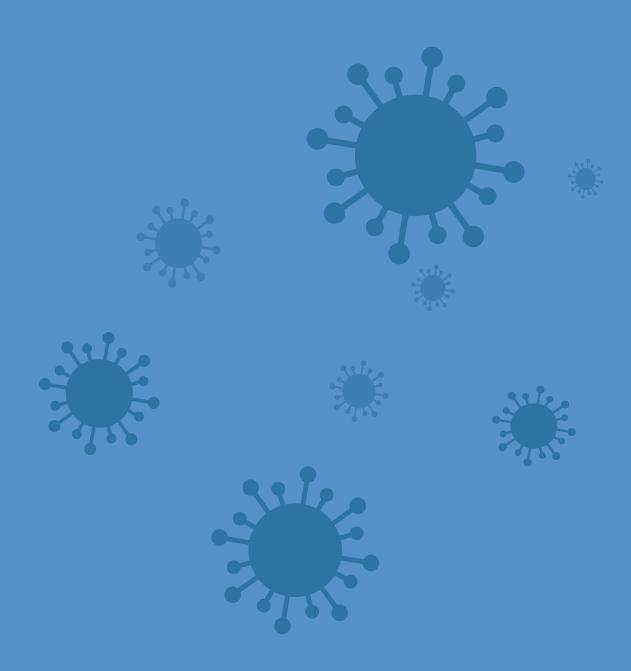




Keeping food and agricultural systems alive Analyses and solutions in response to COVID-19



Keeping food and agricultural systems alive

Analyses and solutions in response to COVID-19

Required citation:

FAO. 2020. Keeping food and agricultural systems alive: Analyses and solutions in response to COVID-19. Accra. https://doi.org/10.4060/ca8822en

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

ISBN 978-92-5-132521-6 © FAO, 2020



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization http://www.wipo.int/amc/en/mediation/rules and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www. fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

CONTENTS

INTRODUCTION	1
SMALLHOLDER PRODUCTION AND MARKETS	4
Agrifood value chains	4
Impacts at the farm level due to movement restrictions	
within country and across borders	4
Impacts along the agrifood value chain due to movementrestrictions	
within country and across borders	5
Impacts on markets due to movement restrictions within country and across-	
borders	6
Policy options to address disruptions in agrifood value chains	7
Exemptions on movement restrictions for workers in production	7
or agrifood value chains	7
Policies to ensure continuation of key support services for agrifood value	7
chains Price monitoring and stabilization efforts	8
Exemptions on import restrictions for food products and/or inputs	0
to agrifood supply chains	8
Flexible and adaptable restrictions on rural and food markets	9 9
Strategic measures and solutions on the ground – country cases Lending schemes to small and medium-sized enterprises	9
Cash and in-kind food transfers to vulnerable populations	9
Areas for further action to strengthen smallholder productivity and markets	10
Areas for further action to strengthen smallholder productivity and markets	10
FOOD SECURITY AND NUTRITION INTERVENTIONS	10
COVID-19, healthy diets and nutrition	10
Disruptions to school and school feeding programmes	12
Clean water supply	12
Policy options to address disruptions in health diets and nutrition	13
Supporting short food supply chains	13
Promoting access to and availability of nutritious foods to low-income areas	13
Improving food environments	13
Supporting consumers and healthy diets	14
Areas for further action to support health diets and improved nutrition	16
SOCIAL PROTECTION	17
Disruptions in the food systems	17
Importance of social protection	17
Social protection interventions	18
TRADE AND MARKETS	21
Potential disruptions in trade	22
Potential Disruptions in food systems	22
Box 1: Examples of disruptions or potential disruptions	22
Policy responses, likely solutions and best practices	24
Reduction or suspension of import tariffs and other import barriers	24
Trade facilitation measures	24
Box 2: Examples of trade facilitation measures	24

Export restrictions	25
Price controls and restrictions on private hoarding	26
Box 3: Examples of price control measures	26
Expand local production and support producers	26
Box 4: Examples of local production promotion measures	27
Towards a more conducive trading environment in the context	
of the COVID-19	27
MACRO-FISCAL: INCENTIVES AND EXPENDITURES	32
Disruptions in the food systems	33
Financial markets and macroeconomic stability disruptions on	
food supply chains	28
Falling government revenues negatively affected food supply chains	28
Country cases of macroeconomic stability	29
Country cases of expenditure and stimulus package	29
Bridging the financing gap in Africa	30
The challenges ahead: areas for further action	31
HUMANITARIAN ASSISTANCE IN THE CONTEXT OF COVID-19	32
Potential disruptions in the food systems	32
Measures to respond to challenges related to humanitarian assistance	33
Summary of COVID-19 food systems disruptions and policy options	34
REFERENCES	53

ACKNOWLEDGEMENTS

The Report Keeping food and agricultural systems alive: Analyses and solutions in response to COVID-19 was prepared by the FAO Regional Office for Africa (RAF). Ade Freeman, Regional Programme Leader for Africa, coordinated the preparation of the document and led its production with support from Jean Senahoun, Koffi Amegbeto, Mphumuzi Sukati, Pamela Pozarny, Scott Newman and Suffyan Koroma, under the overall supervision and guidance of Abebe Haile-Gabriel, Assistant Director-General and Regional Representative for Africa. The Country Food System Monitoring Data, which documented food system disruptions and policy actions to the COVID-19 outbreak, were collected under the supervision of FAO Representatives in all member countries in the Africa region. Technical support was provided by the Economic and Social Development Department under the overall supervision of Máximo Torero, FAO Chief Economist. Valuable contributions were made by Abeshaw Gebru, Aissa Mamadoultaibou, Ameir Mbonde, Andre Croppenstedt, Bibi Giyose, Irene Kimani, Isabel Kuehne, Jean Bahama, Jean Kabahizi, Jocelyn Brown Hall, Joseph Mpagalile, Kaba Kankou, Linda Jesusosei, Lusia Heita, Mankan Kone, Melisa Aytekin, Mercy Chikoko, Ndiaga Gueye, Nora Berrahmouni, Peter Cook, Qian Wan, Sanou Dia, Sara Abdoulayi, Soalandy Rakotondramanga and Yacine Cisse. Support from the RAF Communication Unit, led by Zoie Jones and including Ki Min, Samuel Creppy and Samuel Owusu-Baafi, is gratefully acknowledged.

INTRODUCTION

The COVID-19 pandemic is a public health crisis, but there are considerable risks that it can turn into a food crisis unless governments take urgent actions to protect the most vulnerable, and mitigate the pandemic's impacts on agriculture and food systems. Prior to the pandemic, there were serious concerns about the food security situation in sub-Saharan Africa. In 2018, 239 million people went to bed hungry, and 65 million people suffered from acute food insecurity (FAO, ECA and AUC, 2020). Now the continent faces a health crisis that is adversely affecting a stubborn food security and nutrition situation, particularly for vulnerable populations, such as smallholder farmers, livestock keepers, artisanal fisherfolk, persons whose livelihoods depend on the informal economy, and migrants.

COVID-19 has not only exacerbated an already fragile food security context in sub-Saharan Africa, where chronic food crises and high levels of food insecurity exist, but has added another complex layer to other food security threats, such as climate change, crop shortages, conflict and economic slowdowns and downturns. It is also aggravating other threats to food chains affecting food security, including fall armyworm and various locusts (desert, red, African migratory. For example, the ongoing crisis with desert locust outbreaks that affected several East African countries, resulting in USD 8.5 billion in crop and livestock losses, reduced harvests and limited availability of food in informal and formal markets.

Agriculture is one of the most important economic sectors in Africa, accounting for 23 percent of the continent's GDP. With over 60 percent of the African population living in rural areas and dependent on agrifood systems, COVID-19 poses a severe risk not only to livelihoods that dependent on food supply chains and access to local, regional and international markets, but also to household food and nutrition of vulnerable populations. Left unchecked, the vulnerability of large number of households facing shocks from multiple crises at the same time may very well lead to unprecedented increases in the numbers of hungry and vulnerable people in Africa. Refugees, internally displaced people, and people living in conflict-affected and fragile areas are especially at risk.

In Africa, there are heightened concerns over the impact of COVID-19 on food systems because:

- Many countries on the continent are import-dependent, especially for food and agricultural inputs. At the same time, these countries exports are skewed toward agricultural products (e.g. cacao, coffee, tobacco). The dependence on limited agricultural exports increases the risk of several countries' GDP to commodity price shocks or risks of contractions in global demand. On the other hand, when such countries' trade partners impose export restrictions, the countries lose access to necessary commodities. (Fortunately, few export restrictions were imposed at the time of the authoring of this document.)
- While a vibrant private sector exists, most African economies are characterized and dominated by a large informal sector, comprising up to 70 percent of economies.
- Limited safety net programmes and social protection systems cover only about 10 percent of the African population. COVID-19 containment measures exposed the inadequacies of existing social protection and safety net programmes across the continent.
- Loss of income-earning opportunities and global economic slowdown are predicted to drive unprecedented recession in the region. The United Nations Economic Commission for Africa (UNECA) forecasts contraction of about 2 percent in Africa's GDP growth in a best-case scenario.

As COVID-19 spreads and cases mount in African countries, governments and other decision-makers in the public and private sectors and their development partners are taking decisive actions, both to save lives and livelihoods and to slow the spread of the COVID-19 pandemic. The main measures put in place to control the spread or mitigate the impacts of the pandemic have disrupted African food supply chains in countless ways, including:

- Restrictions on human movement through lockdowns, curfews, restricted movements within country and across borders, with the following consequences:
 - o Impede farmers' access to input and output markets, increase post-harvest loss.
 - o Road closures, security checkpoints, and blockages to transportation routes increase food loss and waste, and therefore, transaction costs.
 - o Limited availability of inputs for non-farm segments of food supply chains, interrupting agroprocessing and logistics, such as storage and distribution;
 - o Border closures causing shortage of imported food, agricultural inputs and collapse in agricultural exports. Even as borders open up, logistics challenges have caused significant delays in moving goods, including agricultural commodities, across countries.
- Closures of wholesale and retail markets and commercial enterprises, with the following consequences:
 - o Limited points of sale for foods and agrifood inputs translates into loss of income opportunities for actors in food value chains, causing consumption to contract.
 - o Closures of hotels and restaurants, which dampen demand for nutrition-sensitive foods, such as vegetables and fruits, and collapse fish supply chains.
- Restrictions on social gatherings, offices and school closures, with the following consequences:
 - Reduced access to advisory and support services, such as extension and veterinary services, pest control, systems for sanitary and food safety controls;
 - Tens of millions of children lose access to school feeding programmes that provided food and important source of nutrition.
- Global economic downturn that is leading to an expected economic recession that is dampening growth prospect for the agrifood sector.

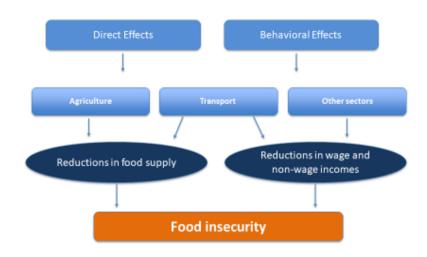
The containment and mitigation measures put in place by governments to slow the spread and impact of the COVID-19 pandemic have caused economic shutdowns and disrupted food supply chains in many countries. Developing countries, particularly in Africa, are less equipped to handle the impacts of such a major global shock because of their worrying public-health situation. Effective responses to the COVID-19 pandemic nonetheless requires timely and credible information to avoid panic-driven decisions that can turn this health crisis into an entirely avoidable food crisis.

Impact of COVID-19 on agrifood systems

COVID-19-induced disruptions affect the entire food system, impacting both supply and demand channels that are experienced at different points in time. The impacts are manifested in all components of the food system, from primary supply to processing trade as well as national and international logistics systems and intermediate and final demand. Impacts are also manifested in factor markets, such as labour, capital, and intermediate inputs of production. The channels of transmission into food and agricultural demand

include macroeconomic factors, notably swings in exchange rates, in energy and credit markets, and, most importantly, unemployment due to contractions in overall economic activity. These impacts are transmitted through direct and behavioural effects, with important implications for food security and nutrition as shown in Figure 1 below.

FIG 1 | Broad Channels of short-term economic impact



Source: Data compiled by FAO

Economic contraction due to border closures, travel bans, lockdowns and other measures promoting social and physical distancing have impacted key sectors such as aviation, the hospitality industry (hotels, restaurants, conventions and conferences), public transport, shipping and foreign direct investment resulting in declining import tax revenues and foreign exchange reserves. There are potential labour shortages and job losses affecting planting, harvesting and distribution of food products. Crude oil prices have lost more than two-thirds of their value since their January peak due to a significant drop in demand following lockdown measures and an oversupplied market, negatively impacting oil-dependent economies and straining national budgets with implications for food security. There is also potentially reduced access to finance for small businesses due to tightening credit conditions owing to international capital flight, depreciating currencies and local banks' exposure to foreign debt denominated in appreciating hard currencies (Masie, 2020). These developments will likely reduce the capacity of most African countries to quickly respond with mitigating actions to avert a looming food crisis and growing food insecurity.

This report describes the impact of COVID-19 disruptions on different components of food supply chains in Africa. It provides examples of policy actions, best practices, innovations and experiences from previous crises that countries can use to mitigate the impacts of the pandemic on vulnerable populations. The insights and concrete actions from country examples presented in the report are useful for designing and implementing policy, advocacy and programming work to address the impacts of COVID-19 on food supply chains and vulnerable populations.

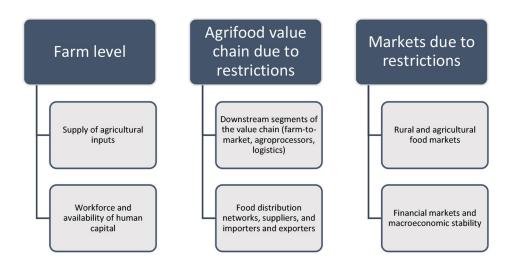
SMALLHOLDER PRODUCTION AND MARKETS

As restrictions on the free movement of people, goods, and services are put in place to limit the spread of COVID-19, measures that negatively affect even one of the actors within the interlinked ecosystem of agrifood value chains poses a threat to the entire food system. These restrictions are causing disruptions to food production systems and logistics for distributing commodities and services along agrifood value chains and market. Subsequently, this affects the food and nutrition security of countries and the region as a whole.

Agrifood value chains

Agrifood value chains comprise interlinked networks of various actors. These include farmers and producers (both large and small) suppliers and distributors of agricultural inputs (seeds, fertilizers, machinery, etc.), transport and logistics services providers, agroprocessors and manufacturers, exporters and importers, and quality and safety inspectors and systems (Figure 2).

FIG 2 | COVID 19 disruptions and agrifood value chain interactions



Source: Data compiled by FAO

Impacts at the farm level due to movement restrictions within country and across borders

- 1. Impacts on the supply of agricultural inputs at the farm level include:
 - a. Restricted transport networks due to impromptu road closures, police-enforced checkpoints and government-imposed lockdowns limits the capability of dealers and service providers to distribute key agricultural inputs, such as fertilizers, machinery, seeds and equipment. Remote rural localities will have difficulty maintaining seasonal supply networks for upcoming growing seasons.
 - b. Restrictions on imports are in place as part of efforts to close borders and limit the spread of potentially contaminated goods and people. Even when borders remain open, challenges in port and border logistics hampers distribution of commodities across cities, regions and countries. This is causing a shortage of imported agricultural

inputs, including seeds, fertilizers, agrochemicals and parts for machinery, which leads to limited access and increasing price of inputs, and, consequently, food prices in general. This also has negative implications related to pest control and maintaining phytosanitary standards for food networks. In the livestock sector, limits on local movement and importation of goods can affect the availability of livestock feed, medicines, and vaccines. In the fisheries and aquaculture sector, restrictions can limit access to fishing gear, fuel, medicines or feed for aquaculture.

- 2. Impacts on the workforce and availability of human capital at the farm level include:
 - a. Restricted human movements are leading to interruptions in the availability of labour for harvest, post-harvest handling, transportation, and storage activities, leading to high post-harvest losses, especially for perishables.
 - b. Restrictions on workplaces and large gatherings as well as closures of offices of public and private entities is negatively impacting the ability of farmers (producer associations, cooperatives, enterprises) to receive necessary advisory and support services for production activities. Cancellations of training, workshops, and seminars, along with the closure of government offices, NGO, academic and international donor or development agencies, is having negative impacts on the availability of veterinary and extension services, pest control, and monitoring systems for sanitary and food safety controls. This results in an inability to conduct surveillance or respond to disease outbreaks. It also contributes to reduced compliance with food safety, quality control and quarantine measures.

Impacts along the agrifood value chain due to movement restrictions within country and across borders

- 1. Impacts on downstream segments of the value chain (farm-to-market, agroprocessors, logistics) include:
 - a. Restrictions on imports and cross-border transport networks lead to interrupted availability of essential ingredients and inputs for agroprocessing, including packaging and labelling materials, particularly for small and medium-sized enterprises (SMEs) that do not usually maintain large stocks.
 - b. Import restrictions also have negative implications for agroprocessors to procure essential spare parts and services for equipment and machinery, especially for SMEs who are unable to stock large quantities or pay for supply from service providers during prolonged periods of interruption.
 - c. Internal movement restrictions have negative impacts on the ability of agroprocessors, logistics operators, and distributors both to secure raw materials at the farm level and supply value-added products to domestic markets.
- 2. Impacts on food distribution networks, suppliers, and importers and exporters include:
 - a. Restrictions on logistics to import and distribute produce and processed food products are especially damaging to African countries where, in some cases, up to 90 percent of consumed food is imported.

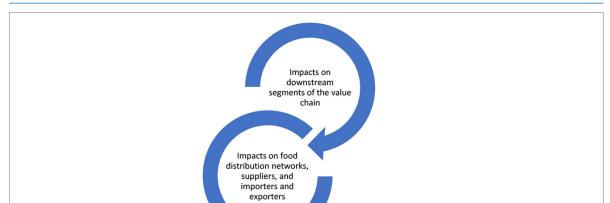


FIG 3 | Impacts along the agrifood value chain due to movement restrictions

Source: Data compiled by FAO

- b. Restricted human movements within countries put stress food supply chain workers and affect the availability and productivity of labour for equipment operators, drivers and agroprocessing workers.
- c. A global economic downturn is likely to reduce demand for African exports of food commodities, including important cash crops such as coffee and cocoa, reducing revenues for producers, processors and exporters.

Impacts on markets due to movement restrictions within country and across-borders

- 1. Impacts on rural and agricultural food markets include:
 - a. Closures or restricted operations of informal markets have ramifications on the supply of diverse, healthy and nutritious food, increased food prices due to limited food resources, and reduce income (and, therefore, purchasing power) for consumers, especially in countries with already weak systems for social protection.
 - b. Closures or restricted operations for rural and agricultural markets may have serious impacts on both producers and processors, as there will be fewer available points of sale for food products and a subsequent loss of income for all actors in the food value chain. There is also increased risk of civil unrest or conflict, and in some cases, further forest or biodiversity degradation is likely where there are increased pressure on natural resources because markets that provide income are no longer available.
- 2. Impacts on financial markets and macroeconomic stability include:
 - a. A global economic slowdown is affecting the supply and cost of credit, especially to SMEs, which are the backbone of logistics, transport, distribution and processing segments in agricultural value chains
 - b. Depreciating currencies are likely to lead to inflation, causing a limited supply of foreign exchange. For African countries, this further reduces the capability of countries to maintain imports for food products and necessary inputs for production and processing.
 - c. Reduced domestic and export markets for producers and processors will especially hurt SMEs, leading to greater risks of bankruptcy for domestic companies, ensuing loan defaults, and a general reduction in the viability of businesses that provide essential production and distribution services across the agricultural value chains.

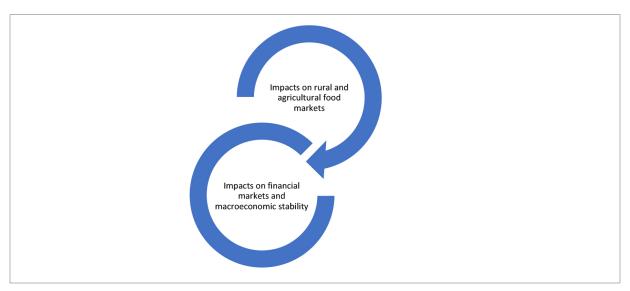
Policy options to address disruptions in agrifood value chains

Some of policy actions that countries have taken to address one or more of the above disruptions are discussed below.

Exemptions on movement restrictions for workers in production or agrifood value chains

Most African countries declared agriculture and related activities an essential service and have put in place exemptions to movement restrictions for agriculture and food markets as well as for workers and businesses in agrifood value chains.

FIG 4 | Impacts on markets due to movement restrictions within country and across-borders



Source: Data compiled by FAO

Policies to ensure continuation of key support services for agrifood value chains

Governments should ensure that advisory support, producer associations, cooperatives, enterprises, pest control programmes and veterinary and extension workers continue to provide services to support the functioning of agrifood value chains, and placing a special emphasis on disease control, food safety and quality control measures. Scaling up innovations in digital technologies should be encouraged to ensure continuation of services.

COUNTRY EXAMPLES

Ethiopia's National Task Force Team has advised extending programmes for information and communication technology (ICT) to cover producer-related extension services, financial services, linkages between market actors and provision of market information on farm prices and inputs distribution channels.

Kenya has mobilized the use of digital technologies for community disease and food safety surveillance, in place of more traditional modes of monitoring and surveillance.

targeting the most vulnerable communities to ensure that lost incomes or lost livelihoods do not affect the purchasing power of these communities. A lesson learned from the Ebola Virus Disease outbreak in Sierra Leone (2014–16) is instructive for the present crisis. Quarantines and panic buying led to increased food prices and a spike in hunger and malnutrition. The suffering worsened as restrictions on movement led to labour shortages at harvest time, and farmers were then unable to bring their produce to market. These systemic effects highlight how prevention and risk-reduction strategies are paramount to preventing negative impacts from COVID-19.

Exemptions on import restrictions for food products and/or inputs to agrifood supply chains

Implementation measures and issues for consideration:

There can be some degree of confusion as to which entities are allowed to claim exemption, and segments of the value chain that are farther removed from food production (e.g. inputs services providers) may have a harder time rationalizing their exemptions status.

Price monitoring and stabilization efforts

Governments are making efforts to reduce rising food prices through several measures, including providing direct subsidies to agricultural producers and processors for the purchase of inputs to help lower the costs of food production and enforcing rules against price gouging and hoarding of food products. Price monitoring and surveillance systems have been implemented in agricultural markets, often with the use of digital technologies to provide updated pricing information. Furthermore, social safety nets are

COUNTRY EXAMPLE

Nigeria has implemented a broad programme for price stabilization of agrifood products. This includes public awareness campaigns to discourage panic buying, promotion of local seeds, inputs, and food products through SMS and radio marketing campaigns, prohibition on the export of important staple food crops, such as grains, in order to maintain strategic national grain reserves and limit price increases, and strict penalties on price gouging by retailers and wholesalers.

Governments should keep borders, ports and inland transport routes open, and ensure that import restrictions make exceptions for products that are essential to food value chains. These include scaling up the import of staple foods to ensure the stability of national stockpiles, allowing and enforcing exemptions on import restrictions for key agricultural inputs (seeds, fertilizers, equipment and parts), and establishing protocols for movement of live animals across borders, in ways that can facilitate animal trade without the need for people to accompany them.

A similar approach for shipments of fresh, refrigerated and frozen products on trucks, ships and planes to allow food-based products to arrive at destinations without additional risks associated with COVID-19 transmission through the movement of people across borders, should also be implemented.

COUNTRY EXAMPLE

Gabon allowed the issuance of special permits for entry into the national territory for food trucks and transport of agricultural supplies and inputs. Input suppliers and retailers have received a directive to continue distribution of sales of seeds and fertilizers despite broader national movement restrictions.

Flexible and adaptable restrictions on rural and food markets

Almost all governments in the region have pledged to allow food markets to remain open, but balancing this imperative against public health concerns for social distancing remains a challenge.

Some options include restricting the maximum number of people allowed to occupy markets at any given time, implementing and enforcing strict sanitary measures for market workers. Additionally, there has been the establishment of smaller markets on the outskirts of cities to avoid overcrowding of larger urban markets. Governments intervene directly by taking over and

managing supply chains for key agricultural inputs to quarantined areas, investing in and encouraging the scaling up of digital technologies for payment, and the purchasing and delivery of food products and agricultural supplies.

Strategic measures and solutions on the ground – country cases

In addition to government policies that can adjust or alter rules on restrictions to balance the public health and food security imperatives, governments can take othermeasures to provide direct interventions at the firm or population levels. Below are two examples of such measures:

Lending schemes to SMEs

In Ghana, the Ministry of Food and Agriculture, the National Buffer Stock Company, and the National Security Secretariat are preparing a plan to keep the nation food-secure even as the coronavirus spreads. Furthermore, the Ghanaian Government established a Coronavirus Alleviation Programme whose objective is to protect households and livelihoods, support micro, small, and medium-sized businesses, minimize job losses and source additional funding to promote industries and expand industrial output for domestic consumption and exports.

Cash and in-kind food transfers to vulnerable populations

- Senegal has established the Response and Solidarity Fund for COVID-19, which
 includes up to USD 138 million for emergency food aid, as well as grants and loans to
 small-scale producers of agrifood products.
- Cabo Verde has approved a package to support the enterprises in food production with loans, reduced interest rates, and state guarantees, among other measures, to avoid firing employees. The Central Bank has taken measures to secure the liquidity of the economic system, including establishing a USD 10 million credit line for SMEs, and providing flexible access to employment insurance if enterprises close.

Areas for further action to strengthen smallholder productivity and markets

The most commonly implemented measure across countries are price controls for agrifood products and inputs, cash and in-kind transfers for food and immediate emergency relief measures to respond to the food crisis (cash transfers and food price stabilization). However, more needs to be done to strengthen smallholder production and markets in food supply chains, including the following:

- Include essential services and input suppliers that are critical for improving agricultural productivity on smallholder farms, in order to reduce post-harvest crop losses and link farmers to markets.
- Support broader economic resilience in the face of the crisis, including sustained support to local producers, SMEs, processors and other actors in food supply chains.
- Policies that consider the sustainability of domestic food systems are present
 in about half the countries observed; there is an obvious need to pay greater
 attention to sustainability issues in addition to improving farm-level productivity
 and developing a more inclusive and competitive agriculture and food sector.
- The COVID-19 crisis is likely still being seen primarily through a public health lens, as it should, but national task forces or funds/strategies that are meant to deal with the economic and food security impacts were observed in slightly less than half of the countries considered.
- Ministries in charge of health are the primary focal points for the response, and only in a few countries there appear to be a "whole of government" or "One Health" approach, including coordination with other ministries that deal with food and import policies, trade policy, social protection and food security, etc. This is of concern and requires attention.

FOOD SECURITY AND NUTRITION INTERVENTIONS

COVID-19 disruptions, including movement restrictions within countries and across borders, reduced food availability and decreased access to diverse and nutritious sources of food while rising food prices and/or loss of income opportunities reduced household purchasing power to buy food. Availability and affordability of nutritious foods are the key drivers for healthy eating and optimal nutrition. Thus the disruptions caused by the pandemic are creating shortages and limiting the availability and increasing the cost of nutritious foods, such as fresh vegetables, fruits and fish for the poor.

COVID-19, healthy diets and nutrition

Food demand is generally inelastic but COVID-19-induced loss of income earning opportunities, food price hikes due mainly to panic buying, and a general slowdown in economic activities are altering dietary patterns and limiting access to nutritious and healthy diets.

Many countries in Africa reported increases in food prices, especially in urban areas, due mainly to COVID-19 related panic buying and supply disruptions for food and feed following lockdown and other containment measures. For example, food prices (both retail and wholesale) started soaring in Uganda because of disruptions to public transport and movement of traders. Consumers in local food markets in countries such as Burkina Faso, Ghana, Kenya and Rwanda reported steep increases in the price of staple foods, and lockdowns and restrictions on movement encouraged panic buying and consumers stocking up

on food as a result of disruption in supply chains and market closures. Analysis of food prices and markets data also showed that most countries in sub-Saharan Africa had higher food prices in May 2020 relative to May 2019 (FAO, 2020a). About 60 percent of the food consumed in the region is purchased from traditional and modern retail outlets in both rural and urban areas, therefore, rising food prices contribute to lower purchasing power among both urban and rural consumers.

The loss of income-earning opportunities are likely to disproportionately affect low-income households and workers operating in the informal economy, who earn enough to live day by day. Workers in the informal economy that dominate African economies, especially those in urban areas, have been particularly hit, as lockdowns, closure of commercial enterprises and reduced inflows of remittances left many of them without incomes to feed their families. A review of country data showed that:

- Most African cities banned street vendors, most of whom are women selling local food such as fish, fruits and vegetables. Lockdowns and curfews affected their ability to sell food commodities, many of which are perishable.
- Lockdown policies and other movement restrictions severely affected informal traders who
 dominate Africa's private sector and depending on daily trading activities for their livelihood.
 Border closures also restrict the trade of food and non-food items across borders, and area
 that is also dominated by informal traders.
- Movement restrictions and social distancing regulations also restrict poor people's access to food because they mainly depend on informal markets to get their food supply (both cooked and uncooked). The limited availability and/or increased cost of nutritious foods can increase reliance of poor households on unhealthy foods, including cheap and nutrient-poor staple and ultra-processed foods, which may increase the risk of obesity and related chronic diseases.
- The closure of private commercial establishments in the hospitality industry, such as hotels, restaurants and bars, as well as overall slowdown in business, are dampening demand for fish products and collapsing significant segments of fish supply chains. This demand contraction is having negative knock-on effects on livelihoods of artisanal fishermen, fish traders (most of whom are women), and the entire industry.

Given that of low income African household's expenditures on food is significant – up to 60 percent in some urban areas – a drastic drop in purchasing power is threatening food consumption, reducing their ability to cover their basic nutritional needs, including vegetables, fruits fish and livestock products that provide the main sources of essential micronutrients.

Research from IFPRI show that in poor countries, vulnerable households quickly abandon consumption of nutrient-rich, non-staple foods like eggs, fruits, and vegetables, shifting their consumption to the cheapest sources of calories and more nutrient-poor diets when incomes decline. For example:

• In Ethiopia, following the outbreak of COVID-19, dietary diversity has declined in poorer households, suggesting a sharp deterioration in household food security situation with current COVID-19 containment and social distancing measures (IFPRI, 2020). As food expenditures decline, there are observed changes in household diets, with less consumption of fruits, meat and dairy products. Thus, the shift in household consumption from more nutrient-dense foods to cheaper, less nutrient dense-food is real and likely to increase malnutrition and threaten the food supply chain should the COVID-19 pandemic and its negative socio-economic impacts persist longer.

Evidence also suggest that many low-income households are resorting to negative coping strategies, such as in Uganda, where some vulnerable urban poor are reportedly selling off household goods and kitchenware to meet consumption needs, and others have reduced the number of meals from three meals per day to one or maximum two. Such negative coping strategies will have devastating consequences on children and women, resulting in the augmentation of chronic and severe acute malnutrition among the most nutritionally vulnerable groups.

Disruptions to school and school feeding programmes

Lockdown measures in many African countries include school closures that directly affect school feeding programmes, which provide nutritious diets for school children. The loss of this source of nutrition mean that school closures will have negative effects on the nutrition of children, particularly those in low-income households where school meals are a major source of balance diets.

Africa nutrition experts from 16 African countries have noted that "rolling out a well-planned school feeding programme is a precondition to improve the education and health status of over 23 million schoolchildren who go hungry every day while boosting up local agricultural production and productivity." According to WFP (2018), 66 million primary school-age children go hungry every day, with 23 million in Africa alone. Additionally, 75 million school-age children (55 percent of whom are girls) do not attend school, with over 35 million (47 percent) of them living in sub-Saharan Africa. School feeding programmes have, therefore, been important initiatives to increase school enrolment and improve child nutrition.

The cancellation of school feeding means that millions of children no longer have access to nutritious food, which is often a major source of nutrition for children in low-income households. Furthermore, local farmers supplying food and other actors providing goods as services, such as catering, for school feeding programmes also lose income.

In addition to the deterioration in household diets, COVID-19 is posing nutritional risks for mothers and young children, threatening maternal and child health, directly and indirectly. Agencies like UNICEF are worried about disruptions to imports of crucial nutritional products, including micronutrient supplements and micronutrient-fortified products used to prevent and treat micronutrient deficiencies or severe acute malnutrition. Anecdotal evidence from Asia suggests that women are concerned about passing the coronavirus to their infants through breast milk, which could result in switching to breast milk substitutes that increase risks of infection and malnutrition in areas with poor water quality. Globally, breastfeeding promotion and nutrition counselling usually provided by the health sector are likely to be limited due to restrictions on mobility, social distancing requirements and overburdened healthcare systems.

Pregnant women and mothers with young children are also vulnerable to COVID-19, particularly when they have other underlying health conditions. However, the indirect effects on healthcare systems will likely have far greater consequences for maternal and child health. In principle, lockdown protocols in most countries do not prohibit health-related travel, but healthcare providers and their clients will be less willing to travel for non-emergency checkups or preventive care points.

Clean water supply

The provision of clean water is a very important part of nutrition interventions during the outbreak of the pandemic, given that regular washing of hands is an important control measure. Unfortunately, many rural and urban communities in Africa still do not have access to clean water, impairing the fight against the pandemic from a nutrition and sanitation standpoint. In sub-Saharan Africa, 42 percent of people are without a basic water supply, and 72 percent without basic sanitation. Provision of clean water points should, therefore, be an important element of addressing the COVID-19 outbreak in Africa.

Policy options to address disruptions in health diets and nutrition

Governments, the private sector, civil society organizations and development partners have responded to the negative impact of COVID-19 on food security and nutrition by implementing several policy and programmatic actions in food systems to prioritize access to nutritious food and ensure their availability, particularly for vulnerable low-income households that are affected by the containment and mitigation measures associated with the pandemic.

Supporting short food supply chains

Some countries have promoted direct and short food supply channels between small-scale farmers producing fresh, high-value commodities and consumers.

For example, Senegal launched the Household Food Basket Initiative to respond to COVID-19 with a view to protecting local food supply chains and supporting local producers, particularly women and young people. The initiative provides food assistance to households that are likely to be affected by lockdown and distancing measures imposed by the government to limit the spread of the pandemic.

Promoting access to and availability of nutritious foods to low-income areas

Governments have prioritized access to nutritious food through various social safety nets programmes, including cash transfers. Below are some country examples.

Eswatini is offering food parcels to households most affected by the COVID-19 outbreak. This work is undertaken by the National Disaster Task Force, comprising government and development partners, which collects and distributes food parcels to various vulnerable and low-income households and communities. Interventions also include cash transfers for procuring food.

In Rwanda, the Government is buying eggs from the poultry farmers who lost access to egg market owing to COVID-19 pandemic. The initiative has two objectives: to ensure that farmers do not incur losses, and to improve child nutrition. Beneficiaries will be children under the home-based early childhood development centres, which operate in villages across districts.

The private sector has also partnered with governments and farmers to deliver food to vulnerable people. For example, in South Africa, a private company, FoodForward SA, is partnering with supply chains from farmers, manufacturers, wholesalers and retailers to collect and deliver food parcels to benefit schools, young children and needy households. With a footprint and operations in six of the nine provinces (Free State, Gauteng, Kwazulu Natal, Northwest, Eastern Cape and Western Cape), FoodForward SA intensified their food parcel delivery to cover more families. With the lockdowns and limited access to food, the company is filling a gap to minimize food losses and provide the much needed food and nutrition to multiples of individuals. Being a registered beneficiary organization and leader in food collection, aggregation and logistics, they have also helped strengthen the government food safety net systems to cope with the ballooned demands for food supplies during COVID-19. More than 80 percent of the food recovered is nutritious and provide macro- and micronutrients.

Improving food environments

Food environment interventions focus on establishing or expanding social assistance programmes to support vulnerable groups. Programmatic areas of support involve expansion of coverage and promotion of social assistance programme to smoothen food consumption patterns and prevent negative coping mechanisms. Targeting families with young children, pregnant women and people with disabilities through the provision of food baskets or coupons/vouchers is important for inclusivity and leaving no one behind. Below are two examples of such policy options.

The Government of Somalia is working with its development partners to reprogramme the Somalia Cash for Work to Unconditional Cash Transfers to support households. The Somaliland Fundraising Committee for COVID-19 launched a campaign to provide 60 000 households with one-month food assistance, costing USD 50 per household. Targeting criteria include nutrition-sensitive indicators, such as those that focus on households with pregnant and lactating women, children under five, those having been enrolled under previous feeding programmes and those who have lost livelihood opportunities during the pandemic.

In Madagascar, as part of the Malagasy Government's Strategic Social Emergency Plan for COVID-19, the Government has launched a social protection programme to assist families impacted by the COVID-19 outbreak through the use of unconditional cash transfers in urban and suburban areas. Nearly 189 400 households will benefit from the programme called TOSIKA FAMENO, and each identified household will receive 100 000 Ariary (USD 26) a month, and payable in one instalment. Payment of transfers to beneficiary households will be made by mobile money or voucher to limit the risk of contact between people.

Supporting consumers and healthy diets

Some countries have taken immediate actions to improve and ensure food security through emergency food distribution to vulnerable people. Initiatives under the 'do no harm', or 'leave no one behind' initiatives advocate for national COVID-19 response committees to mitigate impact of the measures on food security and nutrition. Provision of diverse and nutrient-rich foods to school-aged children affected by school closures is also encouraged. The inclusion of behaviour change communication and nutrition education in food and agriculture programmes are also useful measures to change consumer behaviour

Connecting farmers to households in short food supply chains in Senegal Senegal's Household Food Basket initiative aims to address the dual issues of farmers being unable to sell their products because of movement restrictions related to COVID-19 and the resulting limited availability of nutritious and diversified food, particularly for food-insecure families.

FAO is collaborating with Senegal's Ministry of Agriculture and Rural Equipment, UN Women and the UN Population Fund to both create markets and provide access to nutritious food. Local producers, especially women and young people, are being connected to around 37 500 food-insecure families (around 300 000 people), and cash transfers will allow the most vulnerable families to purchase food.

towards healthy eating. Encouraging homestead production to increase production and own consumption of nutritious foods is a quick win action that promote household dietary diversity, as illustrated by the following examples.

Ghana's Food for All Africa, together with volunteers and partners, sort and package recovered food products to be distributed once a week to vulnerable beneficiaries within Greater Accra, Central, Eastern, and Volta regions. It is setting up an innovative and cost-effective community kitchen to serve vulnerable beneficiaries living on the streets of Accra, the capital city.

In Liberia, to ensure that nutrition is maintained for vulnerable children during COVID-19 crisis, WFP in collaboration with the Ministry of Education is providing take-home dry rations to nearly 100 000 girls and boys for use by their entire households as a way of averting child hunger and encouraging the children to continue studying their lessons at home.

Governments have implemented initiatives, often with development partner support, to promote dietary recommendations that encourage healthy eating and/or behaviour change and nutrition education in food and agriculture programmes.

For example, Kenya's COVID-19 Food Security War Room provides a good example of a multisector government response to address food security, nutrition and other related responses to COVID 19. FAO supported the Agri-Nutrition Unit of the Ministry of Agriculture, Livestock, Fisheries and Cooperatives (MoALFC) in the development of guidelines for sustaining heathy eating at household level. The guidelines were hosted under the Ministry's website for easy reference by stakeholders. Following the launch of the guidelines, the Ministry launched a national campaign for the establishment of one million kitchen gardens. Various partners committed funds to implement the guidelines, including the African Development Bank (in 11 counties), FAO (in 3 counties), a World Bank government project (in 9 counties). As good practices, learning model kitchen gardens were established in the government headquarters for media campaigns and to support partners' interventions.

Households have also been encouraged to engage in homestead production to increase own production and consumption of nutritious foods, as shown by the following examples.

The Government of Gabon and FAO launched a joint initiative called Gabon Famille Verte (Gabon Green Families) to mitigate the economic impacts of COVID-19 on families by encouraging urban families to grow their own food in microgardens at home in case the pandemic disrupts their access to fresh fruits and vegetables.

A television programme, presented by FAO experts and others, including the Gabon National Federation of Agricultural Processors, and aired on the country's national Gabon Première channel, demonstrates the techniques of vegetable production at home and how to successfully and cheaply grow short-cycle produce such as amaranth, cabbage, eggplant, tomato and other varieties.

An initiative in Ghana, the One Household One Garden, was launched by Agrihouse Foundation, a non-governmental organization, to encourage people to create backyard garden and produce their own food. The initiative aims to help people to improve their family income and boost food sufficiency in the country. Another objective is to provide households a simple and easily accessible source for meeting daily food needs.

Kenya's COVID-19 Food Security War Room

Kenya created the food security war room for COVID 19 response in March 2020 involving the ministries of agriculture, livestock, fisheries and cooperatives. With support from development partners the food security war room identified several focus areas to ensure continued food availability and access at household level.

It also plays an important role in monitoring and proposing response and recovery strategies to COVID-19.

Other country examples to promote healthy diets and improve nutrition include:

- Releasing food security stocks of major staples (dry cereals, beans, etc.) and opening sales points to
 ensure adequate supply and price stability amidst panic buying (Togo);
- Watching whether to draw from strategic grains reserves for release of grains onto markets should the COVID-19 pandemic situation worsen (Ghana, Nigeria, Namibia);
- Placing import orders to increase the national strategic grain reserves capacity in anticipation of the food shortage (Botswana, Sao Tome and Principe); or develop a response plan that includes building and maintaining an adequate food stock (Sierra Leone).
- Areas for further action to support health diets and improved nutrition

Areas for further action to strengthen smallholder productivity and markets

The COVID-19 pandemic provides an opportunity to promote healthy diets that are accessible, available, safe, equitable and culturally acceptable. Protecting food value chains to secure people's nutrition by protecting access to safe and nutritious foods requires action in several areas including:

- I. School feeding programmes: Innovations to deliver food to school children while maintaining social distancing measures to protect their health. There is a need for increased collaboration between development partners, such as FAO and WFP, to introduce best practices and innovations that enhance school feeding programmes, including home-grown school feeding.
- II. Policy and investments agenda that include nutrition: There is a greater emphasis on targeted measures to promote healthy diets and improve nutrition, such as home gardens, while few countries address higher-level nutrition issues, such as nutritional content of food stocks. Sustained actions to promote healthy diets and improve nutrition need to pay more attention to higher-level nutrition issues on the policy and investment agenda. Maintaining the integrity of the national food control systems to prevent outbreak of food borne disease during the COVID-19 pandemic should also be high on the policy agenda.
- III. Use data and information to inform policy design and implementation: Greater and more systemic efforts are required to support monitoring policy responses to COVID-19 through a diet and nutrition lens with a view to learn from these responses to inform the design and implementation on nutrition policies and programmes that promote more sustainable and resilient agrifood systems. Without hard evidence on how the food security and nutrition situation is evolving, it is difficult to identify good or best practices or what works/does not work well.
- IV. Promote communications on the importance of heathy eating: National Food-Based Dietary Guidelines should advocate for healthy eating habits and the right food choices. Information on healthy food availability also promote local value chains.

SOCIAL PROTECTION

The exposure to the negative direct and indirect impacts of the pandemic on an already strained rural context – characterized by high rates of poverty and food insecurity and very limited social protection coverage – leaves African countries in a critical situation, requiring urgent intervention.

Disruptions in the food systems

In rural settings, households engaged in food system processes will acutely feel the fallout of the pandemic. There are expected rises in food prices, increased costs of inputs, broken food chains where processing and markets are significantly limited or closed, decreases in social services, etc. These factors, combined with a reduction in social networks, informal support systems and safety nets – which are essential for poor rural households – are likely to put great stresses on already strained households. Anecdotal evidence, however, suggests that some farmers can identify opportunities from COVID-19 disruptions and capitalize on best options. In Togo, for example, since some farmer groups do not have official registered status, they cannot sell their products themselves during lockdown. This has motivated some informal/unregistered farmer associations to aggregate and coordinate with other producer networks who are registered, and more organized. Because food transport sales are considered 'essential', these larger groups can sell their products, even in greater quantities in large and distant markets. Further, much of the produce is vegetables and fruits, for which customers are willing to pay premium price.

Across the varied landscapes of sub-Saharan Africa, the diversity of livelihood groups will experience COVID-19 impacts. These will be felt in different ways, across different timeframes, and in varying degrees of acuteness.

There are reports of urban dwellers returning to rural communities during lockdown periods, further straining household coping capacity. Loss of income or access to food will result in increased hunger and poverty. Refugees and migrants, in particular, are often undocumented and typically excluded from national social protection systems and health programmes. They face additional challenges to generating income and sending remittances back home due to lockdowns and restrictions of movement. In addition, COVID-19 will increase the number of vulnerable and poor households — with projected increases in poverty and severe economic downturns.

Importance of social protection

Social protection covers a spectrum of social support interventions, including social assistance, social insurance and labour market interventions.

Social assistance (non-contributory transfer programmes, e.g. cash transfers, vouchers, food distribution, school feeding, cash for work/assets, fee waivers) is a vital measure to protect rural livelihoods, with the potential to limit the negative effects of the downturn, and specifically in the agrifood systems in the immediate and longer term. Social insurance (i.e. unemployment insurance, paid sick leave, health insurance) and labour-market interventions (e.g. wage subsidies, labour regulations) also serve a critical role in supporting vulnerable households to reduce exposure to health crises and loss of income from COVID-19. Social protection instruments can be adapted or formulated to address both urgent and emergency type of impacts while also serving to help protecting and rebuilding livelihoods for affected households in the medium and longer term.

Providing adequate social protection support to vulnerable rural households in the form of health coverage, income and food support, especially to those engaged in the food system value chains, is of key importance during and after this crisis. The provision of a diversity of social protection measures, as has been the approach in Ethiopia, Kenya and South Africa, will assist rural households in protecting livelihoods, smoothing consumption, ensuring food and nutrition security, and more broadly, preventing or limiting food shortages and disruptions in food systems triggered by hurdles of transport and market access for products and inputs, labour loss, panic buying, and decreases in demand and consumption due to reduced household incomes.

The provision of social protection support can assist rural households to comply with measures to prevent the spread of COVID-19, better manage prevention and treatment costs for illness, protect and gradually restore livelihoods and maintain food and nutrition security. In order to both protect households in the short term, promote livelihoods and support rural poor families to maintain secure access to nutritious and adequate food and other household essentials and minimize vulnerabilities, a combination of social protection measures linked with livelihood support is needed. This approach should cover the immediate, medium- and longer-term needs. Furthermore, addressing the humanitarian—development nexus in this context is critical to establishing wellbeing that is more resilient in the future.

Social protection interventions

Globally, COVID-19 has generated a tremendous response and rapid mobilization of new or adapted social protection programmes. According to a World Bank live document report tracking social protection responses to COVID-19, as of 22 May 2020, 190 countries responded with 937 new or adapted social protection programme responses – 122 of which were announced or adopted in sub-Saharan Africa.

Additionally, governments and development partners in over 30 countries are pursuing policy options for social protection responses. Social protection working groups and/or United Nations Country Teams are jointly assessing the most effective social protection responses to address the urgencies. In the COVID-19 context, social protection in both the immediate and longer term is clearly being recognized as central to addressing vulnerabilities of poor households and of those who risk falling into poverty, in both rural and urban contexts. Furthermore, shock-responsive social protection is particularly being recognized as critical for timely responses during crises.

Many countries have social protection systems in place, but coverage is often limited, and at times, institutional and operational performance can be inadequate. In conflict settings, social protection systems may be interrupted and compromised. This can hamper efforts to establish and mobilize rapid, adaptive response measures. In this context, attention will need to focus on supporting and advising governments, while building government capacity to design, strengthen, adapt and effectively implement shock-responsive social protection systems.

As of mid-April, the social protection responses to the COVID-19 pandemic in many African countries comprised widespread, often one-off declared programmes aiming to relax immediate expenses, which include providing subsidies for utilities. For example, in Ghana, there are subsidies for water, reductions in transactions fees (e.g. mobile money), and reductions in interest fees and other financial/

investment repayments. Other supports have included distributions of food and sometimes cash, in urban and rural settings. At the same time, more and more countries are now formulating and seeking support to implement more comprehensive social protection policy measures to address COVID-19 impacts through vulnerability-targeted social assistance and insurance programmes, with a few opting to include labour market interventions, such as wage subsides through businesses (e.g., Botswana and Cabo Verde). Social assistance, notably transfers, has been a particularly important instrument used during the COVID-19 response, accounting for 84 percent of all social protection measures taken in sub-Saharan Africa. Globally, about 30 percent of COVID-19 responses have been through cash transfer programmes. Existing systems can provide a ready platform for quick scale-up or linking with other responses interventions. Cash and inkind transfers have the potential to be highly flexible and can be scaled-up horizontally (covering additional participants) or vertically (topping up of value of benefits) within existing programme structures. Transfer programme benefits, operations, or requirements can be adapted and adjusted based on rapidly changing situations over time.

Scaling up of support to existing social protection participants is being applied as an immediate measure in several contexts. In Ethiopia, transfer levels have been increased for the Productive Safety Net Programme

Areas for concrete action

Within the context of existing social protection systems, there are phases of policy and programme support. Responses entailing policy and programmatic support may include:

- **1. Immediate:** Social assistance facilitates immediate support and compliance with health and safety measures to combat the virus while maintaining access to food and protecting livelihoods, food and nutrition security and incomes.
- **2. Short term:** Implementing measures to protect, rebuild and promote livelihoods affected by COVID-19 through coherent, cross-sectoral, social protection system responses to enable restoration of livelihoods and reduce negative impacts in the coming seasons.
- **3. Short to medium term:** Joint assessments or appraisals to support governments on COVID-19 response in social protection, as described above.

(PNSP) in urban areas. In Kenya, resources have been allocated to provide additional support to elderly, orphans and other vulnerable groups. In Lesotho, the COVID-19 response is being layered on top of the ongoing CASH+ response to the 2019 drought by providing top-ups to the National Child Grant Programme, as well as horizontal expansion to reach additional COVID-19 affected households. Other countries are using innovative ways to expand existing social assistance programmes, targeting newly vulnerable households, particularly in the informal sector. In Angola, cash transfers will be extended to new households affected by the crisis. Burkina Faso plans to start a new programme to provide cash transfers to informal sector workers, specifically focusing on fruits and vegetable sellers, particularly women. In Cabo Verde and Sierra Leone, one-off payments are being planned for informal workers, including sellers in local markets. Namibia will implement an Emergency Income Grant to support employees in both the formal or informal sectors who have lost their jobs due to the pandemic and its fallout. While identifying informal sector workers can be particularly challenging, sharing registry information to enable rapid identification of households newly vulnerable due to the economic impacts of COVID-19 are being implemented in many countries. These interventions often involve coordinated efforts by governments and a broad range of development partners (UN agencies, NGOs).

Food assistance is also a widespread response. Rwanda is capitalizing on its well-established decentralized structures to implement in-kind distribution of food and other essential items to household of casual labourers. Emergency food aid is a central pillar of the response in Senegal as well, which includes a one-off distribution of a food and necessities kit.

Critically, many programmes are adapting programme-delivery mechanisms to ensure benefits reach participants, while complying with health safety measures. This includes relaxing conditions where related services (i.e., health or educational services) are not safe or accessible, or ensuring that payments for cash-for-work interventions continue even when workers must stay home, such as the case of the PSNP in Ethiopia. Advance payments are another response mechanism that countries are using to protect households. The PSNP is providing advance payment of benefits covering three months, for example.) Other adaptations of delivery mechanisms include using mobile payments instead of in-person distribution of benefits, and, in the case of school feeding, food banks and school feeding programmes are pivoting to provide rations at home to affected children, such as in Cabo Verde and Liberia.

Overall, in an emergency context, it is far easier to work with existing social protection or humanitarian systems to implement rapid responses, than to create new ones. In countries with nascent social protection systems or those compromised by conflict, social protection responses are being delivered through humanitarian interventions. In Burkina Faso, development partners will build on the ongoing emergency response to insecurity and displacement by scaling up unconditional cash transfers. Some households will also receive assistance to increase vegetable and livestock production and hygiene kits. In Somalia, development partners are using the opportunity to build capacity for an emerging system, focusing on scaling up, horizontally and vertically, unconditional cash transfers to rural households to cover three-month food needs and livelihood inputs transfers to promote local production and protect agricultural livelihoods.

While social protection response in Africa is formidable, most measures being taken aim to provide a 'rapid response' to lessen immediate economic impacts on households. It will be critical for response strategies to build on these first steps to integrate economic (productive and financial) inclusion components to assist recovery and restoration of livelihoods, and support resilience for future shocks, particularly among informal urban and rural workers.

TRADE AND MARKETS

The COVID-19 pandemic has disrupted intra-regional trade and related trade-related measures in profound ways. A long-term policy objective of the African Union (AU) has been the promotion of intra-African trade in agrifood products as outlined in the Malabo Declaration. While intra-regional trade has grown over the last decade, it currently only makes up 27 percent of total agrifood exports and 17 percent of total agrifood imports (AUC and FAO, 2020). Similarly, Africa's participation in the global market for agrifood products has seen exports growing by 4 percent and imports by 6 percent per year. In addition, exports are comprised mainly of cash crops (cocoa, coffee, fruits and nuts, tea and spices), which have relatively limited markets in Africa. Most agrifood imports are basic food products, such as cereals, vegetable oils, sugar, meat and dairy products. The high dependence on extra-regional imports of food products can increase the exposure of producers and consumers to shocks of a global nature, such as the food price spikes of 2007–2008 and the current COVID-19 pandemic (AUC and FAO, 2020).

Potential disruptions in trade

The African Continental Free Trade Area (AfCFTA) Agreement, a major milestone for regional trade integration, entered into force in 2019. Trading under this new agreement was scheduled to start on 1 July 2020 to ensure the free flow of goods and services along open supply chains and trade channels for Africa's producers, traders and consumers numbering over one billion people. However, the health shock caused by COVID-19 has already delayed plans for the launch of the continental free trade area, which is estimated to expand intra-African trade by 20 to 30 percent by 2040, according to estimates by the United Nations Economic Commission for Africa (UNECA). The successful implementation of the AfCFTA would allow the majority of African countries to freely trade in a single market involving approximately 5 000 products, including agricultural commodities and related services. Instead of implementing the trade agreement as planned, governments are now, however, preoccupied with protecting their citizens from rising infections and safeguarding critical supplies by adopting a host of preventative and ameliorative measures to slow down the spread of the pandemic and its debilitating effects on their economies.

Countries across Africa have introduced measures to contain the spread of COVID-19 and mitigate its impact on local communities. From a trade and markets standpoint, these measures have contributed in different degrees to disruptions in food systems and the normal functioning of markets. UNECA projects that Africa's initial GDP growth forecast of 3.2 percent will drop by almost half to 1.8 percent in a best-case scenario (UNECA, 2020), while global growth will decrease from 2.9 percent to 1.5 percent (OECD, 2020) as a result of a combined demand and supply shock due to increasing social isolation measures and a global oil glut. The pandemic will affect key sectors in Africa that are sensitive to slowing global demand, such as agriculture, mining and oil (Angola, Ghana, Kenya, Nigeria and Uganda) unless the rate of infection can be contained.

It is clear that trade plays a key role in allowing goods and services to move across borders from areas of surplus to deficit areas, thereby alleviating acute shortages and food insecurity. However, with COVID-19, the risk is that some countries will react by imposing export controls which will push up world market prices of staples and exacerbate food price volatility. During the 2007–2008 food crisis, large countries some imposed export restrictions, creating economic hardship for their citizens and not just for their smaller trading partners. The lack of information on market conditions (production, stocks, consumption, trade and prices) and uncoordinated policy interventions by countries also contributed to disruptions, food price hikes and social unrest.

Potential Disruptions in food systems

Although only affecting the movement of people, border closures are likely to lead to a reduction in the supply of agricultural inputs (fertilizers, pesticides, livestock feed, etc.) and staple foods. Consequently, food supplies may start running low, especially if supply chains are disrupted. Additionally, agricultural production may be interrupted by containment measures that restrict workers from harvesting and handling crops. Border closures can also create food shortages and raise food prices, especially in countries that are highly dependent on food imports such as low income, landlocked and small island developing States and conflict zones. For example, there is evidence of rising prices of chicken and beef in the Democratic Republic of the Congo.

Trade with other countries outside Africa could decrease considerably because of travel bans affecting the movement of aircraft, shipping, rail and road transport. These restrictions and protective measures create a shortage of workers and affect the availability of agricultural inputs and food production, as well as downstream trading and transportation activities. Border closures cause panic and price speculation involving staple foods in food-importing countries. Cross-border trade is also disrupted, and trade flows of agricultural products will be considerably reduced if countries continue to apply additional restrictions on trade. Box 1 shows examples of disruptions or potential disruptions at country level.

BOX 1 | Examples of disruptions or potential disruptions

- Chad: The country is experiencing scarcity and high cost of certain foodstuffs imported from Cameroon, such as pineapple, banana and avocado.
- Côte d'Ivoire: There is a potential reduction in food export or transit (e.g. rice) from Côte d'Ivoire to Burkina Faso and Mali (due to border closures) and a decline in food imports, in particular for rice due to export bans (e.g. from Vietnam).
- Equatorial Guinea: The pandemic is already affecting imports of onions, potatoes, watermelon, cabbage, pumpkin, zucchini, peanuts, chickens, etc. Almost 80 percent of the food consumed in the country is imported.
- Gabon: There is a reduced food supply to markets and households due to a reduction in imported foodstuff from Cameroon. Informal sector food prices are soaring, coupled with volatile retail markets.
- Ghana: India, China and Vietnam, which import commodities like cashew products from Ghana, have drastically cut down imports as their processing factories have closed due to lockdowns.
- Mozambique: There will be disruptions of key agriculture exports such as prawns, fish, cashew nuts, tobacco and sugar. Informal market operators have warned about price increases for products (including food) traded across the border with South Africa like cereals, meat,

fruits and milk). Prices of some basic products (including lettuce, tomato, cabbage, cooking oil, beans and groundnuts) and services will continue to rise in the coming months.

- Niger: Border closures have reduced demand for live cattle, negatively im pacting pastoralists' incomes.
- Sierra Leone: Border closures affect cross-border trade, especially with Guinea, which contributes substantially to Sierra Leone's food basket (groundnuts, maize, millet and planting materials).
- Somalia: The country will experience a substantial decline in export crops such as sesame, banana, dry lemon and fish, all of which are exacerbated by the ongoing locust plague. There is a disruption of the supply of grapes, apple, apri cot, garlic and sweet oranges from Egypt, Ethiopia, Kenya, South Africa and UAE; rice, pasta and flour mills from China, India and Pakistan; and sugar, cooking oil and spices from Bangladesh, India, Indonesia and Pakistan.
- Senegal: Closure of the border with the Gambia will have adverse consequences for the banana sector in Tambacounda region.
- Togo: Agricultural products such as fruits and vegetables and fish that are often imported from Ghana can no longer be easily imported due to travel restrictions.
 Other affected products are wheat, rice, milk and meat imported from Europe or Asia; and tomato and onions often imported from Sahelian countries like Niger and Burkina Faso.
- United Republic of Tanzania: The decline in demand in foreign markets and trans
 portation challenges pose a threat to trade in horticultural commodities and other
 perishables (e.g. vegetables and flowers to the European market).
- Zambia: Traders are not able to freely transport imported agricultural commodities from Zimbabwe and South Africa through neighbouring countries due to border closures.

Source: Data compiled by FAO

In Western Africa, COVID-19 came in the wake of Nigeria's complete land, air and sea border closures and the region's security challenges, while in East Africa it came on top of the desert locust plague ravaging the region. Failure to rapidly contain the pandemic will result in further economic contraction and value destruction due to lost markets for export commodities (cocoa, fruit and nuts, coffee, tea, spices and other cash crops) that provide livelihoods for smallholder farmers and urban dwellers in the face of inflated prices of staple foods such as rice, bread, livestock, poultry and vegetables. The high dependency on food imports from outside the region for some countries means an increase in the cost of living for imported food products such as wheat, sunflower oil, dairy products, rice, palm oil, maize, poultry and beef.

Policy responses, likely solutions and best practices

Policy responses to address the impact of COVID-19 on food systems require coordinated efforts to keep borders open and maintain trade channels so that international markets can play their role in preventing food shortages and mitigating the effects of the inevitable global economic downturn (IFPRI, 2020). For this to happen, countries should immediately review trade and taxation policy options and their likely impacts to create a favourable environment for the food trade. Trade policies should be coordinated and oriented toward helping to maintain access to food in a way that is targeted, proportionate, transparent and temporary, particularly for trade-restrictive measures. Governments should eliminate existing export restrictions, including export bans. Lower import tariffs facilitate imports and, therefore, help address the immediate concern about low food supplies and rising food prices.

African countries have responded to the disruptions affecting agricultural and food trade in various ways, including price controls, engaging with local businesses and the private sector, reducing import barriers, improving trade facilitation measures and easing export controls and other restrictions. It is important to support cross-border trade to maintain the continued flow of agricultural and food commodities and inputs, including through expanded care services and testing.

Reduction or suspension of import tariffs and other import barriers

As mentioned above, trade policies are useful in preventing food shortages. Côte d'Ivoire, for example, plans a reduction in import taxes for essential commodities (e.g. rice). Comoros plans to reduce customs tax for food and medical products by 30 percent and simplify customs procedures. Congo will continue importing critical agricultural commodities and take appropriate measures to support logistics to distribute commodities during the lockdown period to ensure national food security. Botswana intends to import some agricultural products to fill the national strategic grain reserve. As a preventive measure, the Government of Sao Tome and Principe shipped a cargo of foodstuffs from Portugal with a view to providing sufficient food stocks for the country's immediate needs.

In the short term, lower import tariffs facilitate imports and, therefore, help address the immediate concern about low food supplies, rising food prices and general food security. If simultaneously implemented by several large importing countries, the reduction of import barriers could, however, lead to increased global demand which, combined with export restrictions, could put upward pressure on international prices. In addition, it may be difficult to return to previous tariff levels after markets open in the future as this will lead to price increases due to high tariffs and local taxes.

Trade facilitation measures

The above-mentioned tariff reduction measures can be complemented by trade facilitation measures aimed at facilitating exports and imports of agricultural products, including transportation, logistics, food safety, removal of trade barriers and other taxes throughout the food chain and in the export promotion process. These measures are aimed at ensuring the natural flow of goods with no apparent foreseeable downside risks. Governments of several countries, including Benin, Burkina Faso, Guinea and Togo, have made commitments to resolve uncertainties about the transport and movement of goods, including food, which are exempted from border closure measures currently in place in these countries.

Regional coordination is also crucial. For example, Uganda has entered into negotiations with its regional counterparts (Kenya and South Sudan, for example) to minimize border restrictions to allow for unimpeded trade flows of merchandise goods. Box 2 gives examples of trade facilitation measures carried out by African countries.

BOX 2 | Examples of trade facilitation measures

- Angola put in place legislation to ensure that import of foodstuffs is expedited, and covers measures like certification, health and plant health checks and export of products of agricultural origin.
- The Democratic Republic of the Congo signed an agreement with Zambia for the supply of maize flour via the province of Haut-Katanga and decided to remove road barriers and taxes that inflate retail prices.
- Namibia is engaging South Africa on opening exit and entry points to facilitate the flow of trade and further mitigate shortages of supplies to Namibia.
- Nigeria is collaborating with stakeholders to ensure the transportation of crucial inputs.
- The United Republic of Tanzania is removing artificial barriers to trade throughout the food chain.

Source: Data compiled by FAO

The Africa's drive towards a single market that was expected to be launched in the latter half of 2020 – also provides a market outlet and opportunities for traders and exporters in the agricultural sector. The launch has, however, been suspended due to the challenges posed by the COVID-19 pandemic. Although the AfCFTA can be an antidote during the COVID-19 crisis to potentially rising and damaging protectionism on the continent and beyond, there are calls by several experts for Africa to use this opportunity and re-examine the trade environment the continent intends to implement as the landscape has changed considerably. Currently, the AfCFTA architecture contains legal provisions aimed at expanding intra-African trade in agricultural commodities and services, such as the recently adopted e-commerce protocol to facilitate online, mobile and digital transactions. The single market drive is also expected to address key regulatory barriers to intra-regional trade, particularly sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT) by ensuring that they do not unnecessarily hinder trade flows (e.g. African Food Safety Agency [AFSA]) and also by simplifying and harmonising procedures to reduce trade and transportation costs (e.g. unnecessary roadblocks and cumbersome certification and licensing processes). Under this regime, most, if not all, wholly obtained agrifood products would qualify for duty-free entry into the African regional markets as long as they satisfy minimum food safety and rules of origin requirements.

Export restrictions

Currently, export restrictions, including taxes, quotas and outright export bans, are less widespread in Africa. In Central Africa, Chad has suspended fish exports from Lake Chad to Nigeria and from N'Djamena to Cameroon. On the other hand, South Africa is monitoring the availability and stability of food supply and might impose appropriate export restrictions in case there are extreme cases where the security of supply of staple commodities is threatened.

In the short run, export restrictions can have the immediate effect of increasing supplies in the domestic market and addressing concerns about domestic food availability and increasing prices. However, if simultaneously adopted by many countries, export restrictions can lead to lower global supply and higher

international prices, which will be particularly damaging to poor import-dependent countries on the continent. In the medium to long run, excess supply of local production can dampen producer prices and create an uncertain policy environment that reduce incentives for producers to invest in the next production cycle. Thus, it is important to avoid export restrictions. If essential, export restrictions must be targeted, proportionate, transparent and temporary (World Bank, 2019).

Price controls and restrictions on private hoarding

Price controls include price monitoring and surveillance, prohibition and control measures against speculation and regulation of prices in order to ensure price stability. Price controls can halt increasing prices in the short run, at least in formal marketing channels. This enables governments to achieve price stability and avert increasing prices. However, in the long term, prices fixed at low levels are likely to discourage domestic production and create a black market. Additionally, price controls are likely to reduce private storage or marketing activities and reduce incentives for producers. For example, Cameroon, Chad and Côte d'Ivoire have set up price control or monitoring mechanisms. In South Africa, food price monitoring will be conducted on critical food basket commodities such as cooking oil, maize meal, wheat flour, rice, pasta, sugar, canned and frozen vegetables, canned, frozen and fresh meat, chicken or fish and bottled water. In Burundi, the Central African Republic and Ethiopia, governments have put in place price regulation measures to ensure the stability of food prices. Prohibition and repressive measures are active in many African countries, as shown in Box 3.

BOX 3 | Examples of price control measures

- Comoros urged the private sector to ensure that products remain affordable with severe penalties for reported violations.
- Djibouti set up a price control committee to manage the increase of local market prices by importers, distributors and retailers of food products.
- Equatorial Guinea prohibited the increase in the prices of basic foodstuffs.
- Eritrea's Government warned businesses against increasing food prices.
- Lesotho's Government threatened wholesalers and retailers with high penalties should they be tempted to hike prices.
- Togo's Government issued press releases warning economic operators who are engaged in speculation and price manipulation of basic necessities.

Source: Data compiled by FAO

Expand local production and support producers

To alleviate expected food shortages, countries can invest in boosting national production capacity and building domestic value chains. This includes support to local production initiatives and additional support to farmers, distribution of inputs, providing farmers' access to adequate and appropriate financial tools, investment to enhance productive capacities and production of alternative food products (e.g. short-growing crops such as vegetables and cereals and legumes). Complementary measures involve promoting the consumption of locally produced products, exploring alternative supply chain channels, including e-commerce and interventions that extend the shelf life of commodities through preservation and agroprocessing.

Policies promoting local production must be designed in a way that they do not affect international markets and, instead, should seek to promote interregional trade (FAO, 2020b). Developing domestic value chains can help to strengthen national food production capacity in anticipation of food shortages, but countries should avoid putting in place export restrictions that will be difficult to remove in the short term once markets are reopened. It should be noted that while such policies help to ensure adequate domestic food supplies, they require significant resources and implementation capacities. Box 4 is a compilation of examples of national supply-side policies.

BOX 4 | Examples of local production promotion measures

- Burundi is raising awareness of the production of short-cycle crops such as vegetables, cereals and legumes.
- Cameroon is promoting the consumption of local aquaculture products, encouraging households to substitute meat for other food sources of vegetable protein (such as legumes, beans, cowpeas, etc.).
- Producers in Chad have been provided with various inputs after the closure of the borders, in order to boost production.
- Liberia is enhancing rice production, processing, and distribution to ensure food security in the country.
- United Republic of Tanzania is promoting local consumption of fruits and vegetables as well as interventions that extend the shelf life of commodities through storage, processing and preservation.

Source: Data compiled by FAO

Towards a more conducive trading environment in the context of the COVID-19

The interventions outlined above based on country-level policy responses and best practices include several important messages. The availability of up-to-date data on domestic and global supplies and prices can support evidence-informed policy formulation and implementation. The provision of information in real-time on evolving COVID-19 government directives, supply, demand and price levels can help to increase the transparency of trade-related policy measures in order to reduce market uncertainty and its negative consequences (price volatility, panic buying and hoarding of essential commodities). Governments are already implementing border-related measures to ensure minimal disruption in the food supply chain by prioritising the movement of essential goods, producers and food workers involved in production, transportation, processing and retailing and avoiding border delays and food loss of perishable goods. In terms of intra-African trade and food security, the AfCFTA provides a viable platform for competitive import substitution, expansion of agricultural value chains and local production and consumption of goods and services. Therefore, a strong case could be made for expediting the launch of the AfCFTA in phases as a way to mitigate the health and economic effects of the pandemic. This also implies ensuring that governments avoid the use of import and export-restricting measures in keeping with the spirit of the AfCFTA (AUC and FAO, 2020).

Similarly, a coordinated policy response of African countries to strengthen public health and agriculture and food systems to alleviate the impact of the COVID-19 pandemic can help increase food access and availability. Along the same lines, coordinated inter-state negotiations with international creditors and the international financial institutions for relief and new credit lines can yield positive results, lower costs and extract concessions that are more sustainable. This also includes the adoption of appropriate fiscal and monetary measures to support the private sector, including lowering market interest rates and rescheduling of tax and loan payments. Dealing with the aftermath of the pandemic and recovery will require a coherent set of measures to address new challenges such as accumulated public and private international debt and other economic impacts of the pandemic. All these measures are crucial for stimulating growth in trade and investment in the agricultural sector in Africa, ensuring food security and building resilience to future crises.

MACRO-FISCAL: INCENTIVES AND EXPENDITURES

In many countries, the COVID-19 pandemic is disrupting existing macro-fiscal situation and creating problems with foreign exchange rates by creating conditions in markets, which, if left alone, hampers the effective and efficient functioning of food supply chains. The cost of government inaction would be extremely high with potentially increased cases of illness and death that will have a toll on economies and livelihoods, and could incite civil unrest, as experienced during the global food price crisis in 2008. Governments have responded by designing and implementing economic stimulus packages, mainly to sustain economic activities, limit the immediate negative impact on businesses, and, to some extent, keep markets and agrifood supply chains functioning.

Disruptions in the food systems

At the macrolevel, disruptions from COVID-19 affected financial markets and macro-economic stability as well as government expenditures with direct and indirect effects on the activities and actors in food supply chains.

Financial markets and macroeconomic stability disruptions on food supply chains These disruptions include:

- Global economic slowdown that affected the supply and price of credit, especially to SMEs, which
 are the backbone of agricultural value chains in the logistics, transport, distribution, and processing
 sectors;
- Reduced domestic and foreign markets for producers and processors had a disproportionately
 negative impact on SMEs that dominate food supply chains, leading to the risk of rising bankruptcy,
 ensuing loan defaults, and leading to a general reduction in the viability of businesses.
- Depreciating currencies are likely to lead to inflation, and a more limited supply of foreign exchange, increasing the domestic price of imported inputs and hurting importers in general.

Falling government revenues negatively affected food supply chains

- Downturn in economic activity were exacerbated by falling commodity prices and contractions in foreign demand. In oil-exporting countries, declining oil prices further deepened the economic crisis with severe negative implications on social benefits and services.
- Difficult access to foreign currencies for imported inputs, equipment and foods;
- Rapid depreciation in currency values, thus making the price of imports grow faster than world prices;
- Import-dependent countries experienced reduced imports and/or higher prices, especially for food and agricultural inputs.

Country cases of macroeconomic stability

In response to the negative macro effects from the pandemic, some countries established different funding mechanisms, such as Emergency and Preparedness Fund, Relief Fund, National Solidarity Fund, to implement response plans that deliver fiscal support and provide incentives to actors in agrifood systems. Funds are being mobilized through a revision of government budgets, reprioritization of recurrent or capital spending (Eswatini, Gabon, Ghana, Nigeria, South Sudan and Zimbabwe), and contributions from development partners and donor institutions.

Country expenditures cover a wide range of goods and services across sectors, for example, (i) the purchase and distribution of staple foods; (ii) funding for medical equipment, rehabilitation of health facilities, procurement of equipment and testing kits, and care for the sick; (iii) building up strategic reserves for fuel and/or grains (Botswana, Chad, Nigeria, Rwanda, Sao Tome and Principe); (iv) procurement of agricultural inputs and animal feed to support crop and pastoral productions (Burkina Faso, Côte d'Ivoire, Ethiopia, Lesotho, Namibia, Niger and South Africa); (iv) finances for wage subsidy for affected businesses for a limited period (Botswana, Mauritius, Namibia and Togo); and (v) social protection programmes such as cash transfer for food and cash for revival of business (see previous sections).

The pandemic heightened financial liquidity risk in Africa, because contractions in demand and overall economic slowdown meant that several businesses and individuals experienced funding shortfalls that reduced incomes or revenues, requiring government policy actions to ensure financial stability and adequate supply of credit to households and businesses. Several countries have taken measures to ease financial constraints, provide incentives and improve the business environment. Most fiscal measures are temporary and include: (i) tax exemptions on humanitarian aid and donations; (ii) suspension of government fees charged on some sectors or activities and suspension of on-site tax inspection operations (e.g. Burkina Faso), exemption from personal income tax withholding (Ethiopia); (iii) lowering import duties and value added tax (VAT) for healthcare goods and services, tourism industry and other businesses; (iv) reduction in corporate income taxation rates, tax withholding, or licensing fee for companies in the transportation and tourism sectors (Burkina Faso and Angola); (v) full or partial tax deferral for later payment, waiving late payment fines and penalties.

In order to secure liquidity of the economic systems, some countries have (i) set up credit lines for businesses, including micro, small and medium-sized enterprises; (ii) increased the minimum credit allocation of commercial banks' net assets; (iii) established government loan guarantee schemes with commercial banks, or set a moratorium for debt servicing (Angola, Cabo Verde, Lesotho, Seychelles and South Africa). To improve the legal environment for affected businesses, few countries softened the enforcement of tax arrears collection laws (Rwanda), relaxed procurement regulations (Zimbabwe) or the legislative authorized the government to rule temporarily by decree to accelerate the decision-making process (Togo).

Country cases of expenditure and stimulus package

Burkina Faso established a solidarity fund of USD 10 million (XOF 5 billion) to support cash transfer programmes for the revival of trade activities, which include women and other informal sector workers and sellers of fruits and vegetable. The government committed to the following fiscal measures: (i) lowering import duties and VAT for hygiene and healthcare goods and services critical to tackle COVID-19, and for tourism businesses; (ii) lowering other selected tax rates; (iii) delaying tax payments and waiving late payment fines and penalties; (iv) suspending government fees charged on informal sector operators for rent, security and parking in urban markets; (v) lowering the licensing fee for companies in the transportation and tourism sectors; and (vi) suspending on-site tax inspection operations. The Government announced the acquisition of agricultural inputs and animal feed to support crop and pastoral productions, amounting

to USD 60 million. To address the urgent balance-of-payments needs, the International Monetary Fund (IMF) approved USD 115.3 million emergency assistance for Burkina Faso under the Rapid Credit Facility (RCF). The country will also benefit from the IMF debt service relief under the Catastrophe Containment and Relief Trust (CCRT).

Ghana started providing food for up to 400 000 individuals and homes in areas affected by movement restrictions while faith-based and private sector organizations targeted 450 000 families with dry food packs at the beginning of the lockdown. The government committed USD 100 million to support preparedness and response, and about USD 210 million under its Coronavirus Alleviation Programme to promote selected industries, support SMEs and employment, and create guarantees and first-loss instruments. It plans to cut spending on goods and services, transfers, and capital investment by a minimum of GHS 1.1 billion and divert it to spending on COVID-19-related crisis. In addition, the government agreed with investors to postpone interest payment on non-marketable domestic bonds held by public institutions to fund the financial sector clean-up for about GHS 1.2 billion. The IMF approved the RCF disbursement of USD 1 billion to help address the urgent fiscal and balance-of-payments needs, improve confidence and catalyse support from other development partners.

Zimbabwe: The estimated cost of fighting COVID-19, as at 24 March 2020, stood at USD 26.4 million for prevention and control, of which ZWD 100 million and USD 2 million is availed so far. The government started administering a ZWD 60 million cash transfer programme that targets one million vulnerable households over three months. It begun to enlist small and medium-size businesses and informal traders affected by the lockdown for a bailout; allow companies to extend the payment of corporate taxes with interest and penalties waived; and suspend duties and taxes on various goods and services related to COVID-19, including on testing, protection, sterilization, and other medical consumables. The Ministry of Finance is targeting expenditure reprioritization by redirecting capital expenditure towards health sector, including water supply and sanitation programmes; directing the 2 percent Intermediated Money Transfer Tax, which is currently set aside for social protection and capital development projects, to COVID-19-related mitigatory expenditures. The Government of Zimbabwe also relaxed some procurement regulations with a view of facilitating speedy procurement of essential goods and services.

Bridging the financing gap in Africa

The macro-fiscal implications of the COVID-19 pandemic represent a serious threat to African economies. As the disease spreads across the globe, it threatens to disproportionately hit developing countries, not only as a health crisis in the short term, but also as a devastating social and economic crisis over the months and years to come. Income losses are expected to exceed USD 220 billion in developing countries (UNDP, 2020). According to the World Bank, economic growth in sub-Saharan Africa is projected to decline from 2.4 percent in 2019 to between-5.1 to-2.1 percent in 2020, the first recession in the region in 25 years (World Bank, 2020a).

The pandemic is causing huge losses in primary commodity export revenues, in remittances and fiscal revenues, in addition to currency depreciation and increased debt burden. The flow of external financing through foreign direct investment (FDI), portfolio investment, and official development assistance (ODA) could decline as well because of the anticipated economic slowdown in countries of origin. In view of the very low domestic revenue mobilization capacities, the high dependence on external financing, the pandemic will put enormous strain on national budgets, which must address immediate needs of saving lives and protecting livelihoods, as well as medium and long-term investments in infrastructure, innovation, technology, institutional change to adapt to the new post-pandemic normal.

The regional economic communities, a number of donors and development partners have committed to providing support to countries, using their respective instruments. Among others, heads of states of the West-Africa Economic and Monetary Union (WAEMU) temporarily suspended on 27 April the WAEMU Growth and Stability Pact, setting six convergence criteria, including the 3 percent GDP fiscal deficit rule, to help member countries cope with the fallout of COVID-19. This temporary suspension will allow member countries to raise their overall fiscal deficit temporarily and use the additional external support provided by donors in response to COVID-19. The African Development Bank Group unveiled USD 10 billion Response Facility available to governments and the private sector to curb COVID-19 (AfDB, 2020). IMF is providing emergency financial assistance to member countries facing the economic impact of the pandemic with SDR 2.317 billion approved as of 16 April 2020 to more than 20 countries (IMF, 2020). The World Bank promised a massively scaled-up and frontloaded net transfers to IDA countries on highly concessional terms - over USD 50 billion of financing over the next 15 months (World Bank, 2020b). The European Union Commission announced during the African Union Ministerial meeting in April 2020 a significant global response package of well over EUR 15 billion out of which EUR 3.25 billion for Africa (European Commission, 2020). The United States of America's support includes nearly USD 100 million in emergency health assistance and USD 110 million in humanitarian assistance from the Global Health Emergency Reserve Fund and International Disaster Assistance account, respectively, of the United State. Agency for International Development (USAID). Specific assistance to date covers 21 African countries (USA, 2020).

In the framework of its Rural Poor Stimulus Facility (RPSF), the International Fund for Agricultural Development (IFAD) planned USD 40 million interventions in four areas: (i) providing inputs and basic assets for the production of crops, livestock and fisheries; (ii) facilitating access to markets to support small-scale farmers in selling their products in conditions where market functions are restricted; (iii) targeting funds for rural financial services to ensure sufficient liquidity and to ease repayment requirements so as to maintain services, markets and jobs; and (iv) promoting the use of digital services to deliver key information on production, weather, finance and markets (IFAD, 2020). The United Nations Secretary-General established a UN Multi-Partner Trust Fund to support low- and middle-income countries to overcome the health emergency, the socio-economic impact, including agriculture and food security, targeting the most vulnerable populations, and for better recovery from the pandemic (MPTF, 2020). These and other sources of support represent opportunities to fill national funding gaps in Africa.

The challenges ahead: areas for further action

As a way forward, countries may consider the following:

- For most countries in Africa, the fiscal cost of using social safety nets to respond to the pandemic is
 perhaps the greatest challenge in the face of declining revenues. Hence, continuing transfers beyond a
 few months will be difficult.
- Continue their efforts to mobilize domestic resources towards containing the pandemic and other existing crises, and addressing development challenges.
- Strike the right balance between financing immediate health and livelihood responses to the pandemic and the post-recovery food, agriculture and development investment needs.
- Recall that health status is much linked to food security, diets and nutrition; successful responses to the
 pandemic will entail coherent and robust plans for food systems. Therefore, it is critical to plan adequate
 responses in the food and agriculture supply chains while managing the demand side. Ministers of
 agriculture could endeavour to join resource mobilization efforts as well as hold dialogues with their
 finance counterparts to secure support to the agriculture sector.

- Adopt urgent enabling policies to support food production entities, for example, providing temporary input subsidies in most affected areas and in time for the forthcoming planting season.
- Provide financial support to the food chain and farm operators to avoid credit depletion and financing costs of keeping business going.
- Accelerate the introduction of digital tools to provide technical assistance to farmers, effect payment for purchased inputs and services, and remove logistical barriers or restrictions to accelerate the delivery of inputs and foods, including perishable and nutritious foods to areas of demand.

HUMANITARIAN ASSISTANCE IN THE CONTEXT OF COVID-19

According to the last FAO/GIEWS report, 34 out of the 44 countries currently in need of external assistance for food are in Africa. Conflict-driven crises continued to be the primary cause of the high levels of severe food insecurity, while drought, floods and other shocks have also aggravated food insecurity conditions locally. The following countries currently require external assistance for food: Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Djibouti, Eritrea, Eswatini, Ethiopia, Guinea, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. These countries greatly rely on imported food supplies and other agricultural production inputs in addition to external assistance for food to meet internal food demand.

Prior to the COVID-19 pandemic, food insecurity in Africa was already alarmingly high. There are about 239 million food-insecure people in sub-Saharan Africa, about 20 percent of the population. In addition, over 73 million people experienced severe acute food insecurity in 2019 in the region. Finally, prospects for the main 2020 crop are unfavourable in Eastern Africa due to the severe desert locust outbreak that had already increased concerns about further food security deteriorations.

Potential disruptions in the food systems

COVID-19 risks further escalating these figures, with likely huge rises in humanitarian needs and food insecurity because of both the pandemic itself and containment efforts. The closure of borders is likely to affect food systems on food supply and demand, food distribution, production and purchasing power due to restrictions on livelihood opportunities. The impact is likely to be greater on the vulnerable population who are already dependent on humanitarian assistance.

In addition, economic slowdowns or reductions in the delivery of humanitarian assistance could be catastrophic in these contexts. The pandemic will likely have significant repercussions on humanitarian operations, in particular on budgets, as resources may be reprogrammed to support COVID-19 efforts; on logistics, as movement restrictions will hamper both staff and delivery; and leading to rising humanitarian delivery costs (costs of food assistance may also increase in case of any increases in the cost of cereals). This would increase the number of people requiring humanitarian assistance, while posing an enormous challenge in terms of the ability of governments and organizations to address those needs. It is, therefore, crucial to rapidly mobilize and preempt COVID-19 impacts on food security in food crisis countries. FAO is thus pursuing a two-pronged approach: maintaining and securing existing critical humanitarian operations and anticipatory actions to safeguard livelihoods and protecting the critical food supply chain to mitigate the secondary effects of the pandemic.

Measures to respond to challenges related to humanitarian assistance

To respond to these challenges, the immediate priorities of humanitarian actors in a COVID-19 context is to preserve and protect the agriculture livelihoods and food security of vulnerable populations, including by adapting programming and operational delivery in order to ensure that ongoing deliveries of critical humanitarian assistance to vulnerable groups are not hindered and is adapted to potential COVID-19 impacts. This includes:

- Continuing and scaling-up (as needed) distributions of agricultural inputs (seeds, tools, livestock feed) and provision of animal health support to ensure continuous food production and income generation in the most vulnerable areas, including within the rural-urban interface;
- Supporting livelihood diversification and home-based food production (e.g. backyard gardens) to ensure further fresh food availability (e.g. distribution of small stock, distribution of tools and seeds for home gardening) and income;
- Reducing post-harvest losses, which are likely to substantially increase due to limitations in transport and access to markets, through improved storage capacities and small-scale processing and conservation of fruits, vegetables, milk and meat products, etc.;
- Protecting livelihood and livelihood assets of vulnerable population through integrated cash transfer and risk transfer interventions, and leverage on existing social safety programmes;
- For displaced and host communities, supporting food production in IDP/refugee camps and host communities to protect food availability (e.g. distribution of small stock, tools and seeds for small-scale agricultural production) and improve access to food and healthy diets, as well as scaling-up cash-based programmes.
- Supporting school feeding programmes, including delivery of food to children staying at home due to restrictions related to COVID-19 pandemic;
- Stressing importance to continuously analyse and identify countries and population groups that are most at risk of food insecurity due to COVID-19 and its indirect effects. This is particularly relevant for countries experiencing food crises and countries affected by the desert locust infestation to ensure food security and minimize the impact of COVID-19 on the main 2020 cropping season that is starting in Western and Eastern Africa and on the harvesting for the 2019–2020 cropping season in Southern Africa.

While the COVID-19 pandemic is primarily a health crisis, humanitarian assistance must continue as well as mitigation actions to avoid further deterioration of the food insecurity situation.

SUMMARY OF COVID-19 FOOD SYSTEMS DISRUPTIONS AND POLICY OPTIONS

Policy area	Sub-Area	Disruption	Policy response, best practice, innovation learnt
SMALLHOLDER PRODUCTION AND MARKETS	Farm-level supply chain disruptions	 Restricted transportation networks, which include frequent road closures, police-enforced checkpoints and government-imposed lockdowns are limiting the ability of inputs dealers and service providers to do their essential work of distributing key agricultural inputs to farmers (e.g. fertilizers, machinery, seeds and equipment). Even when the transportation of goods, including agricultural products, are allowed, multiple security checkpoints and roadblocks impose restrictions, increasing transaction costs and risks in moving food products. These factors are negatively affecting countries' abilities to serve remote rural localities and maintain seasonal supply networks during upcoming farming seasons. Restrictions on imports to limit the spread of potentially contaminated goods is causing a shortage of imported agricultural inputs, including seeds, fertilizers, agrochemicals and parts for machinery, which lead to limited access to inputs, increasing their price and consequently, food prices in general. This also has negative implications related to pest control and maintaining phytosanitary standards for food networks. In the livestock sector, limits on local movement and importation of goods can affect availability of livestock feed, medicines, and vaccines. In the fisheries and aquaculture sector, restrictions can limit access to fishing gear, fuel, medicines or feed for aquaculture. 	 Production, distribution and marketing of food are usually exempt from restrictions in movement, paving the way for the continuity of food availability. Exemptions on import restrictions for food products and agricultural inputs Some countries have issued special permits to allow the entry of food trucks and transport of agricultural supplies and inputs into national territories. Input suppliers and retailers have received a directive to continue distribution of sales of seeds and fertilizers despite broader national movement restrictions. Opening green channels for necessary inputs, such as feed, could help stabilize agricultural production. Digital innovation Satellite technology can assist with agricultural planning. Google Earth Engine (GEE) offers ways for authorities to ensure they base critical decisions around agriculture on scientific evidence, including: (1) helping them ease travel restrictions to ensure sufficient labour and machinery are in place when crops are ready to harvest. (2) plan rotations. (3) having potential to stop foods from going to waste in the fields. Investment in digital infrastructure provides incentives for creating dynamic, good quality and stable employment opportunities for youth. In Timor-Leste, high-resolution digital technologies are used to track and record pattern changes in small-scale fishing activities.

Large international agribusiness firms, which supply inputs and purchase local farmers' products may withdraw from the rural economies temporarily.

Workforce availability at the farm level

Lockdowns reduce the availability of labour at peak seasonal times.

Many smallholders, seasonal, casual and migrant workers who have the potential to contribute to rural recovery remain invisible in the current discourse, due to their informality, as well as political and digital limitations.

Price monitoring and stabilization programmes

Price stabilization programmes on agrifood products include public awareness campaigns to discourage panic buying, promotion of local seeds, inputs, and food products through SMS and radio marketing campaigns, regulations on the export of important staple food crops, such as grains, in order to maintain strategic national grain reserves and limit price increases, and strict penalties on price gouging by retailers and wholesalers.

Subsidies and support to smallholder producers

- Temporary cash handouts and grants to restart production.
- Banks could waive fees on farmers' loans and extend payment deadlines.
- Inject capital into the agriculture sector to help small and medium-sized agribusinesses

 and their workforce – stay afloat.
- Subsidies on inputs such, as seed and fertilizer, farm machinery and postharvest equipment, to stimulate domestic production.
- Ensuring the availability of agricultural inputs to farmers at low prices.

Workforce availability at the farm level

- Some scale of innovations could be accelerated. For example, rural communities that use more ecological intensive practices, such as conservation agriculture and pushpull farming or safe storage practices, are less dependent on external inputs and labour.
- The migration of workers back to rural areas in many countries offers a potential source of agricultural labour.
- Post-pandemic, states must consider accommodating returnee migrants by implementing land-leasing reforms and documentation, critical to trigger rural revival.

Farm advisory services

Agricultural advisory and extension services

- Restrictions in physical distancing are negatively impacting the ability of farmers (producer associations, cooperatives, enterprises) to receive necessary advisory and support services for production activities.
- Limited access to internet at homes weakens ability of extension and advisory staff to telework effectively.
- Cancellation of trainings, workshops, and seminars, along with the closure of offices from government, NGO, academia and international development agencies are having negative impacts on the availability of veterinary and extension services, pest control, and monitoring systems for sanitary and food safety controls. This results in an inability to conduct surveillance and respond to disease outbreaks as well as contributing to reduced compliance with food safety, quality control and quarantine measure.

 Opportunities to break silos and show how closely health and agriculture are related.
 For example, rural agricultural extension networks could be used to disseminate information on health awareness.

Alternative means to reach communities, particularly through increased access to ICT

- Information and communication technology (ICT) can be used to cover producer-related extension services, financial services, linkages between market actors, and provision of market information on farm prices and inputs distribution channels.
 Kenya has mobilized the use of digital technologies for community disease and food safety surveillance, in place of more traditional modes of monitoring and surveillance.
- Carry out radio and SMS messages by telephone.
- Establish call service centres for e-extension.

OFF-FARM SEGMENTS OF FOOD SUPPLY CHAINS

Along the agrifood value chain due to movement restrictions (within country and cross-border)

Impacts on downstream segments of the value chain (agroprocessors and logistics)

- Restrictions on imports and crossborder transport networks are also interrupting the availability of essential inputs for agroprocessing and logistics, including packaging and labelling materials, storage and distribution, as well as the procurement of spare parts and services for equipment and machinery. SMEs are particularly affected since they are usually unable to maintain large stocks.
- Activities in fish landing sites have sharply reduced or stopped.
- Fish processing and distribution companies are closing down because of shortages in raw materials.
- Restricted human movement within countries is likely to put pressures on food supply chain workers, that will affect availability and productivity of labour for equipment operators, drivers, and agroprocessing workers.

 Three complementary policy paths: In the short run, implement new, broad safety nets for SMEs and workers in the midstream and downstream segments of FSCs. In the short and medium term, monitor and regulate wholesale markets, retail wet markets and processing clusters more strictly. Finally, make long-term investments to help SMEs change hygiene practices and better site design that will help them remain competitive.

Allow some movements of essential workers, inputs and food

- Allow the safe movement of essential workers to keep the key activities in the food systems functioning (e.g. agroprocessing staff, logistics and distribution), while working with health and the private sector to ensure workers are protected.
- Provide special arrangements to support importers of necessary inputs and spare parts; and support the private sector to organize joint importations that share costs and enhance logistics involved.

Since demand has shifted to retail outlets, e-commerce platforms are emerging to facilitate transactions between farmers and final consumers. This is leading to changes in logistics and marketing. One example is the growing demand for food in smaller packages, for family or individual consumption.

Shorter supply chains

Shorter and more transparent supply chains will increase to enable closer quality and safety supervision.

Use ICTs to support logistics and distribution

- Encourage the use of ICT to support fast and efficient logistics and distribution with minimum contacts. The continuity of agricultural supply chains could be promoted by supportive e-commerce and delivery companies.
- Innovations in contactless forms of payment and food sourcing are proving a major advantage. Many countries are reducing or eliminating fees associated with mobile money and increasing allowable transaction amounts.
- In Senegal, the Ministry of Trade has even launched #JaaymaMburu ("Sell me bread" in Wolof), which allows customers to order bread via an online platform and get free delivery during the month of Ramadan in order to limit queuing in front of bakeries.
- An application recently launched in Senegal, Niger, and Democratic Republic of the Congo, called Pickant App, facilitates business services and solutions such as deliveries, transport, storage, equipment, purchasing, and sales. Youth aged 21-35 are the most common users.

Food distribution Networks

Impacts on food distribution networks, suppliers, and importers and exporters

- Restricted logistics networks to import food products from overseas and to distribute produce and processed food products within countries will be especially damaging to African countries.
- Disruption in supply chains for fish and aquaculture are already happening due to disruptions in transportation, trade, and labour.
 Decreased consumer demand (including in the hospitality sector) and increased transaction costs will have a knock-on effect that will push prices.

Adaptations in food distribution are needed to adapt to new demand

- In their operations, food processing plants and food markets need to be retrofitted to comply with social distancing requirements and new sanitary standards.
- As farmers and companies change their business plans and investments, financing must also adapt to these new norms. New contactless processes and transactions, logistics infrastructure, and e-commerce platforms demand substantial capital. Early indications point to the increasing importance of warehouse finance as concerns over food availability are leading to higher demand for food.

Markets due to movement restrictions (within country and cross-border)

Rural and agricultural food markets restrictions

- Closures or restricted operations of informal markets is happening on a wide scale across Africa, and is having ramifications on the supply of diverse, healthy, and nutritious food; and is increasing food prices due to limited food resources; while consumer purchasing power is reduced.
- Impacts are serious on both producers and processors, as there will be fewer available points of sale for food products and a subsequent loss of income for all actors in the food value chain. The increased risk of civil unrest or conflict, and in some cases, further forest or biodiversity degradation also exists, where pressure on natural resources are increased.
- Urban food supply will also prove challenging, given the complexity of different food source areas and formal and informal food supply systems. The vulnerability of which varies greatly among commodities.

Keeping markets functioning is critical

- Some feasible options include opening markets every other day and sanitizing on the off days, and allowing for trading around the clock to reduce consumer congestion.
- Special sanitary measures to allow for the continuation of livestock markets under specialized guidelines that take into account public health directives
- Informal food traders in Africa are the heartbeat of their food systems. It is imperative that African governments take them into consideration in their COVID-19 responses.

Innovative approaches

 The Billian Music Family in Kenya provided vouchers – first on paper, then via SMS – to be redeemed by test households at designated local food shops.

Post-harvest losses

- Most vegetable production, trade and consumption are particularly affected due to their high seasonal nature, high labour needs, high perishability and the need for good storage and distribution logistics.
- Interruptions on harvesting, postharvest handling, transportation and storage are leading to huge post-harvest losses especially for perishables, such as fruits and vegetables, that are already/soon to be entering into the harvesting season.
- Limited value addition and market opportunities weaken incentives and create large post-harvest losses.

- Support farmer organization to use available mobile phone platforms such as M-Pesa in Eastern Africa to buy and pay for post-harvest materials such as hermetic bags, metal silos etc. which could then be delivered at the farmer's door. The government must include post-harvest service providers in the essential workers list.
- Organize financial support for on-field cold storage and preservation units including power sources (solar, grid electricity) to run such stations, especially for farmers organized in groups and cooperatives.
- Widespread and effective information campaigns are needed. Misinformation regarding the risk of contracting COVID-19 from produce led to declining demand for fruits and vegetables.

FOOD School feeding Widespread school closures mean Conversion of school feeding into cash **SECURITY AND** transfers or food distribution of food rations programmes that school feeding programmes **NUTRITION** for children were stopped, putting or buffer stock normally provided to caterers Food security millions of children are at risk for Conversion of school meals programmes and nutrition of increased food insecurity and to preparation and delivery of meals to children malnutrition children's homes Provision of central distribution areas for pickup of rations or prepared food following safety protocols Delivering of food from house to house (see In-kind transfers for other food distribution programmes) Access to food Households face staple food price Using public stocks to dampen price increases increases Unconditional cash and/or food transfers Lockdowns and restrictions in Ensure safe functioning of food markets movement have induced panic Communicate/inform the public on the availability of enough food stocks to buying, hoarding and price gouging. Price increases observed due to discourage panic buying consumers stocking up on food and Promote the production and consumption due to reduced supply in some cases, of locally available foods, wild fruits and are affecting poor households' ability vegetables to afford sufficient and nutritious Provide economic incentives, low interest loans, guarantees to producers, processors Closure of national, municipal and Sensitize on rational management of food local markets are weakening social products, consumption of cheaper and high fabric because these measures are nutritional value products, production of having disproportionate impacts on short-cycle crops. the most vulnerable sections of the Nutritional education programme on food population who are most dependent quality and diversification of consumption on them. Decentralization of strategic food reserves / storage of cereals Deterioration of nutritional status of Conduct periodic food market assessments pregnant and lactating women due to difficulties in accessing a diversified and quality diet. Prioritize and strategize food supply/reserves in anticipation to food shortages Releasing food security stocks of major staples (dry cereals, beans, etc.) and opening sales points to ensure adequate supply and price stability amidst panic buying (Togo); Watching to draw from strategic grains reserves for release of grains onto markets should the COVID-19 pandemic situation worsens (Ghana, Nigeria, Namibia); Placing import orders to increase the national strategic grain reserves capacity in anticipation of the food shortage (Botswana, Sao Tome and Principe); or develop a response plan that includes building and maintaining an adequate food stock (Sierra Leone).

Nutritionsensitive food chains

- Reduced consumption of meat and other animal products, due to the short shelf life of meat, for households without refrigeration equipment, most of whom are lowincome households.
- Movement restrictions reduce supply and consumption of fruits and fresh vegetables, with negative impacts on nutritional balance
- Conduct periodic food security, nutrition and socio-economic assessments
- Strengthen food value chains that provide fresh foods. This could be through mobile trading platforms to provide market information and reinforce market matchmaking.
- Promote small-scale gardening in towns as an important source of food, especially if incomes fall as a result of declining employment.
- Establishment of strategic emergency stocks for more vulnerable and needy populations; focus on the production of short-growing crops such as vegetables

Support home-delivery schemes to ensure consumers' access to fresh and local products

Urban and periurban agriculture

- In Cali, Colombia, CIAT supported an urban food policy which includes seeking ways to create shorter supply chains.
 Neighbourhood shops, mobile markets, and school gardens are supported to provide quality vegetables at affordable prices, to endure broken city-region linkages.
- In Sierra Leone, urban agriculture played significant role during the civil war. In Monrovia, it was promoted under the 2014 Ebola outbreak. Under COVID-19 lockdowns, many urban dwellers in Africa and Asia revisit the benefits of urban farming and shorter food chains.
- In China, the Vegetable Basket Project prioritized vegetables as part of healthy diets, while logistical tweaks to the programme have worked during coronavirus lockdown.

SOCIAL PROTECTION

Social Assistance:

Cash transfer

Provides income buffer to support compliance with COVID-19 prevention measures

- Increased risk of health crises (due directly or indirectly to COVID-19), and potentially significant associated health care costs
- Increased food prices affecting household finances and food access for poor and vulnerable populations
- Loss of assets, potentially selling off of productive assets to cope with economic impacts

 First-line measures for social protection response in the majority of countries lie is social assistance (cash or in-kind transfers).

Countries with existing cash transfer programmes scale up or adapt programmes to support additional households or newly vulnerable groups (e.g., informal workers), or provide additional benefits:

 Horizontal expansion, or adding participants (e.g., Ethiopia, Kenya, Malawi, Nigeria, Sierra Leone)

Offsets negative
economic
impacts
affecting a
household

Increases food security

- Loss of sources of income, as a result of reduction of production or loss of employment or remittances
- Reduced access to agricultural inputs due to increased prices or supply disruptions in logistics
- Due to restricted movement, possible increases in food waste, reduced access to markets, suspension of public works programmes and reduced remittances
- Delays in social assistance benefit payment due to restricted movements and bans on gatherings, especially for manual payments

- Universal grants may be considered, especially when majority of a region or country is affected, has very high poverty rates, or many households at risk of falling below poverty line.
- Leverage registries for targeting new participants (e.g., social/unified registries, programme registries of poor and vulnerable populations, national household registries, farmers' registries, trade associations, etc.). For example, Sierra Leone has aggregated registries from ministries, employers' federation, microfinance institutions (MFIs), trade associations (TAs), and other organized market groups to target informal workers. Nigeria is expanding the National Social Register (NSR) and providing benefits to an additional one million people.
- Increase benefit value (e.g., Angola, Ethiopia, Malawi, South Africa)
- Cash +: economic inclusion and nutrition interventions provided alongside cash transfers (e.g., production, financial services to support farmers to sustain and recover livelihoods in immediate and long term must be included in response and recovery plans.
- Distribution of cash or vouchers through digital/ e-payment systems (e.g., Kenya, Madagascar)
- In Somalia, biometric requirements are substituted with GPS-enabled photos, before cash entitlements are disbursed using mobile money. FAO team is also working on incorporating voice and facial recognition apps.
- Advance payments of benefits, or providing more than one cycle of payment at a time, to increase ability to cope and avoid potential health risks (e.g., Ghana, Ethiopia, Kenya, Nigeria, Sao Tome and Principe)

Soften/relax conditions for conditional transfers, as COVID-19 may have compromised ability to meet conditions (schools and health facilities closed or unable to provide routine services, workers unable to meet labour requirements).

- Use of mobile phones for information/ communications: Ghana has added an option to their social protection hotline to report areas needing food distribution; Togo implemented a short code for individuals to determine eligibility to receive emergency cash transfer for informal workers.
- Ad hoc programmes: If needed, introduce tailored cash or cash + programmes to support identified needs in specific geographical regions/livelihood sectors
- More and more countries are providing one-off or temporary unconditional cash transfers for informal workers, primarily in rural areas (e.g., Burkina Faso [market vendors], Cabo Verde, Sierra Leone, Togo)

Social assistance:

In-kind transfers (food, inputs, or other)

Increase food security

Increase access to agricultural inputs that may be scarce or no longer affordable, maintaining production

- Increased food prices affecting household finances, food access for poor and vulnerable populations. Households with low purchasing power likely to reduce food consumption as food becomes more expensive, compromising nutrition.
- Loss of sources of income, as a result of reduction of production or sales or loss of employment
- Restriction of movement and closure of borders, including informal crossborder trading, and deterioration in exchange rates resulting in declining imports, more expensive imported foods and poor access to food for the most vulnerable populations.
- Reduced access to agricultural inputs due to increased prices or supply disruptions in logistics
- Markets may not be functioning due to physical distancing requirements or health risks.

Many countries have been providing immediate food assistance to the most vulnerable.
Ministries of agriculture have also taken actions to provide inputs to vulnerable farmers to support smallholder farmers experiencing COVID-19 impacts. In-kind transfers or vouchers (e.g. for food or inputs) are recommended especially where markets are not functioning or prices have risen too high

- Food distribution of staple foods is taking place, primarily in urban areas affected by lockdowns. Countries, such as Rwanda Senegal and Sierra Leone, are linking the food distribution to local producers, and other national food reserves (Ghana, Mali, Nigeria). In Nigeria, IDPs will be provided with two months of food rations.
- Other initiatives include Burkina Faso
 offering staple goods for sale to vulnerable
 populations at subsidized prices through
 selected vendors, and Madagascar is
 organizing a 'cheap market', where staples
 can be purchased at low prices.

Burkina Faso, Mali, Rwanda and Somalia, among others, are providing agricultural inputs (seeds, livestock feed, etc.) in advance of next production season. In South Africa, they aim to increase household food security by providing agricultural start-up packages, while in Côte d'Ivoire, producer groups will be supported with agricultural kits. Link assistance with complementary agrifood systems interventions, such as production, processing, asset building, etc.

Social assistance:

Public Works

Provides income buffer to support compliance with COVID-19 prevention measures

- Public works programmes suspended to meet health/ safety requirements for COVID-19.
- Migrants, forced by the adverse economic conditions in the cities caused by lockdowns, are returning to homes from outside countries and also from urban to rural areas, with no jobs awaiting them.

Jobs need to be sustained (safely) in the immediate and mid-term COVID-19 crisis. Public Works Programmes (PWP) are one option to support communities to reinforce resilience while maintaining incomes of the most vulnerable.

to restore and build livelihoods

For the long term, economies may take several years to recover from the COVID-19 shock. PWPs have a role to support economic stabilization by creating employment for a large group of people. It is relevant for policy-makers to consider PWPs as part of planning for post COVID-19 recovery phase.

Models to be considered during the COVID-19 crisis include:

- Offering safe choices of work around households, e.g. farm ponds construction, digging wells and horticulture-related activities.
- Supporting social protection response to COVID-19, such as supporting adaptations to school feeding by distributing food parcels during school closures, taking produce to markets and carrying out other "essential services", e.g. garbage collection, water drainage, etc.)
- Programmes to support public health, such as sanitizing public areas, providing public health communications within communities, manufacturing PPEs, caregiving, or data collection for COVID-19 and impact surveillance.

			South Africa's Expanded Public Works Program (EPWP) is using the EPWP to support cleaning and disinfection of public spaces and quarantine sites, community awareness, data capturing and reporting, administrative support, security services, caregiving, etc. Around 100 000 people are expected to be engaged in these activities. Adaptations: Ethiopia and Rwanda are continuing payment for public works participants, suspending the work requirements.
	Social insurance (e.g., health insurance, unemployment	Increased risk of health crises (due directly or indirectly to COVID-19) and potentially significant associated health care costs	Expansion of national health insurance systems, providing subsidized or free access to health care for the most vulnerable during COVID-19 crisis (Rwanda is providing free care to all, including non-Rwandans)
	insurance, paid sick leave)	Loss of employment or livelihoods for extended period of time	Government cooperation with and support to cooperatives and rural workers' organizations to provide temporary unemployment insurance/relief. Mauritius and South Africa are providing unemployment benefits to those who have lost jobs during COVID-19 crisis.
	Labour market	Businesses lose income as a result of secondary impacts of COVID-19, either due to government-ordered restrictions or reduced demand, reducing their capacity to maintain and pay workers	 Wage subsidies provided for SMEs/employers who cannot pay employee wages, or new labour regulations are being introduced as a more advanced measure in a few countries: Lesotho will pay textile workers a subsidy for three months, while Botswana, Cabo Verde and South Africa have implemented other types of wage subsidies. Ethiopia has issued a new regulation preventing companies from laying off workers as a result of COVID-19.
TDADE	Trade and	Border closures and lockdowns	To take timely and appropriate decisions
TRADE	markets	Border closures and lockdowns are posing transportation challenges and bottlenecks, as well as limited informal cross-border trade of food and remittances.	 With the right policies, access to quality data, trade barriers and relevant analysis is vital. Coordinated response with neighbouring countries

 The poorest countries, which rely heavily on food imports, will be hurt the most. Developing countries on average derive 80 percent of their food imports from just three exporting countries. For fragile and conflict countries, the proportion is more than 90 percent, making them even more vulnerable to policy changes by exporting nations. Large-scale cancellation of flights has sharply reduced trade in premium fish products transported by air. Movement restrictions has also reduced fish shipment by trawlers. Global economic downturn is likely to reduce demand for African exports of food commodities, including important cash crops such as coffee and cocoa, reducing revenues for producers, processors and exporters. Prohibiting people from crossing borders limits informal trade, widely practiced in Africa and often the main source of income for a family. Border restrictions can be particularly costly for livestock producers practicing transhumance. Most border closures have been imposed with little clear knowledge of what is happening on the ground. For example, in Western Africa, because of daytime heat, fresh produce, meat, and other perishable products are usually transported at night. Yet curfews make this practice impossible. 	 The Economic Community of West African States (ECOWAS) is studying a plan of action, including the lifting of all land border and port restrictions on the free movement of agricultural inputs, including fertilizers and pesticides, and the promotion of social safety net projects for food and nutrition. Temporary exemptions for essential goods from customs duties, waive or defer taxes; Governments should promote trade by avoiding export bans and import restrictions. Opportunities afforded by cooperation in harnessing the likely resilience of service trade within the continent, even as the continent strives to support the current levels of cross-border trade in goods; In terms of intra-African trade policy, import taxes on agricultural and food products should be reduced to compensate for higher transport costs. COVID-19 has highlighted the importance of digital technologies and that Member States should consider front-loading negotiations on e-commerce to coincide with the closely linked phase II negotiations of the AfCFTA. TradeMark East Africa, a donor-funded outfit in Nairobi, is piloting "safe trade zones" at borders, with temperature checks, masks and sanitisers. Boosting intra-African trade can serve as an alternative stimulus package for job creation, foreign exchange, industrial development and economic growth.
Collapse in demand for agricultural exports	 Maintain exports of strategic agricultural commodities Find alternative export markets, e.g. AfCFTA Import substitution – provide inputs, encourage major retail outlets to sell local food products Support SMEs through export promotion agencies

With nearly two-thirds of African countries being net importers of basic food, shortages are feared to severely impact food availability, and food security.	 Build emergency food stockpiles, e.g. national strategic grain reserves Increase local production Monitoring and surveillance of critical supplies and trade flows Consult with trading partners and neighbouring countries Exploring alternative supply chain channels Extend the shelf life of commodities such as preservation and agroprocessing
Rising food price	 Price controls; monitoring and surveillance Price control committees Enhance price monitoring, including engaging citizens; governments to establish toll free number to report on price gorging Prohibitions and penalties for related basic foodstuffs
Continental free trade project	History shows us that cross-border collaborations often arise during or after significant crises (WW1 and the creation of International Labour Office; WW2 and the creation of the UN; the EU, etc.)
The coronavirus could represent a risk for the continental free trade project, but leaders could also turn it into an opportunity for stronger collaboration if certain policies are fast-tracked. Quick gains could be achieved by consolidating the regional integration initiatives they are already implementing.	The AU has already recognized that Africa will be stronger if countries are more integrated and unified with the birth of the African Continental Free Trade Area. A similarly strong commitment to joint action by leaders on the continent would undoubtedly benefit the fight against the coronavirus pandemic and its economic consequences.
	These actions should include a recommitment to the SDGs, to multilateralism and a pledge to help those that will be most affected by the economic downturn: small businesses, women, young people and vulnerable communities.
	 Lessons drawn from previous outbreaks on regional integration Leverage existing regional networks and operations to catalyse an immediate, large-scale response. Maximize economies of scale for scientific collaboration across borders. While providing social support now, lay the groundwork for regional cooperation to support recovery of the economy and jobs – so essential for reducing poverty as we go forward.

MACRO-FISCAL

Incentives and expenditures (including stimulus programmes)

Financial markets and macroeconomic stability

- The global economic slowdown is affecting the supply and price of credit, especially to SMEs, the backbone of agricultural value chains in the logistics, transport, distribution, and processing sectors.
- Reduced domestic and foreign markets for producers and processors will especially hurt SMEs, leading to the risk of rising bankruptcy, ensuing loan defaults, and leading to a general reduction in the viability of businesses.
- Disruptions in currency exchanges are likely to lead to inflation, and a more limited supply of foreign exchange in African countries.

Specialized government guarantee and lending schemes to SMEs in agrifood value chains

- Financial stimulus packages to support small-scale producers and enterprises in food production with loans, reduced interest rates, and state guarantees, among other measures to avoid firing employees.
- Central bank intervention to secure the liquidity of the economic system, including establishing credit line for SMEs and providing flexible access to employment insurance if enterprises are forced to close.
- Cash collateral guarantee agreements with private banks for onward lending to local rice producers, processors and distributor, as a means to enhance rice availability and ensure food security.
- Supporting trade finance and credit for agriculture and food processing will become critical to move food from global surplus areas to deficit areas while maintaining food supplies as the next crop season starts in some countries.

Economic stimulus packages to sustain economic activities, limit the immediate negative impact on businesses, and to some extent on food supply and agriculture.

- Governments and landlords could firstly consider easing the burden by reducing or delaying farmers' tax and social insurance payments and lowering their rents.
- Coronavirus alleviation programmes to protect households and livelihoods, support micro, small, and medium-sized businesses, minimize job losses, and source additional funding to promote industries to shore up and expand industrial output for domestic consumption and exports.
- Tax breaks for food importers in countries that critically depend on import.

•

	Fall in government revenue	 Downturn in economic activity will be exacerbated by falling commodity prices and falling external demand. Severe economic crisis due to fall of oil price/reduced social benefits and services. Difficult access to foreign currencies for imported inputs, equipment and foods. Currency is likely to lose value, thus making the price of imports grow faster than world prices. Reduced imports and availability will likely amplify domestic prices. 	 Ensuring that financial resources continue to flow to the agricultural sector is crucial during the pandemic and as countries recover from it, with firms adapting to a new normal. Governments review and revise national and local budgets to reprioritize spending towards mitigating expected negative impacts from COVID-19 on their economies. Emphasize provision of public services; Freeze non-essential government expenditures; Raise debt emphasize equitable delivery of government services. Government-guaranteed credits and other incentives; Promote import substitution and export crops /products.
CRISIS SITUATIONS AND EMERGENCIES	Disease outbreaks (Ebola, MERS, COVID-19)	 COVID-19 is a health crisis. But it could also lead to a food security crisis if proper measures to ensure continued production and movement of food are not taken. It is necessary to ensure international and national agricultural and food supply chains function normally. 	Engage e-commerce and delivery companies to play a key logistical role. For example, as social distancing and lockdown measures are put in place, there is increased demand for home delivery of food and non-food items. E-commerce companies have responded by developing app features for contactless delivery. Lessons learned from HIV/AIDS, Ebola and MERS: Food prices will shoot up if nations panic again. It is important to act now to prevent food security crises (monitoring food prices and markets, ensuring national agricultural and food supply chains function normally). Safety nets are needed to protect those who are the worst affected and most vulnerable. More investment is needed to build an even more resilient food system. Innovative methods to keep sales growing; Vital to have safeguards against zoonotic diseases; Critical to keep regional and global trade open.

 Social distancing and lockdowns in Western Africa during the Ebola crisis resulted in restriction of movements and road closures that curbed farmers' access to markets both to buy inputs and sell products. They also reduced the availability of labour at peak seasonal times. The result is that fresh produce was accumulated without being sold, leading to food losses and loss of income for growers. This is a doubly relevant issue for Africa during COVID-19, where the continent's food supply is already threatened by the desert locust scourges. 	 Lessons from the Ebola crisis suggest the following: Temporary cash handouts for poor farmers are essential, as well as grants to restart production. Banks can waive fees on farmers' loans and extend payment deadlines. Capital can be injected into the agriculture sector to help small and medium-sized agribusinesses – and their workforce – stay afloat. During the emergency, governments can make a point of purchasing agricultural products from small farmers to establish strategic emergency reserves for humanitarian purposes. Perishable foods can be purchased for distribution to the most vulnerable. China's lockdown around Wuhan offers some lessons. The Vegetable Basket, conceived in 1988, was revived, allowing urban residents access to fresh and nutritious produce, benefiting periurban farms in the vicinity.
	 Community mobilization and coordination – as with Ebola outbreak in West Africa – with the aim to: Mobilize communities to reduce their risk of infection through awareness campaigns; boosting food and cash crops, livestock and fisheries production, introducing microfinance strategies to safeguard rural incomes; and setting up early warning and response systems. Ensure countries are coordinated and resourced by filling gaps in expertise, increasing knowledge sharing on best-practices and building collaborative networks. As in the Ebola outbreak, work with governments, partners and regional institutions to set up rapid assessments on the impact of the outbreak on agriculture, food security and livelihood to inform the global response planning.

Food price Several countries are considering export Lessons learned from 2007–2008 Food Price restrictions (e.g. Egypt on pulses). crises There will be serious threats to the Trade channels should be kept open so access of the poor to food as a consethat international markets can play an quence of lost income from lockdowns instrumental role in avoiding food shortages and other restrictions. These should be and mitigating the inevitable global economic downturn. addressed through measures that help maintain access to food, rather than through policies like export bans that Major exporters and importers of staple may threaten access. foods should agree to desist from imposing trade barriers in response to the COVID-19 pandemic. Governments should provide fiscal stimulus, as well as additional social protection to support those affected by the virus and containment measures. Pest control Reduction of operations of na-Enhanced monitoring and surveillance of pests tional emergency pest control and diseases programmes (desert locusts, fall armyworm, etc.): emerging pests and Facilitate access to efficient communication other major pest will likely get less networks. Partners working remotely where possible; attention and surveillance during this period. Use digital solutions for monitoring and surveillance (eg. E-locust3m, FAMEWS, Reduced ability for national etc.). inspections services to commu-Development desert locust experts at nicate effectively within country national level in partnership academia; and across regions when new pest Strengthen phytosanitary services through threats occur. provision of access to online resources that enable scanning for potential pest threats in trade. Humanitarian COVID-19 will likely impact the delivery Prioritize emergency humanitarian of emergency and humanitarian operainterventions to maintain critical delivery of response tions, including in fragile and conflict-afhumanitarian assistance to the vulnerable fected areas. Disruptions are likely to population, including pastoralists, affect: agropastoralists, refugees and migrant population in view of the COVID-19 Supply chain, logistics and overall emergency (Programme Criticality humanitarian operations Assessment [PCA]). Staff movements (including rest and Upscale and maintain critical UN recuperation which will increase humanitarian interventions to stay and demands on humanitarian workers) deliver in the face of COVID-19 emergency. Capacity to surge Strengthen preparedness and operational readiness Prepare protocol on application of prevention measures recommended by WHO to be signed by service providers for the implementation of activities of interventions such as distributions and seed fairs; Maintain capacity for cash transfer and voucher programmes (experts, market assessment, SPs). Identify gap and available stock of inputs.

Deterioration of the food and nutrition situation of people who were already in humanitarian emergencies (IPC phase 3 and above) before the outbreak of the COVID-19 pandemic due to panic buying, hording, price increases, closure of markets, and reduced purchasing power of households affected by economic impacts of COVID-19.	 Prepare and implement appropriate humanitarian response plan to address the food security impact of COVID-19 on the most vulnerable population: Awareness raising on the impact of COVID-19 on the food security; Rapid and periodic assessments on the impact of COVID-19 on agricultural livelihoods; IPC/Cadre Harmonisé analysis for the classification of the food security situation and prioritization of interventions Market survey and monitoring; Mass sensitization messages to rural communities on prevention measures to prevent the further spread of diseases in rural areas. Prepare and implement appropriate humanitarian response plan to address the food security impact of COVID-19 on the most vulnerable population: Awareness raising on the impact of COVID-19 on the food security; Rapid and periodic assessments on the impact of COVID-19 on agricultural livelihoods; IPC/Cadre Harmonisé analysis for the classification of the food security situation and prioritization of interventions Market survey and monitoring; Mass sensitization messages to rural communities on prevention measures to prevent the further spread of diseases in rural areas. Food distribution to those most severely affected by the crisis, as identified by surveys and assessments, especially where markets are not properly functioning; Strengthen coordination to improve response by reinforcing food security/ nutrition clusters, coordination between humanitarian and health sectors and surge mechanism.
	Boost incomes and agricultural production to safeguard livelihoods of the most vulnerable households already in humanitarian emergency before the COVID-19 outbreak (i.e., ICP phase 3 and above), using rapid impact assessments to define needs and provision of support to crop and livestock production, cash transfers (and CASH+), post-harvest activities and trade/marketing.

The current context of COVID-19 poses additional pressure on migrants, including refugees and IDPs, facing high vulnerabilities due to the conditions of their journey, poor living and working conditions, and poor food and nutrition security status. Many refugees and migrants, particularly undocumented migrants, are often excluded from the national social protection systems and health programmes. They are facing additional challenges to generate income and send remittances back home due to lockdowns and restrictions of movement.

Innovations/best practices in refugee camps:

- Kenya: Refugee artists and tailors in Kakuma camp are joining together to produce colourful masks.
- Niger: Refugees from Nigeria living in Niger are making beautiful soap to help combat the pandemic.
- Kenya: COVID-19 has led to the closing of schools at Dadaab, a complex of refugee camps that is home to more than 200 000 refugees and asylum seekers. Undaunted, dedicated English teacher Anima gave her lessons over the airwaves.
- Uganda: As host to more than 1.4 million refugees, UNHCR Uganda has produced a video on how refugees can guard against COVID-19, busting some common myths.

REFERENCES

AfDB. 2020. African Development Bank Group unveils 10 billion response facility to curb COVID-19. [Press release]. Côte d'Ivoire. [Cited 5 May 2020]. https://www.afdb.org/en/news-and-events/press-releases/african-development-bank-group-unveils-10-billion-response-facility-curb-covid-19-35174.

Africa Renewal. 2020. A battle plan for ensuring global food supplies during the COVID-19 crisis. [Online]. https://www.un.org/africarenewal/news/coronavirus/battle-plan-ensuring-global-food-supplies-during-covid-19-crisis.

Africa Renewal. 2020. ECA estimates billions worth of losses in Africa due to COVID-19 impact. [Online]. https://www.un.org/africarenewal/news/coronavirus/eca-estimates-billions-worth-losses-africa-due-covid-19-impact.

AUC & FAO. 2020. *Intra-African trade, the African Continental Free Trade Area (AfCFTA) and the COVID-19 pandemic*. April 2020. [online]. Rome. [Cited 5 May 2020]. http://www.fao.org/3/ca8633en/ca8633en.pdf.

European Commission. 2020. COVID-19 African Union and FAO Ministerial Meeting [online]. Brussels. [Cited 5 May 2020]. https://ec.europa.eu/commission/commissioners/2019-2024/wojciechowski/announcements/commissioner-wojciechowski-speech-covid-19-african-union-and-fao-ministerial-meeting_en.

CGIAR. 2020. Lockdown: Centre, States Helped Agricultural Sector, but a Lot Yet to Be Done to Ensure Growth. [Online]. https://www.cgiar.org/news-events/news/lockdown-centre-states-helped-agricultural-sector-but-a-lot-yet-to-be-done-to-ensure-growth/.

CGIAR. 2020. Satellite maps can help nations make critical food production decisions amid coronavirus. [Online]. [Cited 5 May 2020]. https://wle.cgiar.org/thrive/2020/04/17/satellite-maps-can-help-nations-make-critical-food-production-decisions-amid?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+WLEThrive+%28Thrive+Blog%29.

CGIAR. 2020. *Vouchers instead of food: an analysis.* Michael Hauser. [Online]. [Cited 5 May 2020]. https://www.cgiar.org/news-events/news/vouchers-instead-of-food-an-analysis-by-michael-hauser/.

CIMMYT. 2020. Don't forget about the impact of COVID-19 on the rural poor and on food security. [Online]. [Cited 5 May 2020]. https://www.cimmyt.org/blogs/dont-forget-about-the-impact-of-covid-19-on-the-rural-poor-and-on-food-security/

Drechsel, P. 2020. Strengthening city-region food systems during and beyond COVID-19. CGIAR. [Online]. [Cited 5 May 2020]. https://wle.cgiar.org/thrive/2020/04/08/strengthening-city-region-food-systems-during-and-beyond-covid-19?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+WLEThrive+%28Thrive+Blog%29.

FAO, ECA & AUC. 2020. *Africa Regional Overview of Food Security and Nutrition 2019.* FAO. [Cited 5 May 2020]. Accra. https://doi.org/10.4060/CA7343EN.

FAO. 2014. Ebola: FAO launches new initiative to tackle growing food security threat. [Online]. http://www.fao.org/news/story/en/item/253824/icode/.

FAO. 2014. Food Security Brief: Ebola Virus Disease (EVD). [Online]. [Cited 5 May 2020]. http://www.fao. org/fileadmin/user_upload/emergencies/docs/FAO%20Brief%20EVD%20Oubreak%20N1.pdf.

FAO. 2020. *Agri-food markets and trade policy in the time of COVID-19*. [online]. Rome. [Cited 5 May 2020]. https://doi.org/10.4060/ca8446en.

FAO. 2020. Food Prices and Marketing Analysis Bulletin. June 2020. Rome. FAO. 20 pp. http://www.fao. org/3/ca9506en/ca9506en.pdf.

FAO. 2020. *Using innovation to deliver in Somalia despite COVID-19.* [Online]. [Cited 5 May 2020]. http://www.fao.org/news/story/en/item/1277798/icode/.

Glauber, J., Laborde, D., Martin, W. & Vos. R. 2020. COVID-19: Trade restrictions are worst possible response to safeguard food security. [Online]. In: *IFPRI Blogs*. [Cited 5 May 2020]. https://www.ifpri.org/blog/covid-19-trade-restrictions-are-worst-possible-response-safeguard-food-security.

Grainger-Jones, E. The coronavirus pandemic exposes a global hunger crisis as well as a health emergency. In:

The Telegraph. [Online]. [Cited 5 May 2020]. https://www.telegraph.co.uk/global-health/science-and-disease/coronavirus-pandemic-exacerbates-widespread-crisis-global-hunger/.

ICRISAT. 2020. Seeds of Rural Recovery: States must consider accommodating returnee migrants in small-farming. [Online]. [Cited 5 May 2020]. https://www.icrisat.org/seeds-of-rural-recovery-states-must-consider-accommodating-returnee-migrants-in-small-farming/

ICRISAT. 2020. Stronger local food value chains can leave Eastern and Southern Africa more resilient post COVID-19. [Cited 5 May 2020]. https://www.icrisat.org/stronger-local-food-value-chains-can-leave-eastern-and-southern-africa-more-resilient-post-covid-19/.

IFAD. 2020. Initiatives and facilities. [online]. Rome. [Cited 5 May 2020]. https://www.ifad.org/en/initiatives.

IFPRI. 2020. Addressing COVID-19 impacts on agriculture, food security, and livelihoods in India. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs*. https://www.ifpri.org/blog/addressing-covid-19-impacts-agriculture-food-security-and-livelihoods-india.

IFPRI. 2020. COVID-19 border policies create problems for African trade and economic pain for communities. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs*. https://www.ifpri.org/blog/covid-19-border-policies-create-problems-african-trade-and-economic-pain-communities.

IFPRI. 2020. Diets in a time of coronavirus: Don't let vegetables fall off the plate. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs.* https://www.ifpri.org/blog/diets-time-coronavirus-dont-let-vegetables-fall-plate.

IFPRI. 2020. For the poorest countries, the full danger from coronavirus is only just coming into view. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs*. https://www.ifpri.org/blog/poorest-countries-full-danger-coronavirus-only-just-coming-view.

IFPRI. 2020. How COVID-19 may disrupt food supply chains in developing countries. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs*. https://www.ifpri.org/blog/how-covid-19-may-disrupt-food-supply-chains-developing-countries.

IFPRI. 2020. IFPRI's COVID-19 Policy Response (CPR) Portal: Identifying trends and implications for food systems. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs.* https://www.ifpri.org/blog/ifpris-covid-19-policy-response-cpr-portal-identifying-trends-and-implications-food-systems?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+BlogWorldHunger+%28IFPRI+Blog%29.

IFPRI. 2020. Impacts of the COVID-19 crisis on vegetable value chains in Ethiopia. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs*. https://www.ifpri.org/blog/impacts-covid-19-crisis-vegetable-value-chains-ethiopia.

IMF. 2020. International Monetary Fund [online]. Washington, D.C. [Cited 5 May 2020]. https://www.imf. org/en/Topics/imf-and-covid19/COVID-Lending-Tracker.**Johnstone**, **G.**, **Phillips**, **M.**,

Thilsted, S.H. & Belton, B. 2020. Addressing COVID-19 impacts on fish and aquatic food systems. [Online]. In: *World Fish Center Blogs*. http://blog.worldfishcenter.org/2020/04/addressing-covid-19-impacts-on-fish-and-aquatic-food-systems/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+worldfishcenter%2FqcNy+%28Expiscor%29.

Masie, D. Africa braces for coronavirus shock. *African Business*, April 2020. [Cited 5 May 2020]. https://liveblog.africanbusinessmagazine.com/coronavirus-africa-braces-for-economic-shock/.

OECD. 2020. OECD Economic Outlook, Interim Report March 2020. Coronavirus: the world economy at risk. [Online]. Paris. [Cited 5 May 2020]. https://www.oecd-ilibrary.org/docserver/7969896b-en. pdf?expires=1588935876&id=id&accname=guest&checksum=4E42615BB2E339468AC91F16476550D9.

Resnick, D. 2020. COVID-19 lockdowns threaten Africa's vital informal urban food trade. IFPRI. [Online]. [Cited 5 May 2020]. In: *IFPRI Blogs.* https://www.ifpri.org/blog/covid-19-lockdowns-threaten-africas-vital-informal-urban-food-trade.

Ruben, R., McDermott, J. & Brouwer, I. 2020. Reshaping food systems after COVID-19. CGIAR. [Online]. [Cited 5 May 2020]. http://a4nh.cgiar.org/2020/04/20/reshaping-food-systems-after-covid-19/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+cgiar-a4nh+%28Agriculture+for+Nut rition+and+Health%29.

Sobel, B. & Kennedy, G. 2020. COVID-19 and global trade implications for food systems and healthy diets. In: *CGIAR*. [Online]. [Cited 5 May 2020]. http://a4nh.cgiar.org/2020/05/20/covid-19-and-global-trade-implications-for-food-systems-and-healthy-diets/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+cgiar-a4nh+%28Agriculture+for+Nutrition+and+Health%29.

Tembo, D. 2020. The cost of coronavirus in Africa: What measures can leaders take? In: *Africa Renewal*. [Online]. [Cited 5 May 2020]. https://www.un.org/africarenewal/web-features/coronavirus/cost-coronavirus-africa-what-measures-can-leaders-take.

The Economist. 2020. The race to feed Africa during a pandemic. [Online]. [Cited 5 May 2020]. https://www.economist.com/middle-east-and-africa/2020/04/23/the-race-to-feed-africa-during-a-pandemic.

UNDP. 2020. Crisis in developing countries threatens devastate economies. [Press release]. New York. https://www.undp.org/content/undp/en/home/presscenter/pressreleases/2020/COVID19_Crisis_in_developing_countries_threatens_devastate_economies.html.

UNECA. 2020. *COVID-19 in Africa: Protecting Lives and Economies*. [online]. Ethiopia. [Cited 5 May 2020]. https://www.uneca.org/sites/default/files/PublicationFiles/eca_covid_report_en_24apr_web1.pdf.

UNECA. 2020. African Union Commission, Afreximbank, Afrochampions and UNECA Joint Communique on the need for a Holistic and Coordinated Trade and Investment Response to the COVID-19 Pandemic. [Online]. [Cited 5 May 2020]. https://www.uneca.org/stories/african-union-commission-afreximbank-afrochampions-and-uneca-joint-communique-need-holistic.

UNECA. 2020. COVID-19: Trade expert says AfCFTA could help Africa bounce back. [Online]. [Cited 5 May 2020]. https://www.uneca.org/stories/covid-19-trade-expert-says-afcfta-could-help-africa-bounce-back.

UN-MPTF. 2020. *Annual Report: UN Multi-Partner Trust Fund Office 2020.* [online]. [Cited 5 May 2020]. New York. [Cited 5 May 2020]. http://mptf.undp.org/.

USA. 2020. 2020 US Federal Contractor Registration (USFCR). [online]. Saint Petersburg. [Cited 5 May 2020]. https://beta.sam.gov/.

Varangis, P., Buchenau, J., Arias, D. & Ono, T. 2020. To avoid food insecurity, keep finance flowing. [Online]. [Cited 5 May 2020]. In: *World Bank Blogs*. https://blogs.worldbank.org/psd/avoid-food-insecurity-keep-finance-flowing.

Wetzel, D. 2020. Pandemics know no borders: In Africa, regional collaboration is key to fighting COVID-19. [Online]. [Cited 5 May 2020]. In: *World Bank Blogs.* https://blogs.worldbank.org/africacan/pandemics-know-no-borders-africa-regional-collaboration-key-fighting-covid-19.

World Bank. 2019. *Do's and Don'ts of Trade Policy in the Response to COVID-19. Trade and COVID-19 Guidance Note.* [online]. [Cited 5 May 2020]. Washington, DC. [Cited 5 May 2020]. https://openknowledge.worldbank.org/bitstream/handle/10986/33516/Do-s-and-Don-ts-of-Trade-Policy-in-the-Response-to-COVID-19.pdf?sequence=1&isAllowed=y.

World Bank. 2020. World Bank Group president David Malpass remarks to G20 finance ministers. [online]. Washington, DC. [Cited 5 May 2020]. https://www.worldbank.org/en/news/statement/2020/04/15/world-bank-group-president-david-malpass-remarks-to-g20-finance-ministers.

World Bank. 2020. *Africa's Pulse: An analysis of issues shaping Africa's economic future. Assessing the economic impact of COVID-19 and policy responses in sub-Saharan Africa*. Vol. 1. 136 pp. https://openknowledge.worldbank.org/handle/10986/33541.

World Bank. 2020. Trade data for assessing the impact of COVID-19. [Online]. [Cited 5 May 2020]. In: *World Bank Blogs.* https://blogs.worldbank.org/opendata/trade-data-assessing-impact-covid-19.

9 789251 325216

CA8822EN/1/08.20