



Series **The agrifood system and the challenges of COVID-19**

**10** **Rebuild and transform agrifood systems**

**Why transform agrifood systems?**

Before the pandemic, Latin America and the Caribbean had already accumulated almost seven years of low growth, averaging 0.4 percent of Gross Domestic Product (GDP) between 2014 and 2019. In the midst of this negative trend, COVID-19 was a historic shock, causing a -5.3 percent GDP fall, the worst in the region's history (ECLAC, 2020).

The agrifood sector, however, does not seem to be following this trend. Before the pandemic, Latin America and the Caribbean was expected to become the world's leading food producer, providing more than a quarter of the world's agricultural and fisheries products (OECD and FAO, 2019); this projection that has not been much affected by the crisis. In fact, during the first half of 2020, the marketing of agricultural and fishery products produced in the region increased by 6 percent (FAO and ECLAC, 2020a).

The paradox of Latin America and the Caribbean is that, despite being a food-exporting region, its citizens' food and nutrition security is far from adequate, and the pandemic has only deepened the problems, including hunger. According to estimates by the Food and Agriculture Organization of the United Nations (FAO) and other institutions (FAO *et al.*, 2020), the number of hungry people in the region could increase by almost 20 million – from 47.7 million in 2019 to 67 million in 2030.

The pandemic has exposed many fragilities affecting the region's agrifood systems. In the immediate term, the main challenge has been to respond quickly to access problems, seeking to ensure regular, safe and low-cost access to food in a context of movement restrictions, disruption of marketing spaces' operation and increased worker vulnerability (FAO, 2020a). In this sense, the predominant recovery measures have all been related to direct investment and social and employment protection.

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In the long term, it will be necessary to focus on the factors that perpetuate food insecurity and rural poverty in the region. For this reason, various actors suggest that the recovery be taken as an opportunity to implement measures which go beyond the current crisis, addressing, for example, climate change and global change (UN, 2020).

Reconstruction or recovery has often been conceptualised and formulated for a country to go back to the development conditions it enjoyed before the disaster or crisis.

Nevertheless, such a design leads to a repetition of the pre-existing risk situation and the possibility of falling back into the same past emergencies or crises (UNDP 2012). This has changed over time. Consequently, the UN (2015) stated that the reconstruction phase should be the opportunity to do better than before, namely, build back better.

This is why, once the COVID-19 pandemic is over, the reconstruction phase should be the time to make transformations and adjustments to agrifood systems.

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## What do we need to change in agrifood systems?

Today, agrifood systems are not only expected to contribute to feeding the population, but also to economic growth, poverty reduction and preservation of ecosystems (World Bank, 2020). To analyse what needs to change in agrifood systems,

it is first necessary to identify the vulnerabilities to be addressed and the environmental impacts to mitigate.

The COVID-19 pandemic has exposed some of the vulnerabilities of agrifood systems:



**i. The production and marketing of high-value, labour-intensive perishable products** essential for good nutrition – such as fruits and vegetables, fish and aquaculture products, meat and dairy products – have declined because of difficulty in preservation and transport, and because changing habits have led consumers to prefer cheaper foods with longer shelf lives. (FAO and ECLAC, 2020a).



**ii. The informal labour market** – where the informality of women, youth, migrants and indigenous people stands out – makes workers more vulnerable to dismissal and lack of social and health protection (FAO, 2020b).



**iii. Vulnerabilities in nations dependent on food and agricultural imports** (Schmidhuber, *et al*, 2020) – especially in Small Island Developing States (SIDS) – are due to the disruption of international trade and the drastic decline in tourism activity (ILO, 2020).



**IV. Disruption in the marketing chain**, as traditional food markets were impacted by restrictive measures, with total closure or changes in their operation (FAO and FLAMA, 2020a).

On the other hand, agrifood systems are not only sensitive to environmental changes but are also to blame for their current state, since:

**i.** The agro-sylvo-pastoral sector is one of the **main causes of global change** as an active agent in the decline of biodiversity in the region, by pushing for land-use change (ECLAC, 2019). Besides, food production had high water demands. Over 70 percent of water withdrawal is used for agricultural purposes in the region (FAO, 2016). It is also the main

cause of marine resource depletion. In the last 50 years, stocks exploited at biologically unsustainable levels have increased from 10 to 34.2 percent (FAO, 2020c).

**ii.** Finally, the agricultural sector is one of the main **contributors to climate change**. It is one of the sectors that releases the most greenhouse gas (GHG) emissions into the atmosphere: in the region alone, 23 percent of total GHGs are emitted by the agricultural sector (ECLAC, 2019).

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## What are the next steps?

Based on the vulnerabilities and impacts identified, it is necessary to address agrifood systems in order to transform them, during the recovery process, into more resilient, inclusive

and sustainable systems. It will be up to each country which actions and policies to prioritise, based on its requirements and resources availability.

### 1. Increase resilience in the production and marketing of perishable foods

Increasing the production and resilience of agri-food systems is about improving their capacity to resist, absorb, adapt, transform and recover from shocks (UNDRR, 2009), thus preventing and/or mitigating common risk factors faced by perishable foods. To this end, recommendations are as follows:

- **Improve data-driven risk management.** Improving data capture and analysis along the value chain is essential, as it helps prevent sanitary, logistical risks or food loss and waste. Early warning systems, which should have access to real-time information on distribution systems' operation, are relevant in this regard (FAO, 2020d).

- **Strengthen public-private partnerships in agro-logistics.** The private sector can take on some investments – for instance, in warehousing and transport – and the public sector can invest in road infrastructure and information and communication technologies (ICT), *inter alia* (World Bank, 2020).

- **Develop public procurement systems.** The public sector should make an effort to allow continued access to the market for suppliers of fresh and nutritious food from small-scale producers. Procurement and distribution for vulnerable sectors is an alternative (such as school feeding).

- **Digital solutions to directly link producers and consumers as possible.** Encourage the use of online platforms for the delivery of services, such as e-commerce, delivery or marketing, as well as blockchain technology as a component of traceability systems and certification schemes. This requires real investment, not only in platforms and software but also in infrastructure to improve connectivity and rural logistics in order to compete more appropriately with large retail shops and supermarkets.

## 2. Strengthening the labour market

The COVID-19 pandemic is an opportunity to reflect on the impact of this type of crisis on labour supply and demand and improve the quality and sustainability of the labour market in agrifood systems. In this regard, the following measures are recommended:

- **Find the right balance and sequencing between health, economic and social spheres.**

For economic recovery, it is necessary to monitor the evolution of the pandemic. In this respect, the World Bank is working on an outstanding project, in collaboration with the Colombian government. A dashboard allows them to monitor almost in real time the spread of the virus and its probable dissemination, in order for decision-makers to define the appropriate moment to implement economic and social protection measures (Veillard, Brown and Becerra, 2020).

- **Strengthen employment governance.** One of the main lessons from this crisis lies in the need for robust labour institutions with broad coverage, as well as progress in developing good baseline records of workers (ECLAC and ILO, 2020). Societies must be able to generate rapid responses and coordinate public-private efforts.

- **Employment formalisation.** The effective implementation of social protection policies and response measures depends critically on the country's availability of formal jobs. In the medium term, it is necessary to advance in labour legislation and incentives for companies to formalise their workers (FAO and ECLAC, 2020b).

- **Invest in human capital.** In the context of COVID-19, we can expect that many companies and workers will be much better trained in the use of online work tools. They should also be able to ensure that as many unemployed people as possible can take advantage of new job opportunities in the shortest possible time. Job employment programmes should incorporate training in the use of information technologies or services related to energy and transport decarbonisation, as well as subsidised tuition and fees for students enrolling in related careers.

- **Develop new sources of labour.** Training is closely linked to investment in the creation of new sources of labour, as it is necessary first to create the demand for workers. In a crisis context, certain economic activities have grown in the short term, such as home delivery services and online services, giving more weight to local and national linkages. Digitalisation will be a valuable tool for shortening agrifood marketing chains, generating new business opportunities in rural areas. Besides, in the medium term, it will be necessary to stop seeing the rural environment only as a source of food, as it can also play a role in the generation of clean energy. It is estimated that thanks to the joint decarbonisation of the energy and transport sectors, around 40 million new jobs would be created in the region alone by 2050 (UN, 2020). Also, in the medium term, automation will demand more operators than agricultural workforce (Argüello, 2019).

### 3. Reducing the vulnerability of net importing nations

In Latin America and the Caribbean, several countries are net food importers. This is particularly sensitive for Central America, since more than half of the imported food comes from a single country – which is also outside the region (FAO and ECLAC, 2020a). Therefore, the aim is to make progress in the following areas:

- **Increase local production.** The crisis has made it clear that it is crucial to increase the production of goods related to the national food basket. In this regard, family farming and artisanal fishers play a key role.
- **Diversify supplier portfolio.** When facing an abnormal situation such as the current one, it is critical to facilitate approaches to new trading partners in order to reach future trade agreements on commodity exchange. To this end, it is necessary to define which countries could be food suppliers, monitor international prices and seek financing alternatives, in order to make trade transparent and reduce possible speculative phenomena in times of emergency. Countries urgently need to review their trade and tax policy options and their potential impacts to create an enabling environment for food trade.
- **Strengthen intra-regional trade.** Eighty-seven percent of the value of exports are destined for countries outside the region (FAO and ECLAC, 2020a). Furthermore, despite being part of a food-exporting region, many countries are dependent on food imports from countries outside Latin America and the Caribbean. By reducing food flows to countries outside the region, the carbon footprint is also reduced.
- **Improve product flows.** Logistical aspects will have to be facilitated to promote a proper functioning of food chains. To do so, it is important to use technology and maintain fluid lines of communication with public and private actors in the logistics chain. Besides, countries should also facilitate sanitary and customs procedures to facilitate product flows.

### 4. Increasing inclusion and resilience in agrifood marketing

In the first stage of the COVID-19 crisis, the main problem faced by markets was the decline in demand, but as the months have gone by, an upward trend in prices for some products – mainly perishables – has begun to emerge (FAO and FLAMA, 2020b); which has led to problems in the supply of some products (FAO and FLAMA, 2020c). In order to overcome marketing problems, markets have reacted quickly and decided the following measures:

- **Use of virtual transactions** between producers, traders and the general public. However, the high rate of informality in trade transactions hinders investment in the digital economy. It will be necessary to invest in transparency about traded values and the exact classification of products (origin and certificates, among others) (FAO and FLAMA, 2020c).
- **Health safety for traders, employees and buyers.** The safety of market operators, traders and customers needs to be safeguarded. Restrictions on retail sales or the attendance of persons belonging to high-risk groups should be implemented. It is also critical to implement an infrastructure for the cleaning and disinfection of people passing through the markets.
- **Reducing food loss and waste (FLW).** The pandemic has increased the surplus of products, especially in wholesale markets, as well as the food insecurity of vulnerable households. As a result, conditions have been created to develop systems that make it possible for markets to donate surpluses to food banks. The challenge is to structure food bank operations so that they become part of traders' practice (FAO and FLAMA, 2020c).

- **Expand rural financial markets.** Public policies can play an important role in promoting financial inclusion, especially when policies in other areas complement the ones that directly target the financial sector. Digital technologies can play an important role in promoting financial inclusion (World Bank, 2020).

## **5. Improving adaptation and mitigation of agrifood systems to climate change, and reducing the impact of global change.**

Finally, efforts must be made to restore the lost balances between feeding and the conservation of biodiversity and ecosystems (ECLAC and FAO, 2020), especially in the region which is a major food producer and home to a great biodiversity. The loss of Amazonian forests, for example, would play a key role in shaping global climate patterns (World Bank, 2020) and encroaching on wildlife habitats, which is at the origin of several zoonoses. Sixty percent of human diseases and 75 percent of new infectious diseases are of animal origin (UNEP and ILRI, 2020). Therefore, suggestions are as follows:

- **Incorporate nature-based solutions (NbS).** NbS are extremely cost-effective in helping ecosystems produce services that enable the economic development of local populations, and adapt to the effects of climate change. Healthy ecosystems save USD 125 billion annually from climate-induced hazards in the region (UN, 2020). The protection of wetlands, reforestation with native species or maintaining ecological flows in rivers, among other measures, can help generate these healthy systems.
- **Strengthen rural-urban linkages.** Urban planning should increase the capacity to produce nutritious and safe food in urban and peri-urban areas. Besides, NbS in urban and peri-urban areas can increase water resources availability, decrease risks of zoonotic diseases and disasters, and generate benefits that outweigh costs by a ratio of 4:1 (UN, 2020).
- **Climate-smart agrifood systems.** It is essential to monitor climate and the evolution of climate change to prevent impacts on production systems. Research on climate-smart agricultural technologies and practices should be developed. Remote data capture systems (monitoring stations and satellites) and the development of early warning systems and contingency plans will be very relevant (World Bank, 2020).
- **Move towards carbon neutrality.** The expansion of agricultural frontiers and deforestation must be halted, and cropping intensity on cultivated land must be increased. In this regard, both public and private investment should be increased to accelerate the development and dissemination of technologies to reduce GHG emissions along the value chain (World Bank, 2020).
- **Encourage investment in green recovery.** Financial tools need to be customised for the adoption of technologies to increase sustainability and climate resilience. New mechanisms will need to be developed to lower investment risks, through tools such as private sector liquidity funds, grants, guarantee funds, loans or debt-for-equity swaps, and new public-private investment lines (FAO, 2020a).
- **Promote the efficient use of natural resources.** Promote innovations for more efficient use of resources – such as soil and water – in order to reduce use without increasing cultivated areas.

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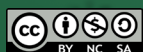
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