

# The Current Situation and Challenges in Imported Wood Pellets Production Areas

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Japan's wood pellet imports have increased 43-fold to over 3.12 million tons by 2021 since the start of the renewable energy “feed-in tariff” (FIT) subsidy program in 2012. In terms of timber, this amounts to about 6 million cubic meters, or just under 20% of Japan's domestic timber production. Vietnam and Canada were the top and the second largest exporters of wood pellets in 2021, respectively. The following is a summary of the status of forests and pellet production and sustainability issues in these two countries and the United States, where imports are expected to increase rapidly in the future. Under the FIT, companies are required to verify the sustainability of biomass, but the verification methods remain unclear in the program. The reality is, the production areas are often not sustainable.

## Vietnam

### (1) Forests and pellet production

In Vietnam, pellets are produced mainly from Acacia plantations and sawmill scraps including imported wood. In 2021, the production volume reached 3.2 million tons, and the main export destinations are Japan and South Korea. About 40% of Vietnam's timber imports come from African countries, Papua New Guinea, Cambodia, Laos, and other tropical countries with a high risk of illegal logging.<sup>1</sup> Therefore, there is still a possibility that, even if they are made from sawmill residue, materials from illegal wood may be included in pellets.

### (2) Sustainability Issues

In Japan, legality and sustainability are required for fuels under the FIT biomass power generation, and in Vietnam, Forest Stewardship Council (FSC) certification has been used as a method to prove them. For several years, questions have been raised about whether FSC-certified pellets in Vietnam are really made of FSC-certified wood, and in March 2021, FSC International and ASI, FSC's auditing body, began an investigation. In October 2022, it was reported that a large amount of FSC certificate fraud had been made by An Viet Phat (AVP) — which is the country's largest pellet producer, producing about half of the country's pellets — and by other companies.<sup>2</sup> AVP was suspended from FSC certification for three and a half years.

The electricity purchase price for FIT biomass power is 24 yen/kWh, but this is only if the legality and sustainability of the fuel is confirmed; otherwise, the price is 13 yen/kWh. The FSC fraud in Vietnam may have resulted in an unfairly high purchase price for biomass power in the past, for which consumers have already paid a premium.<sup>3</sup> This matter was taken up by the House of Representatives, Environment Committee at the end of 2022,<sup>4</sup> and Ministry

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<sup>1</sup> Forestry Agency: <https://www.rinya.maff.go.jp/j/riyou/goho/kunibetu/vnm/info.html>

<sup>2</sup> FSC: <https://fsc.org/en/newscentre/integrity-of-wood-pellets-supply-chains-at-risk>

<sup>3</sup> Toyo Keizai: <https://toyokeizai.net/articles/-/633934>, <https://toyokeizai.net/articles/-/651374>

<sup>4</sup> House of Representatives: House of Representatives  
[https://www.shugiin.go.jp/internet/itdb\\_kaigiroku.nsf/html/kaigiroku/001721020221222004.htm](https://www.shugiin.go.jp/internet/itdb_kaigiroku.nsf/html/kaigiroku/001721020221222004.htm)

of Economics, Trade, and Industry (METI) will also investigate the past cases of certification fraud.

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## British Columbia, Canada

### (1) Forests and pellet production

In British Columbia (BC), forestry is an extremely important industry, and since the 1980s, the logging of primary forests (forests that have never been subjected to industrial logging regardless of age), and old growth forests (forests that contain trees that are 250 years old in coastal areas and more than 140 years old in inland areas) has emerged as a major problem.

The production of softwood logs, although on a declining trend, is 53.6 million cubic meters per year,<sup>5</sup> and the BC's annual allowable harvests continue to exceed the level of sustainable harvests in the medium term.<sup>6</sup> According to Drax, a British company that produces pellets in BC, 80% of the raw material is sawlog residues and about 20% is unutilized timber such as forest residues, unsuitable timber for sawlogs, insect-damaged trees, etc. In the logging areas, large-area clearcuts (several hundred ha) of primary forests are taking place. The pellet industry claims that pellet production does not contribute to deforestation and that the deforestation rate in Canada is "0%," but this claim is questioned by scientists and NGOs.



Featured on NHK TV program, “Close-Up Gendai” Oct. 2023  
<https://www.nhk.or.jp/gendai/articles/4716/>

### (2) Sustainability Issues

When natural forests are clearcut under Canada's harsh climate conditions, it takes

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<sup>5</sup> Forestry Agency: [https://www.rinya.maff.go.jp/j/boutai/yunyuu/attach/pdf/kakkoku\\_jyoho-14.pdf](https://www.rinya.maff.go.jp/j/boutai/yunyuu/attach/pdf/kakkoku_jyoho-14.pdf)

<sup>6</sup> Rachel Holt: [https://www.gef.or.jp/wp-content/uploads/2022/12/Rachel-Holt\\_pellets\\_Dec2022\\_Final\\_JP.pdf](https://www.gef.or.jp/wp-content/uploads/2022/12/Rachel-Holt_pellets_Dec2022_Final_JP.pdf)

decades to centuries for the forests to regenerate. In case of using wood as fuel, the carbon stocked by the forest will be released into and remain in the atmosphere during that time. In addition, it is uncertain whether forests after afforestation will be reestablished in the future, and with the recent intensification of climate disasters such as forest fires and floods, there is a risk that they will not regenerate. In this case, deforestation will occur.

In addition, planted trees are limited to a few species of conifers that are economically valuable, and even if they regenerate, the rich biodiversity of the original natural forests will not be restored. Furthermore, the harvest site is often being cleared by heavy machinery over a large area, which could release much of the abundant carbon contained in the forest soil (over 50% of the forest's carbon) into the atmosphere.

Logs used as raw material for pellets are "unutilized wood" that has not reached the quality of lumber, and if there is no demand for pellets, they are not logged and maintained as forests, which can provide various ecosystem services such as biodiversity conservation and carbon stocks.

Logging of old-growth forests has been a major problem in BC for many years. Less than half the area of old-growth forests that once existed is left, and only a few percent of particularly large and well-conditioned old-growth forests remain. Primary and old-growth forests are also extremely valuable habitats for large animals such as grizzly bears and mountain caribou.

The state government commissioned experts to develop "Old Growth Strategic Review Panel's Report" in 2020.<sup>7</sup> However, to date, it has been pointed out that operations and management have not been carried out in accordance with the panel's recommendations.

The following recommendations are particularly important for the protection of old-growth forests, but no legislation has been enacted or development deferred.

### **Recommendation 2: Prioritizing Ecosystem Health and Resilience**

Declare the conservation and management of ecosystem health and biodiversity of British Columbia's forests as an overarching priority and enact legislation that legally establishes this priority for all sectors.

### **Recommendation 6: Immediate Response to Ecosystems at Very High Risk**

Until a new strategy is implemented, defer development in old forests where ecosystems are at very high and near-term risk of irreversible biodiversity loss.

### **Recommendation 7. Compliance with Existing Requirements**

Bring management of old forests into compliance with existing provincial targets and guidelines for maintaining biological diversity.

Since most of the logging areas are in remote places, the impact on community livelihoods

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<sup>7</sup> Old growth Strategic Review:

<https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stewardship/old-growth-forests/strategic-review-20200430.pdf>

is not clear, but since they are in indigenous peoples' territories, an agreement process with the indigenous peoples is supposedly necessary, but has not been fully implemented.

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## U.S.A.

### (1) Forests and pellet production

The wood pellet production areas in the United States are concentrated in the Southeast, and wood pellets are exported to Japan mainly from an area stretching from northern Florida to Mississippi, and shipped via the Panama Canal. Most of the forests in the region are privately owned by more than one million individuals and households, and many of them have been pine plantations for paper manufacturing. Logging and reforestation have been repeated in approximately 20-year cycles.

In recent years, due to the decline of the papermaking industry, some of these forests have been neglected and the pine trees have grown to 40-50 years old. While some forests have been converted to mixed forests with hardwood trees, many others have been degraded by repeated hurricanes and wildfires. There are few regulations requiring forest protection and restoration in private forests. As a result, after small-area clearcutting (tens to hundreds of hectares) for pellet production, the areas are usually not reforested and are left to "natural regeneration."

Enviva, the world's largest pellet producer, has 10 pellet plants in the southeastern United States, with plans to build more in the future. The company currently exports mainly to the EU and the U.K., with an annual production of 6.2 million tons.

Approximately half of Enviva's pellet sales contracts in 2025 are with Japanese companies.<sup>8</sup> The world's second largest producer, UK-based Drax, has also begun production in the southeastern United States and, like Enviva, plans to sell pellets to Japan.



Approximately 35 hectares of forest were cleared at this site, and the trees were chipped on site and transported to Enviva.

### (2) Sustainability Issues

This area originally had a high biodiversity with a special ecosystem that was renewed by wildfire. Plantations for pulp were planted with two fast-growing species of pine, and the biodiversity has been significantly reduced with the native ecosystem is now less than 5% of the original expanse. In the absence of regulations, small-area clearcutting has punched holes in the landscape, reforestation has not taken place, and forest fires and hurricanes have worsened the forest conditions. There is also a report that indicates the reduced forest

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<sup>8</sup> Enviva <https://ir.envivabiomass.com/events-and-presentations/default.aspx#presentations>

stock around pellet mills.<sup>9</sup>

People in communities adjacent to pellet mills and transportation routes have reported noise, dust, and air pollution, with many people complaining of worsening asthma and breathing difficulties, but no causal studies have been conducted. Both Drax and Enviva have paid fines to authorities for violations of standards related to air pollution, but little pollution control measures have been taken for the affected communities.

From Florida to Mississippi, there will be more mills in the future. There are many social challenges such as that African communities are particularly socially vulnerable because of its remoteness, unequal access to jobs, education, and healthcare, and aging population, making it difficult for them to voice opposition. Another challenge is that information about the impact of the pellet mills is not sufficiently disseminated to affected communities.<sup>10</sup>

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<sup>9</sup> Southern U.S. Environmental Law Center: <https://www.southernenvironment.org/news/new-study-confirms-harmful-impacts-of-biomass/>

<sup>10</sup> Toyo Keizai: <https://toyokeizai.net/articles/-/605269?page=7>

National Association for the Advancement of Colored People (NAACP): <https://bit.ly/3PUIKJV>