## **KEYNOTE PRESENTATION**

## CURRENT TRENDS AND OUTLOOK FOR THE GLOBAL TROPICAL FRUIT INDUSTRY

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Current trends in the global tropical fruit industry have been substantially influenced by the COVID-19 pandemic. Since 2020, the pandemic and measures to manage the disease have affected international trade in tropical fruits and bananas in various manners. While global exports of these fruits had increased steadily until 2019, this growth stopped or slowed for most products in 2020, and shipments even fell in the case of pineapples. According to various industry reports and specialized media, the pandemic and related containment measures played an important role in these developments through the disruptions they caused to supply chains, labour management and demand. Nevertheless, fruit supply chains have proved more resilient overall than initially expected at the onset of the crisis. FAO estimates that aggregate global trade of major tropical fruits (mangoes, pineapples, avocadoes and papayas) reached a record volume of USD 9.6 billion in constant 2014-2016 dollar terms in 2020 (+3.6% over 2019), with export quantities estimated at some 8 million tonnes. As for bananas, exports have remained close to the all-time record of 21.5 million tonnes reached in 2019.

In the short to medium term, the tropical fruit industry will continue to be influenced by the effects of the pandemic and related containment measures on producing and importing countries. In particular, the rapid spread of the Delta variant is creating much uncertainty and could curtail demand and labour supply if it cannot be contained, especially in countries where the vaccination rate is low. The pandemic has accelerated evolutions that were already occurring, such as the rise of e-commerce and teleworking, and will have profound impacts on the tropical fruit sector.

In addition, climate change will continue to pose increasingly powerful challenges to the sector. The latest report of the Intergovernmental Panel on Climate Change, released in August 2021, finds that unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach. Changing temperatures and climatic conditions will probably impact yields, while more powerful and frequent extreme weather phenomena are likely to reduce harvests. The increasing number of extreme weather events has been the most dramatic feature of the changing incidence of natural disasters over the last fifty years. Storms, cyclones, hurricanes, tornadoes, typhoons have also become more frequent - especially in the Caribbean and South-east Asia - with high winds, flooding and landslides destroying not only crops, livestock and feed but also storage and other supply chain infrastructure. Between 2008 and 2018, extreme storms such as tropical hurricanes caused over 18 percent of overall crop and livestock production losses. Tropical zones are at particularly high risk due to their higher exposure to climate change. In recent years, their fruit industry was struck by various destructive climatic events such as drought and cold spells in avocado production areas in Mexico (2020-2021), low temperatures and floods affecting bananas and pineapples (Costa Rica 2019) and recurrent tropical storms affecting

bananas in the Dominican Republic. To give just one example of the scale of destruction, hurricanes Eta and lota and associated flooding in late 2020 destroyed between a third and a half of Honduras banana production, which will need up to 12 months to recover.

Climate change will also exacerbate current challenges including the spread of pests and diseases, the depletion of natural resources and conflicts over these resources. Pests and diseases may spread more rapidly in higher temperatures and extreme weather events. The recent spread of the Banana Fusarium Wilt Tropical Race 4 (TR4) fungus in the Americas is just one reminder of the threats posed by plant diseases. Climate change will increase the pressure on already strained land resources, and the use of good land for tropical fruit crops may face mounting competition from food crops in a context of rising food insecurity. In the long run, global warming may also generate new competitors to those countries that have traditionally supplied tropical fruits, as temperate countries could become increasingly capable of producing such fruits. As a result, tropical fruit producers will need to explore the possibilities for expanding their domestic and regional markets in order to reduce the risks linked to international markets.

As governments across the world take increasingly drastic measures to mitigate climate change, another emerging trend that will influence the tropical fruit industry is the rising demand for environmental sustainability throughout the value chain. In major developed markets, climate change will accelerate the banning of unsustainable inputs and methods, as well as the adoption of carbon-labelling schemes by large-scale retailers and possibly carbon taxes by governments. It will fuel the trends for promoting the purchase of locally produced crops and 'low mileage' foods. A growing share of consumers are reluctant to purchase fruits that have been imported from far away and instead prefer buying locally produced fruits. This trend will be accompanied by regulatory requirements for more social sustainability covering various areas such as child labour, decent work, labour rights, living wages and gender equality. A rising number of governments are developing policies and regulations to promote responsible business conduct throughout supply chains. Major importing countries will increasingly require companies to adopt risk-based due diligence in their corporate policies and operations and ensure that their whole supply chain follows them, including their suppliers in tropical countries. For example, the European Union is preparing a directive on corporate due diligence and accountability that would have impacts on suppliers outside Europe. For tropical fruit producers and exporters, this is both a challenge to adapt to these new requirements and an opportunity to access more remunerative market segments, increase their resilience and sustainability and reduce the costs of dealing with adverse events in the longer term.

Digital agriculture technologies could also benefit the tropical fruit industry if it can harness their potential. This will depend on efficient technology transfer from Research and Development institutions and supply chain actors, but also on accessing the necessary funding. Organizing small and medium growers and strengthening their capacities to utilize these technologies will be indispensable.

The future of the tropical fruit industry will also be determined by more traditional economic factors. On the supply side, the key drivers of growth include productivity gains and expansion in harvested areas where possible given the increasing demand for agricultural land in a context of land degradation. Other important factors are improvements in post-harvest management and trade infrastructure, marketing and promotion. Technological innovation, for example in transportation, cold storage, cold-chain management and packaging will shape this evolution to a large extent. Integrating small-scale tropical fruit producers into global supply chains and ensuring a fair income for them will be both a challenge and an opportunity for the industry.

Developments in transport, logistics and supply chain management will continue to play a key role, as has been recently witnessed with the crunch in freight availability and surge of shipping rates. Finally, continuous improvement in distribution and retailing (for example, the continuing expansion of e-commerce) is another major driver.

On the demand side, population increase, income growth and changing consumer preferences in both emerging and high-income markets will continue to be essential drivers of growth. Rising health consciousness and awareness of the nutritional benefits of tropical fruits, especially in times of spreading diseases, will play an increasingly important role. Globalization and migration are expected to benefit the expansion of demand for tropical fruits, possibly mitigating the above trend for purchasing low mileage fruits. Finally, changing technical regulations (for example, lower maximum residue limits) in major import markets will need to be taken into account by industry players. Complying with increasingly stringent sanitary and phytosanitary (SPS) standards will require investment and capacity building efforts.

Despite the uncertainties surrounding the above drivers, in particular the COVID-19 pandemic and climate change, global production and trade of bananas and major tropical fruits are projected to continue to expand solidly over the medium term. Continued demand growth in high-income countries, where nutritional awareness is becoming stronger, and increasing demand also in emerging countries such as China and India, are expected to drive investments and expansion in banana and major tropical fruit production zones. Under current assumptions, bananas and major tropical fruits would continue to be among the fastest growing and most valuable agricultural industries in terms of their international trade prospects. In response to rapidly growing global demand, avocado is expected to become the most traded major tropical fruit by 2030, reaching some 3.9 million tonnes of exports and overtaking both pineapples and mangoes in quantity terms. Given the high average unit prices of avocado, the total value of alobal avocado exports would thus reach an estimated 8.3 billion USD in constant 2014-16 value terms, thereby placing avocado as one of the most valuable fruit commodities. Global exports of mangoes, mangosteens and guavas are projected to reach almost 3 million tonnes in 2030, compared to 2.1 million tonnes in the base period, fuelled by rising import demand in established and emerging import markets. Global exports of pineapples are expected to grow at 1.4% per annum, to 3.5 million tonnes in 2030, predominantly driven by import demand from the United States. Global exports of papayas will predominantly be shaped by production expansion in Mexico, the largest global exporter of papayas, and higher demand from the key importers, the United States and the European Union. However, papaya export quantities are projected to remain relatively limited compared to the other major tropical fruits due to the fruit's high perishability and sensitivity in transport.

Production systems for tropical fruits will need to evolve in order to become more sustainable and resilient to increasingly frequent external shocks such as diseases and natural disasters. FAO is supporting this evolution through various activities. For example, it is operating a project to help producers and traders of avocados and pineapples to increase the sustainability and resilience of their operations, using due diligence as one of the key approaches to manage risks . In addition, FAO supports the efforts of the banana sector to produce and trade more sustainably through the World Banana Forum , the global multi-stakeholder collaboration platform of the sector.

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