

VIETNAM'S PRODUCTION AND EXPORT OF WOOD PELLETS *STATUS AND SOME CONCERNS*

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Background



Vietnam has become the second largest wood pellet producer in the world, after the United States. Most of Vietnamese produced wood pellets are destined for export markets¹: Almost all of the 3.2 million tons exported in 2020 were imported by Japan or South Korea for biomass energy production.

Global demand for wood pellets is expected to continue to dramatically increase, reaching 36 million tons in the next decade (up from 14 million tons in 2017), with demand coming primarily from Europe, Japan, and South Korea.² Vietnam's wood pellet manufacture and export industry plan to continue their growth to meet this demand.

This Brief provides some initial information on Vietnam's production and export of wood pellets. Data on export volumes and value come from the General Department of Vietnam Customs, and then are compiled by a joint research team from Forest Trends and several Vietnamese timber associations. Data on supply and production enterprises were gathered from two surveys, one conducted by the Vietnam Administration of Forestry in 2019, and the other by the Vietnam Timber and Forest Products Association (VIFOREST) in March 2021.

Production and export of wood pellets in Vietnam

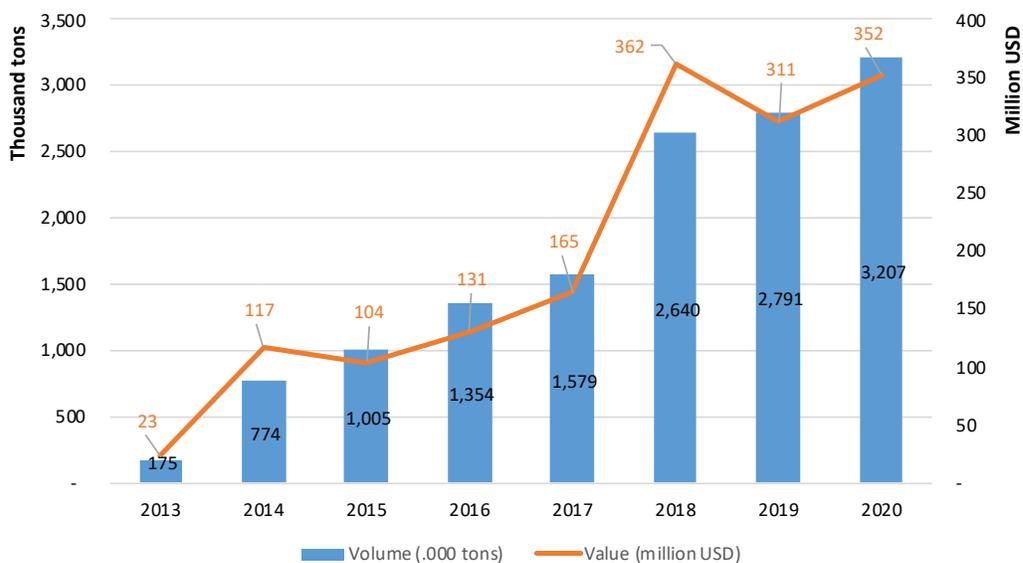
Between 2013 and 2020, Vietnam's exports of wood pellets increased over 18.2 times, from 0.175 to 3.2 million tons. The value of these exports increased 15.3 times, from nearly US\$23 million to US\$351 million (Figure 1).



¹ A very small volume is used to dry wood.

² Environmental Paper Network. 2018. A briefing by the Forest, Climate and Biomass Energy Workshop Group of the EPN.

Figure 1. Vietnam's export of wood pellets by volume and value, 2013-2020

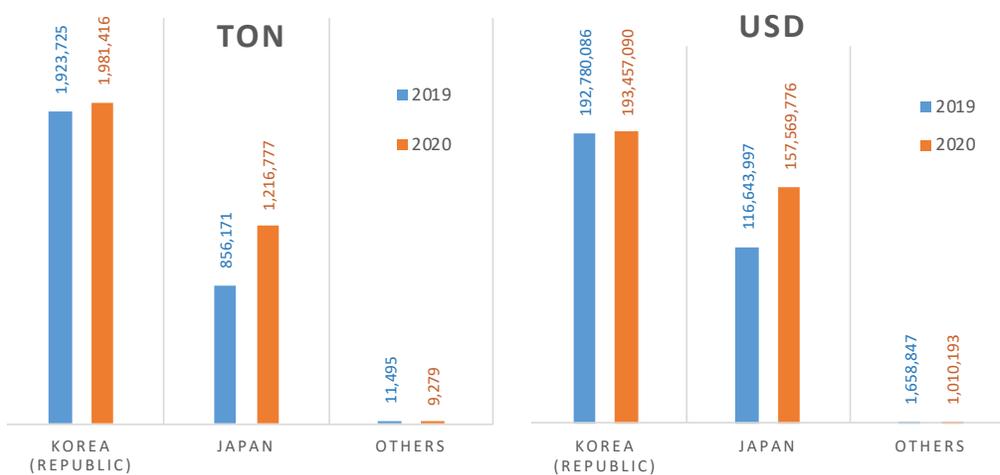


Source: General Department of Vietnam Customs, as compiled by joint research team from Vietnamese timber associations and Forest Trends

Export markets for Vietnam's wood pellets

South Korean and Japanese markets account for nearly 100% of the total export volume and value of Vietnam's wood pellets in 2019 and 2020 (Figure 2).

Figure 2. Vietnam's wood pellets exports by destination country, volume and value, 2019-2020

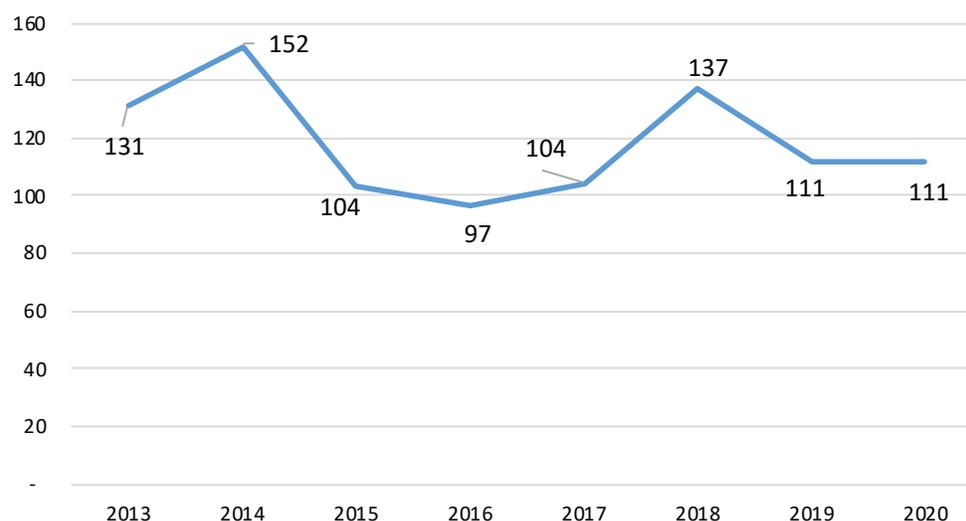


Source: Research team of timber associations and Forest Trends compiled from export data of the General Department of Vietnam Customs

Export price of Vietnam's wood pellets

While export volumes and value of Vietnam's wood pellets have been increasing significantly, unit price for the export product has been marginally decreasing since 2014 (Figure 3).

Figure 3. Price of wood pellets exported from Vietnam (FOB, US\$/ton)



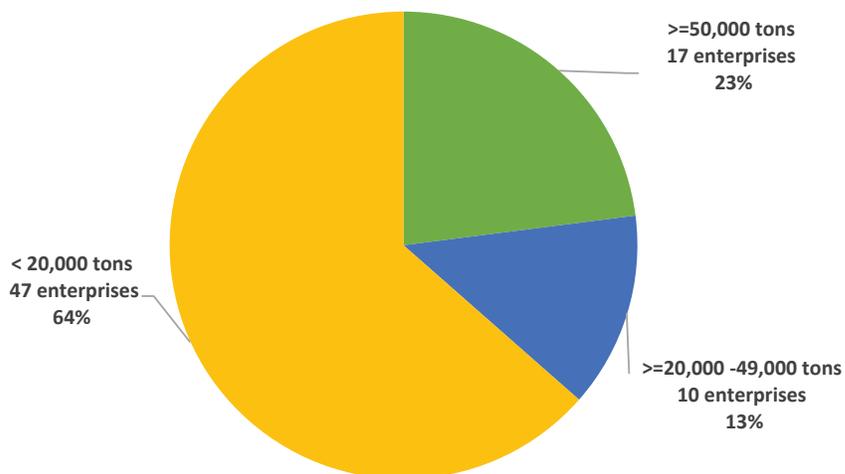
Source: Research team of timber associations and Forest Trends compiled from export data of the General Department of Vietnam Customs

Vietnam's exporters and producers

The decrease in export price might partly be due to an increase in the number of producers particularly small scale ones those did not register with the government, so they did not show up in government registration records. Some of them have not upheld strict quality controls, produced low-quality product and consequently pushed the price down.

Data from the General Department of Vietnam Customs shows that in 2020 there were 74 export companies, a slight increase from 72 in 2018. This figure does not include many small scale ones mentioned above. In 2020, 17 of the 74 enterprises were large-scale exporters (export volume over 50,000 tons per enterprise), and the export volume from these 17 enterprises accounted for over 23% of Vietnam's total wood pellet exports. There were 10 medium-sized enterprises (export volume from 20,000 to 49,000 tons per enterprise), and the remaining 47 were small-scale enterprises exporting under 20,000 tons each (Figure 4).

Figure 4. Vietnam's exporters by export volume, 2020



Source: Research team of timber associations and Forest Trends compiled from export data of the General Department of Vietnam Customs

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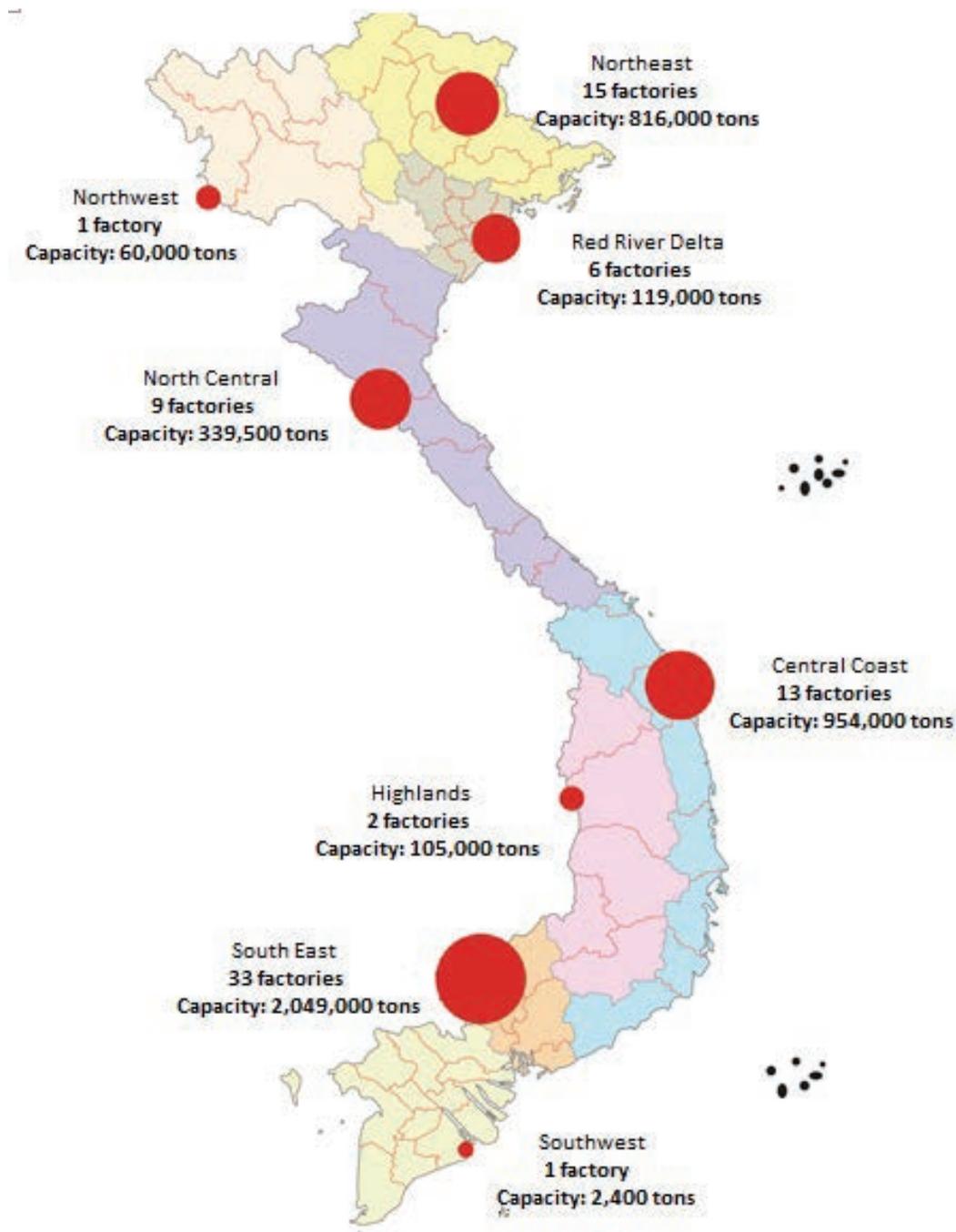
Data from Figure 5 do not include small scale production facilities. Some interviewees estimated that the number of small-scale production facilities could reach as high as 300. However, this information has not been verified.

Source material for Vietnamese wood pellets

In Vietnam, wood pellets are typically made from waste wood such as sawdust, shavings, and tree branches. These materials are pressed under high pressure into the pellet format. Some informants shared that small-scale producers also indiscriminately used any timber available in their local area, with a network of traders who buy materials from villagers. Some large-scale producers, however, have their own plantations, typically of acacia or eucalyptus wood, some of which are FSC-certified.



Figure 5. Distribution of wood pellet production factories within Vietnam



Source: Vietnam Administration of Forestry (2019) and VIFOREST (2021)

Some concerns

The wood pellet production and export industry in Vietnam has undergone a great deal of development in the last decade, mainly to meet the expanding demand for bioenergy in Japan and South Korea after the 2011 Tōhoku earthquake and tsunami and resulting nuclear disaster. The demand in these countries continues to grow, stimulating export-oriented production in Vietnam.

As with any fast growing industry, concerns exist. First, sources of timber used for wood pellets have not been tightly controlled, leading to inconsistent or low product quality. This has triggered a reduction in export price. Uncontrolled timber input may also have negatively affected forest resources, if the timber is being collected from small trees and branches in the forest.³ There are rumors about a mixing of FSC and non-FSC certified materials in factories, but labeled as FSC certified. This information needs to be investigated in the future.

Second, though wood pellets have become one of the industry's most important export products, their production and export has not received sufficient attention from the government. The production and export is uncoordinated and lacks management and supervision.

Third, there's little to no coordination among producers and exporters, which leads to unfair competition and rivalries among them, specifically over raw materials, export prices, and buyers. Some buyers make use of this advantage, working with individual producers, using the price offered by a producer/exporter to bargain for lower price from other ones. Eventually, the price dropped and buyer's benefits grew. The lack of coordination among producers and exporters is partially the result of the absence of an organization representing this sub-sector. This hampers the connection between these producers and exporters, and policymakers, for the development of the sector. Competition over raw materials takes place not only among producers but also between these producers and enterprises producing other products such as wood chips and plywood using the same materials. Competition over materials will be more severe in the future.

Finally, many wood pellet producers and exporters, especially small-scale, do not understand export markets. These enterprises do not have access to market information concerning changing demands, including the increasing number of legality, and sustainability requirements. Lack of market information not only makes these enterprises unable to build long-term business plans, but also puts them at risk of failing to meet the requirements of export market.

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³ Big trees are not used for wood pellets but are reserved for high-value products such as furniture and construction materials.

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Conclusion

Production and export of wood pellets in Vietnam is a relatively new industry and will continue to thrive in the future. In general, produced from waste timber typically from domestic plantations, Vietnam's wood pellets are low-risk in terms of legality. Nonetheless, while expansion may bring socio-economic benefits to many, current production and export trends have revealed some limitations. These limitations concern raw materials, uncontrolled development, unhealthy competition, absence of government monitoring and supervision, and limited information on export market standards. Sustainable development of this sector in the future requires that these limitations be thoroughly addressed. This in turn requires connection and cooperation among producers and exporters, and between these enterprises and those using the same materials for producing other products. Enterprises involved in wood pellet production and export also need to establish an organization to represent them with the government, and to facilitate collaboration with each other for common interest. These should be considered priority activities for the near future.



Forest Trends works to conserve forests and other ecosystems through the creation and wide adoption of a broad range of environmental finance, markets and other payment and incentive mechanisms. This brief was released by Forest Trends' Forest Policy, Trade, and Finance program, which seeks to create markets for legal forest products while supporting parallel transformations away from timber and other commodities sourced illegally and unsustainably from forest areas.

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