

# **ECONOMIC IMPACT OF COVID ON THE AGRICULTURAL SECTOR**

By

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## **Abstract**

This article explains how the pandemic (Covid-19) affected the agricultural sector, leading to an international decline in agricultural production, which was reflected in economic activity, which is why farmers maintained their crops with all the agricultural measures required at the time of such an extent that the mobilization of agricultural products became difficult since at the beginning of the pandemic the whole world was paralyzed. This meant that while farmers struggled in one way or another to feed the world, poverty increased. The research is non-exploratory, purely bibliographic, starting from particular premises to generate general conclusions without influencing any variables; on the other hand, secondary sources support it. According to the Economic Commission for Latin America and the Caribbean (ECLAC), trade in goods fell by 17% between January and May 2020, and exports and imports fell by a quarter. The main impact that the pandemic has had in the short term has been the food alerts, trade flows have not been interrupted, but there has been an important reduction in the agro-export sector since there are sectors with zero demand, such as the ornamental plants and flowers sectors.

**Keywords:** Pandemic; Agricultural sector; Production process; International trade.

## **Resumen**

El presente artículo explica cómo incidió en el sector agrícola la pandemia (covid 19) que conllevó a nivel internacional que la producción agrícola decayera, reflejándose en la actividad económica, motivo por el cual los agricultores mantuvieron sus cultivos con todas

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las medidas agropecuarias que demandaba el momento, a tal punto que se dificultó la movilización de los productos agrícolas, ya que al inicio de la pandemia el mundo entero se paralizó. Coligiendo que mientras los agricultores se esforzaban de una manera u otra para alimentar al mundo, la pobreza se acentuaba. La investigación es de tipo no exploratoria, netamente bibliográfica partiendo de premisas particulares para generar conclusiones generales de las mismas sin influir en ninguna de las variables, por otra parte, tiene un sustento de fuentes secundarias. Según la Comisión Económica para América Latina y el Caribe (CEPAL) el comercio de bienes cayó en un 17% entre los meses de enero y mayo del 2020, las exportaciones y las importaciones de los bienes tuvieron una reducción de una cuarta parte. El principal impacto que la pandemia ha tenido al corto plazo ha sido las alertas en materia de alimentos, los flujos de comercio no se han interrumpido de manera total, pero sí ha ocurrido una recesión importante en el tema agroexportador, ya que hay sectores que han tenido demanda en cero como el sector de plantas ornamentales y el sector de flores.

**Palabras claves:** Pandemia; Sector Agrícola; Proceso productivo; Comercio Internacional.

## **Introduction**

The negative impact on the agricultural sector, which was affected by the coronavirus pandemic declared in March 2020 by the World Health Organization (WHO), declined by a high percentage, as it hindered the mobilization of supply and demand of agricultural products.

This fact occurred globally, contracting the procurement of the necessary inputs for production. This sector is vital for consumption and as a raw material supplier for industry, causing food insecurity due to the lack of support from state entities.

To support agribusiness, clear policies are needed to consider our farmers' working conditions and livelihoods, following relevant international labor standards.

The objective of the research is to analyze the inconveniences and needs suffered by farmers as a result of the covid-19 pandemic.

At the end of March, the Diputación General de Aragón (DGA) demanded the state government accelerate the deconfinement of the rural areas, given their low population density and the need to attend to the countryside. (García, 2020) However, the successive measures of deconfinement decreed in mid-April by the Spanish government, which allowed to go to work considered non-essential, did not affect the restrictions on access to the orchards.

Traditional self-supply mechanisms are jeopardized in the rural world, where poverty rates are high. However, there is industrial-centrism: the measures favored the agro-industrial model to the detriment of alternative production and marketing systems. (Izcara, 2020)

The IMF draws attention to maintaining stability in foreign exchange markets by allowing large-scale foreign exchange interventions, even in countries with flexible exchange rates. In banking regulation, the IMF emphasizes the need to maintain a balance between maintaining the banking system's stability and economic activity (International Monetary Fund, 2020)

### ***Impact of COVID-19 on health and nutrition***

Coronavirus disease (COVID-19) was declared a pandemic by the World Health Organization (WHO) in March 2020; it is an infectious pathology that requires hospital admission. The outbreak of COVID-19 has caused a worldwide blockade, damaging the agricultural sector in rural areas, where reports indicate that people are suffering disproportionately from the economic and health crisis caused by the pandemic (Uzcátegui Varela & Ceballos Ramírez, 2020)

### ***Impact on exports due to pandemic.***

Many experts feared the global food supply would become scarce as the pandemic progressed, significantly if supply chains were disrupted. Therefore, it is critical to understand how the COVID-19 pandemic affected the global food supply and market. This article details the impact of the pandemic on agricultural export firms in China using unique firm-level survey data (LIN & ZHANG, 2020)

The incidences in exports were also affected, as are those of the country's cocoa sector, in the period 2020 to previous years, through searches and collection of information from some statistical sources in the country. Ecuador is considered one of the leading exporters of fine aroma cocoa; therefore, this country has good prestige and high recognition in the international market (Mena Coronel & Gutiérrez Jaramillo, 2021).

### ***Impact on agriculture, food security and animal sectors.***

In December 2019, the COVID-19 outbreak occurred in Wuhan, China and spread rapidly. Worldwide. The current study provides potential expectations for the adverse impact of (COVID-19). The pandemic caused a global infection that affected the agricultural sector, such as agriculture, food supply and animals in production sectors. Consequently, the outbreak caused border closures and reduced production following social distancing measures (SELEIMAN, SELIM, ALHAMMAD, ALHARBI, & JULIATTI, 2020).

This brief communication illustrates the possible implications and expected outcomes of the coronavirus (COVID-19) outbreak on agriculture, food security, integrated pest management (IPM), and animal productivity; and further predicts the possible adverse impacts on the global economy. Brazil has one of the most important tropical agriculture in the world, leading the world in soybean production (SELEIMAN, SELIM, ALHAMMAD, ALHARBI, & JULIATTI, 2020).

### ***Consumer behavior in the face of the COVID-19 crisis***

According to Maslow's theory, the methodology used for herd mentality, alternate patterns of consumer discretionary spending and panic buying involves an analysis of consumer spending data, focusing primarily on the United States and Australia. The focus is on keyword data mining and web traffic from media sites to identify the occurrence of these consumer behaviors. Consumer behavior during the COVID-19 crisis appears to align with behaviors exhibited during historical crash events. (Loxton, *et al.*, 2020).

### ***Implications for rural economies.***

A rapid assessment of current and future impacts on rural economies in the pandemic socio-economic environment was conducted. Key potential supply and demand effects are described, with attention given to the agricultural situation and discussion of the potential effects on rural communities of distinguishing between businesses offering goods and services for out-of-home versus in-home consumption. (Phillipson *et al.*, 2020).

### ***Effects on international trade due to the pandemic***

Some bibliographic sources of articles and international organizations, such as ECLAC, IMF, ALADI, and WTO, were reviewed to provide an overview of the impact of the effects of the pandemic in Ecuador on international trade. The results indicate that the country's international trade is based on four essential products: petroleum, bananas, seafood and flowers, which account for 75% of total sales to significant partners such as China, the United States and the European Union (Quevedo Barros *et al.*, 2020).

### ***Effects of COVID-19 on food security and nutrition.***

The virus spread rapidly and widely throughout the world, bringing consequences for food security and nutrition. Not only was there disrupting the food supply chain, but also a significant global agricultural economic slowdown. The risks to food security and nutrition from these dynamics are profound, with some 2 billion people suffering from severe or moderate levels of food insecurity, according to the latest report. (Committee on World Food Security, 2020)

### ***Supply chain disruptions***

According to (Barrett, 2020), there have been significant disruptions in food supply chains due to confinement measures, affecting food availability, price and quality.

As a result of the closure of restaurants and other food services, demand for certain perishable foods, including dairy products, potatoes and fresh fruit, as well as specialty products such as chocolate and some high-value cuts of meat, has declined sharply (Lewis, 2020)

Between March and May 2020, when pandemic-related confinements occurred in many countries, there was extensive media coverage of food products being discarded or returned to the fields, either because of collapsing demand or difficulty in moving these foods to markets (Yaffe-Bellany, D & Corkery, M, 2020)

### ***Agricultural trade***

the focus is on agricultural trade to disaggregate these forecasts into the food and agriculture sector. Because most food falls into the necessities category, this sector will be insulated by its low-income elasticities, especially in higher-income developed countries. More minor falls can be expected in demand for food products and imports compared to the expected falls in total trade flows.

There are supply-side considerations about food processing operations and some fruits and vegetables engaged in exports due to the increased difficulty in securing migrant labor for the latter and healthy domestic labor to keep processing plants running during quarantines and closures that restrict the public (Bogart, 2020).

However, most farmers, who had never worked by these means and/or were not part of broader organizational structures, could not articulate themselves. In these cases, the farmer had no choice but to turn to conventional commercial channels sacrificing the commercial margin, or see his production go dry in the field or the warehouse (Bandera, 2020)

The second strategy implemented by family and agroecological farms in the face of the collapse of their commercial channels was economical, creating or strengthening other direct sales systems, basically, through sales over the internet or to consumer groups and

cooperatives. To this end, some of them organized virtual marketing platforms (Batalla, 2020)

Although, on average agricultural enterprises experienced declines in exports, exports of some agricultural commodities, especially grains and oil, remained strong and even increased, implying essential demand for staple foods during the pandemic. As expected, exports of medicinal herbs also increased significantly during the pandemic (LIN & ZHANG, 2020)

In Aragon, the prohibition was drastic (Ruiz, 2020). However, the Diputación General de Aragón (DGA), the autonomous government of this community, pressured by rural citizens, tried to negotiate its relaxation: on April 12, the president of the DGA unsuccessfully requested the president of the government to lift the restriction.

The vulnerability of the agri-food sector is reflected in many cases in its inability to cope with adverse situations, conditioning the population's access to safe, healthy and nutritious food. According to official data, about a third of the world's population has been food insecure since the WHO announcement, compromising the interactions between food production, processing, distribution and consumption, activating food and nutrition security alerts (Uzcátegui Varela & Ceballos Ramírez, 2020).

However, exports of goods such as edible mushrooms and horticultural products decreased drastically. Our results also showed that, in general, the impact of COVID-19 on smaller firms was more severe than on larger firms. The results of this study may provide helpful guidance and implications for agribusinesses and policymakers in their COVID-19 mitigation efforts to navigate this global pandemic (LIN & ZHANG, 2020).

On the other hand, COVID-19 affected all economic activities worldwide, so a literature review and data analysis were conducted through a qualitative methodology to identify the effects of the pandemic on cocoa exports in our country. Finally, the results showed that the cocoa sector does not reflect a drop in the international marketing of its product, despite facing complications in its production (Mena Coronel & Gutiérrez Jaramillo, 2021).

This chain impacts others, such as meat and eggs. Therefore, the impact of COVID-19 will be positive, encouraging the country to consolidate its leadership in the world market, stimulating exports, machinery, inputs and fertilizer market, and generating employment and income in the country (SELEIMAN, SELIM, ALHAMMAD, ALHARBI, & JULIATTI, 2020).

Therefore, it can be said that COVID-19 affected the reduction of international trade flows with the main trading partners, which places the nation in a situation of vulnerability (Quevedo Barros *et al.*, 2020).

## **Methodology**

The research originated to investigate COVID-19 and its economic impact on the agricultural sector, which has been affected by the lack of resources for producing its crops.

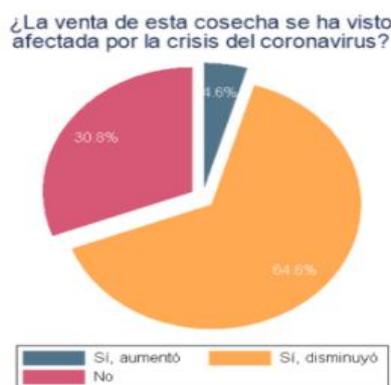
To carry out this research work, which is of a documentary-bibliographic type, the authors relied on many points, such as the section of 20 articles from scientific journals that

are similar to our topic; they also selected keywords for the best definition of what to investigate and finally a brainstorming to give a better understanding of the document to be done.

## Results

The IDB conducted studies in May 2020, based on a structured interview with 105 small and medium agricultural producers by telephone, with a sample of approximately 20 producers from Argentina, Bolivia, Paraguay, Peru and the Dominican Republic. The evidence shows that there are problems with agricultural production. For sales, 65% stated that Covid-19 affected the sale of agricultural production, 70% reported transportation difficulties, 40% reported a decrease in demand and 67% found a lower than expected price for their products (Schling *et al.*, 2020).

### Crop sales



Source: Schling *et al.*, (2020).

Other decisions were also affected, as 51.5% mentioned having problems obtaining the inputs needed for production, such as seeds, fertilizer, fungicide, herbicide and insecticide, while 40% reported that it was challenging to obtain labor. Furthermore, both problems were frequently caused by mobility, which affected the transportation of products to market for 70% of the respondents (Schling *et al.*, 2020).

### Affectation of the sale of harvested crops



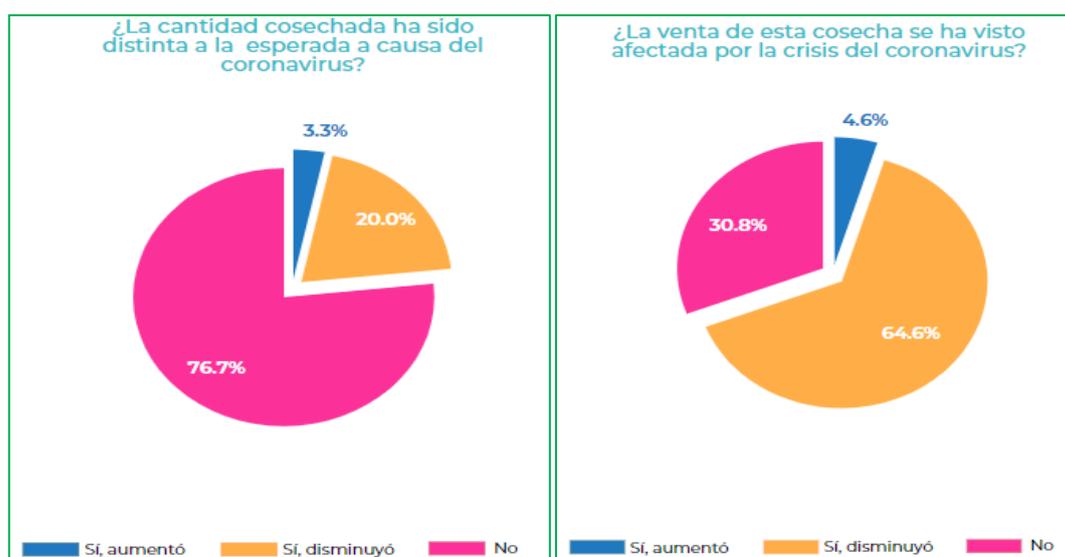
Source: Schling *et al.* (2020).

International trade in Latin America and the Caribbean fell by 23% in 2020, up from 21% in the 2009 financial crisis. ECLAC (Barcena, 2020) announced at a press conference that the value of regional exports would contract by 23% that year and imports by 25%. In the global context of a 17% drop in volume between January and May 2020, Latin America and the Caribbean were the most affected by the setbacks in shipments of manufactured goods, mining and fuels.

Tourism declined by 50%, dragging down services exports, especially from the Caribbean, and showing a sharp contraction of -23.9%, especially in manufacturing intra-regional trade. According to ECLAC (2020), exports and imports declined 17% in 2020 compared with 2019; both flows plummeted towards the end of the five months in 2020, with a year-on-year drop of 37% in May alone.

An evaluation was made of producers who harvested agricultural products or sold livestock in the last three months (63%). The majority agreed that the COVID-19 crisis had not caused problems in harvesting or production, but rather the problem was mainly the sale of their products. Seventy-seven percent of producers indicated that they did not have significant losses with the amount harvested; only 20% indicated that their production was affected by the pandemic (Salazar *et al.*, 2020).

Quantity harvested because of covid



Source: Salazar *et al.* (2020).

A significant loss is also added to the producers, nurseries and garden centers as they have been affected in trade since they have not had an outlet, so they have come to get 0% of demand, destroying thousands and thousands of flowers in fields and greenhouses, causing a loss of 440 million euros in Spain. (QUINTANA, 2020)

The closure of farmers' markets added to the loss of other direct sales channels due to the closure of school canteens. However, the fear of family farmers went beyond this, as it was suspected that these temporary policies would benefit supermarkets, which could be refined and become permanent, thus ending the alarm state (Gascón, 2020).

This productive sector reacted through two strategies. First, tuna demanded that the central government take specific measures in favor of family and agroecological agriculture and that it clarify that the RD did not prohibit non-sedentary markets while at the same time pressuring local and regional institutions to do a non-restrictive reading of the RD (Letter to the Ministry of Consumer Affairs, 2020).

With the pandemic, most European countries closed or restricted non-sedentary markets. Only Romania and Austria opted to maintain them. (ECVC, 2020). In Spain, the situation was contradictory. Most autonomous communities were closed, but some, such as the Balearic Islands and the Valencian Country, kept them open. Paula Valero, director of the Directorate General of Food Sovereignty of the Government of the Balearic Islands, said that the closure of weekly markets in other communities was due to a “misunderstanding” of the Royal Decree (Raw Meat, 2020).

This productive sector reacted through two strategies. One, demanding that the central government take specific measures in favor of family and agroecological agriculture and that it clarify that the Royal Decree did not prohibit non-sedentary markets, while at the same time pressuring local and regional institutions to interpret the Royal Decree in a non-restrictive way. From April onwards, the pressure on the central government showed how markets continued to operate with appropriate hygiene protocols in certain autonomous regions and municipalities and that they did so in compliance with the RD (Letter to the Ministry of Consumer Affairs, 2020).

In March 2020, in response to the global challenges posed by the coronavirus epidemic, the International Monetary Fund and central banks provided recommendations and took action to counter the global and national crises (International Monetary Fund, 2020).

The IMF has prepared many recommendations for central banks and governments on monetary policy, banking regulation and supervision, and fiscal and structural incentives (International Monetary Fund, 2020). For central banks, the IMF recommends easing the economic environment to support demand, ensuring continued credit support to the real economy, and increasing liquidity in domestic and international financial markets.

During the crisis, the European Banking Authority (European Banking Authority) recommended using flexible approaches in conducting regulatory reviews and announced the postponement of the pan-European bank stress test.

The results presented in this study have significant implications for practitioners. The study highlights the risks posed by the recent pandemic in CSAs and the strategies that agribusiness organizations should adapt to mitigate the risks. Organizations should exploit their technology resources and strengthen their information technology capabilities to build strategic partnerships with key stakeholders (Pigni *et al.*, 2016).

Some social protection programs have been disrupted by the pandemic, which in turn affects food security and nutrition. For example, when confinements began, most schools were closed, resulting in the loss of school meal programs in both high- and low-income countries. WFP estimates that 370 million children have lost access to school meals due to school closures due to the pandemic (World Food Programme, 2020).

On the other hand, family and agroecological agriculture had to face changes in production and marketing hygiene protocols. They also had to multiply their efforts to seek

alternative forms of sale, creating, for example, online marketing platforms. Moreover, even with that, most of them saw their income reduced, jeopardizing the farm's viability.

Sales through these marketing channels grew rapidly. This made it possible to sell part of the production that could not be destined for HORECA, schools and farmers' markets, but it was not a problem-free solution (Bandera, 2020).

Door-to-door selling involved logistics that made marketing more expensive and reduced profit margins. Sometimes, when customers were too far apart, it was not profitable. In addition, the preparation of orders increased the producer's work on the farm; those who were more successful were overwhelmed. (Bandera, 2020)

Farmers accompanied by teachers and transporters closed at least eight essential road arteries in the province of Guayas; this activity was carried out by closing the roads with burnt tires, crossing machinery, and some banana growers closed the road with bananas in the streets, claiming the low price of rice products, and bananas, among others (El Comercio, 2021).

## Conclusions

The disadvantages faced by the farmers in the pandemic have been several; one of the most notable is in the economic field, which is very noticeable due to the lack of resources necessary for the crops and to obtain good quality products.

Another inconvenience they have faced is the lack of mobilization to commercialize the products since, at the beginning, there was not so much mobility and there was no way to go out on the street for reasons that demanded security due to the pandemic and people's fear of becoming infected.

A general global scope is that the pandemic caused a decline in economic activity in the absence of exports and imports of agricultural products and inputs.

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