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ECLAC

Food systems and COVID-19 in Latin America and the Caribbean:
Impacts and opportunities in fresh food production

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Contents

1. Editorial

The health crisis caused by the COVID-19 pandemic has become the most considerable global economic crisis in the last hundred years. The agrifood sector fulfils a primarily social function; yet it has not been immune to the effects of the novel coronavirus, which have interrupted the normal functioning of food chains.

In the agrifood sector, unprecedented problems have led to unprecedented challenges. In Latin America and the Caribbean, food production has not stopped; workers, although in difficulty, are showing up at their workplaces. It could not be otherwise: food is essential. Today, if it were not for the people who work along the supply chain, we would not have anything to eat. It is worth recognising the work of these heroes from another front line.

Therefore, when we evaluate in detail the consequences of COVID-19 on primary production, it seems clear that these have not been critical. However, we cannot lose sight of the coming agricultural seasons, and we must monitor, with even more zeal, the disruptions in the sectors which are most vulnerable to this health, economic and social crisis. Furthermore, we must bear in mind that we do not know the duration and long-term consequences of the pandemic; nor do we know when outbreaks may occur, or when the dynamic of lockdown and deconfinement measures will end. In short, we do not know when and how things will return to normal.

We have been foolish and we have stressed every time we have been able to do so that this crisis is a magnificent opportunity to rethink our production models. Because of their importance, agrifood systems are a necessary starting point for the long process of recovery and transformation that lies ahead. Therefore, let us not miss the opportunity to do everything possible so thatfood chains become more and more inclusive and, also, more resilient to the impacts of climate change and health crises.

2. Key messages

- The effects of COVID-19 have had an impact on primary production, although without critical consequences.
- The main factors affecting primary production are: **lack of liquidity, availability of labour** and **availability and price of agricultural inputs.**
- The sectors most affected by the **lack of liquidity and availability of labour** are **fisheries, aquaculture and fruit and vegetables.**
- The lack of liquidity affects mainly small producers, while the availability of labour affects large producers.
- The sectors that have been **less exposed to COVID-19** are those with **low labour demand and high mechanization**, such as industrial soybean, grain and oilseed crops.
- It is necessary to support the most affected subsectors with immediate response measures, especially those focused on:

  - Increasing liquidity through cash transfers or credits.

  - Reducing costs through the extension or cancellation of public or private debts.

  - Marketing support through public procurement, for example.
- As for measures to **maintain the availability of labour**, we can mention:

  - Allowing **free transit** of national and migrant workers.

  - Promoting **prevention** so that workers avoid getting sick, and **protection** in case of illness.
- The crisis generated by COVID-19 opens a window of opportunity to **transform** primary production into a more sustainable and resilient economic sector, through the implementation of **technological innovations, nature-based solutions** and **improvements in the institutional environment.**

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3. An approach to primary production in Latin America and the Caribbean

3.1. Family farming

Family farming in Latin America and the Caribbean is of the utmost importance: it accounts for nearly 81 percent of farms and generates 50 percent of employment in the agricultural sector in the region (FAO and IADB, 2007; FAO, 2012).

Today, because of restrictions imposed to prevent the spread of COVID-19, the main obstacle that family farming must overcome is not the availability of labour – small agricultural estates are, after all, self-employed family units – but the **lack of liquidity for producers**. Cash shortage is mainly due to a decrease in agricultural income (because of a lower demand for food), and non-farm income and remittances (both resulting from the global economic crisis).

A series of telephone surveys and structured interviews conducted by the Inter-American Development Bank (IADB) with small and medium-sized producers revealed a clear lack of liquidity: 65 percent have experienced a decline in sales, and 70 percent have resorted to selling assets, use of savings or credit requirements to solve the crisis (IADB, 2020).

3.2. Agribusiness

In Latin America and the Caribbean, agribusiness (agro-industries) has been consolidated in the last decade. This sector is responsible for a considerable number of jobs and makes a significant contribution to the basic food basket. Its influence is not limited to the region's most immediate radius, as it provides more than half of the world's exports of bananas, sugar and soybeans; and more than a quarter of global exports of coffee, beef, chicken and corn (IADB, 2018).

The sector has been hit by the pandemic, in particular as a result of **labour shortages** generated by lockdown and mobility restriction. According to some forecasts, this restriction will negatively affect planting and harvesting, especially in countries producing perishable items that are labour-intensive (such as fruits and vegetables) (Salazar and Muñoz, 2020).

3.3. Specialisation and its vulnerabilities

The international economic and trade system has encouraged many Latin American and Caribbean countries to produce a small number of agricultural products, according to their agro-climatic characteristics and comparative advantages. These dependencies are expressed as export concentration indices and are observed in both small island countries and large continental countries.

According to data from FAOSTAT (FAO, 2020a), exports of soybeans, corn and livestock are crucial in South American countries bordering the Atlantic Ocean. As for South American countries bordering the Pacific Ocean, aquaculture and fruit production are fundamental. In Central America, on the other hand, exports of tropical fruits and seafood are essential. Finally, in the Caribbean, the concentration of trade is much more diverse, although exports of marine products, tobacco and alcoholic beverages are of primary importance in some countries. It is noteworthy that, in more than 90 percent of the Caribbean countries, three products account for more than 75 percent of agrifood exports.

Due to these high concentration rates, **many countries are dependent and highly vulnerable to conditions in international markets**. Thus, fluctuations in demand and prices for these exports have a profound impact on their income.

Additionally, a change in the restrictions of the destination markets could have severe consequences on the productive matrix, especially if commercial conditions are limited due to confinement, or if additional sanitary restrictions are imposed pursuant to **the economic effects of the pandemic.**

The recurrence of economic crises associated with health and climate crises makes it imperative to rethink the current production matrix, combining, for example, the competitive advantages of countries with the desire to strengthen local production and food supply chains for the population.

Figure 1/ Specialisation in agricultural exports in Latin American and Caribbean countries, 2020.

Source: FAO (2020a), modified by the authors. Conforms to UN World map, February 2020.

3.4. Characteristics and forecasts of the main food commodities

The Food and Agriculture Organization of the United Nations (FAO), in its Biannual Report on Global Food Markets (FAO, 2020b), mentions some aspects of the projection for the current agricultural and aquaculture season, as shown below.

Table 1/ Outlook (selected indicators) for the world food market, seasons 2019-2020 and 2020-2021.

	Projections	Demand for labour	Main requested input	Major producers	Type of producer
Meat and meat products					
	It is estimated that world meat production will decline by 1.7 percent by 2020. The contraction of the meat market is mainly due to animal diseases (such as African Swine Fever), disruptions associated with COVID-19, and the persistent effects of droughts.	**Extensive livestock production** Low **Intensive livestock production** High	**Extensive livestock production** Forage **Intensive livestock production** Animal feed (balanced feed)	Argentina Brazil Paraguay	Agribusiness
Milk and milk products					
	It is estimated that world milk production will grow by 0.8 percent in 2020. On the other hand, in the wake of fluctuating import behaviour, dairy exports are expected to contract by 4 percent in 2020.	High	Animal feed (balanced feed)	Argentina Brazil Mexico	Agribusiness
Fishing and aquaculture					
	The COVID-19 pandemic is expected to continue to have a negative impact on the seafood market for the remainder of 2020, especially on fresh produce and species which are popular in restaurants. On the supply side, fishing fleets are at a standstill, and aquaculture producers have drastically reduced fish stocking targets. Global shrimp and salmon production is expected to be the most affected by the pandemic.[1]	High	**Aquaculture** Animal feed (balanced feed)	**Fishing** Chile Peru Bahamas Belize **Aquaculture** Chile Ecuador Honduras Nicaragua Venezuela (Bolivarian Republic of)	Industrial and artisanal fishing Small-scale fishing Industrial
Sugar					
	World sugar production is expected to decline – for the second consecutive year – and fall below the estimated level of global consumption, for the first time in the last three years. Also, initial forecasts indicate that world sugar trade will increase, due to lower prices and the rebuilding of stocks in some traditional importing countries.[2]	Medium	Fertilisers	Brazil Colombia Mexico	Agribusiness

[1] In Asia, the shrimp farming season, which usually begins in April, has been delayed until June or July. In India, on the other hand, the production of farmed shrimp is expected to decrease by 30-40 percent (FAO, 2020b).

[2] The deficit in world sugar production projected for the 2019-2020 season has not helped to stabilize international sugar prices, which have been falling since mid-2017. They are also below the production costs for the vast majority of world producers (FAO, 2020b).

	Projections	Demand for labour	Main requested input	Major producers	Type of producer
Oilseeds					
	Both global supply and demand for oilseeds and their derivatives are expected to decline in 2020-2021, due to a significant contraction in production. Besides, initial forecasts indicate that there will be a tight balance between supply and demand for oilseeds and their derivatives in the 2020-2021 season.	Low	Seeds Fertilisers Agrochemicals	Argentina Brazil	Agribusiness
Cereals					
	Despite the uncertainty generated by the COVID-19 pandemic, initial forecasts indicate that cereal production will easily meet demand in 2020-2021. In Latin America and the Caribbean, early forecasts indicate a record cereal harvest in 2020: 280 tonnes, 11 percent above the average of the last five years.[3]	Low	Machinery Seeds Fertilisers Agrochemicals	Argentina Bolivia (Plurinational State of) Brazil Paraguay	Agribusiness
Fruit					
	**Banana** Assuming normal climatic conditions and no further spread of banana plant diseases, banana production is forecast to grow by 1.5 percent per year, reaching 132.6 million tonnes in 2029.[4] **Tropical fruits** The world production of tropical fruits has grown steadily over the last decade. Approximately 99 percent of tropical fruit production originates in low-income countries and is mainly produced on a subsistence basis by small-scale producers. **Subtropical and Mediterranean fruits** The 2020-2021 crop season presents normal productive conditions, given the availability of water for irrigation and the agro-climatic perspectives in the producing areas (except for specific cases of areas with prolonged drought).	High (at harvest time)	Fertilisers Agrochemicals	Central America South America	Agribusiness Family farming

Source: FAO (2020b), modified by the authors.

[3] This phenomenon is mainly due to an explosive growth in corn production of the main producers in South America – Argentina and Brazil –, spurred by high domestic prices and increased exports (see Figure 1), and to a substantial improvement in wheat production.

[4] During the current season, outbreaks of Fusarium wilt have been reported in Colombia and were first detected in Latin America and the Caribbean in 2019. These could affect yields per hectare (FAO, 2020c).

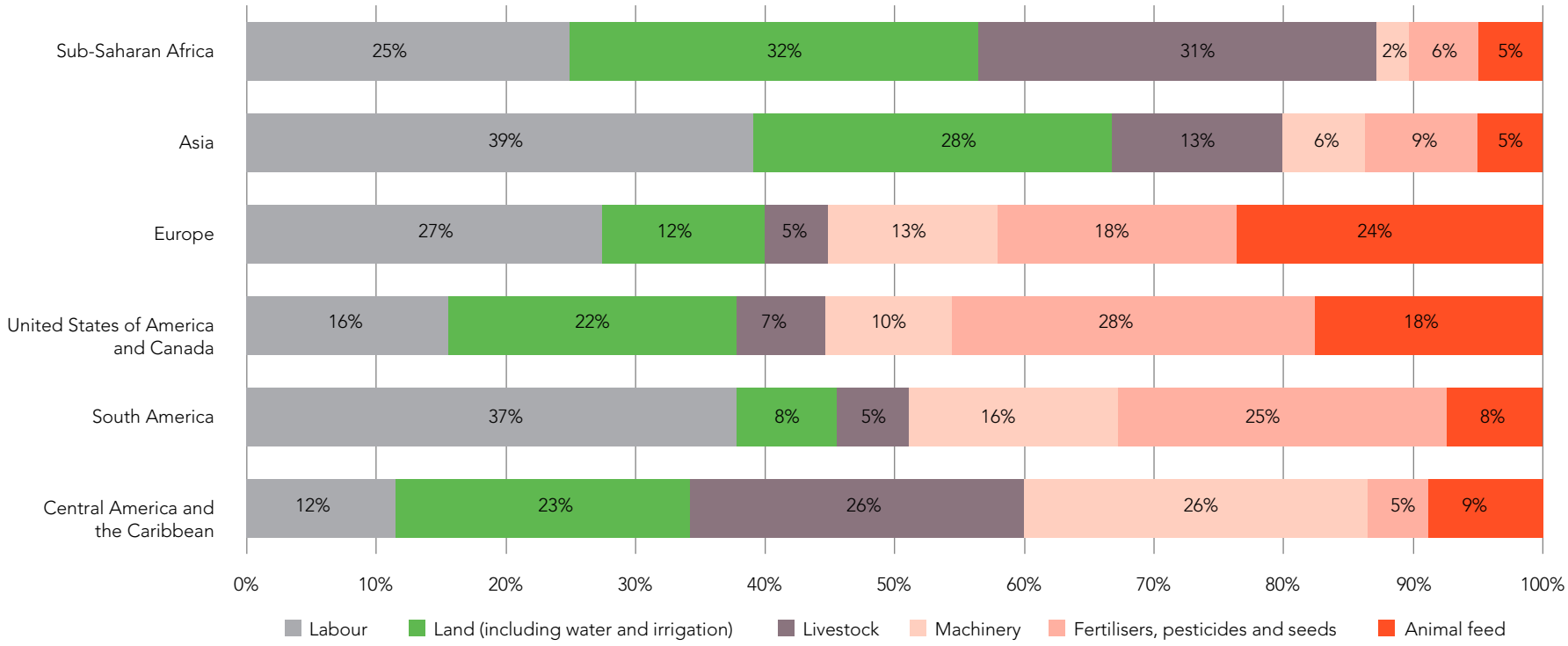
4. Impact of COVID-19 on agricultural inputs and production factors

The vulnerability of a productive sector can be assessed according to the dependence and flexibility of its access to the production inputs – such as working capital, labour, seeds, fertilisers, phytosanitary products, animal health products and feed, among others – that affect the structure of the production cost.

According to the above, the first thing that can be observed is that the region is heterogeneous in productive terms. However, two major patterns of agricultural cost structure emerge; one is characteristic of South America, and the other is typical of Central America and the Caribbean. In South America, the cost structure shows a high dependence on productive inputs such as fertilisers, pesticides and seeds (25 percent), as is the case in the United States of America and Canada (28 percent) and Europe (18 percent). Besides, the cost of labour (37 percent) is the second-highest in the world, being only surpassed by Asia (39 percent) (see Figure 2).

In Central America and the Caribbean, on the other hand, production units are less dependent on labour (12 percent) and production inputs such as fertilisers, seeds and pesticides (5 percent). The highest costs are for active assets such as land (23 percent), livestock (26 percent) and machinery (26 percent).

Figure 2/ Estimated cost structure, various factors (%), by region, 2011-2020.



Source: FAO, based on USDA (2020).

4.1. Disruptions in the availability of liquidity

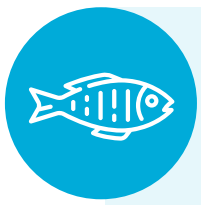
The health and economic crisis triggered by the COVID-19 pandemic has a significant impact on the availability of liquidity. There are two major trends associated with reduced liquidity:

- Exports linked to agribusinesses have been stopped or interrupted.
- Domestic demand for the production of family farmers is lower than usual.

Although the lack of liquidity has affected both large and small producers, family farming has been most stricken, whether due to a decrease in local demand or greater difficulty in accessing markets.

Unfortunately, this phenomenon occurs even though countries have made significant efforts to implement mitigation measures to safeguard the functioning of agrifood systems value chains (FAO, 2020h).

The decline in sales revenue has enormous consequences on farmers. On the one hand, reduced liquidity is likely to force them to postpone input purchases, labour hiring, or both. If this happens in the harvest season, the most certain result is a partial or total loss of crops and food loss. On the other hand, if the lack of liquidity occurs at sowing time, it is more likely that sowing capacity will decrease. As it could be observed in the previous section, then, lower liquidity would have decisive effects on the available labour force in South America (because of its high cost) as well as on the acquisition of fertilisers, pesticides and seeds (because of their extended use).



Fisheries and aquaculture: represent 38 percent of primary production for international trade (FAO, 2020e). Artisanal and small-scale fisheries provide livelihoods of at least 1.8 million families in Latin America and the Caribbean. This sector represents 85 percent of the fish and seafood that reach the tables in our region (UN, 2019).

The greatest threat to this subsector is the disruption to transport and marketing caused by the closure of global markets and food services in tourism and hotels (which is a particularly pressing issue for the Caribbean countries, whose economies are highly dependent on tourism). Many fish farmers have been unable to sell their products, and have been forced to keep large quantities of fish or shrimp alive, increasing production costs (FAO, 2020i). On the other hand, artisanal fishers have also seen their sales decline. For example, artisanal fishermen in Osorno, Chile, estimate that their economic losses are close to 100 percent of their usual production, due to the reduction in wholesales (Salgado, 2020).

Livestock: as in aquaculture, the closure of live animal markets not only reduced producers' income but also increased their feed costs, as they could not sell their animals. Besides,