

Preliminary assessment of the impacts of the COVID-19 pandemic on trade in bananas and tropical fruits

Apparent resilience and vulnerabilities

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This article presents a preliminary assessment of the current market situation and potential implications of the COVID-19 pandemic for the production, trade and consumption of bananas and tropical fruits in 2020. At the time of writing, in October 2020, comprehensive preliminary monthly data on trade flows for key exporting and consuming countries were only available up to June/ July 2020.¹ Price data at various stages of the value chain, as well as market information from industry sources, were accessible for only a small number of countries up to September 2020. In view of these limitations, this assessment can only present partial insights into the impact of widely implemented disease mitigation measures and the resulting supply chain disruptions and economic repercussions, which continue to unfold and affect global markets. Food and Agriculture Organization of the United Nations (FAO) is closely monitoring market developments and the effects of COVID-19 on the global banana and tropical fruit sectors. Updates to the current situation and to the short- to medium-term outlook will be forthcoming.

Global banana and tropical fruit markets under COVID-19

Amid an extraordinarily rapid decline in global economic activity and international transport, world supply and demand for bananas and tropical fruits have experienced COVID-19-related disruptions and contractions through several channels of transmission.² On the supply side, the adverse effects of the physical distancing measures have tended to be more immediate and pronounced for the relatively labour-intensive production and trade of tropical fruits – and to lesser extent bananas – than for most other food commodities, particularly staple foods. Given their high perishability, bananas and tropical fruits require timely

and well-coordinated harvesting and post-harvest handling, as well as uninterrupted cold chains. Furthermore, some tropical fruits rely on airfreight for export. Delays in supply chains are particularly troublesome for bananas and tropical fruits due to the occurrence of shrinkage in transport, which not only affects product quality, but also reduces the weight and value of shipments received by importing countries. In many producing countries, quarantine-related delays at ports and borders, as well as extreme shortages of reefer containers and airfreight belly-capacity, have slowed trade, while market closures have interrupted producers' access to local and national distribution outlets. Reports of produce remaining unsold and going to waste have been widespread, particularly for the less traded and more perishable mangoes and papayas, as well as for pineapples. With input factories and import routes disrupted, reduced availability and higher costs of key inputs for production and distribution have further jeopardized a smooth continuation of supply. Since expenditures on inputs can account for more than 30 percent of production costs, locally elevated prices of fertilizers and pesticides have additionally threatened sector profitability. Under these circumstances, the profitability of many farms and plantations has been severely affected, with industry sources reporting difficulties arising from cancelled orders, particularly for small- to medium-sized producers.

On the demand side, macroeconomic indicators point to a global recession in 2020, with adverse effects that would extend into 2021 and possibly beyond,³ signalling global impacts on poverty, inequality and undernourishment.⁴

³ Leading international agencies, including the International Monetary Fund (IMF), the World Bank, and the World Trade Organization, are predicting global recessions of varying degrees and outcomes in their assessments of the global economic impact of COVID-19.

⁴ Analysis by the International Food Policy Research Institute, for example, finds that a 5 percent contraction in global gross domestic product (GDP) in 2020, as projected by the IMF, could result in a 20 percent increase in the number of extreme poor. Furthermore, scenario analysis conducted by FAO in June 2020 on the prevalence of undernourishment finds that a reduction in the growth rate of GDP of between 2 and 5 percentage points in all countries in 2020 could result in the number of undernourished increasing by 83 million to 132

¹ The typical reporting lag for monthly customs data is in the range of 40 days, but this can be substantially longer. In particular, the timely reporting of global customs data has been perceptibly impaired by the impacts of the pandemic in the first semester of 2020.

² These will be published in a forthcoming comprehensive FAO market brief on the impact of COVID-19 on fruits and vegetables.

Reduced consumer incomes threaten to result in reduced demand in the tropical fruits sector globally, given the high income elasticities of demand for the majority of these high-value commodities. Meanwhile, the closure of schools, canteens, restaurants, bars and hotels around the world has severely affected food consumption patterns. While precise figures are not currently available, away-from-home consumption of tropical fruits, especially avocados and pineapples, can account for a substantial share of total consumption in key import markets.⁵ This is most notably the case in the United States of America and the European Union – globally the largest importers – where distributors reported difficulties in selling produce throughout the duration of lockdowns.⁶ A similar situation was observed in the avocado market in China in the early phase of the pandemic.⁷

Preliminary results for the first half of 2020 – Contrasting trade performances across commodities

Given the considerable uncertainty surrounding the effects, extent and duration of the pandemic, the impact of COVID-19 on global markets is difficult to gauge with precision at this stage. Accurate assessments are further hampered by the intricacies of global production and trade of bananas and tropical fruits, which are additionally prone to seasonal patterns of supply and demand, as well as to a multitude of disruptions, including adverse weather effects and changes in the policy environment. Common reporting lags in monthly trade data, which may reflect export volumes in one month and import volumes in a different month, and which seem to have been aggravated by COVID-19, add further to the difficulties. The following can therefore only provide a preliminary and indicative assessment of observed recent developments in world markets.

Provisional data and insights from industry sources on developments in the first seven months of 2020 indicate diverging trends in world banana and tropical fruit markets, which appear to have been exacerbated by seasonal and

weather-related supply fluctuations beyond the apparent impact of COVID-19.

Banana and avocado supply chains show some resilience to the crisis

In the case of bananas and avocados, world exports during this period appear to have remained stronger than expected at the onset of the crisis, which suggests that their supply chains are more resilient than hitherto assumed. Industry sources indicate that many large-scale producers of bananas and avocados managed to keep a sufficient number of workers in plantations to avoid output disruptions, thereby limiting labour shortages. On the demand side, consumers seem to have generally maintained their demand for these fruits, possibly reflecting assumed or real health benefits. The various lockdowns implemented across the world may also have allowed more time to prepare dishes with fresh fruits at home.

According to preliminary data, world exports of bananas, excluding re-exports, during the period January–June 2020, registered an increase of 2.9 percent year-on-year, due to record supplies from Ecuador and a production recovery in Costa Rica, where the banana harvest had suffered weather-induced damage in 2019. Preliminary monthly data show that Ecuador exported 4.3 million tonnes in the first seven months of 2020, representing an 8.5 percent increase compared with the same period in 2019, while Costa Rica increased its exports by 25 percent, to 1.1 million tonnes. This suggests that global banana exports reached a new peak of 12.2 million tonnes for the period January to July 2020. At the time of writing, in October 2020, preliminary data on world imports of bananas, excluding European Union intra trade, were only available until June 2020. The data show that world imports of bananas increased by 1.2 percent compared with the same period in 2019, reaching approximately 9.8 million tonnes. Amid lockdown-induced panic buying in major import markets, bananas reportedly benefited from the fruit's convenience factor, perceived sanitary safety and longer shelf-life. As such, bananas were among the most popular fruit choices as part of consumers' efforts to increase their intake of fruits and vegetables, which was backed by relevant governmental campaigns in key import markets, particularly in the European Union. Net banana imports by the European Union, the largest importer globally, displayed a 5.6 percent increase between January and June 2020 compared with the same period of the previous year, as reported by the Statistical Office of the European Union (Table 1). Several other key importers, including the United States of America, the Russian Federation and Japan, similarly reported higher banana

million, with the majority of the increase coming from low-income countries: www.fao.org/3/ca9692en/online/ca9692en.html#chapter-1_1 Part 1, Box 3

⁵ For example, in France, the largest avocado consuming country in the European Union, one-third of total avocado supply is reported to be consumed out of the home: www.fruitrop.com/en/Articles-by-subject/Direct-from-the-markets/2020/The-impact-of-covid-19-measures-on-fruit-and-vegetables-distribution-in-France

⁶ See for example: www.agalert.com/story/?id=13971

⁷ See for example: www.freshplaza.com/article/9208990/overview-global-avocado-market/China. This article provides the following information: "China: Avocado market slowly picking up again [...] The avocado market has been very tough lately, as not many people are buying avocados at this time. A lot of them are normally used in restaurants and bars, but since they were closed, fewer avocados were purchased. As a result, sales were very slow, which makes things difficult for a product that doesn't have a very long shelf life."

purchases compared with the period January to June 2019. Double-digit import growth was also registered in several emerging importers, including Poland, Ukraine and Jordan, which notably increased their procurements from Ecuador.

Similarly, the effects of the pandemic on global supply chains for avocados appear to have been less severe than initially expected, as suggested by the available data and information. Provisional monthly data point to a global export total of 1.3 million tonnes in the first seven months of 2020, an increase of 6.9 percent compared with the same period in 2019, on the back of significantly higher supplies from Peru, Kenya and Colombia, three emerging avocado exporters. However, seasonally lower supplies in Mexico, the world's leading exporter of avocados, which registered a 1 percent decline in exports over this period, had a moderating effect on the growth of global shipments. COVID-19-related disruptions to harvesting activities and international transport routes limited further growth. Imports of avocados by the United States of America, the major global importer, accordingly declined by approximately 3.8 percent compared with the period January to June 2019, to 540 000 tonnes in 2020. Meanwhile, imports of avocados by the European Union reportedly increased by 12.6 percent (Table 1). Industry sources in both importing blocs reported strong demand for avocados in the retail channel, as consumers maintained or even increased their demand for nutrient-rich food items. However, the COVID-19-induced closures of the hospitality sector particularly affected imports of avocados by the United States of America, since a substantial share of this fruit is commonly consumed outside of home in this key market. In this difficult market situation, average wholesale prices of avocados in the United States of America fell by 5.2 percent between January and September 2020, compared with the 2019 full year average, and by 13.2 percent compared with the January–September 2019 period.

Contracting demand for other major tropical fruits

In contrast with the comparatively positive global trade situation for bananas and avocados, the data available as of October 2020 suggest an overall decline in global import demand for most major tropical fruits, in response to COVID-19. Although reports from specialized fresh produce media suggest that supermarket sales of vitamin- and nutrient-rich fruits temporarily increased in key import markets at the onset of the health crisis and lockdowns, this situation did not last long due to the strong impacts of various logistical challenges on highly perishable fruits.

For example, global exports of pineapples, excluding

re-exports, reportedly fell to 1.7 million tonnes between January and July 2020, representing a 3.4 percent decline from the same period in 2019.⁸ While Costa Rica, the main global exporter of pineapples, was able to increase shipments by 1.8 percent compared with the previous year, the Philippines experienced a 7.8 percent decline in pineapple exports on account of lower demand from China and South Korea, two major importers of Filipino pineapples. Both importing countries had introduced strict lockdowns early in the year, hampering import routes, as ports and warehouses operated at drastically reduced capacity.

Based on available data, global imports of pineapples amounted to approximately 1.46 million tonnes between January and June 2020, a fall of 10.3 percent compared with the same period in 2019. The two largest importers of pineapples globally, the United States of America and the European Union, acquired respectively 7.4 percent and 11.9 percent less of the fruit over this period than during January to June 2019 (Table 1 for European Union import data). In key import markets, demand for pineapples was substantially affected by the lockdown and closure of the hospitality sector. In the United States of America, for example, food service sales of pineapples account for some 60 percent of total sales.⁹

For the commodity group mango, mangosteen and guava, available data indicate a contraction in exports of 4.9 percent during January–July 2020 compared with the same period in 2019, to a total of 1.2 million tonnes. A significant reduction in shipments of mangosteen from Thailand to China, together with lower exports of mangoes from Mexico to the United States of America

Table 1. European Union imports of bananas and tropical fruits in tonnes

January to June	2018	2019	2020	% 2019/20
Bananas	2 666 849	2 592 654	2 738 268	5.6%
Pineapples	470 893	456 500	402 171	-11.9%
Avocados	260 052	257 981	290 425	12.6%
Mangoes, guavas and mangosteens ¹⁰	212 383	206 299	215 930	4.7%
Papayas	18 838	18 429	17 519	-4.9%

Source: Eurostat

⁸ Due to the unavailability of monthly export data for Honduras and Ghana at the time of writing in October 2020, volumes from these two origins were excluded from the calculation.

⁹ Estimate by the International Pineapple Organization.

¹⁰ For the commodity cluster mango, mangosteen and guava (HS code 080450), reported shipments from Peru to the European Union were subtracted from total European Union imports due to a misallocation of data.

and from Brazil to the European Union, was at the core of this decline. In major import markets, a considerable share of mangoes is consumed out of home, rendering the widely implemented COVID-19-related containment measures particularly detrimental to this most traded fruit in this commodity group. Global trade in mangoes, mangosteens and guavas further displayed a higher susceptibility to the adverse effects of the pandemic as a result of their high perishability and sensitivity in transport, coupled with the fact that a high share of exports is transported by air freight. As regards imports, a conclusive assessment of developments in the first six months of 2020 is rendered difficult by a number of inconsistencies in preliminary monthly data for 2020. However, European Union import data for this period indicate a 4.7 percent increase compared with 2019 (Table 1), consistent with industry reports of higher supermarket sales of nutrient-rich mangoes in this trade bloc.

Global papaya trade similarly appears to have experienced a decline in import demand alongside supply disruptions between January and July 2020, as suggested by available data. Global exports reportedly fell by 1.1 percent compared with the period January–July 2019, to approximately 197 000 tonnes, on account of a 2.3 percent reduction in papaya shipments from Mexico, the world's largest exporter. This represents a strong decline compared with the 12 percent growth recorded for the period January–July 2019 relative to January–July 2018. Papayas are particularly vulnerable to disruptions in transport routes and supply chains, given their high degree of perishability. Accordingly, global imports of papayas reportedly dropped by 7.3 percent between January and June 2020, to approximately 160 000 tonnes. The two largest importers, the United States of America and the European Union, respectively imported 7.7 and 4.8 percent less papaya in the January–June 2020 period relative to the same period of the previous year.

Potential implications

The value chains for bananas and avocados have so far proved resilient to the COVID-19 crisis. Producers were able to overcome the risk of labour shortages, while market operators managed to keep the supply chains functioning in spite of the constraints resulting from the measures taken by governments to contain the spread of the pandemic. However, the available data are too limited to draw definitive conclusions on the resilience of these industries, while the crisis is still evolving. In addition, supply chains of other tropical fruits have not shown the same resilience, partly due to the higher degree of perishability of these products and, in the cases of papayas and mangoes,

to the less integrated nature of their production and distribution processes.

Disruptions to trade and uncertainties in global markets can pose particular difficulties for those producing countries whose agricultural GDP relies heavily on the foreign exchange earnings generated by exports of bananas and tropical fruits. This is, for instance, the case for Ecuador and Guatemala, where bananas accounted, respectively, for some 42 percent and 17 percent of agricultural export revenues in 2018. The vulnerability of the banana and tropical fruit sector to the effects of the current crisis is further highlighted by the results of a comprehensive FAO study conducted in April 2020 on the channels of transmission to food and agriculture, which estimates the degree of exposure of countries to supply- and demand-side risks.¹¹ These risks are particularly pronounced in many major banana and tropical fruit exporting countries, where producer margins tend to be under significant pressure due to a number of factors, including highly competitive value chains, the intensifying market power of downstream actors, the occurrence of plant diseases, and adverse weather events.¹²

In view of the unprecedented magnitude of the COVID-19 pandemic, its uncertain duration and complex effects on economic growth and food security, it will be critical to develop policies aimed at providing financial support to producers so that they can remain operational, while protecting the health and safety of workers and minimizing disruptions to national and international transport routes. Such strategies will be essential to ensure that supply chains for bananas and tropical fruits continue to operate in a sustainable manner, for the benefit of producers, market operators and consumers alike. Ensuring that growth in trade of bananas and tropical fruits is inclusive and equitable and has the potential to generate substantial income gains to smallholder producers, as well as significant export earnings for many of the producing countries, will help to mitigate the damaging consequences of the COVID-19-related health and economic crises. Given that the negative economic repercussions of the pandemic's mitigation measures are likely to worsen as the virus continues to spread, consumers' ability to afford healthy diets will probably be affected in both producing and importing countries, contingent on people's access to

¹¹ Schmidhuber, J., Pound, J. & Qiao, B. 2020. *COVID-19: Channels of transmission to food and agriculture*. Rome, FAO.

¹² Comprehensive information on the global banana industry, as well as issues affecting the sector, can be found on the webpages of the FAO World Banana Forum: www.fao.org/world-banana-forum/en/. A recent report on the impact of COVID-19 on the banana sector in Ecuador was published by Bloomberg: www.bloomberg.com/news/features/2020-05-22/the-25-billion-banana-industry-is-being-ravaged-by-disease?srnd=premium-asia&sref=Mkhc1AWW

savings, credit and safety net programmes. The observed contraction in global import demand of several tropical fruits in the first six months of the year already points in this direction. Low- and middle-income countries, in particular low-income food-deficit countries, which may lack the capacity and funds to implement effective social protection programmes and economic stimuli, are especially at risk, alongside net food importing countries.

Rising inequality globally, including in high-income countries, is of further concern. Protecting consumers, particularly the most vulnerable, from nutritional

deterioration requires concerted action at national and global level, including, as already deployed in many instances, the suspension of bilateral loan repayments and collaboration with international creditors on the release of emergency funding. Strengthened availability, accessibility and affordability of nutrient-rich bananas and tropical fruits on a global scale can be conducive to improving the nutritional quality of diets. This nutritional dimension is especially important in light of the globally rising incidence of malnutrition in its various forms and the increasingly heightened importance of healthy immune systems.