Journal of Economy and Agribusiness/FEA *June 2022*
ISSN Print 2223-7653 *Vol 15, Issue 1*
Open Access
Research Article

Impact of Covid-19 on agriculture sector – the case of Albania

Drini Imami [1], Orjon Xhoxhi [1], Edvin Zhllima [1*], Engjell Skreli [1]

[1]Faculty of Economics and Agribusiness, Agriculture University of Tirana, Albania

*Corresponding author; E-mail: ezhllima@ubt.edu.al

Abstract
In addition to the major health global crisis that it has caused, Covid-19 pandemic has had serious consequences in every economy regardless of their income level. The restrictive measures generated large disruptions, which in turn resulted in a decline in employment, decrease of demand for goods and services, shortages in supply, reduction in trade volumes, and overall GDP contraction. Covid-19 also affected the Albanian agriculture sector. As a result of Covid-19 situation, exports of seasonal agricultural products have been hampered, thus putting pressure on farmers that grow crops in greenhouses, causing total sales drop, at a time when the intensity of production is appreciably higher than the previous years. Limited mobility and restrictions in the access of markets, especially in the beginning of pandemic in March, made farmers reduce the prices of fruits and vegetables at the lowest levels in history, while a considerable amount of them even rot in greenhouses or cultivated fields. Farmers have experienced lack of labor force in processes like harvesting and planting in greenhouses production as well as in different services for the medicinal plants. There is limited in-depth understanding on the Covid-19 impact on the agriculture sector. This paper tends to cast light in this direction and provide a better understanding of Covid-19 impact on the agriculture sector by focusing on Albanian export-oriented value chains.

Keywords: Albania, agriculture, Covid-19, exports, market disruptions

JEL Codes: N50

Introduction

There was a contraction of the Albanian economy during 2020, linked strongly to reduced consumer spending (Harri et al., 2020). The pandemic not affected households' salaries and informal wages as well as remittances which account for a part of their consumption spending. These remittances make up around 9.5% of the national production in Albania (Musabelliu, 2020), but after the economic

* Corresponding author: Edvin Zhllima; E-mail: ezhllima@ubt.edu.al

crisis caused by Covid-19, the Word Bank report (2020) estimates a drop of 20% in remittances, which in turn affects the well-being of many households (which depend on remittance), contributing further to decreased demand.

FAO (2020) claims that the damage in agriculture sector, especially in its markets, originate from the alternations that food demand and food supply experience in the dynamic situation of the global pandemic. Border restrictions caused difficulty in the mobility of migrant workers and interruption of trade transactions, which, in turn seriously risked the food availability (ibid). Trade disruption have affected numerous farmers in finding export markets, thus leading to product waste (UN, 2020).

Covid-19 also affected the Albanian agriculture sector. Comparing to other key sectors of the economy, the agriculture sector is reported to be the least affected sector since almost 81% of the sector either continued to operate fully or partly - the rest (19%) ceased their operations. (Albania Investment Council, 2020). Nevertheless, the farmers and enterprises in this sector have been affected by the restrictive measures, leading to disruptions in inputs supply chains, production processes, market channels and sales. In fact, a survey conducted by Union of Albanian Business (2020) reveals that the majority of farmers, respectively 74% of them, are mainly concerned about the decreased demand for goods. Other problems that concern less than half of the interviewed farmers are the human resource restrictions, the insufficient raw materials, and the inadequacy of other business partners for normal operation. The United Nations publication (2020) reports no significant shortages in the market for inputs, where most of the inputs are imported from abroad while partial price increase of inputs was reported. Farmers have experienced lack of labor force in processes like harvesting and planting in greenhouses production as well as in different services for the medicinal plants (ibid)

As a result of Covid-19 situation, exports of seasonal agricultural products have been hampered, thus putting pressure on farmers that grow crops in greenhouses, causing total sales drop, at a time when the intensity of production is appreciably higher than the previous years (Musabelliu, 2020). Limited mobility and restrictions in the access of markets, especially in the beginning of pandemic in March, made farmers reduce the prices of fruits and vegetables at the lowest levels in history, while a considerable amount of them even rot in greenhouses or cultivated fields.

There is limited in-depth understanding on the Covid-19 impact on the agriculture sector. This papeer tends to cast light in this direction and provide a better understanding of Covid-19 impact on the agriculture sector by focusing on Albanian export-oriented value chains.

Literature review

In addition to the major health global crisis that it has caused, Covid-19 pandemic has had serious consequences in every economy regardless of their income level. The implemented lockdowns contributed to the slow-down of economic activities, leading to shocks from both supply and demand sides. The restrictive measures that were applied generated large disruptions, which in turn resulted in a decline in employment, decrease of demand for goods and services, shortages in supply, reduction in trade volumes, and overall GDP contractions. Different studies and reports, including IMF (2020) conclude that world is facing the worst downturn, since WWII. More specifically, the first months proved that the economy resulted to a 5.2% loss in world GDP and generation of the deepest recession curve (Canuto, 2020).

One of the most crucial economic challenges, derived by the high degree of globalization, is the disruption of global value chains and international trade which emerged after the hindering of production and the disturbances in demand or investments (Baldwin and Freeman, 2020). The United Nations (2020) analysis regarding the impact on trade and development, affirmed that developing countries are expected to endure a severe impact on poverty rates and food insecurity. On the other hand, the Covid-19 pandemic (through higher unemployment, lower income, and uncertainty) has affected negatively aggregate demand and consequently consumption (Baldwin and Mauro, 2020).

Demand for food products is affected by the increasing uncertainty about the negative impacts Covid-19 exerts. This behaviour appears to be detrimental for the agriculture sector as well, since it directly affects the demand for food products, causing an imbalance in the food market with the main consequence of major losses for the farmers (Elleby et al., 2020).A fall in demand for food is also influenced by the closure of all hotels and restaurants, which buy considerable quantities of food from different farmers. This fall in demand from the largest buyers has caused a general drop in prices of agricultural commodities by 20%, thus hurting severely the farms' profits (Bhosale, 2020). Some sectors such as food processing (wine) have been affected more.

Methods and procedures

Various sources have been used to collect secondary data. The main sources of information are selected based on the type if conjectural relations from external market or from other sectors which can influence agriculture and related activities.

The primary data/information collection consist of the following:

- About 60 semi-structured in-depth interviews were conducted (varying by the typology and the specifics of each value chain) targeting various categories of actors and experts (this is work in progress, therefore the number of interviews will be reported in the final report). For the semi-structured in-depth

interviews, a snowball survey is used to identify the main actors and experts for each value chain for the semi-structured interviews (part of the primary qualitative research) . Separate questionnaires and interview guides were used after testing for each category of value chain actors.

- Semi-structured interviews provide mainly qualitative information and perceptions, the extension structured survey aims to quantify assessment, which are still based on perceptions. To tackle these limitations (limited quantitative assessments and subjectivity characterizing semi-structured interviews), we decided to carry out a structured farm survey, utilizing databases of previous farms surveys, thereby also enabling comparison of farm development dynamics over time (also in conjunction to Covid-19). Interviews were carried out by telephone (as activit was held under Covid-19 conditions).

Results

During the field survey and secondary data analysis we could observe different prospects from the demand / market viewpoint during the first months of the pandemic, and then a different pattern in the following months. Therefore, in the analysis we pay special attention to the different periods and patterns.

Increased demand has been observed during the first months of the pandemics.

During the first months, there was not observed lack of demand – in some cases was observed increased demand, as people bought excessive amounts to face the lockdown.

“During Covid-19, there was increased demand, probably because people spent more time at home eating”, stated one interviewee.

“The first 2 weeks, households had a rush to buy durable food such as spaghetti, but after the first 2 weeks households came back to buy more fruits and vegetables and, in some cases, increased prices were observed”, stated another interviewee.

Demand for food has been adversely affected afterwards

During autumn, sales have decreased – the main impact of Covid19 was on lowering domestic and international markets consumption. For example, one interviewed large exporter claimed that recently they lost 5 trucks of greenhouse vegetable, because they could not sell.

One of the leading exporters claimed they lost 8 million ALL in October alone because they were not able to sell the products. According to one of the largest wholesalers, its supplying farmers could not sell almost ½ of their produce (which was lost). “This season (October – December) was the ever worst season that I have experienced during the 22 years I have been in this business” – stated one exporter. “When the price of products drops, in turn farmer has less money to spend for inputs, which in turn results again in low quality but also lower yield, which implies higher cost per Kg, thus establishing a vicious circle”, stated one trader.

Sales of inputs have decreased by about 1/3 during 2020, according to one major wholesale input supplier (who supplies over 100 input suppliers).

However not all producers and traders faced the same problems. One leading exporter which exports to Northern European markets and who is GlobalGAP certified (group certification), who operates with contracts with farmers and works with farmer groups, claimed that they were not affected, thus, no price decline was observed. Clearly, the type of market, the form of value chain organization, and market diversification strategy play an important role.

The pandemic has emphasized the main difficulties which are inherited from the past. During Covid-19 pandemic there is a slight change in terms of access to services. According to the survey with farmers only 1/5 of the respondents accepted that pandemic has reduced their access to extension services. The figures are almost the same for services provided by local government. The overall business environment, mostly related to other institutions and services, has been impacted according to more than 40% of the respondents.

Table 1. Covid-19 impact enabling environment

Measurement scale	Not at all a problem	Minor problem	Moderate problem	Serious problem
Covid-19 impact on day-to-day business	57	150	104	207
day to day business - Share of total	11%	28.96%	20.08%	39.96%
Covid-19 impact on access to extension services	141	166	129	82
access to extension services - Share of total	27.22%	32.05%	24.9%	15.83%
Covid-19 impact on access to local admin. services	153	171	128	66
Access to local admin. services- Share of total	29.54%	33.01%	24.71%	12.74%

Source: Structured survey

Limited labor mobility negatively affected agricultural operations. There were cases of people who were afraid of getting Covid-19 as well as those who got sick, and thereby could not make the right services to the plants. One input supplier who produces seedlings and who is also a consolidator/wholesaler, complained that the seedling quality produced in Spring 2020 was bad, because he could not get/transport workers to carry out the services for seedlings. Also, some farmers who had planted seedlings faced temporarily barriers to travel and in some cases the plants withered.

Pandemic related illness put a lot of stress on farmers' budgets leading to less input use. Affected families, which spent a lot of money to deal with Covid-19, face financial constraints to buy inputs. That implies that some did not buy enough

inputs, affecting quality and yield, while others buy only by credit of input suppliers. For example, one leading exporter stated that, due to gaps in services and inputs use, the quality suffered, and that is an issue especially for export oriented products.

During pandemics arrears were usual. It is known that inputs suppliers have uncollected debt from farmers – during 2020, that increased substantially. One large input supplier stated that the debt doubled during 2020, when compared to previous years. On the other hand, some downstream actors (exporters) complained about late payment from international buyers.

The main source of training and advice are input suppliers. During 2020, there was a halt in trainings provided by inputs suppliers, stated two major input suppliers. Also, public institutions and donor projects have limited their activities in terms of capacity building activities due to Covid-19 restrictions. Some donors have completely banned face-to-face activities, shifting completely online. However, for most average farmers, online training is not the most suitable option.

According to the interviewed exporters, Covid-19 impacted the transport only during the first weeks. For example, in March 2020, one large wholesaler lost 4 tracks loaded with salads, as they were blocked (due to temporary travel restrictions), which resulted into 2.4 Million ALL.

Difficulty to travel had other negative effects. Exporters often visit foreign countries to get acquainted with market developments as well as to search for new equipment. Also inputs suppliers visit producers' plants to become familiar with new inputs. During 2020, the above category of actors stated that they could not make visits, thereby not being able to update with new equipment or inputs.

One problem faced by Covid-19, was the difficulty to meet with people in public institutions. Instead, online meetings have become common. "Lack of physical contact makes it difficult", stated a manager of an exporting company. For example, an exporter that had won IPARD II fund to build a large storage facility, was facing delays to get the reimbursement/ grant, caused by Covid19 situation/impact.

The findings from the structured farm survey indicate that tomato[1] post-harvest losses in 2020 were significantly higher than in 2019 (P value 0.02 and 0.00 respectively, table 12). The postharvest losses were particularly high during the second production season according to in-depth interviews, and the main reason was difficulty to sell (as shown below). According to one interviewed exporter (one of the leading exporters), some of its supplying farmers could sell only about ½ of their greenhouse production (because of lack of purchasing power) - the rest was lost. Also, production and losses (not harvested production -left in the field) in

[1] Tomato is the main vegetable produced in greenhouses and the main vegetable which is exported.

2020 are higher than 2019 but the differences are not statistically significant (P value 0.56 and 0.21 respectively).

Table 2. Output and Losses – Tomatoes

Variable	Mean	Median	st.dev.	1st_Qu.	3rd_Qu	Pvalue*
Quantity Produced 2019 (Kv)	379.25	300	269.94	200	500	0.56
Quantity Produced 2020 (Kv)	382.68	300	280.03	200	500	
Quantity Sold 2019 (Kv)	317.00	265	234.64	150	402.5	0.02
Quantity Sold 2020 (Kv)	289.20	200	253.40	120	380	
Losses (not harvested) 2019 (%)	5.33	5	5.81	0	10	0.21
Losses (not harvested) 2020 (%)	6.05	5	7.09	0	10	
Post-Harvest Losses (2019) (%)	16.20	10	14.34	5	22.5	0.00
Post-Harvest Losses (2020) (%)	26.78	25	22.39	13.75	31.25	

Source: Authors based on farm structured survey *P value for Yuen's trimmed mean t-test

Table 1: Yuen's trimmed mean t-test – Tomatoes

	tr. mean dif	95% CI		test stat.	df	p-val
Quantity Produced	-5.13	-22.38	12.13	-0.59	79	0.56
Quantity Sold	28.31	3.80	52.82	2.30	79	0.02
Losses (not harvested)	-1.02	-2.66	0.61	-1.26	43	0.21
Post-Harvest Losses	-10.80	-16.46	-5.14	-3.83	55	0.00

Source: Authors based on farm structured survey

As highlighted above, the sold quantities were lower during 2020, thereby postharvest losses higher, due to difficulty to sell. The farm survey results show that 31.4% of the farmers have found it more difficult to sell during 2020 when compared to the previous 3 years and 25.6% much more difficult (Table 24).

Table 2: Perception of Covid-19 impact on sales – Tomatoes

Measurement scale	1	2	3	4	5
Product Sales in 2020 VS last 3 years	8	39	26	13	0
Product Sales - Share of total	9.3%	45.3%	30.2%	15.1%	0.0%
Number of Buyers in 2020 VS last 3 years	3	21	51	11	0
Number of Buyers - Share of total	3.5%	24.4%	59.3%	12.8%	0.0%
Selling difficulty in 2020 VS last 3 years	0	6	31	27	22
Selling difficulty - Share of total	0.0%	7.0%	36.0%	31.4%	25.6%

Source: Authors based on structured farm survey (Note: Likert scale for Product sales and Number of Buyers is: 1=much lower, 2=lower, 3=same, 4=higher, 5=much higher; Likert scale for Selling difficulty is: 1=much easier, 2=easier, 3=same, 4=more difficult, 5=much more difficult)

Conclusions

The Covid-19 pandemic has caused new problems in the agriculture sector and generated a sense of urgency to address some of them. What is more important, is that the Covid-19 pandemic impact brought back into the attention long prevailing institutional constrains which impede the sector to achieve its full potentials.

The long prevailing constrains require systemic actions to be taken by prompting new concepts and modernizing national and local policies as well as improving government capacities to apply and finance inclusive, gender-responsive, and evidence-based policies. The emerging problems, especially the one appearing in the early period of the pandemic should be addressed through a separate package of interventions. More attention should be given into establishing multisectoral approaches and preparing coordinated interventions between the two layers of government.

Evidence suggests that when written contracts were applied, the positioning of the contracting parties was better during Covid-19. Thus, contracting has proven to be relevant option to reduce negative effects. This was also the case of large exporters of fresh vegetable. In terms of concrete actions, exporters who have established somehow stable relations with farmers, can be assisted to identify and penetrate in better market segments which operate with written contracts, such as supermarket chains. In that case, the exporter can be supported to contract farming. Market intelligence and information systems are necessary. This strategy may work best if coupled with safety standards certification (such as Global GAP – see below).

There are several interventions that can be applied by individuals or groups of producers such as:

- Direct sale windows and use of smart sales (e.g., online selling).
- Networks of solidarity shops sharing same territory of origin but different customers.
- Promotion of diversification activities at farm level.

In order to improve positioning in the export markets, safety and quality standards should be improved. More specifically, shifting market orientation from the regional markets (with low purchasing power and prices) to central and northern European markets (with higher purchasing power, prices and but also higher demand for standards). That requires interventions targeting the weakest points, as highlighted below.

There is a potential to scale up GlobalGAP certification, which improves export market positioning. There are several cases of horticulture producers who have been certified with GlobalGAP – GlobalGAP represents an advantage to export more attractive EU markets. Indeed, thanks to GlobalGAP certification, Albanian horticulture products now are present also in Scandinavian markets, which on one hand are very demanding in terms of standards, while on the other hand they offer attractive prices. Concrete interventions are feasible, such as supporting exporters who intend to introduce group certification jointly with farmers groups.

Collective action based on trust is a critical determinant of competitiveness. Pilot projects on cluster development (in one of the identified clusters), providing producer organization support (in a narrow area) and carrying contract farming (in export driven value chains) can be tested.

Besides being a key determinant of enhancing overall agricultural system competitiveness, collective action may also serve as a mechanism to mitigate pandemics effects. As we have discussed; vertical collective action (vertical coordination and contract farming) has been beneficial for farmers; horizontal cooperation or producers' groups (to be piloted) may be mechanisms to reduce production losses and assure better farm prices for farmers by withdrawing excess supply from the market but also by improving product quality and marketing; sector based collective action, IBOs, may develop a mid to long term view for the sector and promote innovation, product safety and quality which are key to access high income markets; and local collective action, clusters, are critical to innovation, product quality and access to high income markets.

References

Baldwin, R. & Freeman, R. (2020). Supply chain contagion waves: Thinking ahead on manufacturing 'contagion and reinfection' from the Covid concussion. VoxEU & CEPR. Retrieved from: https://voxeu.org/article/covid-concussion-and-supply-chain-contagion-waves

Baldwin, R., Weder di Mauro, B. (2020), Introduction. In "Economics in the time of COVID-19", Baldwin Weder di Mauro (eds). CEPR Press, London, UK.

Bhosale, J. (2020). Prices of agricultural commodities drop 20% post Covid-19 outbreak. The Economic Times. Retrieved from: https://economictimes.indiatimes.com/news/economy/agriculture/prices-of-agricultural-commodities-drop-20-post-covid-19-outbreak/articleshow/74705537.cms

Canuto, O. (2020). The Impact of Coronavirus on the Global Economy. Policy Center for the New South. June.

Elleby, C., Domínguez, I. P., Adenauer, M., & Genovese, G. (2020). Impacts of the Covid-19 pandemic on the global agricultural markets. Environmental and Resource Economics, 76(4), 1067-1079.

FAOSTAT (2020). FAO Statistical database. Retrieved from http://www.fao.org/faostat/en/#data

Harri, A., Imami, D., Zhllima, E. (2020) Efekti i Pandemisë në Ekonominë Shqiptare (Pandemic impact on the Albanian economy), AlbShkenca 15th International Conference "The pandemic and our society's coping with its effects", Pristina, Kosovo

IMF (2020). World Economic Outlook.

Musabelliu, M. (2020). Albania economy briefing: Crippling economy and grim forecasts. Budapest: China - CEE Institute. Retrieved from: https://china-cee.eu/wp-content/uploads/ 2020/05/2020e04_Albania.pdf

Union of Albanian Business (2020). The Impact of the Covid-19 Pandemic on Enterprises in Albania.

United Nations (2020). UN Albania Covid-19 Socio-Economic Recovery & Response Plan.