



Food and Agriculture  
Organization of the  
United Nations



# MINOR TROPICAL FRUITS

Global Trade Overview  
2024





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## NOTE ON METHODOLOGY

The following presents a brief assessment of recent developments in global trade in minor tropical fruits as covered by HS code 0810.90 under the harmonized tariff nomenclature system of the World Customs Organization and forms part of FAO's efforts to monitor global tropical fruit markets. All data presented are provisional estimates based on currently available customs statistics. As such, these data are of indicative nature only and subject to being updated should revisions of officially reported data be released. The analysis contained herein is based on data on trade quantities that were compiled from the UN Comtrade database and Global Trade Tracker Inc.; as well as secondary data and information from desk research. The findings incorporate revised data and information as available up to the end of September 2024.

Data on the import volumes of the European Union exclude the United Kingdom of Great Britain and Northern Ireland since February 2020.

Unless otherwise specified, the source of the figures is the author(s)' own elaboration of various data sources as explained above.



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## FOREWORD

This report was prepared by the Team on Responsible Global Value Chains, Markets and Trade Division, Food and Agriculture Organization of the United Nations (FAO), Rome.

The Team on Responsible Global Value Chains collects data and conducts analysis on trade in bananas and tropical fruit and carries out research and analysis on global value chains and agricultural commodities. Regular publications include market reviews, outlook appraisals and projections for bananas and tropical fruits. The team also provides technical assistance to developing countries in designing and implementing national policies regarding responsible value chains in agriculture.

The report is available on the following FAO website:

<https://www.fao.org/markets-and-trade/commodities/tropical-fruits>



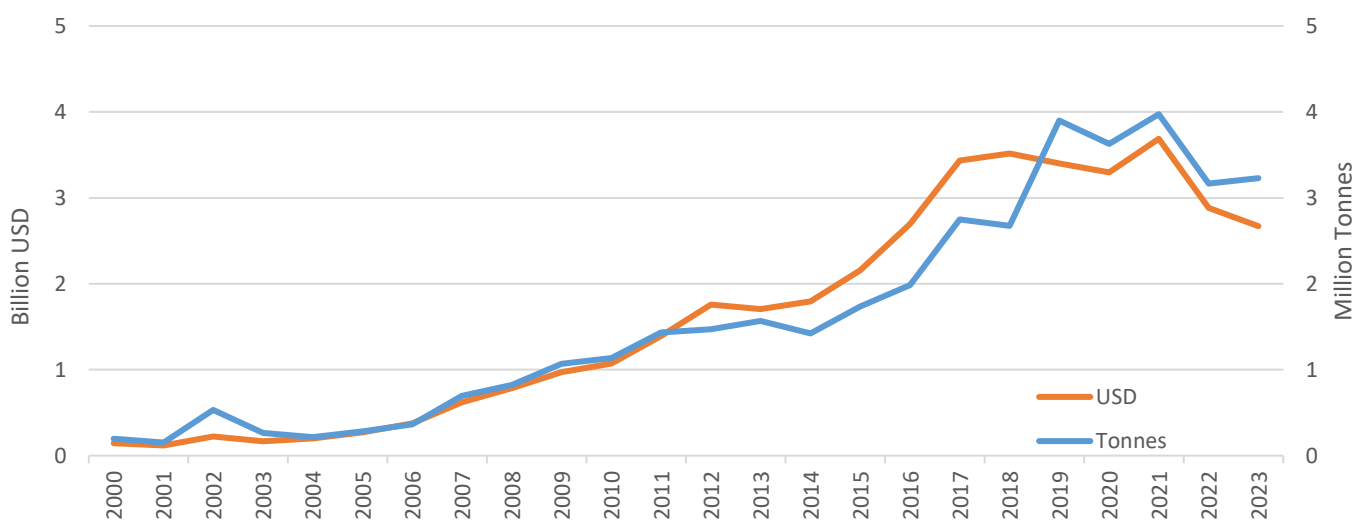
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## Overview

Global trade in minor tropical fruits<sup>1</sup> has expanded at fast rates in recent decades, mainly on account of rising incomes and changing consumer preferences in emerging and high-income markets, alongside improvements in transport and supply chain management. In producing areas, minor tropical fruits can play an important role not only in food security and nutrition but also as a source of income. Available household surveys from supplying countries suggest that the revenue from minor tropical fruits can account for up to 75 percent of the entire income of small rural households. In countries that engage in the export of minor tropical fruits, these commodities can thus be significant in stimulating Gross Domestic Product growth. With some of the poorest countries located in the tropics, the sector's capacity to contribute to overall economic development becomes even more evident. Sustainable trade in minor tropical fruits can furthermore generate positive outcomes for biodiversity, where issues related to monocultures in global trade can negatively impact biodiversity in production systems. This can foster progress towards environmental sustainability goals and rural development in producing regions, as well as strengthen the resilience of global supply chains to crises. In terms of global food security and nutrition concerns, since minor tropical fruits typically offer high levels of micro-nutrients, they can vitally contribute to achieving nutritional goals both domestically in producing countries and in import markets.

However, the precise measurement and analysis of the global marketplace for minor tropical fruits is rendered difficult by considerable data constraints. The informality of production and harvesting of most of these fruits means that most producing countries do not routinely record or collect data on national minor tropical fruit output. Moreover, given the historically low volumes of trade in minor tropical fruits, data on traded quantities and values are only seldomly recorded by trading countries in a consistent manner. As such, data on minor tropical fruits are presently collected at an aggregate level in the Harmonized System (HS) nomenclature. Some of the more significant exporting countries do report on trade flows of individual commodities, however, even at the 'tariffline' – HS codes of higher than 6 digits – information on trade in individual species of minor tropical fruits remains sparse. The following assessment therefore presents indicative results for global trade in minor tropical fruits as reported under HS code 0810.90, which clusters other fresh fruits that are not identified separately because of their minor relevance in international trade. The group includes, inter alia, data on longan, lychee, passion fruit, dragon fruit and pomegranates. Data for individual commodities, as well as for the more significant trading countries, have been separated out where possible. Among the fruits reported in this cluster that could not be separated out due to the unavailability of data at the 8-digit level are rambutans, jackfruits, cashew apples, persimmons, sapodillas, salaccas, prickly pears, tamarinds and jujube.

Figure 1. Global trade in minor tropical fruits: Aggregate nominal export values and quantities 2000 to 2023



<sup>1</sup> As covered by HS code 0810.90 under the harmonized tariff nomenclature system of the World Customs Organization.

### Explanatory notes on the availability of trade data

Obtaining evidence related to individual fruit trade flows has proven challenging due to the sparse data availability. The European Union and the United States of America, which together represent more than one fifth of the 0810.90 import cluster over the period 2019 to 2023, do not report any breakdown of their imports beyond the six-digit 0810.90 level. There are also cases of country sub-codes changing over time, country sub-codes grouping more than one fruit, fruit being divided in more than one code, as well as fruit called by a local name and language.

For these reasons, it is important to note that every doubtful or possibly equivocal case has been excluded from the computation, meaning that the figures displayed must be considered as a lower boundary of the actual international trade value.

### Recent developments

Available data as reported under the clustered HS code 0810.90 indicate that aggregate global trade in minor tropical fruits grew from around USD 140 million in 2000 to a peak of USD 3.7 billion in 2021 (Figure 1). In terms of traded quantities, the group of these fruits collectively accounted for an annual average of some 3.5 million tonnes over the three-year period from 2021 to 2023 (Figure 2). Its high average export unit values of around USD 800 to USD 1 000 per tonne furthermore places this group among the most lucrative tropical fruit commodities in terms of their trade value (Figure 3).

Figure 2. Global annual export quantities by HS code (average 2021 to 2023)

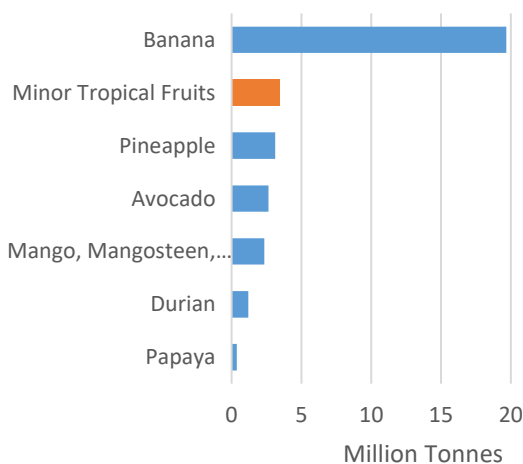
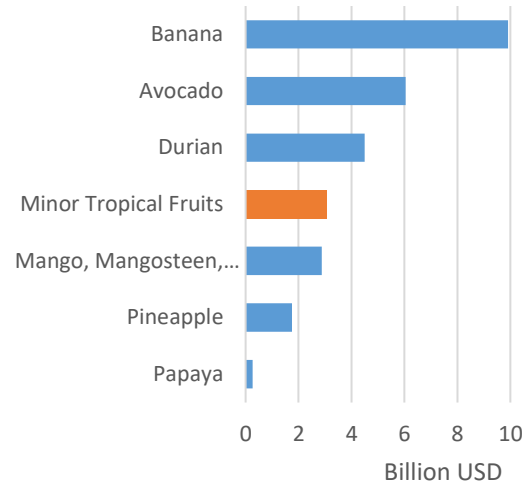


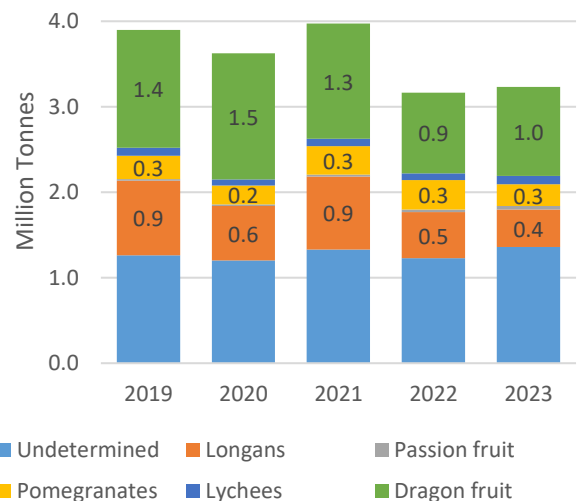
Figure 3. Global annual export nominal value by HS code (average 2021 to 2023)



Among the commodities included in the 0810.90 cluster, longan and dragon fruit appear to have been the most prolifically traded in recent years, accounting for respective trade quantities of some 800 000 tonnes and 1.2 million tonnes on average per annum over the five-year period from 2019 to 2023 (Figure 4). While not strictly in the tropical fruits category, global trade in pomegranates amounted to some 300 000 tonnes per year on average over the same period, as indicated by available trade data at the 8-digit level. Lychee and passion fruit, meanwhile, appear to have been traded in significantly smaller quantities, at an average of 85 000 tonnes and 27 000 tonnes per year, respectively, although these figures most probably underestimate the actual trade flows due to reporting gaps.

Viet Nam and Thailand rank as the largest exporters of minor tropical fruits, accounting on average for

Figure 4. Indicative global export quantities by fruit, 2019 to 2023



46 percent and 17 percent of global shipments, respectively, over the period 2021 to 2023. Notably, Viet Nam registered fast trade growth for minor tropical fruits over the past decade, expanding export volumes from a total of around 150 000 tonnes in 2014 to an annual average of 1.6 million tonnes over the period 2021 to 2023. Virtually all supplies from both origins are received by China, the largest importer globally. Other noteworthy importers are the Russian Federation, Saudi Arabia and the United States of America. These countries procure minor tropical fruits mainly from Ecuador, Egypt and Mexico, albeit at substantially lower average quantities that range between only some 50 000 to 200 000 tonnes per annum.

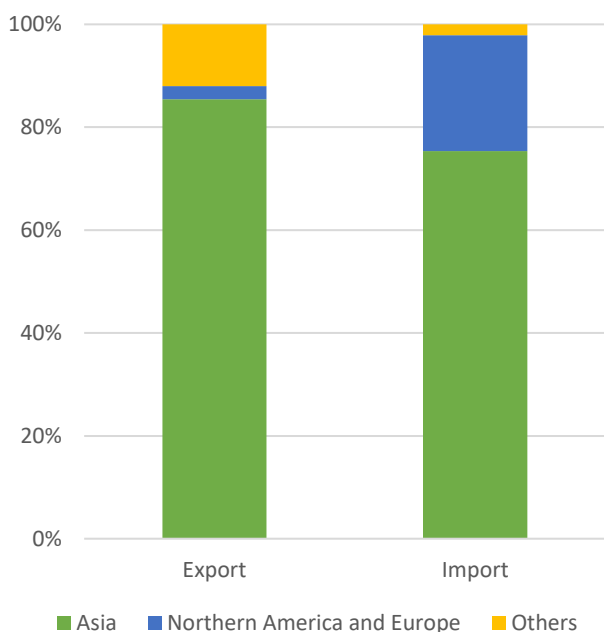
As the data show, the bulk of trade in these commodities takes place within Asia (Figure 5), where demand for premium fruits is strongest in countries experiencing rapid income growth and urbanization trends. This particularly applies to demand from China, the largest importer and main recipient of minor tropical fruits from Thailand and Viet Nam. However, demand is also set on an upward trajectory in key developed markets, most noticeably in the European Union, the United Kingdom of Great Britain and Northern Ireland and the United States of America, mainly in response to an increasing health awareness and changing dietary preferences. As such, retailers in these markets have also started to routinely stock a growing array of minor tropical fruits. However, in

absolute terms, imports by the European Union have so far only reached some 100 000 tonnes per annum, equivalent to only a few percent of global imports.

While overall, global trade in fresh minor tropical fruits is estimated to account for only a small share of production, there appears to be ample commercial potential for producers and exporters, including in low-income countries. As noted, demand in importing countries appears to be rising, with wholesale unit prices in the United States of America over the period 2021 to 2023 ranging at high levels of around USD 5/kg for pomegranates, to around USD 11/kg for passion fruits. Available production data from Viet Nam, furthermore, show yields of approximately 9 tonnes per hectare for longans and 22 tonnes per hectare for passion fruits, and average export unit values for both fruits of between USD 2 000 and USD 4 000 per tonne. These figures may give an indication of the income potential that these fruits can offer. Provided production, post-harvest handling and transportation of these highly perishable fruits are managed efficiently and cost-effectively, cultivating minor tropical fruits could be more lucrative to smallholder farmers than staple crops.

This is further reflected by the role minor tropical fruits play in some exporting countries. In terms of agricultural export earnings, trade in minor tropical fruits weighs non-trivially in Ecuador, Thailand and Viet Nam. For Thailand, the latest results in 2021 point to revenues of USD 832 million from exports of the minor tropical fruits clustered under HS code 0810.90, while for Viet Nam, this figure stood at USD 1.1 billion. In both exporting countries, this amounted to around 2 percent of total export earnings from agriculture, forestry and fishing in 2021 (FAOSTAT). Available data for Ecuador, meanwhile, indicates export revenue from minor tropical fruits of USD 186 million in 2023, again equivalent to some 2 percent of total agriculture, forestry and fishing export earnings in that year. Remarkable is furthermore the high average export unit value of minor tropical fruits exported from Ecuador. This ranged between USD 3 000 per tonne and USD 7 000 per tonne over the five-year period from 2019 to 2023, a multiple of the annual average unit value of around USD 600 per tonne for bananas, the most exported fruit from Ecuador. These data show that minor tropical fruits can constitute important commercial crops in exporting countries.

Figure 5. The role of Asia in global minor tropical fruit trade, 2019 to 2023 average share of total quantities



## Challenges and opportunities

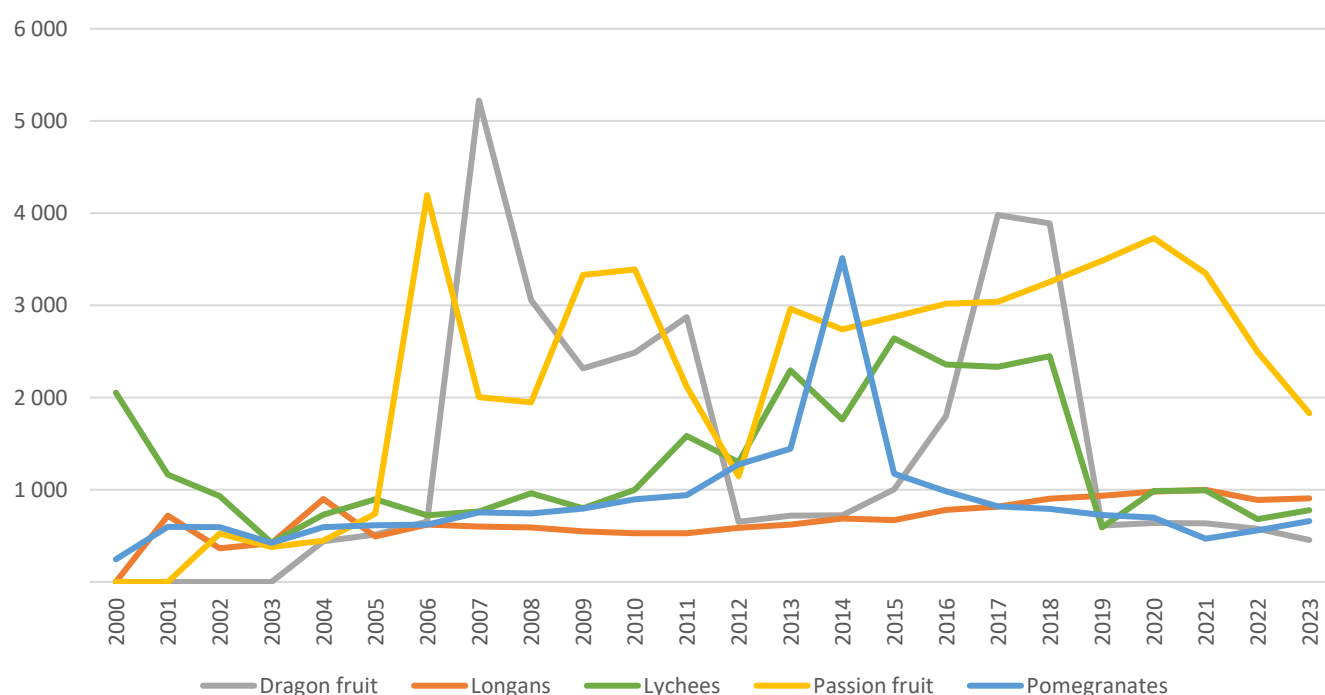
It is important to note that, despite recent trade growth, only a small share of minor tropical fruit production leaves local markets, and, with few exceptions, the different varieties continue to be little known outside the areas where they are grown. Against this backdrop, a number of challenges persist on both the supply and demand sides in moving minor tropical fruits from niche to mainstream.

On the supply side, these relate to either low quality or low productivity in small-scale farming, as well as the oftentimes high perishability of these fruits, especially when fruits are harvested ripe. Marketing of lychees, for example, is particularly difficult since these fruits deteriorate rapidly after harvest and have to be shipped within 24 hours of picking. Moreover, the cultivation of minor tropical fruits is mostly seasonal and often characterized by short harvesting periods, which results in irregular market supply and large price fluctuations. Weather-induced shocks and the impact of climate change often threaten flowering and fruit bearing, promote pests and diseases, and affect production stability and regular availabilities for exports. Consequently, unit values of exports for minor tropical fruits can display high levels of volatility (Figure 6). Recent market news, for example, report fluctuating prices of between USD 5 and USD 25 per kilogram for lychees in Chinese wholesale markets,

caused by poor harvests in both domestic Chinese production and in Viet Nam, the main supplier to China. Erratic quantities and qualities of supply hinder a wider market penetration for minor tropical fruits, a problem that is often compounded by a lack of infrastructure and logistics necessary to get the highly perishable produce to markets swiftly. Addressing low productivity in small-scale farming is therefore a vital component in bolstering the sector. This may include enabling smallholders' access to finance and insurance, improving domestic transport routes and infrastructure, supporting the availability and accessibility of critical inputs, and strengthening farmers' ability to mitigate the impacts of pests and weather-induced shocks. Improvements in postharvest handling and new technologies to prolong shelf life as well as lowering the cost of distribution are further critical to opening new markets.

On the demand side, seasonal variations are also observed for some fruits such as lychee and longan, which usually experience higher demand and peak pricing during festive periods in both Asian and developed markets. European demand for lychee, for example, generally peaks in December and vanishes in January. Varying transport costs and increasingly frequent route disruptions additionally contribute to price fluctuations, especially since minor tropical fruits are usually shipped to distant import markets

Figure 6. Minor tropical fruits: indicative average export unit values, USD/tonne, constant 2014–2016, 2000 to 2023



via air. A lack of consumer awareness in Western markets, high unit prices and increasing concerns about greenhouse gas emissions caused by transportation pose further obstacles to a more expansive international marketplace.

In the short- to medium-term, south-south trade is by and large expected to remain the key arena for trade in minor tropical fruits, with trade within Asia at the core of this. This is underscored by ongoing efforts to promote further growth in fruit trade by trading countries in the region, importantly by China and Viet Nam. A key element in this has been the introduction of freight trains operating on the China-Laos railway, which reduce transit times from Vientiane in the Lao People's Democratic Republic to Kunming in Southwest China from previously around ten days to 26 hours. Other recently introduced measures include stricter adherence to phytosanitary and food safety requirements in the production and processing of fruits, as well as efforts to simplify customs clearance procedures and reduce border delays.

It is important to note that the high market concentration that characterizes global trade in minor tropical fruits, both in terms of origins and destinations, threatens to impede the sector's resilience to supply chain disruptions. Under these conditions, trade prospects are currently largely dependent on developments in supplies from few exporting countries and in demand from few importing countries. Industry sources already report some of the difficulties associated with this, including a concentration of bargaining power and standard setting that threatens to exert detrimental pressure on producers. Especially for destinations in developed regions, phytosanitary certification requirements and stringent private standards imposed by supermarkets can necessitate high costs of compliance and act as hindrances for produce to be marketed. Much of the future market penetration will be contingent on making these fruits more accessible to consumers, most importantly by ensuring food safety and quality, by removing barriers to trade, by promoting equitable value chains and by strengthening the resilience of supply chains to disruptive events.





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