

# CHALLENGES FOR FAMILY FARMING IN THE CONTEXT OF COVID-19:

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Evidence from Farmers in  
Latin America and the Caribbean (LAC)



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## 1. Introduction

Due to the global pandemic caused by the COVID-19 outbreak, and in order to contain the number of infections (“flatten the curve”), many countries introduced generalized quarantines that have restricted the movement of goods and people. Typically, such quarantine measures will imply the paralysis of large parts of the economy. However, to ensure food security, most countries in the region have legislated the agri-food sector as essential, allowing it to remain partially or fully operational.

Although this decision might suggest a certain invulnerability of the agri-food sector, the quarantine measures have led to several new challenges related to the transportation of produce, access to inputs and hiring of labor, uncertainty about prices and demand, lack of liquidity and credit; among others. Given the large diversity in the sector, these issues will not be the same for all agricultural producers, nor will they have the same consequences. Depending on the category of the product (i.e. perishables, cereals, meat products, etc.), the target group (domestic or foreign) and the producer’s size (with the smallest producers being the most vulnerable), the specificity of the impact will vary. In the Latin-America and the Caribbean where rural areas are characterized by a high poverty rate (48.6% <sup>1</sup>), it is essential to understand the challenges faced by smallholders in order to mitigate the expansion of poverty and, thus, reduce the gap between urban and rural areas.

This study seeks to understand how the global pandemic has affected the agricultural sector in the region from the perspective of smallholder farmers. This allows us to understand how the global pandemic has affected them and what are their expectations for the future.

To gain a better insight, during the month of May we conducted interviews and structured surveys by telephone, in which a comprehensive questionnaire was implemented. This included questions about the type of production, the impact that the pandemic has had on the agricultural production, the quantity of produce sold, and the sale price, as well as the producers’ ability to obtain inputs, labor, and transportation. In addition, some questions were asked about the role of government and the producers’ expectations for the coming months.

Farmers from various countries of the region were contacted for the survey. The included countries were: Argentina, Bolivia, Paraguay, Peru and the Dominican Republic. Surveyed farmers were those for whom we had contact information because they had previously taken part in surveys conducted for various impact evaluations of agricultural programs carried out by the Inter-American Development Bank, or because they are part of an administrative registry of agricultural programs and / or government records. In the end, approximately 20 interviews were conducted per country, resulting in a total of 105 completed interviews.

<sup>1</sup>In 2016 the percentage of people living in rural poverty in Latin America reached 48.6%. (ECLAC, 2018).



To date, the results of the data show that there have been significant problems in the sales of agricultural production, mainly due to problems with transportation, reduced demand, and lower prices. This negative effect implies a reduction in income and spending capacity of surveyed farmers, hindering the continuity of the agricultural cycle, which is reflected in lower levels of planting, harvesting and expected future sales.

The data collection shows that the pandemic has already caused a major

liquidity problem: **70% of respondents had sold assets, used savings or applied for loans to cope with the crisis.**

**The evidence suggests the importance of implementing interventions in the agricultural sector that are aimed at increasing the liquidity of farmers, and of small and medium landholders in particular. These interventions are necessary to avoid a decrease in future production, an increase in poverty and a widening gap between rural and urban areas.**





## 2. Data and Descriptive Statistics

Table 1 summarizes the characteristics of the surveyed farmers. In Argentina, the farmers are mostly from the San Juan, Santa Fe and Córdoba region, are mainly livestock, dairy and corn producers. The sample in Argentina is composed of the largest farmers in our analysis, with the average farm size being 509 hectares. On the other hand, in Bolivia, most producers are smallholders, mostly from the Andean region (4 hectares on average) whose main crops are potatoes and corn.

The producers interviewed in Paraguay have an average of 3 hectares and are distributed in the central and southern

region of the country, their main products being cassava and potatoes. In Peru, the sample included smallholders (5 hectares) that produced potatoes, citrus, poultry and dairy, and are located in the departments of Lima, Ica and Cajamarca. In the Dominican Republic, we have information on small and medium landholders from almost all the provinces of the country, with an average farm size of 14 hectares. The most common products are tomatoes, plantain and cassava. The sample also includes some livestock producers, although only in Argentina and Peru (25% and 18% respectively).

Table 1: Sample Description

	Argentina	Bolivia	Paraguay	Peru	The Dominican Republic	Total
Average size of productive land (ha)	508.59	5.38	3.91	4.31	14.04	90.19
% Livestock *	25	0	0	18	0	8
% Women	12	31	52	9	5	23
% of Farmers who have harvested in the last 3 months	88	77	24	63	79	63
Most frequent agricultural items	Milk Corn Soja	Potato Corn Beans	Cassava Potato	Potato Milk Mango	Tomato Plantain Cassava	Potato Corn Tomato
% Farmers with exports	50	6	0	0	12	14
% Farmers with currently planted crops	92	47	68	88	68	70
Observations	16	22	25	22	20	105

Note: \*% livestock: share of farmers whose main activity is livestock

In the last 3 months, approximately 63% of all interviewed farmers had harvested their production or sold livestock. Of these, 14% indicate that at least part of their production was destined for export. Argentina leads the percentage of farmers with exports; 50% of those interviewed sold at least some part of their production overseas, followed by the Dominican Republic with 12%, and Bolivia with 5%. With regards to the current planting period, 70% of respondents solely engaged in agricultural activities reported currently having crops planted. Furthermore, 23% of the sample corresponds to female farmers.

It is worth mentioning that the farmers interviewed are not necessarily representative of the average farmer in the country. As mentioned above, the interviewed farmers derive from administrative records. Likewise, the limited sample in each country does not allow us to make concise judgments about which country is experiencing more issues related to the pandemic.

However, the collected data does permit identifying the type of problems that producers are facing at the moment. Since the questions included in the survey make reference to specific problems caused directly by quarantine measures, it is possible to assume that these problems are systematic for certain geographic areas or production sectors.

In other words, if a farmer faces a problem caused by COVID-19, it is likely that other farmers in the same area and of similar size will also encounter similar issues. For

example, if a farmer reveals that he/she was unable to transport their production to market due to a lack of means of transportation, it is highly likely that farmers of the same size and region have had a similar experience. Hence, if a farmer observes an increase in input prices, it suggests that all farmers in the region face a rise in prices.

So far, the countries analyzed in this study have already implemented some relevant policies for the sector. For instance, in most of the countries some type of financial aid has been granted through loans or grants (or for small businesses in the case of Argentina) and / or by renegotiating or deferring previous debt payments. In the case of Peru, rural vouchers have also been granted. In addition, some of the countries have implemented programs to ensure access to inputs. This is the case of Paraguay, where seed kits, inputs and technical assistance have been granted to vulnerable families; in the Dominican Republic, some farmers have received inputs and the government carried out a program for plow mechanization

Another group of policies that is worth highlighting has provided support to commercialization: In the Dominican Republic, a program was implemented to conduct the public purchase and storage of products in oversupply, whereas in Peru, itinerant markets were set up and the cost of freight was financed. In the medium term, it will be important to carry out a rigorous assessment that allows measuring the impact of these policies on agricultural production and food security.



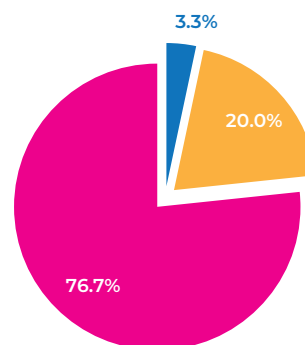
### 3. Results

#### 3.1. Harvest and Current Sales (last three months)

In this section we evaluate the responses of farmers who harvested agricultural products or sold livestock in the last 3 months (63%). The majority of these farmers agreed that the COVID-19 crisis had not caused problems in harvesting or production but had primarily affected crop sales (Figures 1 and 2). 77% of farmers indicated that harvested quantities had not experienced greater losses than expected; only 20% indicated that their production had been affected by the crisis. On the other hand, 65% of respondents said that COVID-19 affected their crop sales. This seems to be consistent with the agricultural calendar of the countries included in the sample, since several farmers had already harvested or were finishing their harvest by early March, when the pandemic started to affect the region. Therefore, a large part of the production process, including planting, took place before the crisis. In contrast, significant issues arose with the sale of agricultural products, given the restrictions farmers faced due to the imposed quarantine measures.

Figure 1

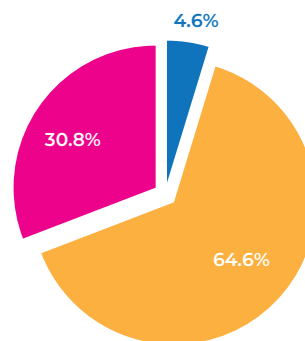
Has the harvested quantity been different than what you expected due to the COVID-19 crisis?



Yes, it increased Yes, it decreased No

Figure 2

Have crop sales been affected by the COVID-19 crisis?



Yes, they increased Yes, they decreased No



The results by country (Figures 3 and 4) show that in Argentina, there have not been problems related to production quantities nor sales. This may be associated with the size of interviewed farmers, as well as the type of farming. In Paraguay on the other hand, none of the farmers reported having problems with the quantity harvested, but all farmers who had harvested in the last 3 months reported that crop sales had decreased.

The main reason why crop sales were affected was the difficulty of transporting products to markets. 70% of farmers

mentioned this as one of the primary causes for lower sales (Figure 5). A decrease in demand (40%) was the second most reported cause for a drop in sales. 22% of respondents mentioned other reasons for the decrease in sales, including the closure of markets, fast and low-price sales to reduce uncertainty, among others.

Regarding price, 67% found a lower sale price than expected for their products, 25% did not find any change and only 7.8% received a higher price (Figure 6).

Figure 3

Has the harvested quantity been different than what you expected due to the COVID-19 crisis?

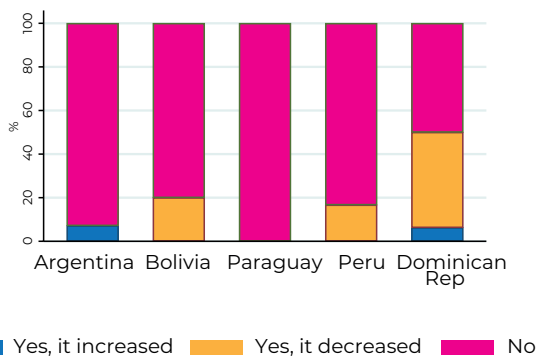


Figure 4

Have crop sales been affected by the COVID-19 crisis?

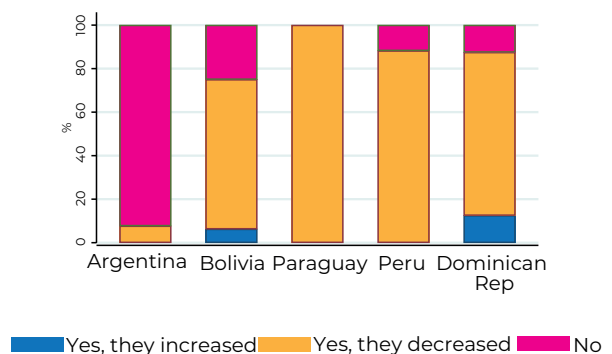


Figure 5

What affected your sales?

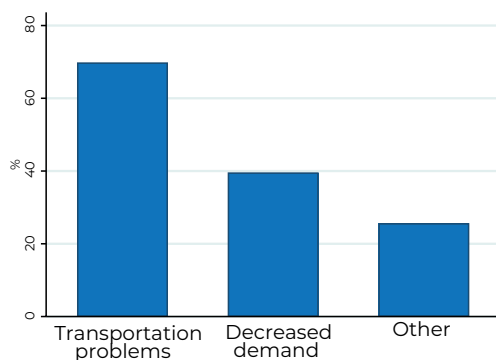
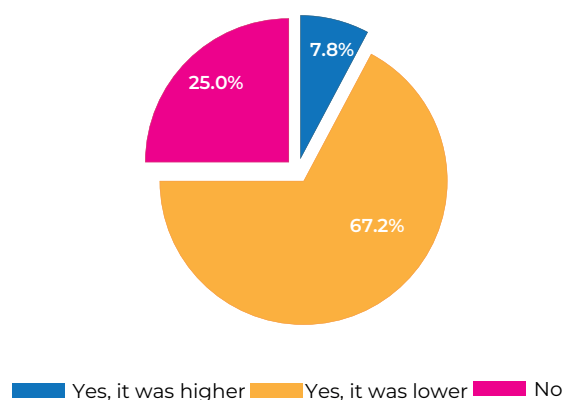


Figure 6

Was your sales price affected by the COVID-19 crisis?



### 3.2. Planting, Harvest and Future Sales

In this section, we analyze the situation of farmers who had crop planted at the time of the interview, or those who will plant in the next agricultural cycle. 57% of the respondents agreed that the crisis would not cause problems in the harvest of the crops currently planted (Figure 7).

However, 40% believe that the pandemic will cause problems in future harvests. This implies that at least 20% of farmers who did not experience problems with the last harvest, believe that they will encounter them during the next harvest. This suggests that the negative effects of the pandemic will likely materialize with some delay, as farmers will now have a lower income, which will exacerbate liquidity problems and decrease their access to agricultural inputs.

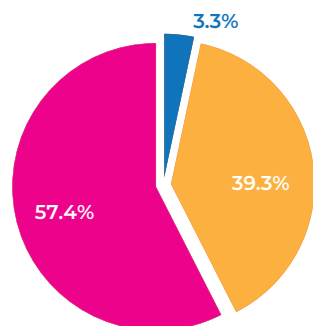
Likewise, a larger share of farmers (78%) indicated that they expected a change in their sales as a result of the crisis (Figure 8). As a reason for expecting more

problems with sales than with harvest, farmers mentioned that the harvest is less affected by external factors, while market closures, decreased demand, and lack of transportation services are factors beyond their control.

Regarding future planting, 53% of farmers said they were planning to plant a smaller quantity than usual due to the crisis (Figure 9). When asked why they would plant less, about 33% answered that it was due to an expected decrease in demand (Figure 10). Likewise, 33% indicated that they would plant less because they did not have the funds to buy new inputs. This is cause for concern, since it suggests that the reported problems with the sales of the previous harvest is causing a significant negative impact on the agricultural production cycle. Other farmers also mentioned lack of labor and transportation as potential problems that they considered when making the decision to diminish their production.

Figure 7

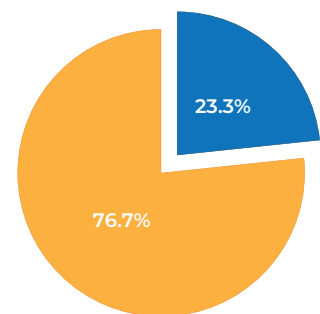
Do you expect the harvest of your currently planted crops to be affected by the COVID-19 crisis?



Yes, it will increase Yes, it will decrease No

Figure 8

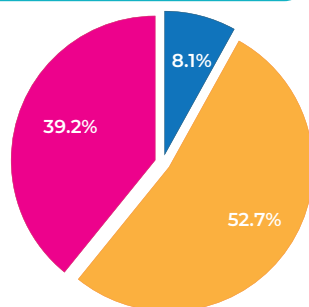
Do you expect there will be a change in sales due to the COVID-19 crisis?



Yes No

Figure 9

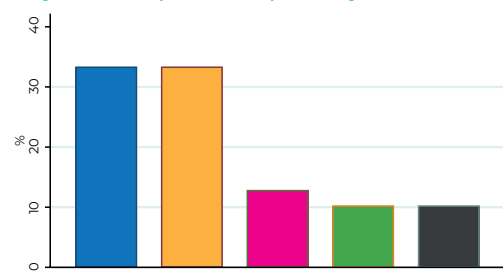
Will the decision of how much to plant in the next agricultural cycle be affected by the COVID-19 crisis?



Yes, I will plant more Yes, I will plant less No

Figure 10

Why will the planted quantity be affected?



Decreased demand Lack of money for inputs or transportation Labor shortages Transportation shortages Other

### 3.3. General Problems

Regardless of whether the farmer experienced issues with their production or sales, we posed questions about the general problems that farmers have experienced in the last 3 months. These problems are mainly related to access to inputs, labor and transportation.

#### Problems related to access to agricultural inputs

Overall, more than half of surveyed farmers (51.5%) reported that they had faced problems with accessing agricultural inputs (seeds, fertilizer, fungicide, herbicide, insecticide) (Figure 11). When asked about the causes of this problem, almost half (48.5%) reported that the main reason was the lack of transportation. For most of the farmers, this was due to the impossibility of travelling to markets where inputs are sold. Additionally, it is worth mentioning that those farmers who stated not having encountered issues in accessing agricultural inputs did so because they had not needed to purchase them in the

last 3 months, either because they had what they needed in storage, or because they did not need them in the current phase of production.

Regarding the price of inputs, 56.5% of farmers reported having observed an increase in prices due to the pandemic (Figure 12). However 8.7% of farmers also reported that prices had decreased. The increase in price is related to the origin of the inputs, many of which are imported or difficult to access for the producers because of their being located in rural areas.

In general, the issue of accessing inputs was observed to be similar among all the countries included in the analysis (Figure 13). In contrast, the problem specifically related to the increase of input prices was more common in Peru and Bolivia (Figure 14). This figure also shows that the decrease in input prices observed in Figure 12 occurred almost exclusively in Argentina and Paraguay (and one case that was reported in the Dominican Republic).

Figure 11

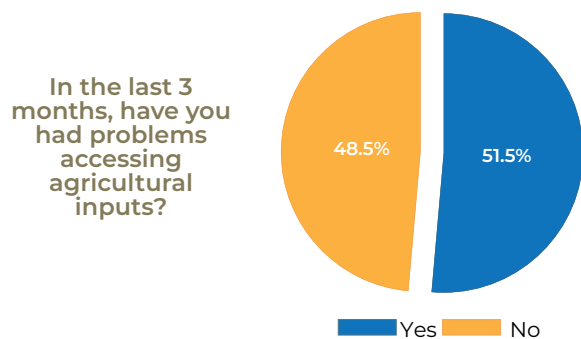


Figure 12

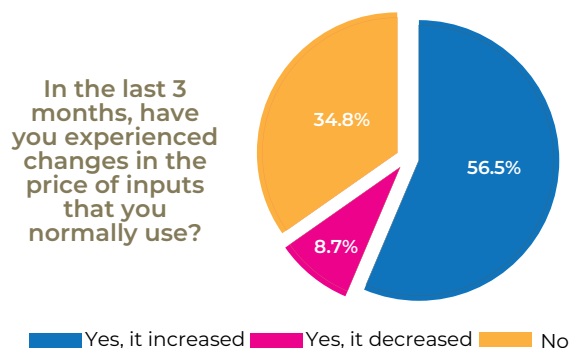


Figure 13

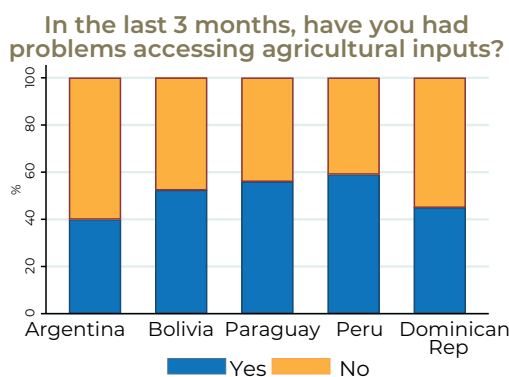
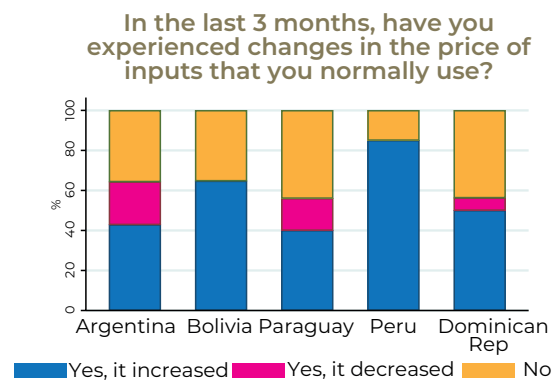


Figure 14





## Problems related to labor

Despite the fact that in the majority of the countries within the region, agriculture was declared an essential sector, and work in the fields should therefore not have been directly affected by the quarantine, and work in the fields was therefore not directly affected by quarantine, 40% of the respondents reported having had problems obtaining labor (Figure 15). In most cases, this was caused by problems in transporting workers to fields, or by quarantine restrictions that imposed a specific schedule for the movement of people. This labor problem was more common in Paraguay and less common in Peru and Argentina (Figure 16). In the case of Argentina, this is probably due to the fact that most of the crops are highly technical and less labor-intensive; while in the case of Peru, it may have been linked to a wider supply of rural labor, coming from other economic sectors that are currently paralyzed, as well as migrants from Venezuela. However, in Peru, despite the fact that workers accepted lower than normal wages in many cases, farmers reported not having sufficient funds to

hire workers, and that they preferred to rely on family labor.

## Problems related to transportation

Regarding the transportation of agricultural production, 70% of interviewed farmers reported problems with transporting their production to market (Figure 17). However, this was uncommon in Argentina, where only a little over 20% reported this problem (Figure 18). For the rest of the countries, this was a recurrent issue.

The transportation problem was caused mainly by scarcity of available service (86%) and by an increase in prices (19%). This shortage had several causes: For instance, some farmers in Argentina and Bolivia indicated that they were not permitted to travel with more than one person in the vehicle. Additionally, long distances implied that drivers had to spend the night in cities without available hotels or had to submit to mandatory quarantine.

Figure 15

In the last 3 months, have you experienced any problems with hiring or obtaining labor?

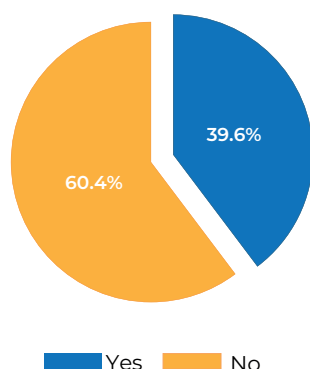


Figure 16

In the last 3 months, have you experienced any problems with hiring or obtaining labor?

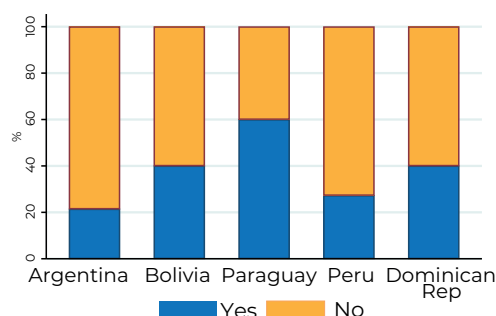


Figure 17

In the last 3 months, have you encountered problems with transporting agricultural goods due to the COVID-19 crisis?

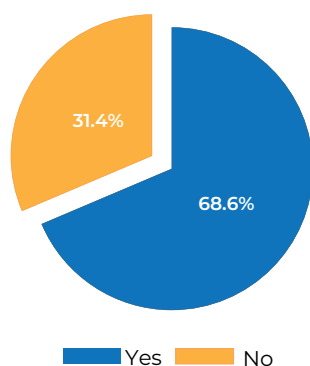
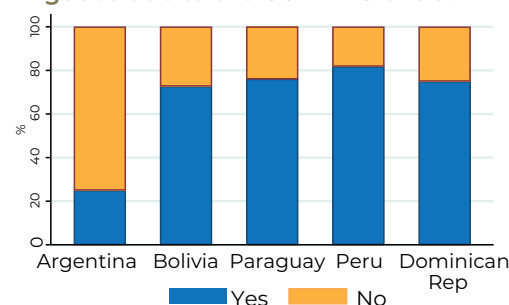


Figure 18

In the last 3 months, have you encountered problems with transporting agricultural goods due to the COVID-19 crisis?



### 3.4. Savings, Loans and Government Aid

Some of the effects of the COVID-19 crisis in the short term are observable through liquidity constraints that farmers have faced. In general, 69.5% of the respondents reported that they have used their savings, applied for a loan or sold assets to mitigate the effects of the crisis, either to run their business or to maintain their livelihoods (Figure 19). Figure 20 presents the responses, disaggregated by country. As expected, Argentina is the country with the least liquidity problems. However, lack of liquidity is a major problem for the other countries in the sample.

Regarding government aid, only 23% of farmers reported having received government assistance related to

COVID-19 (Figure 21). Particularly in Argentina, no one reported receiving any kind of government aid (Figure 22). In fact, most of the respondents expressed their discontent with the lack of government support. In Bolivia and Paraguay, aid was focused on direct or conditional cash transfers. In Peru, government aid was provided through food donations or through a special law that allowed the withdrawal of money from pension funds (which had previously not been until retirement). Despite the fact that two monetary transfers had been granted for the poorest populations in Peru, only one respondent reported having received this benefit. In the Dominican Republic, government aid was focused mainly of deferred payments.

Figure 19

Have you had to use your savings, sell an asset or apply for loan to face the COVID-19 crisis?

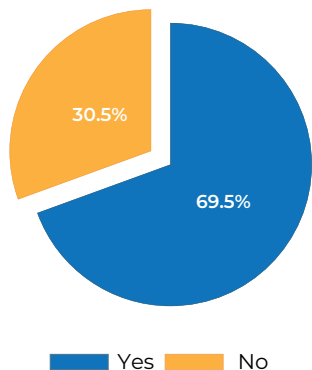


Figure 20

Have you had to use your savings, sell an asset or apply for a loan to face the COVID-19 crisis?

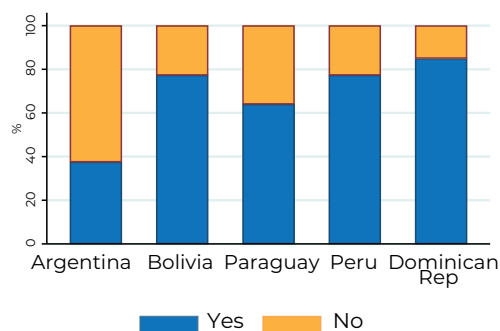


Figure 21

In the last 3 months, have you received any kind of government assistance due to the COVID-19 crisis?

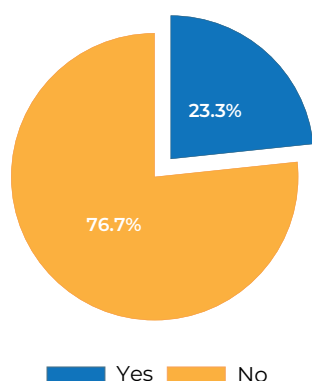
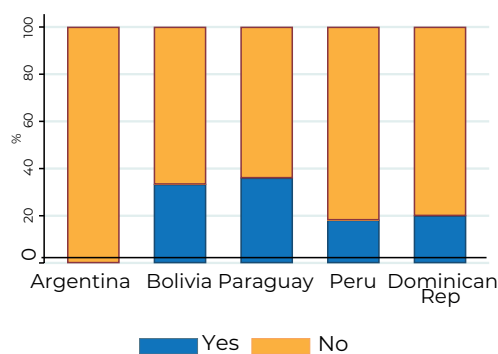


Figure 22

In the last 3 months, have you received any kind of government assistance due to the COVID-19 crisis?



### 3.5. Future outlook

Finally, we asked farmers a series of questions about their outlook for the future. Due to the uncertainty of the current situation, the question was formulated as a hypothetical scenario in which the mandatory quarantine would be extended for an additional 6 months, without changes. Under this scenario, the question was specifically aimed at measuring the impact that this situation may have on their access to agricultural inputs, labor shortages disruptions in the transport of agricultural products to market, and the ability to sell their production (Figures 23, 24, 25 and 26).

Responses indicate that more than half of surveyed farmers think that an extension of the quarantine would have a negative

impact on their access to agricultural inputs (57%), on their ability to transport production to markets (56%), and on crop sales. (57%). These are the variables that farmers consider may be seriously affected by the extension of the quarantine and the resulting mobility constraints. On the other hand, farmers considered that access to labor will not be highly affected by the crisis. In fact, only 35% thought that an extended quarantine could have a negative effect on labor availability. In turn, 25% of respondents expressed that the extended quarantine would have no effect on labor availability, while 22% thought that the impact would be low. This finding suggests that labor access is the least urgent problem amongst those mentioned.

Figure 23

Perception of the impact that a prolonged quarantine of 6 months would have on: access to agricultural inputs

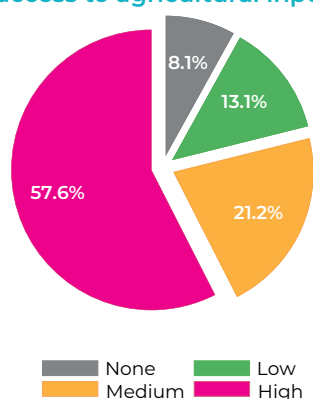


Figure 24

Perception of the impact that a prolonged quarantine of 6 months would have on: lack of labor

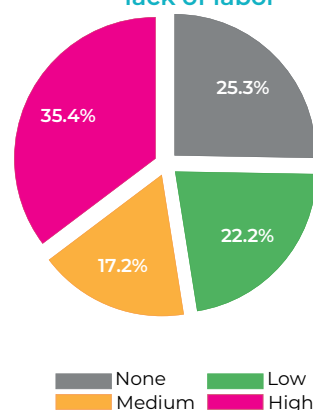


Figure 25

Perception of the impact that a prolonged quarantine of 6 months would have on: lack of transport or higher transportation costs.

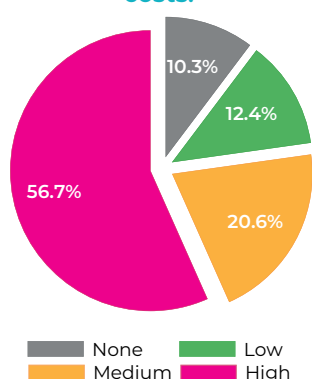
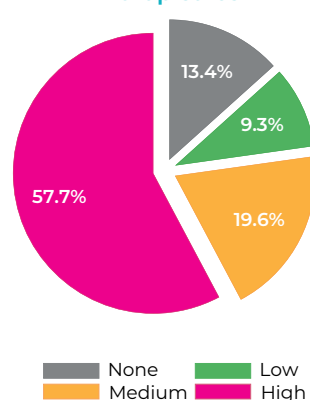


Figure 26

Perception of the impact that a prolonged quarantine of 6 months would have on: crop sales

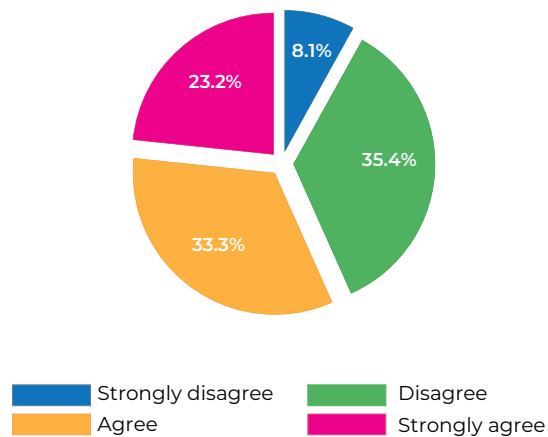




Additionally, to measure the outlook among farmers for the long term, we also asked how much they agreed with the following statement: "Despite the COVID-19 crisis, my business will continue operating in 2021 as it did before or better than before." In general, most farmers (56%) were optimistic about the future: 23% strongly agreed with the statement and 33% agreed. Only 8% strongly disagreed that their business would be doing just as well next year (Figure 27).

Figure 27

How much do you agree with the following expression: "Despite the COVID-19 crisis, in 2021 my business will continue operating as it did before or better than before"?



## 4. Conclusions and Recommendations



The data analysis reveals that, currently, there does not appear to be a significant decline in agricultural production. However, the study identified problems related to crop sales, which are principally caused by difficulties with the transport of agricultural production, a decrease in the demand for food caused by reductions in income, and lower sales prices. In addition, 50% of respondents mentioned that they have been experiencing difficulties in obtaining the necessary inputs (mainly due to the lack of transportation and price increases), 40% experienced external labor shortages, and 70% encountered issues related with the transport of their production, the latter being the most frequent problem.

This negative effect on farmers' incomes has worrisome implications for the continuity of agricultural production, since it affects future planting, harvesting and sales. This is confirmed by the farmers' outlook of the future, wherein they refer to liquidity constraints and a drop in demand caused by the COVID-19 crisis as the main factors that may affect their future production.

Although this study does not attempt to estimate the scope of the impact that the pandemic has had on the agricultural sector, results do reveal the presence of important effects, with possible negative consequences. Specifically, the issues experienced with sales and planting, which arise from liquidity constraints caused by the drop in food demand, may affect future production and thereby decrease food availability. This creates a vicious circle wherein low food demand causes liquidity problems for farmers, and farmers in turn reduce agricultural production, causing an increase in prices or shortages that finally affect food access.

It is concerning that that 70% of interviewed farmers have already had to rely on selling assets, using savings or requesting loans to cope with the crisis. This implies a possible delay in future investments and may even push the most vulnerable farmers into poverty, creating a widening gap between rural and urban areas. Therefore, policies specifically designed to prevent the expansion of poverty in rural areas and to ensure the continued functioning of the agricultural cycle are necessary. This includes measures such as: (i) increasing the liquidity of farmers in order to maintain their productive activities and avoid disruptions in food supply, with special attention to small and medium landholders; (ii) maintaining access to transportation services at reasonable prices to ensure food distribution; and, (iii) maintaining or increasing food demand.

Finally, it is worth stressing that the COVID-19 crisis should be seen as an opportunity to restructure the region's agri-food systems in the medium and long term with actions that promote their efficiency, but also safeguard their resilience, sustainability and the inclusion of vulnerable populations.

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