and medium-sized firms are more likely to sell to retailers (see Figure 5), although the gap with micro firms is not large – 48 percent as opposed to 55 percent – which could suggest that supermarkets and modern stores

FIGURE 5. Main buyers/markets by company size in 2019



Source: Survey data

Table 3. Main buyers of surveyed companies, 2019

Country	Percentage of firms selling to:						
Country	Wholesalers	Retailers	Small grocery stores or kiosks	Institutions	Hospitality	Exports	Direct sale to consumers
Côte d'Ivoire	54	48	40	21	16	27	63
Ethiopia	56	50	21	35	23	21	40
Kenya	33	30	26	19	15	45	35
Madagascar	37	27	20	6	25	46	41
Nigeria	60	59	31	35	25	10	57
Zambia	27	59	43	23	19	10	55
All countries	45	50	30	29	21	20	48

do not discriminate severely against smaller firms as previously indicated in the literature (Reardon and Hopkins, 2006). Rather, institutional buyers are much more likely to buy from medium firms (47 percent), as compared to micro-firms (22 percent) and small firms (30 percent).

Nonetheless, smaller firms are much more likely to sell to small grocery stores or directly to consumers and households. .

A greater percentage of companies in Kenya and Madagascar export products. Direct sales to consumers/households was a leading sales channel in Côte d'Ivoire. The highest percentage of firms in Nigeria and Zambia sell to modern retailers, confirming the existence of a "supermarket revolution" trend in these countries (AfDB, FAO and ECOWAS, 2015; Ziba and Phiri, 2017). Wholesaling was prevalent in Ethiopia and Nigeria. Institutional buying is least prevalent in Madagascar, while Nigerian and Zambian food enterprises are least likely to export. Kenya presents an interesting case as a leader in supermarkets across the continent, but lacking a dominant sales channel unlike the other countries.

Table 3 presents a breakdown by country, and also reveals that firms diversify their sales channels, since 440 companies provided 673 responses.[5]

SOURCES OF RAW MATERIALS

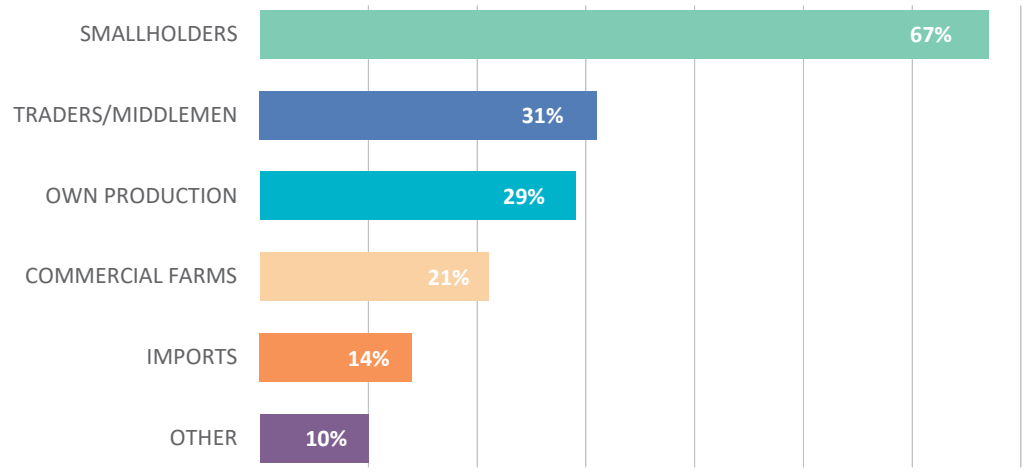
The largest number of SMEs source raw materials from smallholder farmers (almost 70 percent of respondents), with 31 percent of firms also indicating traders/middlemen as suppliers, as shown in Figure 6. Fewer SMEs import raw materials.

When compared by company size, Figure 7 shows that the differences in how SMEs and large companies source raw materials are not pronounced. However, a greater number of large companies import materials than is the case for SMEs.

When sources of raw material are analysed by country, smallholder farmers remain the largest suppliers to agrifood manufacturers, particularly in Kenya. Generally, a combination of farmer and trader suppliers seems to be a prevalent choice in most countries. In Côte d'Ivoire and Madagascar, traders/middlemen do not play a prominent role. Nigeria has the greatest number of firms procuring through traders at 56 percent of firms. Table 4 presents these national differences in supply. Surprisingly, Côte d'Ivoire is the most vertically integrated among the six countries given that almost half of respondents engage in their own farm production; at the same time, it is also the country least modernized in terms of sales channels.

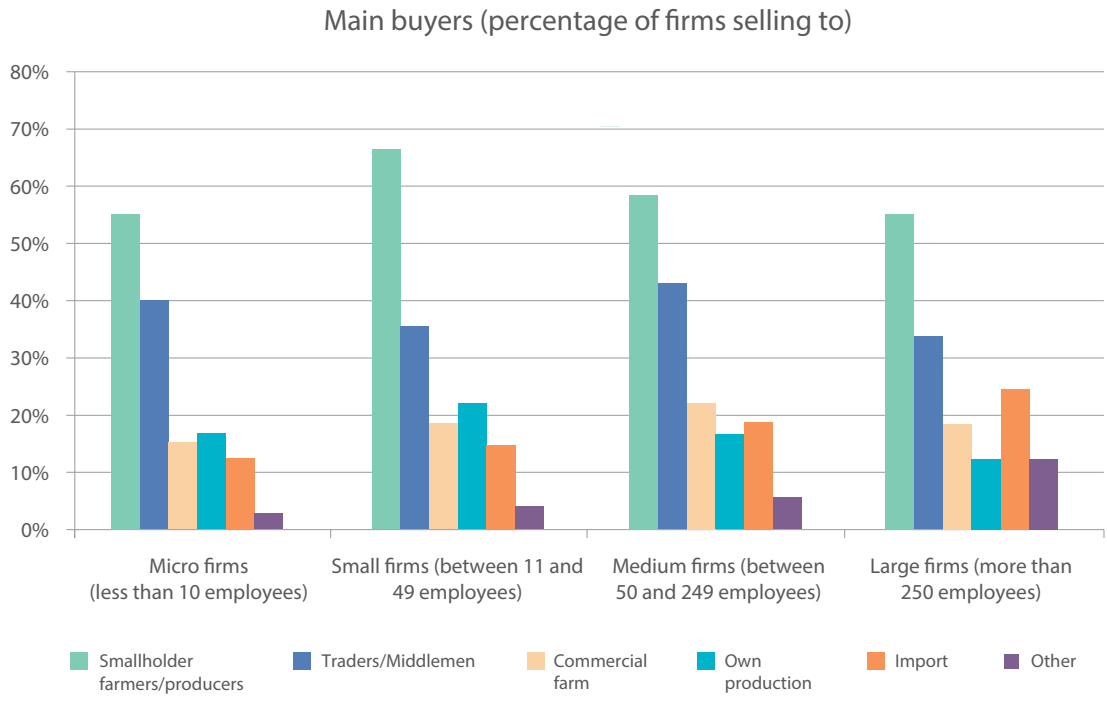
5 Companies were allowed to choose more than one response.

FIGURE 6. Sources of raw materials, 2019



Source: Survey data

FIGURE 7. Sources of raw materials, 2019



Source: Survey data

Table 4. Main suppliers of surveyed companies, 2019

Country	Smallholder farmers/ producers, %	Trader/ middleman, %	Commercial farm, %	Own production, %	Import, %	Other, %
Côte d'Ivoire	61	6	19	48	9	21
Ethiopia	65	45	24	15	29	12
Kenya	87	42	18	22	6	2
Madagascar	48	5	28	27	7	15
Nigeria	63	56	27	21	19	3
Zambia	78	36	13	33	17	5
All countries	72	45	21	23	18	5

4.2 Impact of the pandemic crisis on revenues and capacity

This section details the ways in which the above-mentioned issues resulting from the pandemic affected the firms surveyed in terms of revenues and capacity. The following section discusses the government measures in more depth, as well as the main demand and supply-side factors that have triggered these impacts.

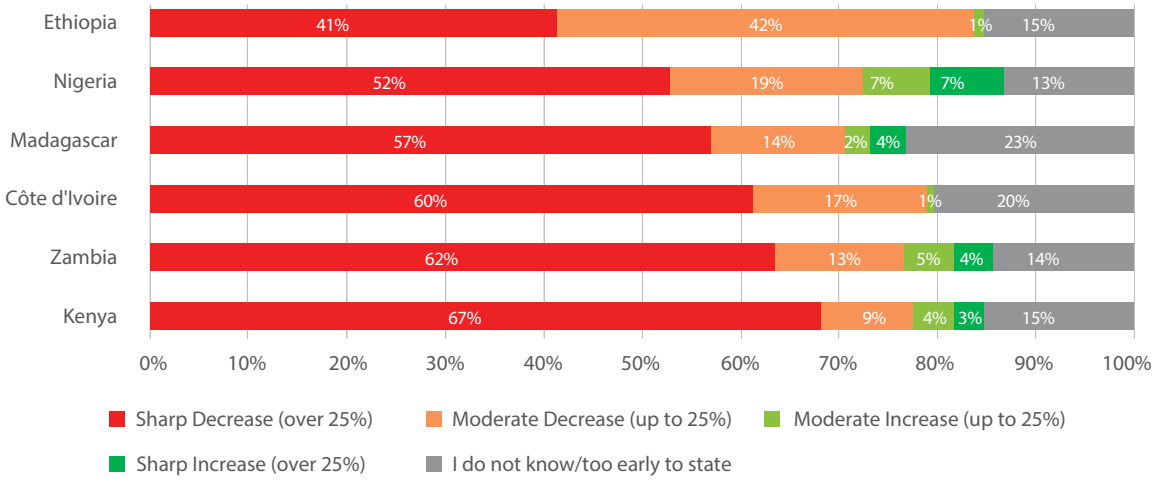
REVENUES

The large majority of companies in all surveyed countries forecast a sharp decline in turnover for 2020, as shown in Figure 8. The proportion of firms expecting sharp decreases in revenue range from 41 percent in Ethiopia to 67 percent in Kenya.

Ethiopia seems the most affected among the six countries with 83 percent of firms expecting decreases in revenue; however, it is the only country where the impact is more likely to be moderate than sharp. This could be attributed to the fact that most firms surveyed in this country (60 percent) are engaged in wholesaling generic products, thus not incurring losses associated with branding.

Kenya, which leads on exporting, is the country where the sharpest decreases in revenue are expected, providing further evidence that global value chains have been more affected than domestic ones.

FIGURE 8. Expected impact on firm revenue in 2020 due to COVID-19

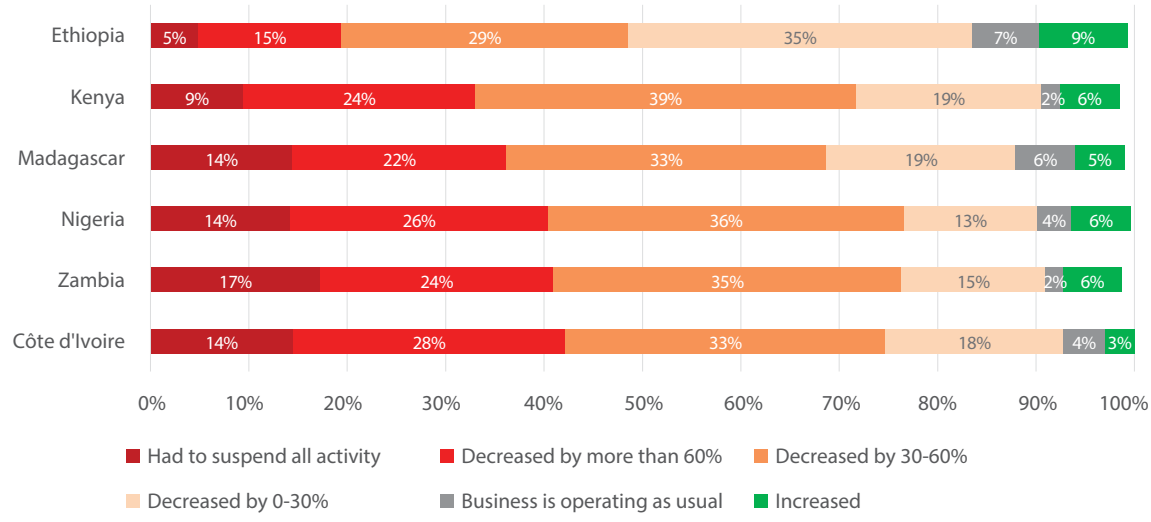


Source: Survey data

CAPACITY

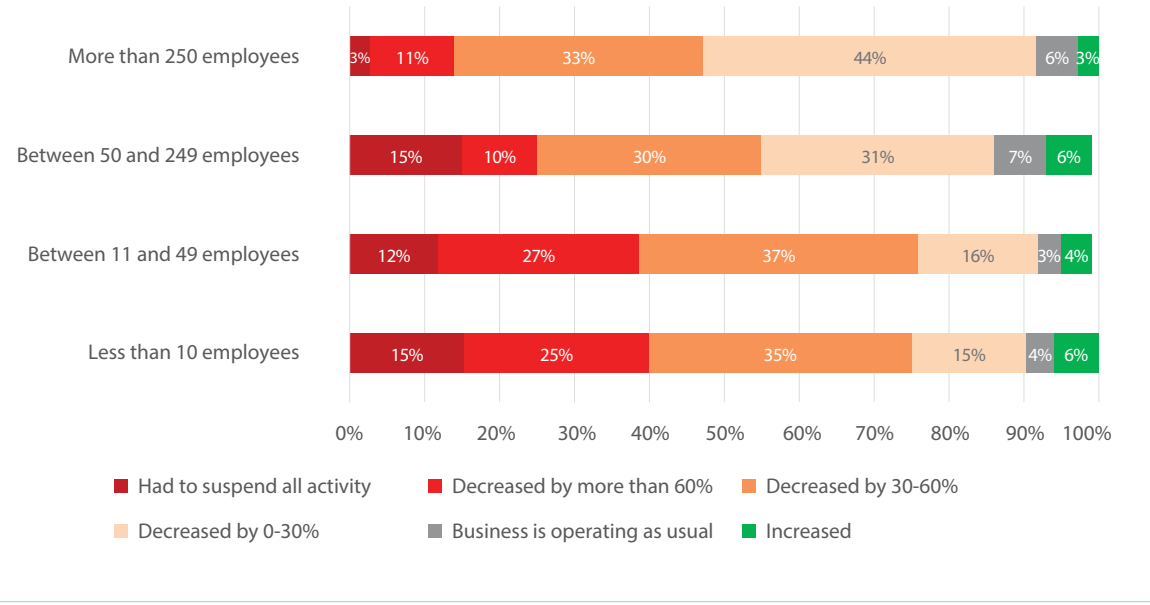
Across countries, about 30 percent of companies reduced capacity by 30–60 percent, with another 25 percent reducing capacity by over 60 percent (see Figure 9). In the majority of countries about 14 percent of firms shut down their operations.[6] Ethiopia had the fewest closures and fewer companies reducing capacity by over 60 percent, due likely to the sample containing more medium-sized firms responses. This difference in the data

FIGURE 9. Capacity of firms compared to 2019, by country



Source: Survey data

FIGURE 10. Capacity of firms compared to 2019 by company size



6 A separate study of the entire SME sector in Côte d'Ivoire presented similar findings for agroprocessors of which 43 percent stopped their activities, with those in global commodity value chains more impacted than those in food value chains (Agence Côte d'Ivoire PME and UN Women, 2020).

from Ethiopia may indicate that larger companies were better able to adapt to changes in markets, to coordinate their supply chains to source inputs under difficult circumstances, and to engage with the financial sector to secure financing. As a result, fewer of these larger firms experienced sharp reductions in capacity.

In terms of capacity, the majority of firms in the survey were negatively impacted by the pandemic, ranging from 84 percent of firms in Ethiopia to 93 percent of firms in Côte d'Ivoire having to reduce their capacity to some extent. The percentage of businesses operating as usual is trivial in all countries.

The pandemic's impact differed by firm size, as shown in Figure 10, with smaller SMEs being more likely to reduce capacity to a greater extent than larger companies. The latter were also less likely to close their business indefinitely. Large companies were also more likely to experience a decrease in capacity in the range of 0-30 percent, whereas around 75 percent of SMEs reduced capacity by over 30 percent – demonstrating that smaller SMEs were less able to adjust productively to the impacts of the pandemic.

4.3 Government measures

In response to the COVID-19 pandemic, governments initially adopted a set of measures aimed at containing the virus. This approach was essential given the poor capacity of the healthcare system in many countries worldwide. Generally, the measures were aimed at restricting the movement of people, including migration of labour and the transportation of goods or services that rely on transport. However, these restrictions translated into logistical disruptions in agrifood supply chains, holding up shipments of food or agricultural inputs. Such disruptions, in turn, can have negative impacts on the quality and safety of food, increase prices and block access to markets (FAO, 2020d).

While government restrictions impacted the movement of people and agricultural goods within countries and across international borders, and border checks, curfews, delays and other restrictions increased expenses, agricultural and agrifood supplies to SMEs and consumers were generally not completely disrupted.

TRANSPORTATION OF GOODS AND PEOPLE WITHIN COUNTRIES

Generally, the intra-country movement of people between states or provinces was curtailed, but not halted. In nearly every country, buses and other means of public transport were ordered to operate at half capacity. In some countries, the movement of people between states or provinces was not allowed. In Madagascar, for example, the government closed provinces as cases of the virus appeared, leaving other areas of the country open. Even during these closures, trucks transporting agricultural goods were allowed to circulate. However, a large percentage of agricultural goods are transported informally on passenger transport – a fact overlooked by the policy – and so the ban on passenger transport significantly interrupted the distribution of agricultural and agrifood products nationally. The government later introduced corrective measures to reduce the disruption. In Nigeria, interstate travel for people was completely banned, while trucks carrying agricultural cargo were allowed to circulate. However, while policies sought to keep open the supply of food products to the population, travel bans on individuals hindered the movement of the agricultural labour force. In Zambia, transport lockdowns were not introduced, and cargo and passenger vehicles were allowed to circulate, although through checkpoints.

Curfews and quarantines of major cities impacted not only the movement of people but also of agriculture and agrifood cargo. Dusk to dawn curfews were imposed in Abidjan, Nairobi and other cities, as well as quarantines, cutting these cities off from the rest of the country. In Kenya and Côte d'Ivoire, the ability to entry and exit capital cities

was contingent on having a permit. However, even for essential workers with permits, checkpoints along roads made transport inefficient, driving up the costs for individuals and SMEs. In East and West Africa, night-time curfews also had unintended consequences for the transport of livestock, meat, vegetables and other perishable products, which are transported by night to avoiding excessive daytime temperatures. In Nairobi, food transport workers and agribusinesses were later exempted from the curfew and travel restrictions. The bans created logistical bottlenecks, drove up transport costs and created excessive food waste, impacting agribusinesses and agrifood manufacturing SMEs. As discussed above, disruptions in the logistics of agrifood value chains have had negative implications for safety and quality, decreasing affordability and ultimately threatening food security and nutrition (FAO, 2020e).

DISRUPTIONS IN THE CROSS-BORDER TRANSPORT OF GOODS AND PEOPLE

Only a few countries worldwide closed international borders, and those that did generally reopened them before long. Concerning the countries studied, the customs offices operated with varying levels of efficiency during the pandemic, with those in Kenya reported to be approving goods at full capacity, while those in Madagascar suffered from reduced staff and hours.[7] Additionally, even when countries made an effort to facilitate exports, transport delays such as quarantines and inspections at international borders created delays. The movement of people across international borders ceased completely for a time. With the exception of cargo flights, international and domestic air travel was suspended in every country. Several countries barred national entry for a period of months, especially for people arriving from areas with rising infections, exempting only citizens and residents. Quarantine facilities were established and 14-day isolation was required for people returning from abroad. In Kenya, the suspension of passenger flights had an unintended impact on agricultural exports as passenger flights carry as much as half of the cargo exported from the country, including agrifood products.[8]

Except for a few countries which completely sealed international borders – policies which were quickly rescinded in most cases – air, maritime and terrestrial border closures for agricultural and other goods were rare. Côte d'Ivoire provides a counter example, as international maritime and terrestrial borders were closed from April to July even for food products, with only airports remaining open. However, even in the case of borders being open for cargo, COVID-19 screening and quarantines created massive delays. In Kenya, for example, transport trucks were observed at the Ugandan and Tanzanian boarders, waiting in 40 km queues (WCDI, 2020a).

In Zambia, the government did not close international borders, but this action was taken by neighbouring countries (Botswana, Namibia and South Africa). As a landlocked country, this interrupted the supply of agricultural commodities, food products and other supplies, as well as temporarily stopping exports.

Finally, different countries coped differently with reductions in personnel and the implementation of teleworking at customs offices, including for maritime shipping. Authorities in Kenya reported that the movement of cargo ships continued at the same pace as before the pandemic, while in Madagascar physical distancing requirements leading to reduced staff created lengthy delays in obtaining customs documents.[9]

LABOUR-RELATED MEASURES

Unlike SMEs in other economic sectors, manufacturing companies were not required to stop operations. However, government requirements did increase expenses and undercut manufacturing

7 Key informant interview.
8 Key informant interview.
9 Key informant interviews.

productivity. In addition to the disruptions in domestic and global demand, and distribution and blockages in access to raw materials and other supplies, the main confinement measures impacting agrifood manufacturing SMEs involved mandated physical distancing, workforce reductions in factories, the provision of hand sanitizer and personal protective equipment (PPE), and setting up quarantine zones. Some 29% percent of SMEs in Kenya and around 20 percent of SMEs in the other selected countries reported difficulties in accessing PPE.[10]

Companies were also required to provide private transportation for workers, with buses filled only to half capacity – rather than allowing employees to use public transportation. While these added transport costs would have been trivial for large companies, they represented a significant expense even for large SMEs. In Kenya and other countries, SMEs reported stopping operations to avoid these added expenses.[11] In Ethiopia, city-wide lockdowns prevented the employees of agrifood manufacturing firms from reaching manufacturing facilities at all.

Interdictions on interstate or interprovincial travel often prevented the transport of non-agricultural supplies of SMEs within countries. These restrictions interfered with the movement of equipment and machinery needed for manufacturing, as well as supplies such as packaging. While supplies needed by agrifood processors were not explicitly forbidden from entering the country, companies had difficulty importing critical inputs such as packaging materials. In Kenya, 55 percent of agroprocessors reported being unable to secure sufficient supplies to meet demand (WCDI, 2020a). In Zambia, drivers from countries with high infection rates, including from the pandemic epicentres of South Africa and Tanzania, were identified as having a high likelihood of transmitting COVID-19, and accordingly quarantined or forbidden entry, causing extended delays. Stocks of supplies generally held by Zambian SMEs to last three to four months, proved insufficient. As noted earlier, procedures to secure necessary administrative papers to import or export products also experienced delays in some countries.

IMPACT OF GOVERNMENT MEASURES ON THE SURVEYED COMPANIES

As shown in Figure 11, over half of all companies responded that they were negatively impacted by government restrictions, with Kenya having the most SMEs affected, and Madagascar the fewest. The widespread impact in Kenya may be related to the importance of the tourism sector, which collapsed, or the fact that more SMEs in Kenya export than in other countries. The Government of Kenya also took a rigorous approach to enforcing the restrictions. .

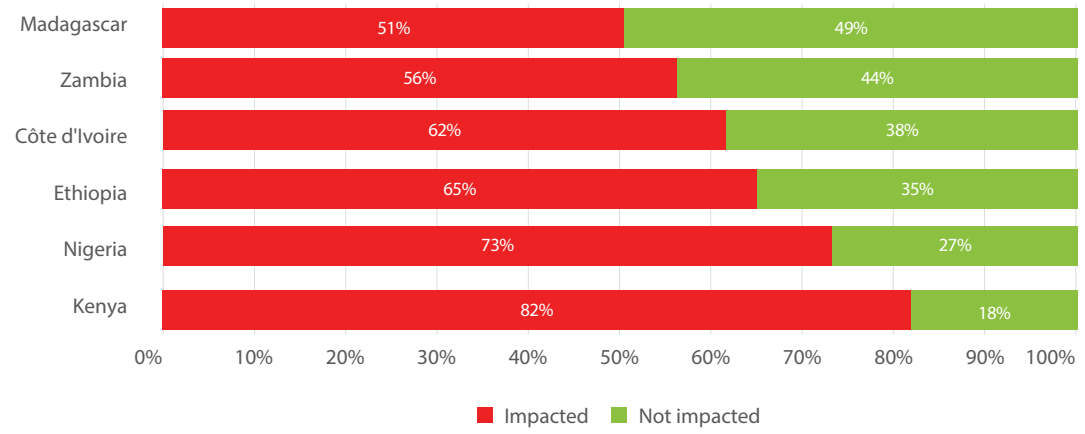
Table 5 ranks the impact of various government restrictions on companies. The most impactful government measure is restriction on the mobility of goods, with over half of firms interviewed identifying it as one of the most significant constraints on their business. .

Furthermore, while the intention was to exempt agricultural and agrifood cargo from the bans, shipments were often interrupted or delayed, as was the movement of non-agricultural supplies and processing equipment. Thus, even beyond the reductions in global and local demand, transport restrictions threatened companies by undermining the functionality of supply chains.

Nearly as many SMEs were affected by the second most impactful restriction relating to the use of public transport and the general movement of people. As discussed above, workers were often unable to reach manufacturing facilities, forcing companies to provide costly private transport. In some cases, mobility restrictions also prevented workers from reaching farms.

10 Survey data.
11 Key informant interview and survey data.

FIGURE 11. Percentage of enterprises impacted by government restrictions



Source: Survey data

Table 5. Government restrictions impacting businesses*

Government restrictions	Firms impacted (%)
Restrictions affecting the movement of goods within the country	57
Restrictions in the use of public transport and general movement of people	47
Closure of restaurants, hotels and other workplaces	47
Restrictions on number of staff able to work at the same time	46
COVID-19 compliance practices and equipment required in factories or manufacturing plants	39
Closure or restrictions of food markets and food distribution points	37
Import restrictions on equipment or inputs (e.g. packaging, ingredients, commodities)	30
Restrictions affecting exports	27

Source: Survey data

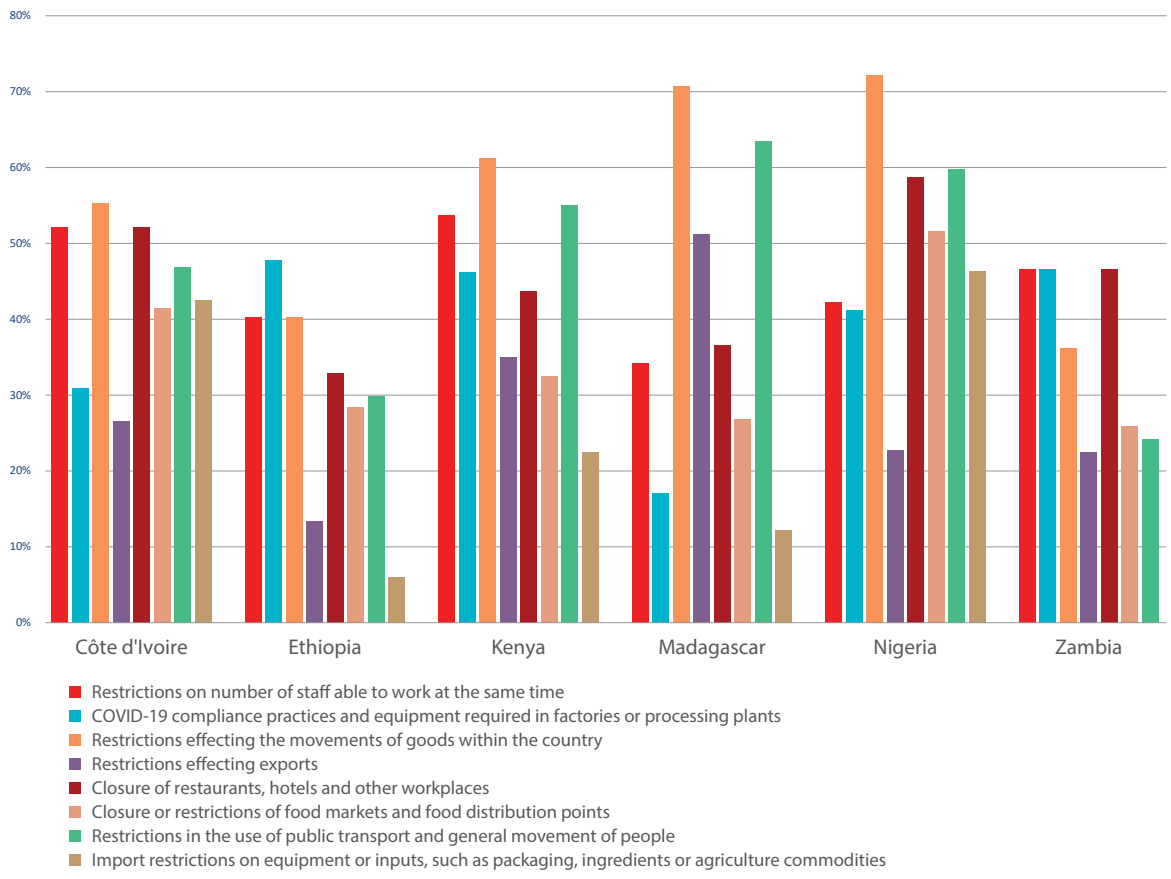
* A survey of agricultural value chain entities in Côte d'Ivoire provides a useful comparison. The results showed that the most disruptive measures to agrifood processing companies were the quarantine of Abidjan (with 83 percent of companies affected), followed by the curfew (70 percent) and, in agreement with Table 5, border closures (54 percent) and restaurant closures (46 percent) (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020).

As shown in Table 5, restrictions on the number of staff able to work at the same time reduced capacity in facilities, and likely increased production costs. Another restriction that created additional expenses for SMEs was the enforcement of compliance practices and equipment required in manufacturing facilities.

The closure of certain market segments also had a wide impact on SMEs, effecting mostly restaurants, hotels and workplaces. Companies selling to retailers were thus relatively more shielded than those working with the hospitality industry. These buyers represent major sales channels to agrifood SMEs, either indirectly through wholesalers, or directly through orders to SMEs.

Restrictions affecting imports and exports impacted fewer SMEs than the other restrictions, since few SMEs export, and hardly any consider imported inputs to be a key supply element. Finally, as discussed above, international borders were generally open to cargo, such that exports or imports, while interrupted due to changes in global supply networks, were rarely restricted by governments, thus making the global trading system

FIGURE 12. Government restrictions directly or indirectly affecting businesses, by country



Source: Survey data

for any given commodity more resilient to shocks – an approach that contrasts markedly with the havoc created by the 2008 food crisis (FAO, 2020c).

Figure 12 shows these restrictions by country. In Ethiopia and Zambia, restrictions affecting the movements of goods within the country had a lower impact. In Ethiopia, the restriction with the greatest impact was compliance practices and equipment required in facilities; while in Zambia, restrictions on the number of staff able to work together, compliance practices required in facilities, and the closure of restaurants, hotels and other workplaces had the most significant impact.

4.4 Demand, supply and firm finances

The COVID-19 pandemic and the subsequent government restrictions undercut demand for SME agrifood products by reducing sales in domestic and international markets, while simultaneously creating various supply-related challenges for companies. This double shock to demand and supply, compounded by elevated expenses and other challenges, led to financial problems for SMEs, which are described in this section. Other national level studies also confirm these findings.[12]

12 In Côte d'Ivoire, according to a national survey, the primary impacts, in order of severity, were the decrease in sales (82 percent), difficulty of cash flow (72 percent), supply disruption (61 percent), difficulties in accessing markets (57 percent), loss of orders (47 percent), and difficulties in accessing inputs and seeds (42 percent) (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020).

TRADE, MARKETS AND FINANCE

As discussed earlier in the report, a large percentage of SMEs count wholesalers as their primary buyers. This is particularly true for the larger SMEs. Wholesalers/distributors faced similar challenges as those described in the sections on trade/transport and aggregation – including mobility restrictions, lack of liquidity and reduced access to credit. Many distributors suspended activities as a result of market disturbances, leading to blocked or reduced market access in certain value chains.

In addition to the restrictions and pressures on the transport of goods, aggregators have also been constrained by a lack of capital. Hit by the double impacts of decreased sales, and banks limiting lending to intermediaries, aggregators and transporters have experienced a liquidity crisis. Indeed, financial institutions themselves have faced their own challenges during the crisis due to declines in clients' abilities to pay and the pressure to absorb more risk (FAO, 2020f).

Some intermediaries stocked staple foods and other goods which initially experienced spikes in demand, only later to be unable to sell them. Several agrifood value chains were constrained as traders were not able to continue providing supplier credit to retailers. In Madagascar, due to reductions in demand linked in part to limited operating hours at markets, intermediaries decreased producer prices paid to farmers, with market-garden products, for example, seeing price cuts in the range of 17-30 percent.[13]

The closure of entire market segments reduced consumption opportunities for people and deprived SMEs of important markets. Educational institutions such as schools, which were key buyers particularly for large SMEs, generally closed in March, eliminating markets for agrifood segments such as cereals, dairy products and eggs. The tourism and hospitality sector collapsed, and hotels, restaurants and cafes were ordered closed in nearly every country. Confinement closures of restaurants and hotels led to a reduction in demand for some agrifood categories, such as meats, fresh fruits and vegetables. In Côte d'Ivoire, the closing of the characteristically Ivorian restaurants known as *maquis* deprived the urban population of its place for daily meals, which also represented a major market for agrifood manufacturing SMEs. In many countries, such closures were enforced for about two months, with restaurants re-opening for takeaway service, while the collapse of the tourism market continued.

Local markets in cities and villages

Countries took a varied approach to regulating city and village markets – which are the main source of food products for a large segment of the urban population, and the source of cooking products and other supplies for rural populations. Local markets are important also to SMEs, which procure supplies and sell products there. On the whole, markets remained open, but were regulated in opening hours and days. Some markets were relocated to open air settings, and physical distancing was enforced between vendors.

In Madagascar, markets were only allowed to remain open until 1:00 pm. The limited hours and fewer people led to surplus produce, which in turn increased food wastage. In addition, the lack of infrastructure such as cold storage resulted in a collapse in market prices near market closing time.[14] In Kenya, 90 percent of local markets were functional, except in major cities and coastal regions, where they were closed and relocated. Additionally, livestock sales shifted from markets to farms. In Côte d'Ivoire, the major neighbourhood markets of the capital were closed or relocated, but other smaller markets and rural markets continued to operate. In Nigeria, during the most restrictive period, markets were only permitted to open once per week, or for a half day. As the lockdown was

13 Key informant interview.
14 Key informant interview.

lifted, markets were gradually allowed to open more frequently. The market restrictions in Nigeria were noted to have serious negative implications for both raw material supply and sales of SMEs. No restrictions were noted in the functioning of markets in Ethiopia; however, government advice to avoid crowding reduced the amount of time people spent there.[15] Similarly, in Zambia, the population largely self-regulated their frequenting of markets despite a lack of official restrictions. Many middle-income Zambians switched to purchasing food in supermarkets instead of markets, where masks could be worn and physical distancing better observed.[16]

SMEs in global valued chains generally fared worse than those in domestically focused chains, due to the collapse in export demand for many of the continents' main exports. The end-buyers of Africa's main export crops, such as coffee and cocoa, as well as nuts, vegetables and flowers, stopped purchasing due to lockdowns in Asia (India), Europe and North America. In addition to the cessation of international orders, other value chains were impacted by supply chain issues, including the reduction of cargo flights needed for transporting fruits and vegetables.

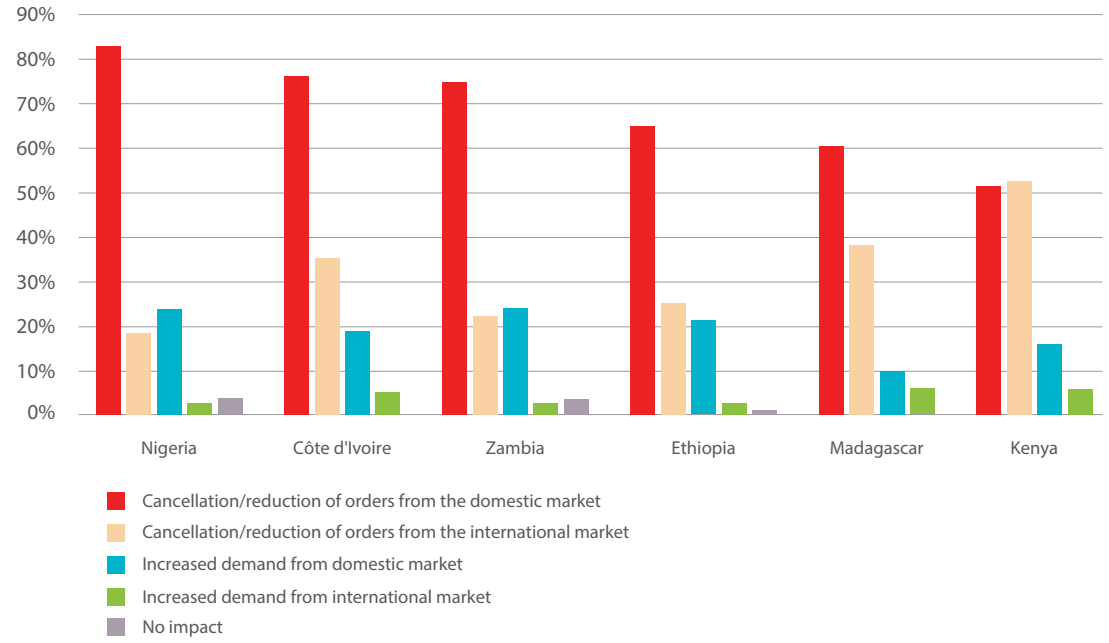
The economy of Côte d'Ivoire is heavily dependent on exports of agricultural commodities. While production and harvesting proceeded essentially uninterrupted, the pandemic did affect international contracts and orders. A decline in global demand led to cancelled or postponed contracts in the coffee-cocoa sector, leaving producers with unsold commodities and causing a collapse in prices at the producer level. Although sales in this sector are made under deferred delivery contacts, and most of the harvest was sold prior to the onset of the pandemic, contracts were still suspended and multinational aggregation centres in the interior of the country were closed. Contracts were also suspended for other export crops such as cashew, mango, pineapple and banana. In the case of cashew nuts, for example, a 25 percent decline in the global price resulted in a 25-60 percent drop in producer prices, below the price mandated by the government (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020). These value chains will continue to be heavily impacted by the interruption in international financing.

Ethiopia's major export crop coffee maintained relative stability, as global demand for coffee did not entirely collapse. While coffee consumption at restaurants and coffee shops, which represents 25 percent of global demand, did drop severely, increased purchases for home consumption compensated somewhat for this decline. However, global futures for coffee are down 10-13 percent, with a slow recovery expected. As coffee represents a stable commodity of basic need, the impact on Ethiopia's coffee sector may be of consequence later – especially as the coffee tree requires three years to bear fruit, and the pandemic delayed the planting of new trees. Furthermore, if COVID-19 continues or resurges in SSA, the coffee harvest could be impacted by travel restrictions leading to labour shortages, as discussed above. The oilseed sesame, also a key export crop of Ethiopia, will also be affected in the future, as less land was planted due to pandemic-related labour shortages.

Kenya is the world's largest exporter of tea (and second largest producer after India). Insecurity and declining demand in the European market and in Arab countries, due to COVID-19, undercut Kenyan exporters. Exports had grown by about 300 percent in the recent years; however, tea-producing companies have reduced returns as they aim to replace export market revenues with domestic market sales. Additionally, exports of the three largest agricultural sectors – tea, coffee and horticulture – are reported to be down 40 percent due to limitations in international transport and weak global demand. Regarding imports, the number of applications for import permits fell by half during

15 Key informant interview.
16 Key informant interview.

FIGURE 13. COVID-19 impact on demand



Source: Survey data

the early months of the year, as compared to 2019. Given the country's high dependence on imported agrifood and other products, a drop in imports could exert upward pressure on prices.

Zambia is another nation with high dependence on imports and exports, which has made it vulnerable to changes in global transport and demand resulting from the pandemic. As non-agricultural goods –an important revenue generator for the government – could not be exported, the government was not able to invest in stimulus, or to support the SME sector financially.

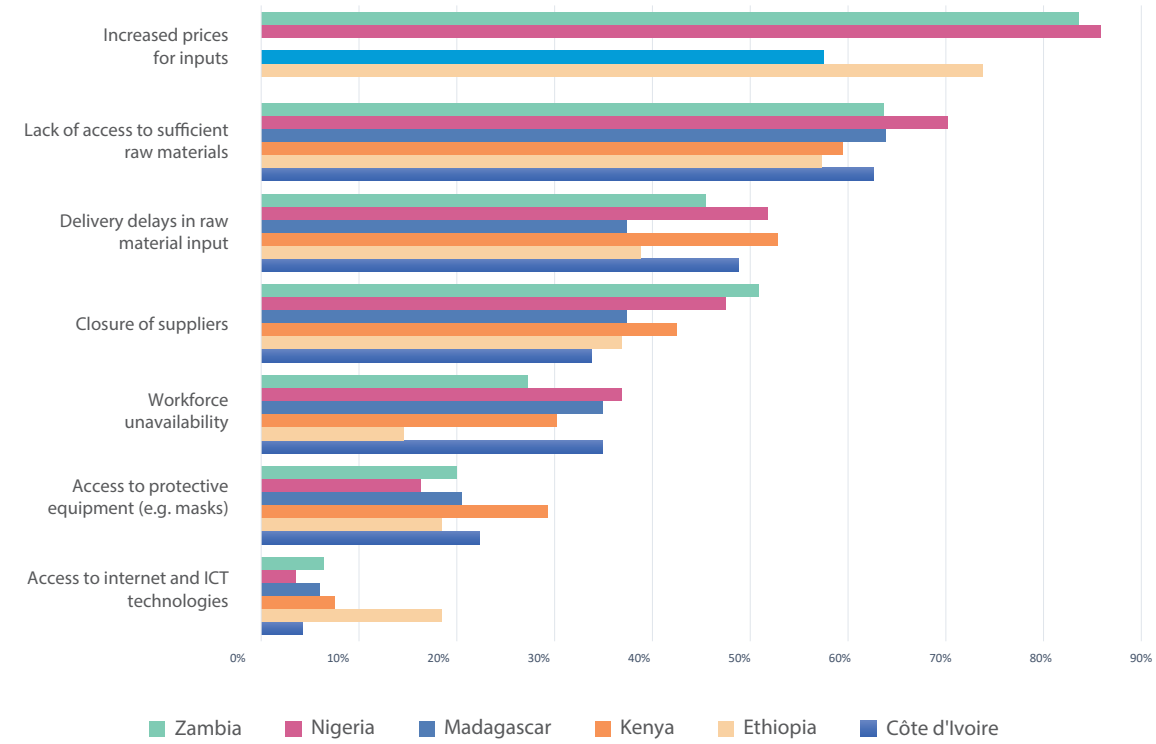
Imports to the Côte d'Ivoire also experienced disturbances. The price of sheep during the Muslim holiday Eid elevated sharply due to shortages, as these animals are generally imported from Burkina Faso and Mali, but faced border restrictions. Export restrictions by international trading partners (Thailand, Viet Nam) also led to a decline in imports of rice for consumption, and maize for animal feed. In addition, delivery times slowed: for example, onion imports from the Sahelian sub-region increased from four to five days to two weeks.

Figure 13 shows that over half of all respondents experienced reduced or cancelled orders from domestic market clients. Nigerian SMEs were the most affected since about 83 percent of enterprises experienced reduced/cancelled domestic orders.

Kenya is the only country where firms were equally impacted by reduced or cancelled orders from both domestic and international markets. This makes sense given that Kenyan firms were the most embedded in global value chains, as discussed above.

That more companies experienced reduced/cancelled orders from domestic market clients is reflective of the structure of SME sectors in the six countries, with most SMEs selling locally rather than exporting. Nonetheless, some firms (about 20 percent in Côte d'Ivoire, Ethiopia, Nigeria and Zambia) also experienced increased demand from domestic

FIGURE 14. Supply-related difficulties experienced by businesses due to COVID-19



Source: Survey data

markets. This may have been the case for more staple-oriented processors, perhaps due to panic buying during the initial stages of the pandemic.

IMPACT ON SUPPLY

In addition to reductions in sales demand, SMEs faced supply-related difficulties during the pandemic, as discussed earlier. Figure 14 shows that more than half of firms in all countries experienced two interrelated supply constraints – increased prices for inputs and lack of access to raw materials. This makes sense given that the measures with the greatest impact identified by the companies were restrictions on the movement of people and goods.

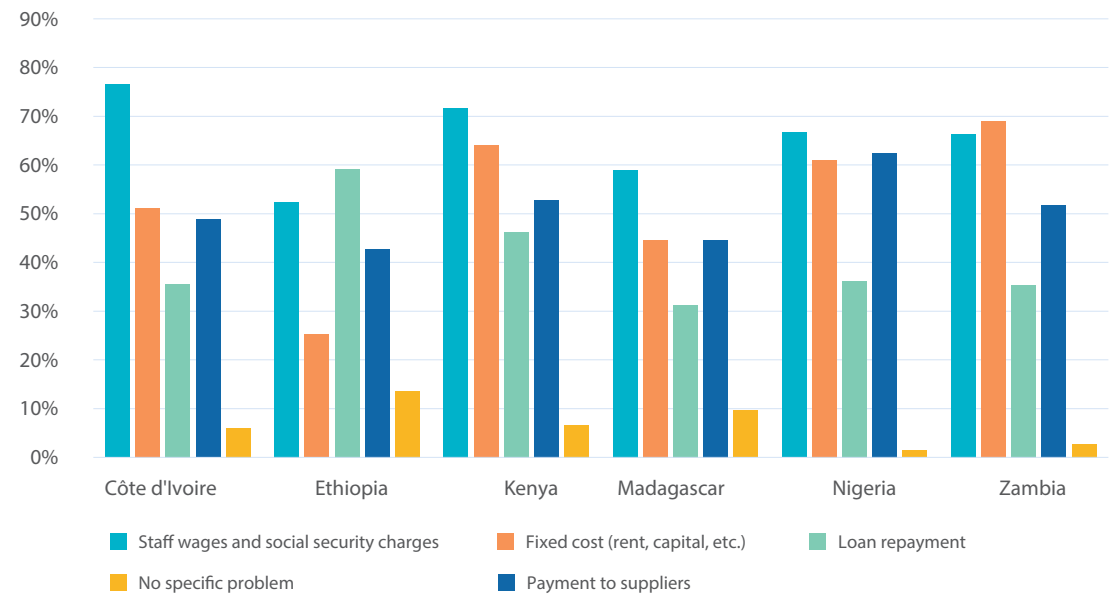
The most common challenge faced by large SMEs was delivery delays in raw material inputs – perhaps indicating that large companies had better supply chain management and were able to access raw materials, even if deliveries were delayed. Smaller SMEs more often dealt with a lack of access to raw materials. A similar study in Kenya specifically quantified the procurement challenges, and found that 40 percent of SMEs involved in agriculture reported a significant negative impact on their ability to source agricultural inputs, while 55 percent of agrifood manufacturers reported not having sufficient raw materials to meet current demand (WCDI, 2020a). In summary, the pandemic impacted both supply and demand – and both need to be addressed when designing responsive measures.

In Ethiopia, almost 20 *percent* of enterprises identified access to ICT technologies as a pandemic-related difficulty, a much higher proportion than found in the other countries. Madagascar and Côte d'Ivoire are also notable as no enterprises there identified increased prices for inputs as a challenge.

IMPACT ON SME FINANCES

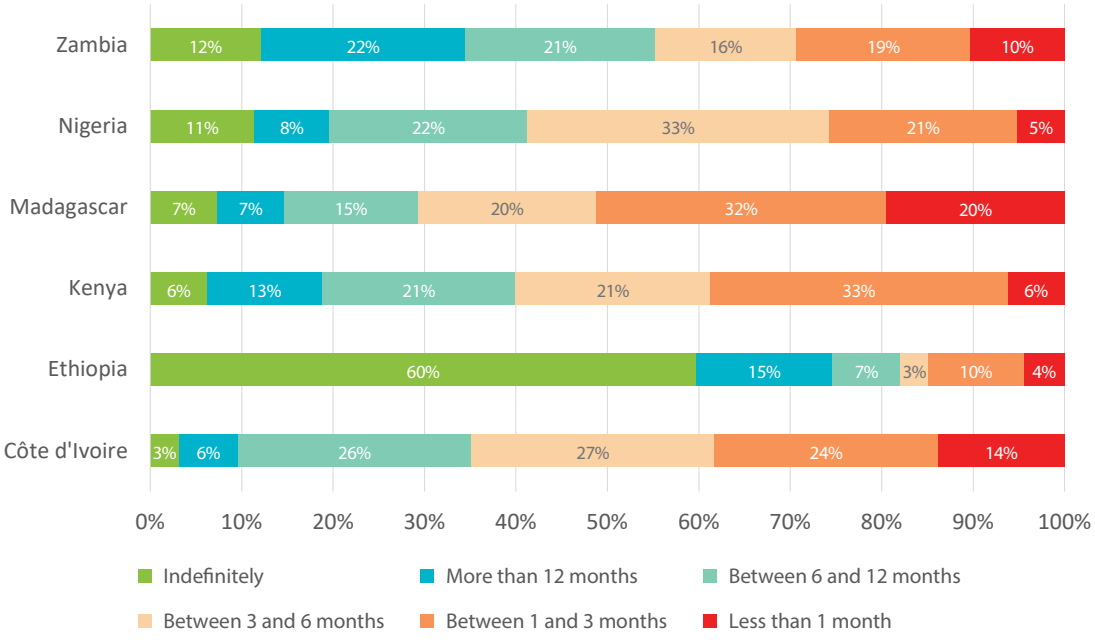
Access to finance is a lasting and repeatedly cited obstacle for the growth of SMEs across all types of economies, but in SSA is compounded by the general lack of available financial resources (Fjose, Grünfeld

FIGURE 15. Most significant financial problems facing firms during the outbreak



Source: Survey data

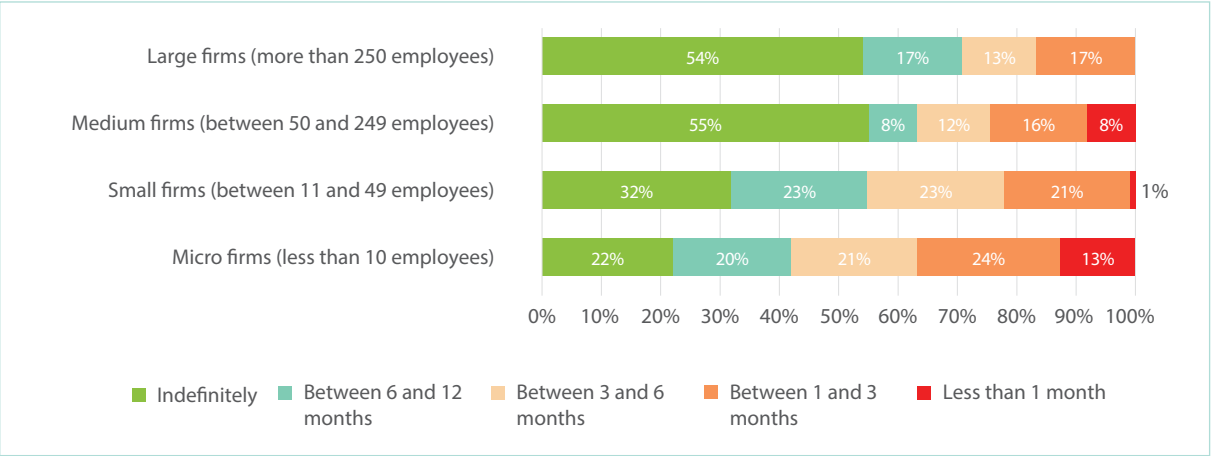
FIGURE 16. Months that cash flow can sustain the company under the restrictions



Source: Survey data

and Green, 2010). Given that SMEs face significantly greater challenges to their operations and growth potential than larger companies, the issue of finance looms large amongst obstacles (Beck and Cull, 2014). Indeed, inefficient working capital is often cited as a main factor leading to small business closure (Ekanem, 2010; Mead and Liedholm, 1998; Vuckovic, Veselinovic and Drobnjakovic, 2017)

FIGURE 17. Months that cash flow can sustain the company under the restrictions, according to firm size



Reduced sales due to the pandemic, compounded by sourcing difficulties and elevated expenses, created financial problems for SMEs. A pattern can be identified here: the most common problem related to payment of staff wages and social security charges, followed by payments to suppliers and fixed costs. Figure 15 show that for firms in Côte d'Ivoire, Kenya, Madagascar and Nigeria, paying wages and social security charges posed the greatest challenge. The top constraint in Zambia was paying fixed costs. Only in Ethiopia did loan repayments emerge as the most significant challenge. This is likely due to the sample of survey respondents in Ethiopia, which had more larger SMEs than smaller SMEs – which have better access to the financial sector and thus benefit from more loans than the latter. When formulating policies to provide financial support to SMEs, subsidies or other mechanisms may be used to ease the most acute financial problems they face in order to reducing expenses associated with relaunch. Figure 15 shows the breakdown of financial problems by country.

In Ethiopia, 75 percent of firms reported that they would be able to operate indefinitely with the government restrictions in effect – highlighting the greater resilience of the larger firms that dominate the sample in this country. On the opposite spectrum are Côte d'Ivoire and Madagascar whose firms are least resilient among the six countries (Figure 16).

Over half of the agrifood manufacturing firms in Zambia which responded to the survey expect to be able to operate for over six months. Similarly, a separate study of the entire SME sector in the country noted that only 48 percent of respondents expected their companies to survive the pandemic, with the rest expecting to close, or unsure (UNDP, 2020).

As shown in Figure 17, the size of firms matters for resilience.

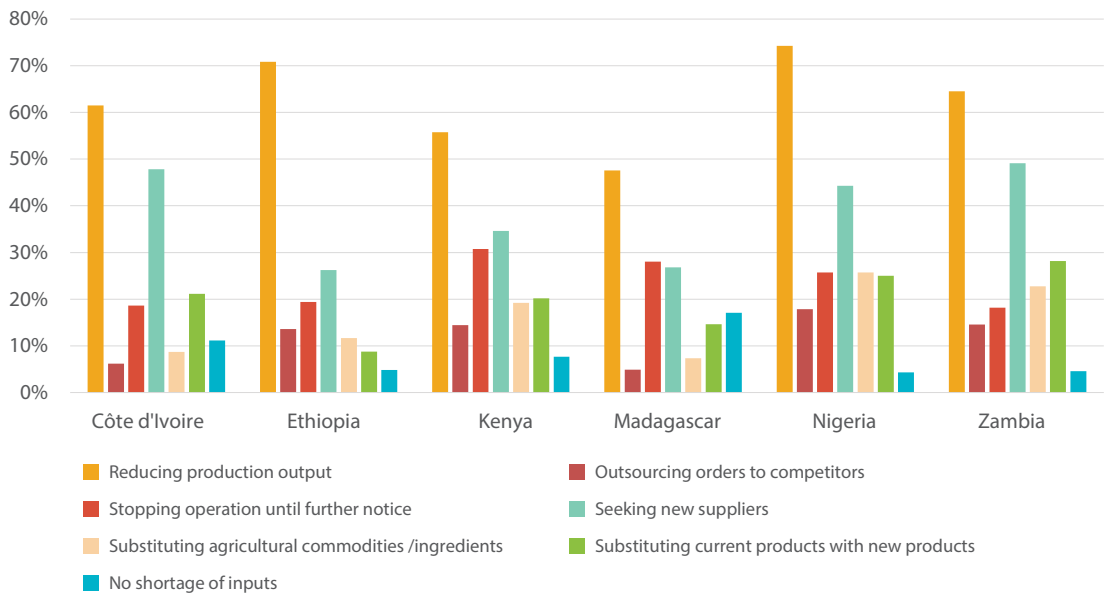
4.5 Mitigating the impact of COVID-19 – company approaches and government support

As seen above, the COVID-19 pandemic has brought about disruptions in supply chains, volatile consumer behaviour and stringent government measures that are impeding food processors from maintaining business as usual. This section explores how firms have adapted to these changing circumstances to be able to remain afloat. The discussion also provides cues for strengthening their resilience under the prospect of crises.

FIRM RESPONSE TO SUPPLY-RELATED CHALLENGES

As shown in Figure 18, the majority of firms dealt with supply-related challenges by reducing

FIGURE 18. Methods used by firms to cope with the shortage of inputs



Source: Survey data

production output. At least half of agrifood SMEs reduced their output in all six countries.

The second most common strategy was to seek new suppliers, with the third most common being to completely stop operations. That more companies dealt with supply-related challenges by reducing production, rather than seeking other solutions, such as reorienting supply chains or marketing, indicates that SMEs require support to strengthen their supply chains and diversify supply sources, while supporting business model reorientation.

SME RESPONSE TO FINANCIAL CHALLENGES

Figure 19 shows that the most common response to the financial challenges associated with the pandemic was to reduce operational costs, with the next most common response being to renegotiate with lenders to delay debt repayments. Ethiopia is again the notable exception, where the majority of SMEs borrowed bank loans. However, as noted earlier, the different response from Ethiopian SMEs is likely due to the higher representation of large firms among survey respondents. As described in the section below on government support measures, many governments provided credit guarantees to banks to allow them to restructure loans of borrowers – a measure that many SMEs in Ethiopia availed themselves of according to the survey results.

As the most frequent response to supply-related and financial challenges was to reduce operational capacity to cut costs, it is not surprising that in certain countries over 60 percent of firms carried out, or plan to carry out, layoffs – as is the case in Kenya, Nigeria and Zambia (see Figure 20). Countries with fewer companies reporting layoffs include Côte d'Ivoire and Madagascar, as well as Ethiopia.

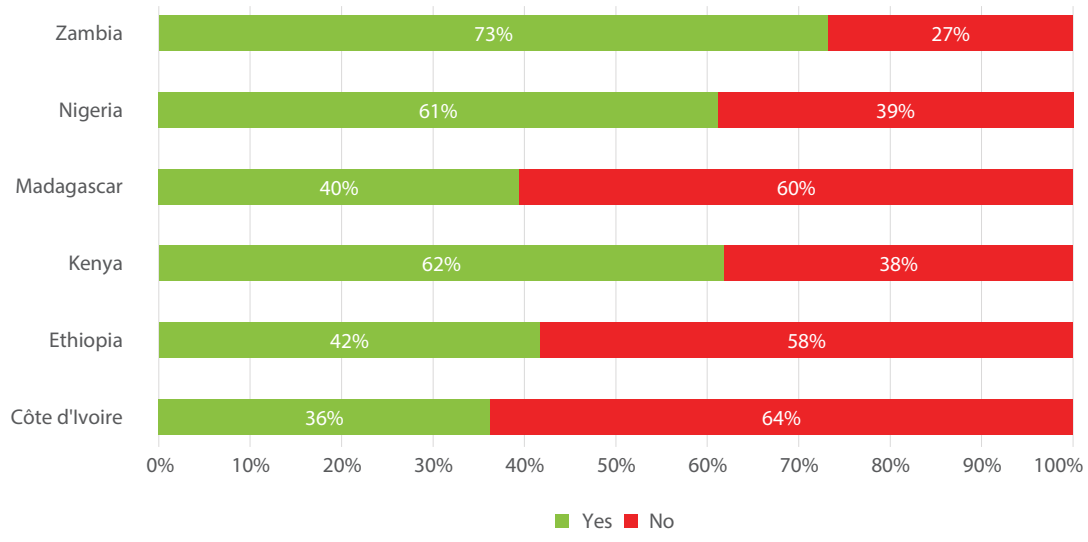
PERCEIVED FIRM-LEVEL COMPETITIVE ADVANTAGES

Although the impact of COVID-19 on firms depends largely on external factors, companies identified a number of perceived firm-level advantages which enabled them to perform better than their competitors. The top perceived firm-level competitive advantage stemmed from a good reputation for quality, followed by lower prices compared to the competition (see Table 6). These

FIGURE 19. Methods firms used to address financial challenges caused by COVID-19

Source: Survey data

FIGURE 20. Percentage of firms considering or having already carried out layoffs, due to COVID-19



Source: Survey data

firm-level advantages may have provided a slight advantage, however in the context of the pandemic, companies can build back better only by adjusting to changes in global and local value chains, in order to reorient their businesses. International organizations can assist them in the goal of reorientation, whereas firm-level strategy in the context of an economic crisis can have only a limited impact.

Table 6. Perceived competitive advantages of firms

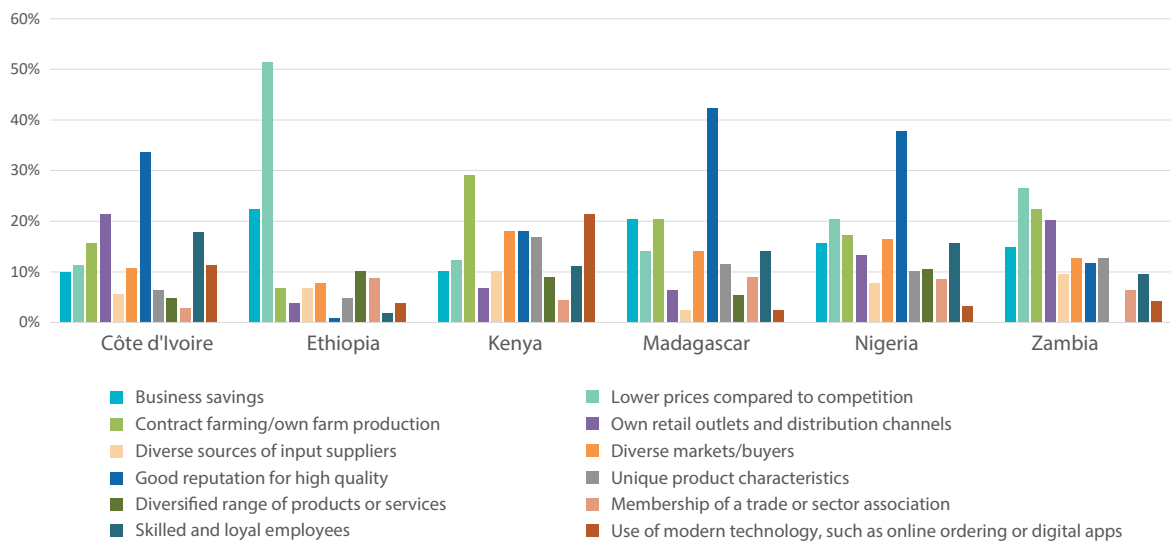
Competitive elements	Firms reporting (%)
Good reputation for high quality	25
Lower prices compared to competition	23
Contract farming/own farm production	18
Business savings	15
Diverse markets/buyers	13
Own retail outlets and distribution channels	13
Skilled and loyal employees	12
Unique product characteristics	10
Diversified range of products or services	9
Use of modern technology	8
Diverse sources of input suppliers	7
Membership of a trade or sector association	7

Source: Survey data.

Figure 21 shows the information presented in Table 6 by country. In Côte d'Ivoire, Madagascar and Nigeria, firms considered that a good reputation for high quality provided a competitive advantage, whereas in Ethiopia and Zambia, firms rated lower prices as an advantage. There is no apparent correlation between the specific advantage and these groups of countries. Additionally, neither of these factors are value chain-based or structural elements which can be expanded as a reorientation strategy to build back stronger from COVID-19.

In Kenya, the greatest advantage was perceived as operating contract farming/having own farm production. This value chain-based strategy may have enabled firms to circumvent the mobility restrictions disrupting aggregation, and helped SMEs to remain competitive during the pandemic period. Following the example of Kenya's SMEs, governments should support firms to upgrade their supply chain coordination methods as a relaunch strategy applicable during the pandemic and post-pandemic periods.

FIGURE 21. Competitive elements helping firms endure COVID-19, by country



Source: Survey data

Ethiopia, where larger firms selling to wholesalers dominate the sample, stands out in terms of a competitive advantage from lower prices. Firms in Côte d'Ivoire, Madagascar and Nigeria have benefited from their established reputation for good quality products. Kenya has the largest percentage of firms identifying contract farming or own farm production as a competitive advantage, indicating that strong supply chain coordination is an enabling element under trade and movement disruptions in the country.

Figure 21 also reveals a lack of diversity in supply, or sales channels, as strategies across countries. This also applies to the use of modern technology, which does not emerge as a strong advantage in either country despite being a key factor for adapting to pandemic circumstances. These values could indicate significant room to improve resilience based on technology and firms' supply chain management. Box 2 provides more information on the use of e-commerce or digital solutions in the six countries.

Box 2. Changes in the use of e-commerce in surveyed countries

The utilization of of e-commerce, such as websites or mobile applications to sell agrifood products, was prominent in countries in which information and communications technology (ICT) was already widely used. In Kenya, the application of digital solutions increased during the pandemic, as the digital ecosystem around small and medium enterprises (SMEs) was already rich, with the government also encouraging digital payments and recommending that banks eliminate fees on digital transactions. Additionally, in Nigeria more SMEs began to use e-commerce to reach customers while markets were closed. Prior to the pandemic, large businesses already had efficient online marketing process in place, and during confinement/lockdown, many SMEs worked to develop e-commerce via social media or websites.

By contrast, in Ethiopia and Zambia, SMEs rarely use websites or e-commerce tools to sell agrifood products, and an increase in internet sales was not observed during the pandemic. In Côte d'Ivoire, while e-commerce use by SMEs was limited, supporting institutions emphasized digital solutions in their interventions in the sector. It was also noted that only 22 percent of SMEs and 16 percent of micro-enterprises in the country have a website. Additionally, while internet and mobile marketing was less apparent, digital payments were more common and increasingly supplanted the physical exchange of cash. Across countries, notable products with online marketplaces now include meat, poultry, jam, dried fruit, vegetables and spices such as sage. Furthermore, some of the new SMEs, created by people who had been laid off, directly implemented online sales options.

In order to support companies in coping with the challenges discussed in earlier sections, national governments implemented a variety of policies and programmes, which differed in scope by country. The next section describes support measures common to the selected countries. The following section analyses survey results about the support received by companies. The final section of this chapter details the policy instruments and support recommended by agri-food processors.

DESCRIPTION OF GOVERNMENT SUPPORT MEASURES

In response to COVID-19, governments implemented various policies. This section focuses on the policies designed specifically to support the agri-food manufacturing sector.

SME support funds and restructured loans

In order to assist companies and banks overcome the financial challenges caused by the pandemic, many governments created support funds for SMEs, as a mechanism to enable new lending and the restructuring of existing loans. The Côte d'Ivoire government created four funds to be spent over two years, the first two of which are the Support Fund for SMEs (USD 271.7 million/CFA 150 billion), equivalent to 0.4 percent of GDP, and the Support Fund for large companies (USD 181.1 million/ CFA 100 billion), equivalent to 0.3 percent of GDP. The country is also one of the few nations to target support at the informal sector, launching the Support Fund for the informal sector (USD 181.1 million/ CFA 100 billion). An additional National Solidarity Fund of USD 181.6 million (CFA 170 billion), or

0.5 percent of GDP, was also established. In Ethiopia, the government provided USD 398.5 million (ETB 15 billion), equivalent to 0.45 percent of GDP, in the form of a bailout to private banks to prevent the collapse of the financial sector, enable debt restructuring and prevent bankruptcies. However, a key informant notes that borrowing by SMEs has reportedly not increased, as companies have preferred to reduce capacity than to take on new debt. While almost half of companies surveyed report that they have accessed bank loans, it should be noted again that the sample is representative of larger companies. The Central Bank of Ethiopia also provided USD 876.7 million (ETB 33 billion) of additional liquidity. Foreseeing the long-term nature of the economic impacts, the Government of Kenya also aimed to enhance access to credit by SMEs during the pandemic, through a government approved credit guarantee scheme with initial seed capital of USD 92 million (KES 10 billion), to be capitalized in two equal tranches over two years. Additionally, the government supported the rescheduling of loans for large companies and SMEs alike, enabling repayment over a longer period and indicating the scale of action needed to retain liquidity in the system. Many SMEs have unsold goods but still carry loans that need to be repaid.[17] The President and Central Bank agreed that banks in the country would restructure loans to ease this burden during the pandemic. In total, USD 8 billion were restructured and given longer repayment terms. Furthermore, banks in Kenya reduced the charges associated with transferring funds to help people avoid the physical exchange of cash. Financial institutions also removed charges for mobile money withdrawals from bank accounts.

Reduced, suspended or deferred payment of taxes and government fees

Governments also used the reduction, suspension or deferment of taxes as a method to stimulate the economy. In Côte d'Ivoire, taxes owed to the government were deferred for three months, while tax inspections and the payment of flat-rate taxes were also suspended for three months. Other fees were reduced, such as for transport licenses, which were cut by 25 percent. Among the government mitigation measures in Kenya, a package of tax measures was adopted: VAT was reduced by 2 percent from 16 percent to 14 percent; the Pay as you Earn (PYE) tax on salaries was reduced from 30 percent to 25 percent; corporate income tax rate was reduced from 30 percent to 25 percent; and the turnover tax rate on SMEs was reduced from 3 percent to 1 percent. People earning less than USD 225/month were exempted from taxes. In Nigeria, product registration fees were reduced by 80 percent and administrative charges for product license renewals were waived.

Agricultural value chain support actions

The Government of Côte d'Ivoire is providing financial support to the agricultural sector amounting to USD 543.4 million (CFA 300 billion), equivalent to 0.8 percent of GDP, in addition to the four funds discussed above. This support targets the main export sectors (e.g. cashew nuts, cocoa, coffee and oil palm) through the allocation of USD 452.9 million (CFA 250 billion) in funds, as well as USD 36.2 million (CFA 20 billion) for market gardening and fruit production. Depending on the size of the disbursements, agricultural cooperatives and business entities will be the end-recipients of either loans or grants. Sector associations are the primary organs distributing the funds for the cash crop sectors, while the national rural development agency ANADER disburses funds to market gardening and fruit production entities. Funds are transferred only when the receiving organizations have financial management capabilities. Since most of the business entities in agricultural value chains lack these capabilities, management bodies are being established. Agricultural value chain organizations feel that the conditions to access the funds do not adequately take into account their need to reconstitute working capital (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020).

17 Key informant interview.

As part of Nigeria's Economic Sustainability Plan, the government's response to COVID-19, the country is launching a mass agricultural programme, which is expected to cultivate between 20 000 and 100 000 hectares of new farmland in every state. The goal is to incentivize a significant number of people to engage in farming and agrifood manufacturing, in order to create millions of jobs in the sector and increase food production. The programme will be implemented over a period of one year.

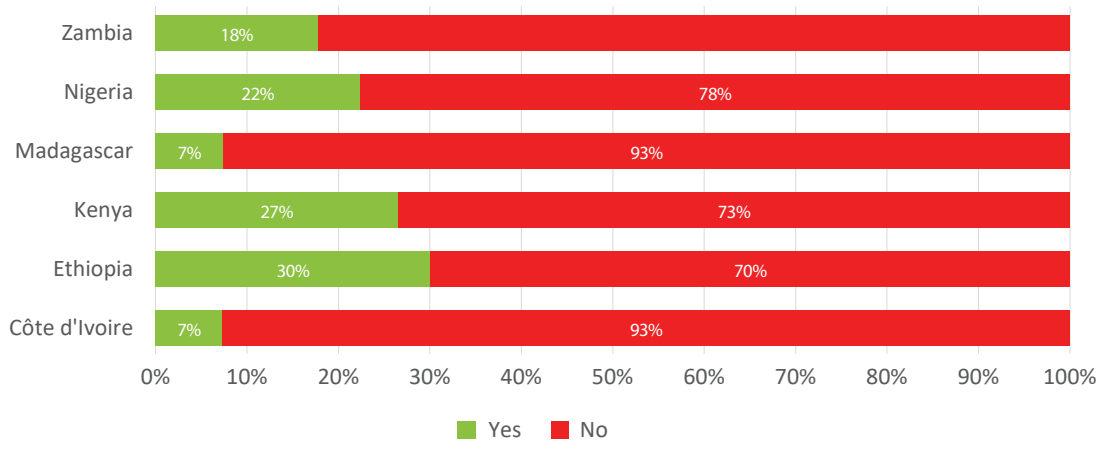
Reorientation of SME support programmes in the context of COVID-19

Other support programmes targeting SMEs include those developed as a response to COVID-19 and national sectoral development programmes that existed prior to the pandemic, but which were reoriented or accelerated. These initiatives include programmatic measures such as supporting the rollout of e-commerce and digital solutions, business development skills training for youth, monitoring commodity prices and the promotion of innovative technologies along value chains. In Madagascar, an agricultural sector programme that was under development was reoriented during the pandemic to focus on boosting rice self-sufficiency, supporting the development of production poles, developing value chain infrastructure, consolidating production centres, strengthening financing and business development services, supporting family farming and promoting agribusiness in partnership with the private sector. However, while extensive in design, the programme has not yet reached the implementation stage. Other funds that were designed to support startups and entrepreneurs continue to operate, with some reoriented as pandemic relief, and others unchanged; for example, the Ministry of Youth of Zambia provided loans to youth and entrepreneurs from marginalized segments of society. However, interest rates were not eased, and the number of borrowers did not increase during the pandemic. As another example, a presidential programme in Madagascar called Fihariana, which was initiated in 2019 with the objective of facilitating access to finance and technical training for large and small entrepreneurs, has remained in place to support people launching SMEs during the pandemic. This support has proven beneficial, with people launching SMEs upon losing employment due to the pandemic and government restrictions. During the pandemic, the programme was updated to encourage more local manufacturing and rural value addition, specifically by supplying rural cooperatives with manufacturing machinery using a lease-to-own model.[18]

Other programmes support rural or regional value addition, with the intention of eventually substituting imports. Also in Madagascar, various programmes which have promoted local value addition have continued and been expanded during the pandemic. The national government is promoting new strategies on import substitution and regional value addition of processed agrifood products, as a strategic response to the pandemic. For example, two to three national companies currently produce pasta in the country, but their production output is not enough to meet domestic demand. Similarly, Madagascar has only one flour mill, which is insufficient to mill all the grain needed. Government policy aims to support SMEs to fill this supply gap, thereby reducing dependence on imported agrifood products. In addition to promoting rural vale addition, the ultimate goal of such programmes is to reduce dependency on international markets for strategic products through an import substitution focus. However, while such programmes require large investments, Madagascar does not have a favourable investment climate, with issues relating to facilities, challenges in securing land for factories, poor energy supply and efficiency, and other bottlenecks. Nigeria's COVID-19 response plan also prioritizes local, domestic production of all products to the extent possible. A positive example of another intervention is the planned Survival Fund in Nigeria, which will

18 Key informant interview.

FIGURE 22. Percentage of companies receiving support from the government



Source: Survey data

give payroll support to SMEs, to allow them to maintain employees in their jobs.

EFFECTS OF GOVERNMENT SUPPORT MEASURES

Measures used by governments to support SMEs reached much fewer companies than were affected by the restrictive measures. As shown in Figure 22, the reach of policies ranged from 7 percent of companies supported in Côte d'Ivoire and Madagascar, to 30 percent in Ethiopia. That the policies reached more companies in Ethiopia, whose sample is dominated by large firms, may indicate a policy bias against smaller companies.

As shown in Table 7, the use of government guaranteed loans was the most common policy instrument used by companies, followed by reduction or deferral of taxes. The third most used policy measure, also related to debt, concerned a reduction or delay in repayments or providing partial debt relief. (See the previous section for a description of various government funds and credit guarantee schemes implemented in different countries.) Having a favourable tax system is also critical for COVID-19 relief and SME growth; however, tax policy measures provide delayed relief, and thus limited immediate benefit to companies. The gap between the number of firms receiving support from the top three policy instruments, and the others listed, is striking – although firms also struggle with expenses such as rent, utilities, other overhead costs and employee salaries.

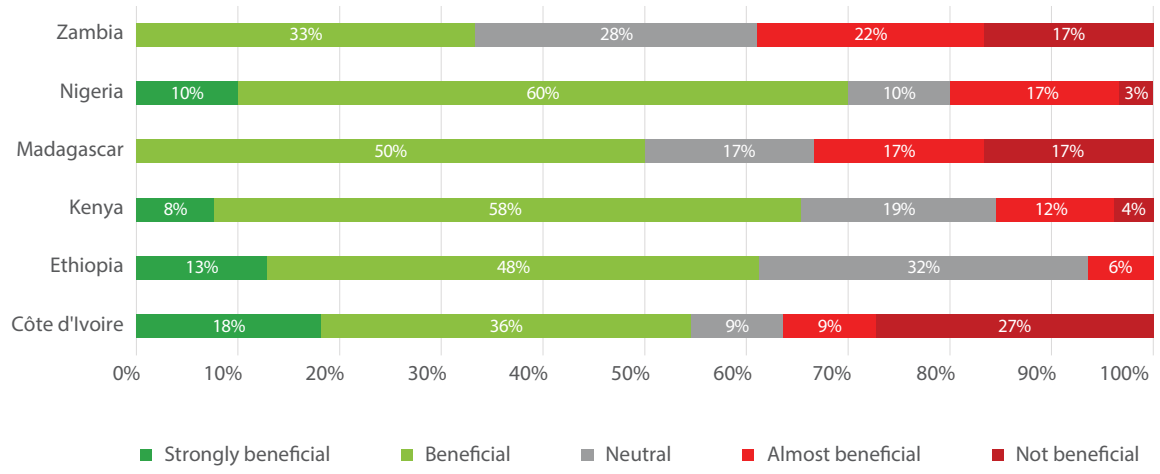
Companies receiving support from governments most frequently rated this as "beneficial", as shown in Figure 23. In countries that made minimal or no use of government guaranteed loans at the time of the survey (Kenya, Madagascar and Zambia), fewer firms reported that policy measures were "strongly beneficial".

Table 7. Specific government support received by companies

Government support measures	Firms receiving (%)
Government-guaranteed loan	32
Reduction or deferral of taxes	29
Reduction of financing costs for SMEs, and extension of loan terms or partial debt relief	20
Reduction in rent for SMEs and lower costs for electricity, gas, logistics, etc.	9
Reduced overhead costs, such as rent and utilities	7
Provide fast-track "force majeure" certification to avoid contract breaches	4
Payment of salaries, benefits/insurance or unemployment, or forced leave	4
Optimization of exporting tax rebate services	4
Temporary reduction of social insurance premiums and reimbursement of unemployment insurance	2

Source: Survey data.

FIGURE 23. Degree to which government support is useful to companies



Source: Survey data

SUPPORT MEASURES RECOMMENDED BY SURVEYED FIRMS

Through the survey, firms identified policy instruments that would aid them in recovery, prioritizing access to finance and support in diversifying products and markets. Firms also cited perceived firm-level advantages (see Table 6) which helped them remain competitive during the pandemic.

Companies ranked access to long-term finance for capital investment as their top priority for policy support, market diversification as the second priority and access to short-term working capital as their third (see Table 8).

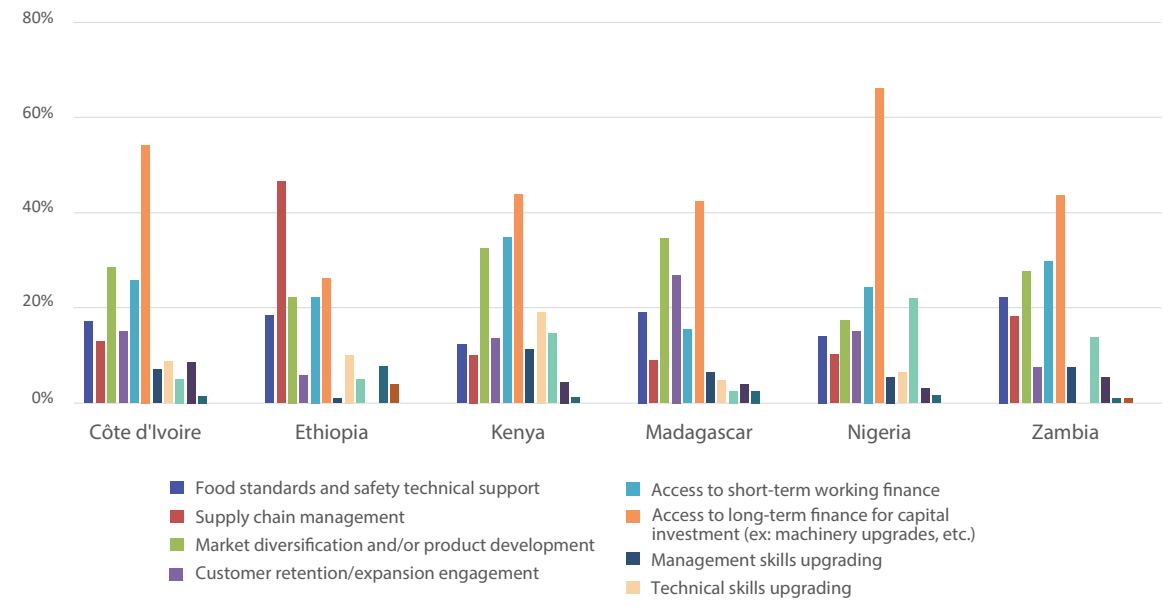
Table 8. Types of support cited by firms to help them address COVID-19 challenges

Areas of support	Firms recommended (%)
Access to long-term finance for capital investment	48
Business reorientation (e.g. through market diversification and/or product development)	26
Access to short-term working finance	26
Supply chain management	18
Food standards and safety technical support	17
Customer retention/expansion engagement	14
Access to automated manufacturing technologies	11
Technical skills upgrading	9
Management skills upgrading	6
Access to information and communication technologies	4
Do not know	3
None	1

Source: Survey data.

Thus, both firms and governments have identified access to finance as a top requirement for surviving COVID-19 and building back stronger. That provision of government guaranteed loans was the government support measure accessed by the largest percentage of companies indicates a strong correlation between the policy and SME needs. Likewise, companies will need to reconstitute their working capital, which was depleted during COVID-19. For comparison, a survey in Côte d'Ivoire of agricultural value chain organizations found that 91 percent of entities surveyed requested support to reconstitute working capital – more than any other support measure (Chambre d'Agriculture de Côte d'Ivoire and FAO, 2020). Furthermore, the focus on long-term finance shows that companies continue

FIGURE 24. Areas of near-term support cited by firms to help them address COVID-19 challenges and build back stronger, by country



Source: Survey data

to focus on the long term, and that investment capital was scarce during the pandemic.

However, policies focusing solely on access to finance will fall short as they imply that the SMEs can relaunch and reorient their businesses on their own, without additional strategic support from governments and international organizations. Increased access to finance should be paired with support in reorientation, in part through market diversification and product development – which companies identified as their second priority for policy support. Business strategy reorientation, such as the introduction or diversification of products and markets, would enable firms to adjust to changes in global and local value chains caused by COVID-19, and represents a viable relaunch strategy.

Figure 24 breaks down the information in Table 8 by country. The preference for long-term capital is notable across all countries, with Ethiopia alone prioritizing support in supply chain management. As the sample in Ethiopia consisted mostly of larger SMEs, in contrast to the other countries, the results may indicate that the finance requirements of large SMEs have already been satisfied, and that they are focused on value chain-based strategies which can help them overcome reductions in domestic and international supplies caused by COVID-19.

5.

Conclusions

The COVID-19 pandemic appears to be on the brink of sending Africa into its first recession in 25 years. However, the experiences and lessons from the pandemic have provided new strategies which can help agri-food manufacturers relaunch and build back stronger. These strategies would enable agri-food processors, particularly SMEs, to become more resilient to future crises and better able to contribute to the continent's economy and food systems.

SME agrifood manufacturers are situated within a complex web of interconnected actions and actors, including primary producers, aggregators, manufacturers, distributors, retailers and the various linked input and service providers. Disturbances in one segment of this network will influence and potentially change the functionality of all other key functions. As a result of COVID-19, SMEs, including those in global value chains and local chains, have been impacted by disturbances both upstream and downstream. Manufacturers have experienced multiple shocks impacting supply and demand, including (i) lower domestic demand and sales due to fewer consumption opportunities; (ii) reduced purchasing power of households; (iii) decreased international sales due to declines in demand in international markets and disrupted transport of international cargo; (iv) reduced domestic supply of raw materials and labour due to mobility disruptions; and (v) diminished access to imported supplies, including in accessing production inputs and equipment. Policies to encourage the recovery of the agrifood manufacturing industry in Africa will need to focus on the immediate needs of SMEs, in order to stabilize supply and demand, and encourage a reorientation and restructuring of value chains to boost competitiveness and resilience.

Companies surveyed have been severely affected in terms of revenues, capacity and cash flow. In this context, 41 percent of firms in Ethiopia, 52 percent in Nigeria, 75 percent in Madagascar, 60 percent in Côte d'Ivoire, 62 percent in Zambia and 67 percent

in Kenya expect over a 25 percent decrease in turnover. Additionally, 30 percent of firm in Ethiopia, 65 percent of firms in Kenya, 60 percent of firms in Nigeria, 55 percent of firms in Madagascar, 50 percent of firms in Côte d'Ivoire and 55 percent of firms in Zambia had to decrease their capacity by more than 30 percent. The percentage of businesses operating as usual is trivial in all countries.

While the large majority of firms felt the impact of government restrictions on their logistics and operations (at least 50 percent in all countries), only a small minority benefited from support measures (from 7 percent of companies in the Madagascar and Côte d'Ivoire to 30 percent in Ethiopia). At least 50 percent of firms in all countries experienced cancellation or reduction in demand from local markets, and the same proportion were affected by increased prices for inputs and lack of access to sufficient raw materials. The principal obstacle in cost terms has been difficulties in paying staff wages and social security charges, followed by fixed costs and payments to suppliers. In addition to reducing production output, firms have often sought new suppliers to deal with insufficient raw materials. In order to cope with financial challenges, the large majority of firms have reduced their operational costs (e.g. through layoffs or salary reductions), with the exception of Ethiopia where most firms took advantage of bank loans, although it should again be emphasized that the survey sample in this country was dominated by larger enterprises. Reputation for quality and low prices have been the main factors identified by firms as advantages which have allowed them to stay afloat. Almost half of the firm sample identified access to long-term finance as the main support measure they would like to receive from governments.

The issues that have had the most impact are reduced demand from domestic markets, government measures related to the movement of people and goods within the country, and increases in the price of inputs and lack of access to raw materials. These are discussed below.

5.1 Reduced domestic demand and disrupted distribution

Domestic demand fell due to the reduced purchasing power of households, and the disruption of transport and distribution. While some sales points have now reopened, certain market segments (tourism, etc.) remain constrained, and purchasing power is still reduced.

Closed or reduced market channels deprived agrifood manufacturers of market opportunities and sales. According to the survey data discussed above, 9 percent of agrifood manufacturers ranked hospitality and tourism sector operators as their main buyers, with another 12 percent citing institutions (educational, hospitals, etc.) as the main buyers. An additional 21 percent of agri-food processors indicated that retailers (supermarkets) were their primary buyers, with another 13 percent identifying small grocery stores and kiosks. Likewise, 34 percent of companies reported being affected by the closure of (or restrictions on) food markets and other food distribution points, while the regulation and reduction of hours of village and urban markets reduced spending opportunities. In summary, the closing of these key market segments deprived SMEs of markets and sales. Conversely, the re-opening and de-regulation of these markets, restaurants, hotels and institutions will enable populations with sustained purchasing power to buy agrifood products sold through these channels. However, other channels, such as those driven by international tourism, will remain regulated, even if not by specific national-level policies.

Additionally, **demand declined as household purchasing power reduced** due to lost income. Low-income and informal jobs losses were common and particularly undercut agrifood markets, as groups with low incomes spend a higher proportion on food. Estimates place job losses at USD 150 million in lost income, which implies that between 400 million and 460 million people may have been impacted indirectly (McKinsey and Company, 2020). Income losses leading to

collapsed demand are expected to result in an overall reduction in household consumption across Africa of between USD 60 billion and USD 90 billion (McKinsey and Company, 2020). Similarly, a survey in Kenya estimated that household and business spending would fall by 50 percent due to the impact of COVID-19 on purchasing power.

However, as food demand is stable and inelastic, the primary impact of the pandemic was not to reduce levels of consumption – except in resource-constrained regions where loss of income-generating opportunities did lead to contractions in consumption – but rather to change the choice of products and value of what is consumed, result in changes to dietary and purchasing habits. On the whole, consumers increased purchases of staple crops and canned foods, which can be stored and have a longer shelf life, and reduced purchases of perishable and higher value products, such as meat, chicken, fish, and fruits and vegetables. This trend impacted the market demand for agrifood manufacturing products.

Although COVID-19 numbers are still rising in the Americas, and experiencing a resurgence in Europe, the virus appears to be in remission in SSA at the moment of writing, with countries relaxing containment restrictions. However, although restaurants, hotels and other sectors are being permitted to reopen, governments should not expect a resurgence of demand or a mass return to these establishments. The global tourism industry remains in remission.

In Kenya, for example, the pandemic brought the USD 1 billion/year tourism industry to a halt. Between 200 000 and 300 000 hotels were closed, impacting other services and linked industries, and resulting in the loss of about 500 000 sector jobs and depriving suppliers of markets.[19] As such, the dismantling of restrictions will not in itself lead to an economic resurgence. Targeted support measures are needed to boost industries impacted by contractions in local demand over the long term.

Reduced demand in international markets had less impact on the agrifood SME sector than reductions in domestic demand since SMEs are less engaged in exporting. While 25 percent of agrifood SMEs surveyed included export buyers among their primary clients, Côte d'Ivoire, Kenya and Madagascar were notable for having more exporters, especially Kenya where they accounted for more than 50 percent of firms. In all six countries, 27 percent of companies surveyed reported that government restrictions on exports affected them. As agricultural production remained strong, including for export-oriented cash crops, surplus production undercut prices and created disturbances in the value chain. Accordingly, reduction in demand in international markets also reverberated across value chains.

5.2 Mobility restrictions

Disruption in the distribution and delivery of agrifoods prevented products from reaching retailers, in effect also undercutting demand. As noted, 57 percent of firms reported being affected by restrictions affecting the movements of goods within the country. This trend sometimes stemmed from the unintended impacts of curfews, lockdowns of major population centres (which also represent the largest markets for agrifood manufacturers), and intra-country/city-wide mobility restrictions.[20] In some instances, the closure of aggregation centres led to contracts being suspended, leaving producers with unsold commodities and causing a collapse in prices. While neither the survey nor the interviews provided sufficient information to quantify the number of firms unable to supply markets due to restrictions on transporting goods to purchase points, these disruptions are reflected in the impact on demand and turnover.

19 Key informant interview.
20 Key informant interviews.

Mobility restrictions impacting the supply of workforce to manufacturing facilities and agricultural labour also posed challenges. Ranked second in terms of number of firms impacted, 47 percent of companies reported that restrictions in the use of public transport and the general movement of people impacted their operations. In certain countries, such as Ethiopia, city-wide travel bans made it difficult for workers to reach factories. This lack of an available labour force created a critical supply bottleneck, with lack of worker availability affecting labour-intensive forms of production. Supply chains and agrifood SMEs that are more capital intensive and reliant more on machinery are less vulnerable to restrictions on movement and precautions for workers in factories. Mobility disruptions have also impacted the operations of agrifood enterprises both in terms of obstacles to the movement of workers and supply disruptions since common transportation are often used to move raw materials.

Although felt by fewer companies in the sample, disruptions in imported inputs and machines also caused delays and reductions in capacity.

Disturbances in accessing imported inputs also impacted SMEs, although to a lesser extent overall than blockages in accessing domestic supplies. Africa imports between USD 45 billion and USD 50 billion worth of agriculture and agrifood products annually, plus an additional USD 6 billion in agricultural inputs (McKinsey and Company, 2020). The supply of these items may have been disrupted during the pandemic due to export restrictions, shortages of production in countries of origin, closures and delays at international borders, and mobility restrictions in the SSA countries. However, among the SMEs that responded to the survey, only 14 percent cited imports as a primary source of raw material inputs, a smaller percentage than were impacted by domestic sourcing difficulties. Additionally, according to the survey results, agrifood segments in which imports were reported by more firms as being a key source of raw materials appear to have fared better than those relying on domestic procurement.

5.3 Lack of access to raw materials and price increases

Agri-food processors were faced with reduced supply of locally produced raw materials as well as curtailed access to workforce due to mobility disruptions during the pandemic. Challenges in accessing raw materials appear to be linked more to mobility restrictions than reductions in agricultural production. While production was generally strong in 2020, declines in agricultural output may be expected in future harvests.

The supply and cost of raw materials and other manufacturing inputs were negatively impacted by transport restrictions, as well as reduced production levels – albeit to a lesser degree. Restrictions affecting the movement of goods within the country, discussed above, also impacted firms' ability to secure domestically produced inputs. As noted, companies were often unable to satisfy even the reduced level of demand for agrifood products due to their inability to secure sufficient manufacturing inputs. Lack of access to sufficient raw materials was the supply-related difficulty identified by the greatest number of firms, with over half of firms impacted per country. Other supply-related constraints included elevated prices for raw materials, delivery delays and closures of suppliers. In Ethiopia, Nigeria and Zambia, more firms dealt with elevate prices than any other supply-related challenge.

Thus, while reductions in domestic demand had the most impact on SME turnover, supply challenges created additional difficulties. The results of supply constraints ranged from stopping production when certain materials could not be sourced to increased manufacturing expenses due to the elevated prices of raw materials. As agrifood manufacturers

generally did not increase their sales prices, rising costs undermined their profitability and viability, especially when compounded by government mandates to provide PPE and private transportation to workers, which also created additional expenses. Such impacts were among the main factors causing firms to cease operations or to decrease capacity.

Aside from raw materials, agrifood processors on the continent are also dependent on non-agricultural supplies such as packaging, as well as manufacturing equipment and machinery. While countries made efforts to exempt agricultural and food goods from transport bans, blockages and **reduced access to inputs and manufacturing equipment** did pose challenges.[21]

21 Key informant interview.

6

6.

Recommended policies

The policy recommendations below consist of support measures to help firms relaunch and reorient their businesses in order to build back better, by adjusting to changes in value chains, production systems and market demand in the post-pandemic operating environment.

The recommendations should take into account the institutional and financial capacity of governments. Fiscal policy response measures are particularly challenging in SSA economies given their high foreign debt levels which have worsened as result of the pandemic (Njoroge, 2020). Within their limited fiscal space, governments could focus on implementing administrative measures such as removing logistical bottlenecks including transport and mobility restrictions that impact raw materials, goods and labour.

Transport and mobility distributions have undermined aggregation, distribution and movement of the workforce to manufacturing facilities and farms. Indeed, the top two government restrictions impacting companies both dealt with transport – restrictions affecting internal movement of goods affected 57 percent of firms, and restrictions in the use of public transport and the general movement of people impacted 47 percent. Furthermore, over half companies at the country level reported lack of access to raw materials as a chief constraint, making this the top supply-related difficulty. Governments should thus aim to reduce logistics disruptions and prevent such disturbances in the future.

The oversized impact of transport constraints indicates weak supply chain coordination

capabilities among firms. Ethiopian companies in particular rated supply chain management as their top priority for government support with a view to relaunching and building back stronger. Government support to strengthen domestic value chains will therefore be necessary to ensure the free flow of goods and people in the post-pandemic period and into the future.[22]

In regard to agriculture, the inability of the informal labour force to reach farms undermined food production in some countries, highlighting the importance of the free movement of informal workers. Accordingly, governments will need to devise systems of enhanced mobility for farm workers as a foundational element in food value chains.

Additionally, delays and restrictions to national and international cargo transport caused costly delays and blockages for businesses. To improve supply chains, governments should strengthen aggregation and distribution functions, and devise methods to accelerate checks at internal and international borders in order to build more efficiency and agility into transport, checkpoint and customs systems.[23] Improved transport routes would also enable better regional integration and enhance trade.

Once bottlenecks in logistics and operations are solved through administrative measures, more financially demanding or long-term policies could be considered, as follows.

1. **Support SMEs in reconstituting working capital to relaunch and expand operations.** Firms ranked access to short-term working capital as their second priority in terms of the support required to recover and build back stronger. Additionally, across all countries, an average of 70 percent of companies decreased capacity by over 30 percent or closed during the pandemic. As such, these companies have reduced or no working capital in circulation, and will need financing support beyond what is normally accessible to them to reconstitute their working capital. A number of factors contributes to this working capital gap, including: months of reduced or stopped commercial activity; funds tied up in unsold inventory or lost due to product spoilage; lack of liquidity in value chains; hesitation on the part of financial institutions to issue loans during a crisis; and reduction of supplier credit and the cessation of other value chain finance mechanisms. Firms in global value chains also require working capital to cope with contract suspensions and halted pre-financing from international buyers. Governments will need to deploy funds or credit guarantees specifically to enable SMEs to access working capital in the form of short-term loans or grants. Attention should thus be given to microfinance institutions (MFIs) or savings and credit cooperatives (SACCOs), which play an important role in financing the agrifood sector, particularly micro-operations. These actors have themselves been negatively impacted by the pandemic in terms of reduced client creditworthiness and a greater risk environment. An additional aspect to consider is the varying cycle-times of working capital in different agrifood manufacturing segments.[24]

2. **Strengthen access to financial support for SMEs to reduce operational expenses and thereby facilitate the relaunching and expansion of operations.** Chief among the financial difficulties encountered by firms during the pandemic were challenges related to paying staff wages and social security charges (66 percent of firms),

22 During the FAO-UNIDO GROW Agribusiness Workshop, 8–10 December 2020, participants also noted the impact of movement restrictions on agrifood SMEs in Nigeria, and suggested policy directions to reduce logistical disruptions.
23 These could include rapid temperature and other health checks.
24 For example, the amount of working capital needed by a diary processor (with biweekly payments to farmers for raw milk) will be smaller than that needed by a grain mill or rice decortication operation (which may need to procure sufficient product for storage to process over the year).

followed by problems in paying fixed costs (43 percent of firms).[25] Firms that continue to encounter these difficulties require financial support to reduce their expenses, which would enable them to reconstitute working capital, hire back more workers and achieve renewed financial stability. Options available to governments include contributions to employee wages, or subsidizing rent, electricity or other utilities, with a focus on the most endangered categories of companies (by size or agrifood segment). Additionally, the cost of agricultural raw materials could be reduced for manufacturers by increasing subsidies for production inputs to farmers. Such support would also offset the higher costs that firms were mandated to pay by government for PPE, the private transport of workers and physical distancing in factories.

3. **Boost domestic demand and promote local consumption of locally manufactured agrifood products through a package of measures.** As recounted above, 25 percent of firms listed export as their main sales channel, while 70 percent of firms experienced cancelled/reduced domestic orders. At the country level, as many as 83 percent (Nigeria) of companies experienced cancelled/reduced domestic orders, indicating that domestic clients absorb the majority of the output of SME agrifood manufacturers. In order to counteract reduced domestic sales, companies are in need of immediate government support to stimulate domestic demand. Additionally, while confinement measures have largely been relaxed, demand cannot be expected to rebound. Certain market drivers such as tourism remain suppressed and the population still has reduced purchasing power. Therefore, government measures to stimulate demand for agrifood products will be needed to help the sector relaunch. A number of tools and approaches are available in this regard. First, governments are among the largest buyers of agrifood products in Africa, and can reinforce markets by increasing purchases, such as of buffer stocks, for military use and for school feeding programmes. Second, governments can require international partners running school feeding and food relief programmes to use local procurement, if only as a temporary COVID-19 supportive measure. Third, governments can involve the private sector (supermarkets) by encouraging procurement from local SMEs through tax incentives or other measures. Governments can temporarily exempt companies from taxes such as VAT, in order to reduce retail prices to stimulate demand. Fourth and last, governments can run sensitization campaigns to promote local consumption.[26]

4. **Support SMEs to innovate and develop risk management strategies to cope with unforeseen challenges.** Business models that are resilient to disruptions are strongly associated with innovation and diversification – such as in products, services, markets or trade. That 70 percent of firms on average had their capacity reduced by over 30 percent, or were closed, is evidence that SMEs lacked the ability to rapidly adjust to the confinement restrictions. Furthermore, that 63 percent of firms (the highest number of respondents) reduced operations to cope with financial challenges, and over half of all respondents in nearly all countries reduced production output to cope with input shortages, shows that firms could not reorient their businesses to cope with the changes in suppliers and markets. Firms thus need to develop risk management strategies (e.g. increasing reserve funds, diversifying suppliers and buyers, or

25 This is shown in Figure 15 earlier in the report.
26 During the FAO-UNIDO GROW Agribusiness Workshop, 8–10 December 2020, participants noted that governments had promoted local consumption through sensitization campaigns and executive orders.

other methods) in order to attain sufficient flexibility to reorient their businesses in times of crisis. While national governments can help companies to introduce risk management strategies, governments also lack viable de-risking models to support agrifood processors. Support systems and institutions need to be reinforced to enable quicker recovery, thus making SMEs and their ecosystem more resilient.[27]

In order for firms to launch new products, diversify markets, valorize local production and digitalize their value chains, agri-food firms will need assistance to help them innovate and transform their business models. This policy would support the development of new business models rooted in the opportunities and threats of the post-pandemic business environment, as well as provide comprehensive technical assistance to help SMEs integrate elements of these business models into their own operations. Supporting institutions would identify markets, technological innovations, product characteristics, packaging/transport methods and other innovative approaches, which companies would be able to incorporate into business plans to reorient their businesses. The upgraded business plans would help companies target new opportunities, understand the technology and equipment needed to produce identified new products, and attract the investment necessary to implement these new business concepts. The business plans of individual SMEs would be funded through investment funds designed to support innovation and technological upgrading. Such funds exist in certain countries, and would need to be created in others, in order to invest in food manufacturers and SMEs in the post-pandemic environment. The establishment of investment funds focused on innovation and reorientation would be an adequate response to the top priority support measure recommended by firms in our study, more specifically, the provision of long-term finance for capital investment. New investment should not target businesses designed to operate in pre-pandemic norms, but rather should fund innovative companies oriented towards emerging opportunities in the post-COVID-19 environment. In addition to facilitating access to long-term finance for capital investments, governments can provide support with strategic reorientation, for example by providing market research and information or networking opportunities under the form of trade fairs or knowledge events.

5. **Catalyse innovation across a range of areas in order to reduce weaknesses in the wider environment, including in the areas of infrastructure, education and ICT, in addition to industry–research collaboration, which allows companies to innovate and develop new products or enhance existing ones.** Governments should stimulate companies to engage in incremental innovations to improve their products, through measures that include the introduction of quality enhancement centres, extension services or technology support services. Innovation does not only refer to new products or services; it also encompasses innovative organizational structures, managerial approaches, value chain governance or work processes. These elements can be considered by government as part of a wider package adopted to strengthen business models and improve the resilience of the agrifood sector.

6. **Gradually implement the range of recommended good practices and policies already widely documented.** Agrifood firms will require a stronger foundation of infrastructure, finance and local manufacturing of various inputs, in order to relaunch

27 Participants at the FAO-UNIDO GROW Agribusiness Workshop, 8–10 December 2020, noted the lack of risk management strategies and de-risking models among SMEs and national governments.

operations and reorient their businesses. Expanding productive value chain-based infrastructure will ensure greater flexibility and stability to facilitate linkages between value chain partners, boost SME productivity and support SME resilience. Increased access to long-term finance will enable SMEs to fund endeavours to relaunch and reorient their businesses, while technical assistance will be necessary for them to interact effectively with the financial sector. Local and regional supply chains for non-agricultural goods, such as for packaging and other inputs, as well as processing equipment, will strengthen domestic food manufacturing segments and reduce dependence on foreign imports of these items. Finally, increased institutional capacity and coordination will enhance governments' ability to deploy and provide the necessary support.

Expanded value chain infrastructures, including storage facilities and cold chains for perishable materials, would strengthen value chains by enabling more flexible options for post-harvest and distribution, reduce losses, and facilitate linkages between producers and processors. Had such infrastructures been more common during the pandemic, market prices for perishables and other crops might have remained more stable. Price increases of raw materials was the second supply-related constraint most cited by survey respondents, and the top supply-related impact in Ethiopia, Nigeria and Zambia. Beyond these value-chain specific constructions, the survey revealed the general inability of smaller enterprises to cope with the pandemic (as they were more likely to experience sharp reductions in capacity) – an impact compounded by their lack of access to productive infrastructure. The types of infrastructure which companies need include properly maintained road networks; utility services such as energy, gas, water and sanitation; and waste management and ICT, in addition to the value chain-based infrastructure mentioned above. Government actions to support targeted infrastructure upgrades could include the identification and mapping of available infrastructure, plotted against the location of enterprises and their infrastructure needs. Infrastructure gaps would be identified and public-private partnerships promoted to implement the upgrading plans.

7. **Provide technical assistance to SMEs to improve access to finance and encourage lending.** SMEs ranked access to long-term finance for capital investment as the main form of support needed to relaunch and build back stronger, with 46 percent of companies selecting this option. Among those surveyed, 25 percent of companies also indicated access to working capital as an important need. In general, the pandemic had grave financial consequences for SMEs, reducing revenues and increasing expenses. However, increasing access to finance during the pandemic and post-pandemic period is complicated by their current financial situation, which includes increased liabilities and reduced revenues. In addition, many SMEs are not structured to allow them to engage effectively with the financial sector. Thus, while improving access to finance would involve measures taken by financial institutions, the focus of this recommended support measure is technical assistance to companies to reduce risk, improve their balance sheets and enable them to adequately interact with banks. If implemented in concert with the other recommendations, such as boosting domestic demand to increase SME sales, introducing de-risking measures at firm level and expanding access to productive infrastructure would strengthen SME businesses and enhance their ability to borrow credit. Additionally, financial sector entities should ensure that suitable financial products are available that match the cash flow of SMEs, incorporate digital outreach and expand mobile banking methods. Policies

in effect during the confinement period in some countries, involving government support to the financial sector to waive fees and restructure loans to ease payments, could be extended to encourage lending.

8. **Support domestic and regional value chains to produce packaging, processing equipment and other inputs, in order to prevent ruptures in supplies and equipment needed by agrifood manufacturers.** Import restrictions on equipment and supplies such as packaging, ingredients, commodities and machines negatively impacted 30 percent of companies. In addition, the widespread impact of restrictions affected the movement of goods within countries, including these items, as discussed above. Without these supplies and machines, agroprocessors cannot produce their products for market. Having identified this weakness in the agrifood manufacturing sector, governments should invest in a viable industry centred around the production of packaging materials, machines, and other key supplies and equipment needed by agrifood manufacturers that are not produced locally. Given the small size of some domestic markets, such investments and value chain strengthening should consider regional market needs when designing business and investment plans. Increasing regional trade in supplies and machines, in addition to agrifood products, will enhance market options and improve regional self-sufficiency in the face of future crises. Supporting these industries to upgrade supply chain coordination and avoid movement restrictions, will also contribute to preventing ruptures in these supplies from affecting agrifood manufacturers.

9. **Improve institutional capacity and coordination between entities supporting agrifood manufacturing, in order to ensure coherence in policies and incentives.** The impacts of government restrictions were widespread across the agrifood SME sector, whereas supportive measures reached fewer companies. While the percentage of companies impacted by government restrictions ranged from 51 percent (Madagascar) to 81 percent (Kenya), the percentage of companies receiving supportive measures ranged from 7 percent (Côte d'Ivoire) to 30 percent (Ethiopia). Institutional capacity building is needed to ensure government entities can deliver the necessary support to SMEs to help them recover from the pandemic and reorient their businesses, including by adopting and executing the recommendations of this report. COVID-19 also highlighted the lack of coordination among public entities that support the SME sector, which created difficulties in predicting the impact of some restrictions as well as challenges in targeting support. The post-pandemic period provides an opportunity to address these challenges by using a holistic approach to develop stronger linkages with the private sector, as well as better synchronization between public sector institutions. Coordination between entities and programmes can be upgraded through the development and application of joint frameworks for the design, implementation and monitoring of SME-focused policies and initiatives. Additionally, the activities of non-state actors can be adapted and integrated into the planning frameworks of the government and local communities.

10. **Diversify and expand regional and global market partners by introducing new products, expanding sales geographies and targeting new segments in existing foreign markets.** Cancellations/reduced orders from international clients impacted 30 percent of companies, a proportion that reached over 50 percent in certain countries such as Kenya. Policy responses should aim to retain the benefits of international and regional trade (e.g. foreign exchange, technology

transfer and SME revenues), while limiting the dependence on specific markets or market segments. Additionally, firms rated market diversification and/or product development as their second priority for government support, with 27 percent of companies indicating this need. Governments should support companies to search for markets where new and improved agrifood products can be launched. Although diversifying buyers and entering new markets may not be possible in the context of depressed global demand due to COVID-19, governments can lay the groundwork for future policy support for SMEs. Furthermore, the expected changes in international production networks resulting from the pandemic may offer new markets opportunities, while others close. In identifying new markets, supporting institutions should target geographical diversity, in order to balance demand from various regions. In the event that a crisis upsets markets in one global area, SMEs would still have other markets on which to depend for sales. SMEs with only domestic market clients should be assisted to target regional and international markets. In addition to promoting geographic diversity, measures could support SMEs to diversify market segments within already established buyer countries.

11. **Promote the digitalization of value chains.** Only 4 percent of firms in the study prioritized access to ICTs as a key support measure to assist them in relaunching and building back stronger. However, according to key informants, in countries where e-commerce and other digital applications were used regularly before the pandemic, ICT enabled firms to access consumers directly, and to bypass value chain functions which had become less functional due to government restrictions. In countries without a high level of technology adoption, ICT was not used and SMEs did not benefit from these advantages. Businesses that were able to reorient themselves to the pandemic situation were able to identify opportunities and to recover faster, one key strategy being the integration of technology into their business models.[28] Such approaches are often used by youth in agrifood manufacturing, which according to survey data make up over half of employees in agrifood manufacturers. In addition to using ICT to promote sales, the digitalization of value chains can be used to organize and communicate with suppliers, employees, transporters and others actors, enhancing efficiency and value chain productivity throughout. Eventually, value chain digitalization could lead to restructuring, as manufacturers and other actors are able to communicate directly with upstream and downstream actors.

28 Conclusion shared by a participant at the FAO-UNIDO GROW Agribusiness Workshop, 8–10 December 2020.

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ANNEX 1

ANNEX 1: SURVEY IMPLEMENTED IN THE SELECTED COUNTRIES

SECTION 1: CURRENT IMPACT OF COVID-19

1. Please select the country where your company is located

- ○ Ethiopia
- ○ Senegal
- ○ Madagascar
- ○ South Africa
- ○ Kenya
- ○ Nigeria
- ○ Côte d'Ivoire
- ○ Zambia

2. For possible follow-up, kindly enter:

Company name: _____
Company email address: _____

3. Please indicate the most significant financial problem that your firm experienced during the outbreak:
(Please select all that apply)

- ○ Staff wages and social security charges
- ○ Fixed cost (rent, capital, etc.)
- ○ Loan repayment
- ○ Payments to suppliers
- ○ No specific problem

4. How has your firm's capacity been affected compared to last year?
(Please select only one option)

- ○ Had to suspend all activity
- ○ Decreased 0-30 percent
- ○ Decreased 30-60 percent
- ○ Decreased more than 60 percent
- ○ Increased 0-30 percent
- ○ Increased 30-60 percent
- ○ Increased more than 60 percent
- ○ Business is operating as usual
- ○ Do not know

5. Which difficulties is your business experiencing due to COVID-19?
(Please select all that apply)

- ○ Increased prices for inputs
- ○ Closure of suppliers
- ○ Lack of access to sufficient raw materials
- ○ Delivery delays in raw material input
- ○ Workforce unavailability
- ○ Access to internet and ICT technologies
- ○ Access to protective equipment (e.g. masks)
- ○ Do not know
- ○ No difficulties

6. How are you dealing with the shortage of inputs such as food ingredients and agriculture commodities?
(Please select all that apply)

- ○ Reducing production output
- ○ Outsourcing orders to competitors
- ○ Stopping operation until further notice
- ○ Seeking new suppliers
- ○ Substituting agricultural commodities /ingredients
- ○ Substituting current products with new products
- ○ No shortage of inputs

7. Please indicate your main source of inputs.
(Please select all that apply)

- ○ Smallholder farmers/producers
- ○ Trader/middleman
- ○ Commercial farm
- ○ Own production
- ○ Import
- ○ Other

8. Who were your main buyers in terms of sales volume in 2019?
(Please select all that apply)

- ○ Wholesalers
- ○ Retailers (e.g. supermarkets, hypermarkets)
- ○ Small grocery stores or kiosks
- ○ Institutions (e.g. hospitals, schools, colleges, universities)
- ○ Hospitality or tourism (e.g. hotels, restaurants)
- ○ Exports
- ○ Direct sale to consumers/households

9. What have been the impact(s) of COVID-19 on demand for your company?
(Please select all that apply)

- ○ Cancellation/reduction of orders from the domestic market
- ○ Cancellation/reduction of orders from the international market

- ○ Increased demand from domestic market
- ○ Increased demand from international market
- ○ No impact
- ○ Do not know
- ○ Other, please specify: _____

10. How are you addressing the financial challenges caused by COVID-19?
(Please select all that apply)

- ○ Interest-free loan from government /development partners
- ○ Loan or gift from family or friends
- ○ Bank loan
- ○ Loans by microfinance companies or individuals
- ○ Negotiating with lenders to delay repayments
- ○ Additional shareholders or capital increase of existing shareholders)
- ○ Reduced operational costs (e.g. layoffs and salary reductions)
- ○ Joining activities with other similar business(es)
- ○ Lack of funds is not an issue

11. Are there currently government restrictions in place that impact your normal business operations?
(Please select only one option)

- ○ Yes
- ○ No Skip to question (13)

12. If the current restrictions continue, how long can your firm's current cash flow sustain company operation?
(Please select only one option)

- ○ Indefinitely
- ○ More than 12 months
- ○ Between 6 and 12 months
- ○ Between 3 and 6 months
- ○ Between 1 and 3 months
- ○ Less than 1 month

13. What measures have been taken by the government that directly or indirectly affect your business?
(Please select all that apply)

- ○ Restrictions on number of staff able to work at the same time
- ○ COVID-19 compliance practices and equipment required in factories or manufacturing plants
- ○ Restrictions affecting the movements of goods within the country
- ○ Restrictions affecting exports
- ○ Closure of restaurants, hotels and other workplaces
- ○ Closure or restrictions on food markets and food distribution points
- ○ Restrictions on the use of public transport and general movement of people
- ○ Import restrictions on equipment or inputs, such as packaging, ingredients or agriculture commodities

14. Is your company benefiting from any government measures or support?
(Please select only one option)

- ○ Yes
- ○ No Skip to question 16

15. Please specify which measures/support you are receiving:
(Please select all that apply)

- ○ Government-guaranteed loan
- ○ Reduced overhead costs, such as rent and utilities
- ○ Reduction or deferral of taxes
- ○ Payment of salaries, benefits/insurance or unemployment or forced leave
- ○ Reduction of financing costs for SMEs, extension of loan terms or partial debt relief
- ○ Temporary reduction in social insurance premiums and reimbursement of unemployment insurance to enterprises that retain staff
- ○ Optimization of exporting tax rebate services
- ○ Provision of fast-track "force majeure" certification to avoid contract breaches
- ○ Reduced rent for small and medium-sized enterprises and lower costs for electricity, gas, logistics, etc.
- ○ Other

16. To what degree is this support useful to your company (*Please select only one answer)*

- ○ Strongly beneficial
- ○ Beneficial
- ○ Neutral
- ○ Almost beneficial
- ○ Not beneficial

SECTION 2: EXPECTED IMPACT OF COVID-19

17. What financial impact do you expect COVID-19 will have on your firm's revenue this year?
(Please select only one answer)

- ○ No impact
- ○ Sharp decrease (over 25 percent)
- ○ Moderate decrease (up to 25 percent)
- ○ Moderate increase (up to 25 percent)
- ○ Sharp increase (over 25 percent)
- ○ Too early to state
- ○ Do not know

18. What annual percentage of your staff do not have an employment contract (casual, seasonal workers)?

_____ percent

19. Is your firm considering, or has already carried out, layoffs due to COVID-19?

20. (Please select only one option)

- ○ Yes
- ○ No Skip to question (20)

21. What percentage of your staff are you expecting to (or have already) cut?

22. (Please select only one option)

- ○ 1-25 percent
- ○ 26-50 percent
- ○ 51-75 percent
- ○ 76-100 percent
- ○ Too early to state

SECTION 3: BUILDING RESILIENCE IN SMES

23. If your production capacity has not decreased by more than 10 percent, what do you consider to be the reason?

(Please select a maximum of two options)

- ○ Business savings
- ○ Lower prices compared to competition
- ○ Contract farming/own farm production
- ○ Own retail outlets and distribution channels
- ○ Diverse sources of input suppliers
- ○ Diverse markets/buyers
- ○ Good reputation for high quality
- ○ Unique product characteristics
- ○ Diversified range of products or services
- ○ Membership of a trade or sector association
- ○ Skilled and loyal employees
- ○ Use of modern technology such as online ordering or digital apps

24. In the near future, which areas will your business need support with to address COVID-19 challenges and build back stronger?

(Please select a maximum of two options)

- ○ Food standards and safety technical support
- ○ Supply chain management
- ○ Market diversification and/or product development
- ○ Customer retention/expansion engagement
- ○ Access to short-term working finance
- ○ Access to long-term finance for capital investment (e.g. machinery upgrades, etc.)
- ○ Management skills upgrading
- ○ Technical skills upgrading
- ○ Access to automated manufacturing technologies
- ○ Access to information and communication technologies
- ○ Do not know
- ○ None

SECTION 4: BACKGROUND INFO

25. When did your firm start to operate? Year in A.D. (e.g. 2011)

_____

26. In which main food-manufacturing segment (in terms of sales) does your firm operate? *(Please select all that apply)*

- ○ Manufacturing and/or preserving meat
- ○ Manufacturing and/or preserving fish, crustaceans and molluscs
- ○ Manufacturing and/or preserving vegetables
- ○ Manufacturing and/or preserving of fruit
- ○ Vegetable and/or animal oils and fats
- ○ Manufacturing and/or preserving nuts
- ○ Manufacturing and/or preserving oil seeds and legumes
- ○ Manufacturing and/or preserving roots and tubers
- ○ Manufacturing and/or preserving herbs and spices
- ○ Manufacturing and/or preserving coffee/tea
- ○ Manufacturing and/or preserving cocoa
- ○ Manufacturing and/or preserving dairy products
- ○ Manufacturing grain mill products
- ○ Manufacturing starches and starch products
- ○ Manufacturing bakery products
- ○ Manufacturing sugar
- ○ Manufacturing cocoa, chocolate and sugar confectionery
- ○ Manufacturing macaroni, noodles, couscous and similar farinaceous products
- ○ Manufacturing animal feeds
- ○ Distilling, rectifying and blending of spirits
- ○ Manufacturing wines
- ○ Manufacturing malt liquors and malt
- ○ Drinks, production of mineral waters and other bottled waters
- ○ Manufacturing fruit puree, concentrate and juices

27. What is the ownership structure of your company?
(Please select only one option)

- ○ Fully domestic owned
- ○ Foreign subsidiary
- ○ Joint venture

28. Please indicate the legal ownership model of your business
(Please select only one option)

- ○ Sole proprietor/personal business
- ○ Partnership
- ○ Cooperative
- ○ Corporation
- ○ Limited liability company
- ○ Other type of company

29. What was the number of employees of the firm at the end of 2019?
(Please select only one option)

- ○ Less than 10
- ○ Between 11 and 49 employees
- ○ Between 50 and 249 employees
- ○ More than 250 employees

30. Please estimate the percentage of women employees (% women)
(Please select only one option)

- ○ 0 percent
- ○ 10 percent
- ○ 20 percent
- ○ 30 percent
- ○ 40 percent
- ○ 50 percent
- ○ 60 percent
- ○ 70 percent
- ○ 80 percent
- ○ 90 percent
- ○ 100 percent

31. Please estimate the percentage of employees under 35 years of age (% youth)
(Please select only one option)

- ○ 0 percent
- ○ 10 percent
- ○ 20 percent
- ○ 30 percent
- ○ 40 percent
- ○ 50 percent
- ○ 60 percent
- ○ 70 percent
- ○ 80 percent
- ○ 90 percent
- ○ 100 percent

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