

# VIETNAM WOOD PELLET PRODUCTION AND EXPORT: ENVIRONMENTAL AND SOCIAL ASPECTS

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To **Xuan Phuc**, senior policy analyst, Forest Trends (pto@forest-trends.org)

**Cao Thi Cam**, researcher, Vietnam Timber and Forest Products Association (caocamhp@gmail.com)



## 1. Introduction

Wood pellets have become one of the most important export commodities of Vietnam's wood sector. The export volume of pellets has reached around 3 million tons each year, valued at US\$350 million in recent years. South Korea and Japan account for over 90% of Vietnam's annual export volume of wood pellets.

This Brief provides an overview of Vietnam's wood pellet production and exports through August 2021 and concludes with recommendations for the sustainable development of the industry in the future. The quantitative data was sourced from the General Department of Vietnam Customs; qualitative information was derived from discussions with representatives of Vietnam's pellets manufacture and export industry.

## 2. Vietnam's exports of wood pellets

### 2.1. Exports have boomed since 2017

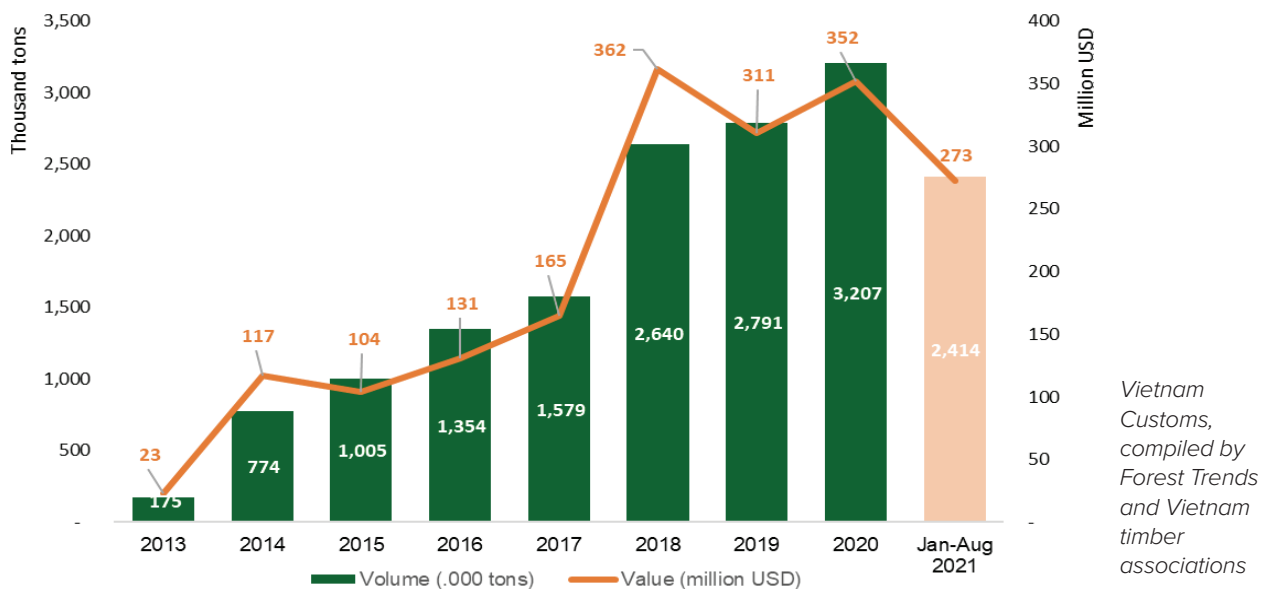
On average over the past three years, Vietnam has exported about 3 million tons of wood pellets on an annual basis, valued at nearly US\$350 million (Figure 1). Export volumes are expected to reach record highs in 2021, with 2.4 million tons, equivalent to US\$273 million, already reported in the first 8 months of 2021 alone. In general, export has been on the rise.

### 2.2. Impact of COVID 19 on exports

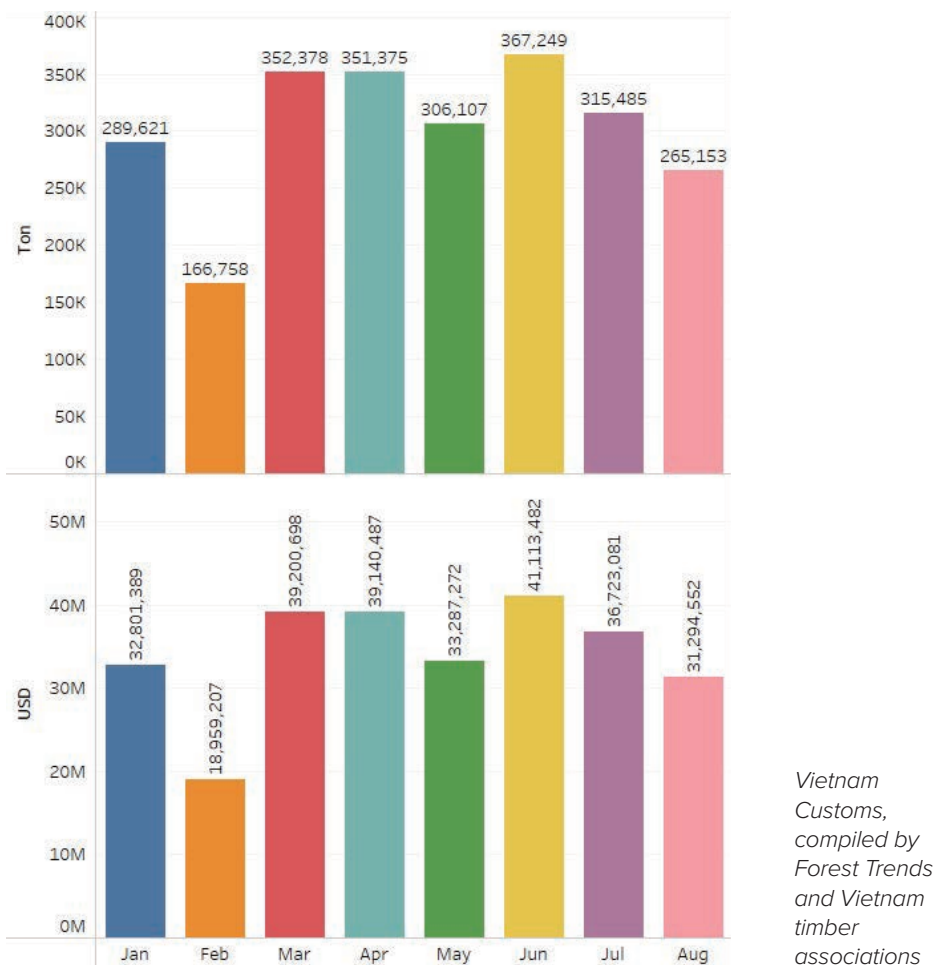
While a recent surge of COVID-19 cases in Vietnam beginning in April 2021 has had a significant impact on Vietnam's export of wood products to major markets like the U.S. and EU, it has had a much lesser impact on Vietnam's wood pellets export (Figure 2), primarily because the surge took place mostly in the country's southern provinces where furniture processing clusters are located, while wood pellet manufacturing takes place primarily in northern provinces.



**Figure 1. Vietnam’s export volume and value of pellets, 2013 – August 2021**



**Figure 2. Vietnam wood pellets export, January – August 2021**



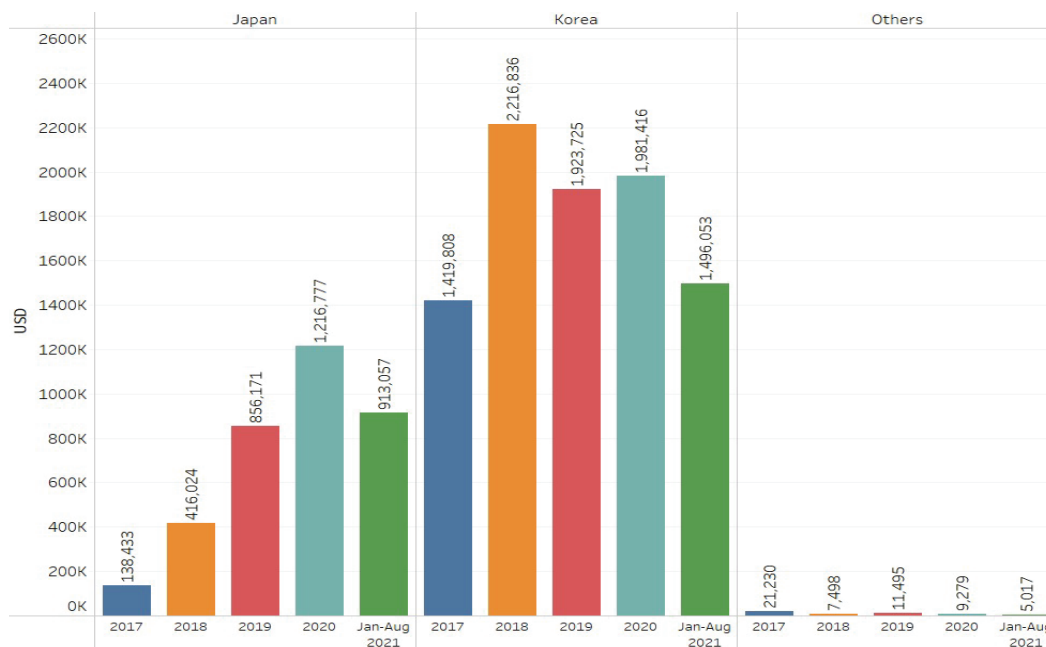
### 2.3. Export markets

South Korea and Japan are Vietnam’s two largest markets for wood pellet exports, accounting for over 90% of total export volume each year. South Korea is by far the main destination for pellets in Asia, although Japan has been rapidly increasing its demand over the past three years. In both countries, government programs (subsidies as well as regulatory) have incentivized an increase in the use of wood pellets for renewable energy.

The South Korean market for wood pellets has historically been nearly twice as large as Japan’s; however, the stability of Japanese imports is higher and growing more consistently (Figure 3). The South Korean market contains some uncertainty, particularly price volatility.



**Figure 3. Vietnam’s wood pellets exports by volume, 2017 – August 2021**

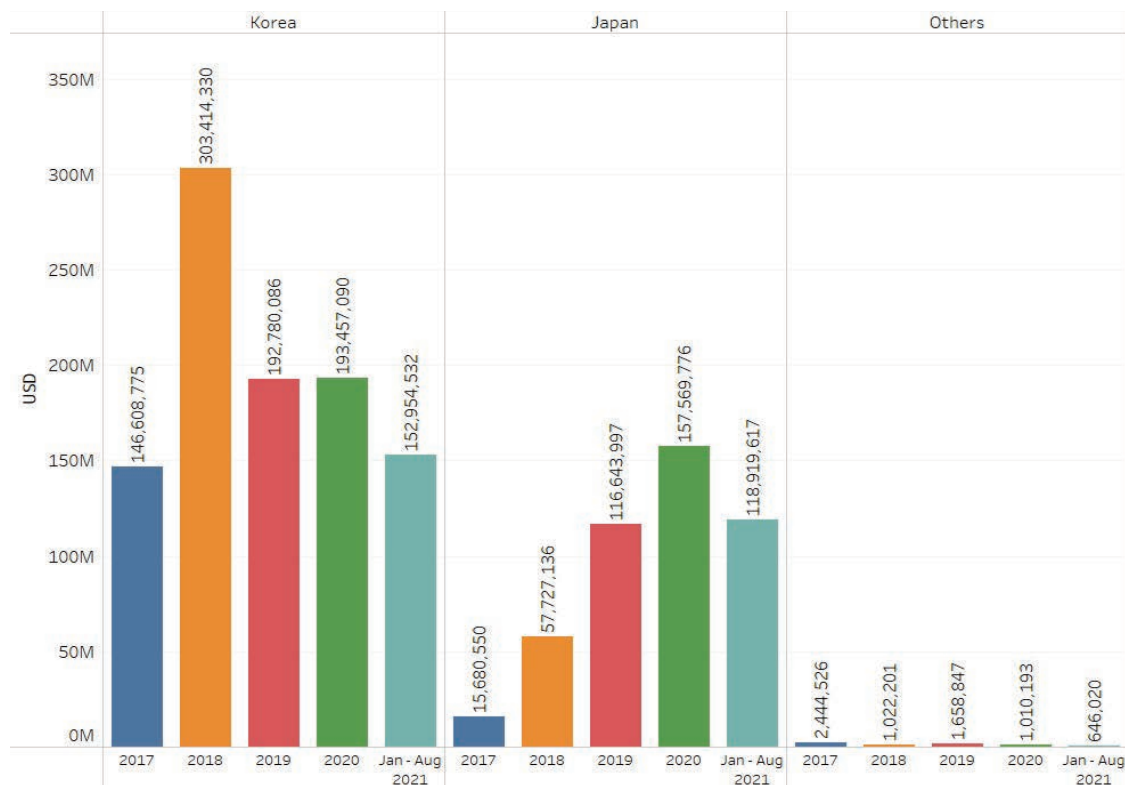


*Vietnam Customs, compiled by Forest Trends and Vietnam timber associations*

South Korea is by far the main destination for pellets in Asia, although Japan has been rapidly increasing its demand over the past three years.

The export value derived from the Japanese market is also smaller than that from the South Korean market, but it has demonstrated consistent growth since 2018 (Figure 4). The South Korean market, by contrast, contracted significantly in 2019 and has not recovered since.

**Figure 4. Vietnam’s wood pellets exports by value, 2017 – August 2021**



Vietnam Customs, compiled by Forest Trends and Vietnam timber associations

**Figure 5. Average price of Vietnam's wood pellets exported to Japan and South Korea, 2019 – August 2021**



Vietnam Customs, compiled by Forest Trends and Vietnam timber associations



Over 70 enterprises export wood pellets from Vietnam each year. The number of businesses remained relatively stable in 2019 and 2020.

The average export prices are higher for Japanese markets than South Korea, about US\$20-30 per ton (Figure 5). Vietnamese export enterprises indicate that South Korean prices are lower due to the preferred use of auctions rather than paying set prices, as in Japan. Purchasing agreements between Vietnamese exporters and Japanese buyers are direct agreements negotiated between the two parties.

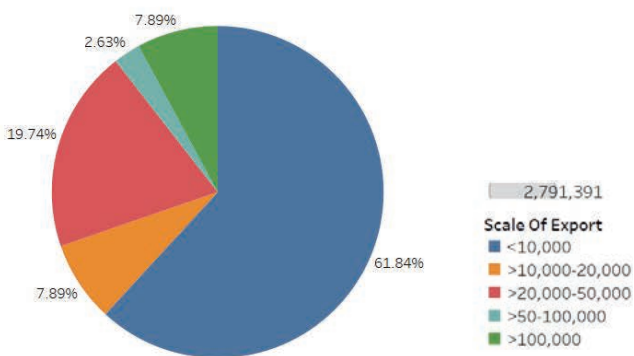
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As indicated by the export volume figures, more companies export to South Korea (61) than to Japan (41). Ten of these companies export to both countries. Given the higher price paid by the Japanese buyers, it should be expected that exporters will increasingly move from the South Korean market to the Japanese market, or at least try to do business in both markets.

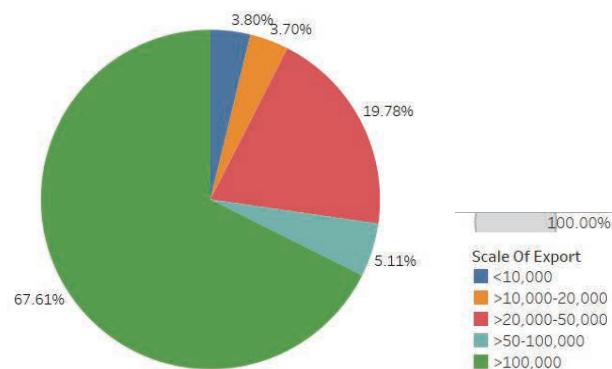
### 2.4. Export structure

Vietnam’s wood pellet industry is characterized by great differentiation, with a small number of export enterprises exporting large volumes and a large number of companies exporting on a much smaller scale (Figure 6). Specifically, in 2020 there were 47 companies, or almost 62% of the total number of the companies participating in wood pellet export, moving less than 10,000 tons. The total exported volume of this group accounts for merely 3.8% of the total export volume (Figure 7). By contrast, six companies (8% of the total number of export companies) exported over 100,000 tons. The total exported volume of these companies accounts for nearly 67% of the country’s total export (Figure 7).

**Figure 6. Proportion of export companies by scale of export volume, 2020**



**Figure 7. Proportion of export volume by company scale, 2020**



### 3. Vietnam's wood pellet manufacturing

According to Vietnam Administration of Forestry, about 80 factories manufactured wood pellets in Vietnam in 2019.<sup>1</sup> However, industry experts believe the number may be much higher than the official statistics – up to 300 – with approximately 200 located in Vietnam's Southeast where wood processing establishments are concentrated (unsurprising, given the byproducts from the other wood processing establishments concentrated in this region which are used as input materials for manufacturing pellets). At present, the production of wood pellets in Vietnam has both strengths and weaknesses.

#### 3.1. Strengths

As a large and growing manufacturing center of the world's wood products, Vietnam has a large number of furniture and plywood workshops and mills, totaling over 6,000 according to VNFOREST. This figure does not include thousands of micro-scaled (i.e., household) operators. These factories and operators produce copious amounts of wood byproducts that can be used as inputs for wood pellet manufacture. The input timber sources for wood pellets include sawdust, shavings, twigs, and tops of planted timber with a diameter of about 2cm or less.<sup>2</sup> As Vietnam's timber plantation has expanded, raw material input for wood pellets is increasingly available. Furthermore, the wood pellet processors do not require large and complicated investment in technology or complex supply chains and management – thus presenting low barriers to new entrants on the manufacturing side. In addition, Vietnam has a geographical advantage, with the sources of raw materials for manufacturing pellets located near export seaports, convenient for transportation.

#### 3.2. Weaknesses

The manufacture and export industry of pellets currently has some limitations. First, quality control of input materials is not a high priority, nor is verification of the legality of the wood input materials. Some processing establishments use mixed materials that affect product quality.<sup>3</sup> The availability of wood inputs certified as sustainable, such as under the Forest Stewardship Council (FSC) most widely in demand from international markets, is limited. In fact, there are some indications of fraudulent FSC-certified products being marketed, appearing all the more likely when the volume of claims is compared to the actual supply of FSC material.<sup>4</sup> Input materials have not been managed by the chain of custody. These problems with quality control and inability to verify legal sourcing have a negative impact on the reputation of the entire industry.

Second, the supply is currently greater than demand, with the numerous processing enterprises competing against each other resulting in lower prices. Unfair practices, such as price squeezing, exacerbate the problem. While many enterprises are involved in processing, export is mainly concentrated in a few large-scale enterprises, as highlighted in Figures 6 and 7. Finally, there is no organizational collaboration, such as wood pellet associations, and no national support for a vibrant and sustainable industry yet.

<sup>1</sup> This figure is provided by the *Bulletin on Manufacture and Export of Pellets in Vietnam: Status and some aspects should be concerned*. Detailed information about the Bulletin on the website: <https://goviet.org.vn/bai-viet/san-xuat-va-xuat-khau-vien-nen-tai-viet-nam-9339>.

<sup>2</sup> Larger top branches are used as chips; the smaller ones are veneer and the larger ones are used for lumber.

<sup>3</sup> This information is provided in the following report: <https://www.mightyearth.org/sumitomo>.

<sup>4</sup> This led the FSC to officially investigate the issue: <https://blogapac.fsc.org/2021/07/09/updates-on-transaction-verification-in-asian-wood-pellet-supply-chains/>.



Often a legality approach may itself lead to improvements in laws and regulations, with long-term improvements in forest and land management.

### 3.3. Future pathway

Vietnam's wood pellet industry has great potential to market itself as a sustainable source for renewable energy and sustainable development for numerous smallholders and medium-sized enterprises. First, demand is expected to continue to rise, particularly in Japan, which may triple by 2024-2025 in comparison with 2020 as insights from some large-scale Vietnamese exporters revealed. Such increases in exports would balance out the current supply glut in the next 2-3 years (assuming no increases in domestic production). Second, the availability of FSC certified wood pellets could be obtained through the cooperation between export processing enterprises and afforestation households in order to create a source of certified timber. In fact, some wood pellets companies have been collaborating with smallholders tree growers in producing FSC timber and seeking to expand the FSC area under collaboration. Once quality control and legal verification no longer present reputational risks, the Vietnamese wood pellet sector would be on the right path to sustainability.

## 4. Supporting a sustainable Vietnamese wood pellet industry

Vietnam's industry and government may wish to consider greater institutional support to ensure a vibrant yet sustainable wood pellet industry in Vietnam. Trade associations, or a branch of existing timber trade organizations, could more efficiently connect the manufacturing and exporting enterprises, provide global market information (especially on the requirements for legal and sustainable product), and facilitate a shared voice and understanding and approach to sustainable development among businesses. In Vietnam, trade associations play a unique role in conveying information and recommendations from a collective business voice to the State authorities, helping to establish effective policy mechanisms.



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