



Food systems transformation Building to transform during response and recovery

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The issue

The disruptions resulting from the COVID-19 crisis have highlighted many of the fragilities of contemporary food systems. Challenges include accessing safe, nutritious food at affordable prices when movement is restricted and markets are closed, and the vulnerability of employees (in terms of health and income) across the food system. There are risks to the very survival of firms and industries, particularly micro-, small- and medium-sized enterprises, from producers, manufacturers, traders and food processors to transporters and retailers.

Those engaged in high-value, labour-intensive, perishable commodities essential to good nutrition (such as fruits and vegetables, fish and aquaculture products, meat and dairy products) have been disproportionately affected. In many countries, the significant number of people involved in the informal sector throughout the food system has compounded the effects on livelihoods. The COVID-19 pandemic has also highlighted vulnerabilities in nations dependent on imports of food and agricultural inputs, prompting a renewed look at creating shorter value chains to increase market flexibility and predictability and to help producers to prevent losses.

The pandemic has sharpened the focus on many contemporary issues, such as antimicrobial resistance, zoonotic diseases, climate change, food fraud and the digitalization of food systems, each with potentially significant implications for the safety of food. Equally, the importance of preserving and protecting environmental resources and biodiversity to maintain a natural buffer against diseases has shone a spotlight on the significant level of natural habitat destruction associated with changes in land use¹.

However, disruptions to food systems also create opportunities to drive longer-term transformation. The crisis has shown how quickly many parts of the food system have been able to respond. Many enterprises have had to deviate from business-as-usual approaches, use alternative input sourcing channels, create new and more localized markets, focus more on inventory management to boost resilience to future disruptions, stagger investment plans and review staff occupational health and safety practices, as well as human resource planning, in the face of increased demand or absenteeism. Such actions will have longer-term ramifications for organizational and social innovation, low- and high-tech innovation, automation, digitalization and technologies to protect workers, consumers and those engaged in the recovery, redistribution and disposal of food.

Some of the fundamental longer-term challenges to the sustainability of food systems still need to be overcome and factored into response and recovery plans, however. Many food systems are already falling short of the aspirations of the 2030 Agenda for Sustainable Development. Poverty and hunger remain entrenched, while obesity, with its associated health and economic costs,

Budget

USD 50 million

Time frame

2020–2024 (four years)

SDGs



Related FAO policy notes on COVID-19

- ▶ COVID-19 and the risk to food supply chains: How to respond?
- ▶ Adjusting business models to sustain agrifood enterprises during COVID-19
- ▶ Urban food systems and COVID-19: The role of cities and local governments in responding to the emergency
- ▶ Food safety in the time of COVID-19
- ▶ Mitigating risks to food systems during COVID-19: Reducing food loss and waste
- ▶ The opportunity for digital transformation

¹ See World Resources Institute (2020) Is Destruction the Inevitable Fate of Our Forests? Washington, DC. <https://www.wri.org/blog/2020/06/destruction-inevitable-fate-our-forests>

is rising. Food systems contribute significantly to anthropogenic greenhouse gas emissions and have been a key driver of land-use change and biodiversity loss. In turn, they are significantly affected by climate change.

The action

The initiative will be structured around five key objectives, underpinned by a sixth set of actions to improve the institutional and policy environment to foster coordination and coherence. The combination of actions will be tailored to location-specific food system realities. Actions will not exclusively support actors in the middle of the food chain, but will recognize the catalytic role they can play in ensuring that interventions throughout the chain are coordinated and combine for transformative impact. In taking action to support the improved functionality of these systems during response and recovery, it is imperative to adopt a holistic approach to analysing constraints and the tradeoffs implicit in their resolution.

1 Innovations for increased efficiency, inclusiveness and resilience of food supply chains

- ▶ Support the design and implementation of measures to avoid logistics disruptions in transportation, increase storage facilities and cooling infrastructure and ensure the safe functioning of wholesale and retail markets, also through access to real-time information on the functioning of distribution systems.
- ▶ Build capacities to establish an appropriate balance between global and local supply chains, with a focus on innovative practices to support continued market access for small-scale food providers, including food procurement schemes, integration into food assistance programmes and other market innovations.
- ▶ Harness the power of digital innovation to link producers with consumers by promoting the adoption of digital solutions, such as online platforms for e-commerce or delivery services and marketing, or blockchain technology as a component of traceability systems and certification schemes.
- ▶ Strengthen rural-urban linkages, increase the capacity of urban and peri-urban producers of nutritious and safe food, improve food storage capacity and promote effective food procurement.

2 Ensure food safety and nutritional quality of diets

- ▶ Provide technical assistance and tailored guidance to enhance food safety management along food chains to prevent disease. Avoid or reduce trade disruptions by applying risk-based food safety management measures appropriate to national and local production systems, including livestock and slaughtering facilities, and in compliance with Codex Alimentarius standards.
- ▶ Build the capacity of actors along supply chains to deliver better nutrition by promoting better quality and a greater variety of safe and nutritious foods for healthy diets, combined with nutrition education at the consumer level.

3 Reduce food loss and waste

- ▶ Introduce new technologies and innovative solutions to improve infrastructure for fresh food markets and processing facilities, post-harvest management and technologies and improved capacity in cold chain management, including through clean energy.

4 Sustain and strengthen agrifood enterprises

- ▶ Build risk management capacity based on data capture and access along the value chain (for example, using blockchain) to inform shifts to more resilient and sustainable business models and measures to prevent infection and contamination in production lines, with special attention to occupational health.
- ▶ Strengthen private sector associations along food value chains to support cooperation and the pooling of resources for technological design and investment in the precompetitive space.
- ▶ Strengthen public-private partnerships to add value to traditional food products that contribute to healthy diets and preserve social and cultural heritage.

5 Foster investment in the green recovery of food value chains

- ▶ Customize financial tools and risk mitigation mechanisms (private sector liquidity funds, grants, guarantee funds, credit holidays, loans and debt for equity swaps) to the needs of recipients, including small enterprises and design conditions related to sustainable practices and investments, such as the adoption of energy efficient technology and staff training on sustainable and climate-resilient practices.
- ▶ Build investment pipelines, targeting both private and public investments to support the transformation towards more resilient and sustainable food systems, through rapid and appropriate value chain analysis and business modeling capacity building.

6 Improving the institutional and policy environment

- ▶ Support the analysis of key tradeoffs facing food system actors and decision makers, including the mapping of vulnerable people, their retail food environments and means of physical and economic access to nutritious food, including supplies produced in urban and peri-urban areas.
- ▶ Promote dialogue to facilitate the interaction of science, experience and policy to avert further risk and avail new opportunities to build more resilient and sustainable food systems by supporting the establishment of multistakeholder and multisectoral food governance mechanisms at subnational, national, regional and global levels.
- ▶ Forge collective solutions to ensure that food systems transformation delivers on societal objectives and commitments, by building capacities to review and develop national policies and programmes to address the emerging challenges posed by COVID-19, while fostering strategic coordination among sectors and stakeholders.

Expected results

Recovery from this multifaceted crisis must lead to a different way of doing business. The proposed actions aim to “build back better” by catalysing the transformation to food systems that are resilient to shocks, ensure individual health and well-being, promote inclusion and improve environmental and economic sustainability by increasing efficiency and reducing waste. The programme will support governments and stakeholders in this transformation during the various stages of the COVID-19 emergency and post-crisis recovery, and is expected to have the following results:

- 1 **Increased adoption of technical and institutional innovations** to ensure improved food and input logistics and distribution, food procurement practices and the promotion of shorter, localized supply chains as a component of more sustainable, resilient and flexible food distribution models.
- 2 **Strengthened capacity to enhance food safety and nutritional quality across food systems**, focusing on increased absorption and adaptation capacities that quickly facilitate a switch to “emergency mode”, while maintaining food safety, by rethinking and expanding food safety infrastructure, regulations and technologies, including general public health and pandemic-inducing causes, and promoting nutrition-sensitive approaches along supply chains.
- 3 **Increased capacity to reduce food loss and waste in an inclusive and sustainable way**, through the innovation (such as product reformulation), processing and preservation of better quality, safe and nutritious food products and by using traditional foods that are socially, economically and environmentally viable, including those with a longer shelf-life.
- 4 **Enhanced capacity of agrifood enterprises and value chain stakeholders** as key drivers of food systems transformation and sustainable post-COVID-19 recovery, including through their interaction with the public sector and other key stakeholders, such as producers and consumers.
- 5 **Attracted investment for the green recovery of food value chains** to address the short-term disruptions to food systems caused by COVID-19, while laying the foundation for an inclusive, green and resilient post-crisis recovery, including by introducing sustainability conditions to financial stimulus packages and financial products and by reducing high levels of risk.
- 6 **Improved institutional and policy environment** at global, regional, national and subnational levels, in order to ensure concerted action and the sustainability of actions taken to address immediate impacts, while also supporting the transition to more sustainable food systems that are in better balance with nature and that support healthy diets for all.

Partnerships

By taking a lead role in the COVID-19 crisis response and recovery, FAO will further strengthen its partnerships with a range of food system stakeholders at global, regional, national and local levels, fostering the national institutional innovations required to support sustainable food system development and promoting the Organization as a leading development partner in supporting the transition to more resilient and sustainable food systems.



Key strategic partnerships will include international organizations, such as the International Trade Centre, the United Nations Conference on Trade and Development, the United Nations Development Programme, the United Nations Industrial Development Organization, the World Economic Forum, the World Health Organization, the World Trade Organization, UN Environment Programme and relevant regional bodies. The programme will also utilize the One Planet Network's Sustainable Food Systems Programme to partner with governments, civil society groups, businesses and scientific institutions. Engagement is also foreseen with international financial institutions, such as the European Bank for Reconstruction and Development, the International Fund for Agricultural Development, the World Bank, regional development banks and other financial service providers, in particular for mobilizing public and private sector investments in the green recovery of agricultural and food systems.

Programme links

- ▶ This programme forms part of FAO's comprehensive COVID-19 response package. Crucially, it not only links to and builds on the Organization's multiple initiatives to address short-term disruptions, but also the longer-term transformation of food systems. Existing FAO-led programmes include:
- ▶ AgrInvest and the Accelerator for Agriculture and Agroindustry Development and Innovation (3ADI+) on value chain development and sustainable investment;
- ▶ FAO's Urban Food Agenda programme and Green Cities Initiative;
- ▶ the Hand-in-Hand initiative, as a basis for scaled-up action;
- ▶ the European Union-FAO Food and Nutrition Security Impact, Resilience, Sustainability and Transformation (FIRST) programme and the Global Network against Food Crises, both of which play a key role in food systems transformation at the country level;
- ▶ Blue Growth;
- ▶ Sustainable Wood for a Sustainable World and Reducing Emissions from Deforestation and Forest Degradation (REDD+);
- ▶ the tripartite programme on zoonotic diseases, antimicrobial resistance and food safety;
- ▶ pipeline initiatives, including the Global Environment Facility's Impact Programme on Food Systems.

Regional and country focus

The regional contexts described here are subject to change in line with the results of ongoing country assessments and dialogues with Governments and partner organizations. The countries listed may therefore change.

Africa

A high-level task force has been established in tandem with Africa's ministers of agriculture, with the support of FAO and the African Union, to help countries minimize food-system disruptions and safeguard food security and nutrition, while simultaneously taking measures to contain the spread of the virus. Task force members include the African Development Bank, African Union Development Agency, European Union, International Fund for Agricultural Development, World Bank and World Food Programme. The programme will contribute to these efforts by strengthening capacity (i) to develop sustainable value chains, focusing on Burkina Faso, Cabo Verde, the Central African Republic, Chad, Ethiopia, Mozambique and Nigeria; and (ii) to manage Antimicrobial resistance (AMR) and food safety during the COVID-19 crisis and recovery, focusing on Burkina Faso, Cabo Verde, Gabon, Rwanda and Togo.

Asia and the Pacific

Most governments in Asia and the Pacific region are revising their food policies to rebuild food supply chains resilient to hazards and shocks, including pandemic types. FAO has undertaken rapid assessments of the impact of COVID-19 on agriculture and the food supply at the country level (over 20 country assessments) and regional level to provide the evidence for supporting government recovery programs and rebuild more resilient food systems. For the region, the emerging priorities for rebuilding resilient food systems cover the whole supply chain spectrum: upstream in the supply chain to strengthen diversified agriculture and leverage digital technologies to improve input (seeds, fertilizer) and resource (water) use efficiency, information and extensions services, and 'datafication' of farming (smart farming) to improve connectivity along the supply chain; at midstream, to strengthen investments in infrastructure to enhance the capacity for shock-resilient food product movement and develop market information systems and digital platforms to facilitate market linkages and enhance traceability for improved food safety, lowering food waste and lowering entry barriers to value chains by small-scale farmers and SMEs, including women; and downstream to rebuild the food market infrastructure, including

the use of digital platforms and e-commerce for rural-urban market linkages and redesign urban fresh produce (“wet”) food markets for enhanced food safety and improve urban food system governance to enhance availability and access of safe, secure and nutritious food for all, especially the poor and vulnerable populations. Focus countries include Afghanistan, Bangladesh, Cambodia, Indonesia, the Lao People’s Democratic Republic, Myanmar, Nepal, Pakistan, Papua New Guinea, the Philippines, Samoa, the Solomon Islands, Sri Lanka and Tonga.

Europe and Central Asia

Countries have taken measures to mitigate the immediate effects of the COVID-19 pandemic and continue to assess the medium- and long-term impacts on the food and agriculture sector and food supply chains. FAO is supporting countries in this work to inform actions needed to increase the sustainability and resilience of food systems in areas such as digitalization, obesity and malnutrition challenges, affordable and healthy diets, natural resource management and climate adaptation. This programme will support (i) increased investment in resilient, sustainable food systems, including agribusinesses, through novel financial instruments, such as blended finance (Azerbaijan and Kyrgyzstan); and (ii) the development of local, sustainable food systems and functioning markets (Armenia and Georgia).

Latin America and the Caribbean

The ministers of agriculture of 26 countries in Latin America and the Caribbean signed a declaration to collaborate and - supported by FAO and other multilateral organizations - adopt country-appropriate measures to ensure that people continue to have enough safe and healthy food on their tables every day. The programme will focus its efforts on three main areas: (i) sustainable and resilient value chains in Caribbean small island developing states (Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago); (ii) territorial food systems and “functional food circuits” to harness innovation, circularity and rural-urban linkages (Argentina, Costa Rica, Cuba, Mexico and Peru); and (iii) modernizing wholesale markets and building back better food supply systems (Argentina, Brazil, Chile, Ecuador, Honduras, Paraguay, Peru and Mexico).

Near East and North Africa

Governments in the Near East and North Africa have made every effort since the start of the pandemic to ensure that their food systems continue to function, addressing issues on safe access to land and markets and the safe working conditions of value chain actors. They have also made efforts to meet the needs of the most vulnerable, as part of measures to contain the adverse effects of the pandemic on their economies, while protecting public health. To support efforts towards effective food-system recovery, the FAO programme will focus on: (i) fostering innovation for more efficient and inclusive agrifood value chains; (ii) adjusting the business models of agrienterprises and improving access to inputs, finance and markets; and (iii) ensuring food safety and reducing food losses and waste. Target countries include Algeria, Egypt, Iraq, Lebanon, Mauritania, Oman, West Bank and Gaza Strip, Sudan, Tunisia and Yemen.

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