



Supply Base Report: Biomass Fuel Vietnam Co., Ltd

Main (Initial) Audit

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Completed in accordance with the Supply Base Report Template Version 1.4

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

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2 Description of the Supply Base

2.1 General description

Feedstock types: Primary, Secondary

Includes Supply Base evaluation (SBE): No

Feedstock origin (countries): Viet Nam

2.2 Description of countries included in the Supply Base

Country: Viet Nam

Area/Region: Nghe an, Ha Tinh, Quang Binh, Quang Tri

Exclusions: No

The supply base is the whole of Vietnam. Vietnam is located in Southeast Asia. Vietnam has been developing significantly over the past 30 years since Đổi Mới, launched in 1986, have boosted economic growth, transforming what was then one of the world's poorest nations into a lower middle-income country. Between 2002 and 2018, GDP per capita increased by 2.7 times, was over US\$2,700 in 2019, and more than 45 million people get rid of poverty. Poverty rates declined sharply from over 70 percent to below 6 percent (US\$3.2/day PPP).

In 2019, Vietnam's economy continued to show fundamental strength and resilience, supported by robust domestic demand and export-oriented manufacturing. Real GDP grew by an estimated 7 percent in 2019, similar to 2018, one of the fastest growth rates in the region.

Vietnam is experiencing rapid demographic and social change. Its population reached 96.2 million in 2019 (up from about 60 million in 1986) and is expected to expand to 120 million by 2050. According to the 2019 Population Census Report, 55.5 percent of the population is under 35 years of age, with a life expectancy of 76 years, the highest among countries in the region at similar income levels. But the population is rapidly aging. And Vietnam's emerging middle class, currently accounting for 13 percent of the population, is expected to reach 26 percent by 2026.

According to statistics of the Ministry of Natural Resources and Environment, the total natural area of Vietnam (as of December 31, 2018) is 33,123,597 hectares, including:

- Agricultural land group (including agricultural land, forestry land, aquaculture land, salt-making land, and other agricultural lands): 27,289,454 ha;
- Non-agricultural land group (including residential land, special-use land, land for religious establishments, ...): 3,773,750 ha;
- Unused land: 2,060,393 ha.

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) was ratified by Vietnam in 1994. There are two commercially traded timber species now listed on the CITES Appendix II from Vietnam: lign-aloes trees (*Aquilaria* spp.), and Thailand Rosewood (*Dalbergia cochinchinensis*). These Appendix-II listings are not a ban on trade. To conduct international commercial trade in these listed species, it is necessary to ensure all the proper CITES documentation from the exporting or re-exporting country is compiled and accurate. The harvest and trade of *Aquilaria crassna*, the main Vietnamese *Aquilaria* species, has been banned since 1992.

Vietnam has, however, several plantations of *Aquilaria crassna*, the products from which are legal to trade with proper CITES permits. Thailand Rosewood is also listed as vulnerable in Vietnam by the IUCN Red List. Being highly valued in the wood carving and furniture industries, the Vietnamese population of this species is also threatened.

The Vietnamese decree "Regulation on the management of protected forests, precious and registered forests, and the implementation of CITES" of January 22, 2019 lists 273 protected species. The species are divided in two protection classes for both flora and fauna, and in both classes a considerable amount of tree species are listed, most of which also have the IUCN status of Near Threatened, and Endangered.

There are several large mammals and birds of conservation significance in this ecoregion, including the endangered douc langur (*Pygathrix nemaeus*), white-cheeked gibbon (*Nomascus leucogenys leucogenys*), Saola (*Pseudoryx nghetinhensis*), and Pheasant (*Rheinardia ocellata*).

The forest sector is growing as Vietnam, it contributed US\$1.4 billion to the national economy in 2006, accounting for approximately 2.4% of the country's GDP. At present, there are about 25 million Vietnamese people for whom 20%, or by some estimates up to 40%, of their annual income comes from the forest. Forest management in Vietnam is highly centralized. The Vietnamese constitution provides the fundamental and highest-level law of the land. All laws and policies are promulgated by the government and the National Assembly.

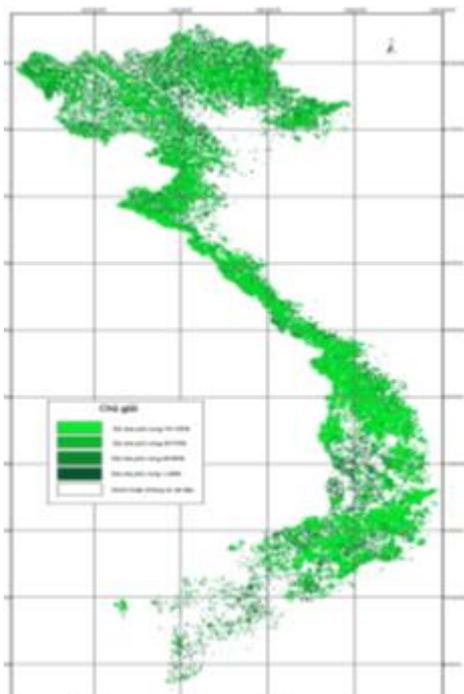


Figure 1. Forest coverage of Vietnam

In Vietnam, there are three types of forest which are for special-use, protection and production functions. The detail is mentioned in Table 1:

Table 1. Country's Three Forest Types and Respective Total Areas (Vietnam MARD, 2020)

| Year | National forest area | Types of forest | | |
|------|----------------------|-------------------|-------------------|-----------------------------------|
| | Special-use forest | Protection forest | Production forest | |
| 2005 | 12,616,700 | 1,958,320 | 15.52% | 6,172,062 48.92% 4,486,318 35.56% |
| 2006 | 12,873,850 | 2,202,888 | 17.11% | 5,268,789 40.93% 5,402,172 41.96% |
| 2008 | 13,118,773 | 2,061,675 | 15.72% | 4,739,236 36.13% 6,199,294 47.26% |
| 2010 | 13,388,075 | 2,002,276 | 14.96% | 4,846,196 36.20% 6,373,491 47.61% |
| 2012 | 13,862,043 | 2,021,995 | 14.59% | 4,675,404 33.73% 6,964,415 50.24% |
| 2014 | 13,796,506 | 2,085,132 | 15.11% | 4,564,537 33.08% 6,751,923 48.94% |
| 2016 | 14,377,682 | 2,137,332 | 14.87% | 4,537,852 31.56% 6,672,056 46.41% |
| 2017 | 14,415,381 | 2,141,324 | 14.85% | 4,567,106 31.68% 6,765,936 46.94% |
| 2018 | 14,491,295 | 2,155,178 | 14.87% | 4,588,059 31.66% 7,748,058 53.47% |
| 2019 | 14,609,220 | 2,161,661 | 14.80% | 4,646,138 31.80% 7,801,421 53.40% |

In 2020, Vietnam harvested 30 million m³ of timber which provided 75% of demand for domestic wood processing industry. About biomass products, Vietnam exported about 2.77million tons of wood pellet in the same year.

About tenure, Vietnam forests are managed by three groups, namely, public organizations (10.35 million ha), private entities (3.05 million ha), and communities (1.21 million ha) (Vietnam MARD, 2020).

Vietnam has a legal framework to address illegal logging. However, illegal logging continues to be a problematic issue in Vietnam. There are an estimated number of 30,000 to 50,000 reported forest violations per year and, despite a legal framework, enforcement is still weak (NEPCON, 2017).

On October 19th, 2018, the Voluntary Partnership Agreement (VPA) on Forest Law Enforcement, Governance and Trade (FLEGT) was signed between Vietnam and the European Union (EU) in Brussels. The agreement aims to tighten controls of forest governance, fight illegal logging and promote trade in verified legal timber products from Vietnam to the EU and other markets. The EU appreciates the progress made by Vietnam in preparing to implement the VPA and initial steps in strengthening controls of the timber it imports. However, more work needs to be done. Controlling the legality of imports will be critical to fully implement the VPA and ensure that Vietnam's exports of timber and timber products to the EU come from legal sources. The EU is going to maintain close contact with Vietnam and support the country efforts in delivering results on the ground.

Vietnam has also set up the Vietnam Timber Legality Assurance System (VNTLAS) which ensures that wood and timber products exported from Vietnam to the EU have legal origins. VPA commitments have been included in the Vietnam Forestry Law which has become effective since January 1, 2019. The new law prohibits the import of illegal produced timber to Vietnam. Vietnam has prepared plans for the implementation of VPA with the involvement of many parties.

The main target region of BMFV is the North-Centre Vietnam. In the next year, BMFV plans to source wooden materials from 16 suppliers in Nghe An, Ha Tinh, Quang Tri, and Quang Binh province. There are four provinces with very high potential for development of the supply base for BMFV. The forest areas of those four provinces are shown in Table 2.

Table 2: The total forest area of four province in BMFV's supply base

| Province | Total Forest area (ha) | Natural Forest (ha) | Plantation Forest (ha) |
|------------|------------------------|---------------------|------------------------|
| Quang Tri | 252,966 | 140,839 | 112,127 |
| Nghe An | 996,774 | 784,339 | 212,435 |
| Ha Tinh | 328,906 | 216,927 | 111,979 |
| Quang Binh | 585,177 | 469,613 | 115,564 |
| Total | 2,163,823 | 1,611,718 | 552,105 |

Source: *MARD, 2020*

Table 2 shows that the total plantation forest area of those four targeted provinces is 552,105 ha, which is able to feed and ensure the raw materials for full capacity of the BMFV factory and many other woodchips mills as well as some wood pellets factories. As estimated, for full capacity, BMFV needs a supply base area from 15,000 to 20,000 ha of plantation production forest. In fact, Nghe An PPC has a map of wooden material area to secure wooden materials for all investors in Nghe An province, of which, 15,000 ha of wood sourcing area has been mapped for BMFV.

The main wood species used and origin from this supply base are harvest from plantation, such as Acacia (*Acacia spp.*), Eucalyptus (*Eucalyptus spp.*) and Pine (*Pinus spp.*), BMFV also buys some feedstocks which are called local species or native species, mainly Xoan (*Melia azedarach*) and Sung (*Ficus spp.*). These species are scattered planted to make boundaries for forest plantation or around agroforestry areas, along roadsides, or around residential areas. The volume of local species is insignificant, only accounting for less than 10% of the total feedstock purchased.

The situation of three main SBP feedstock product groups in Vietnam are as follow:

SBP-compliant Primary Feedstock: Currently, forest certification is not widely presented in Vietnam. Until October 2020, Vietnam has only 219,090 hectares of forest certified for 48 units and groups of households (FSC, 2020). There are currently no records of PEFC in Vietnam (PEFC, 2019). In Nghe An province, there is only one household group in Quy Chau district being certified by FSC for 3,083.53 ha of Acacia plantations. This household group was supported by Thanh Hoa Wood Processing Company in Thanh Hoa province. Thus, the materials that meet the requirement of SBP-compliant Primary Feedstock is limited and difficult to access. Therefore, it can be predicted that, in the coming years, BMFV still cannot source certified wooden materials due to their shortage in the area.

Controlled Feedstock: Most woodchip and wood pellets buyers ask for at least FSC CW certification. However, very few FSC CW certifications for forest owners have been issued in Vietnam. Some companies are having FSC CoC certificates who want to source FSC CW through a risk assessment/ due diligence process.

SBP non-compliant Feedstock: According to Vietnam Ministry of Agriculture and Rural Development, to date 31/12/2019, Vietnam has the total area of forest area of 14.6 million ha, of which 3.53 million ha is production plantation forest. This forest area is mainly under the management of households and protection

forest management boards. This area, although most are non-certified forest, is an extremely potential resource for raw materials for wood processing companies.

The other groups of feedstocks such as *SBP-compliant Secondary Feedstock*, *SBP-compliant Tertiary Feedstock* are not popular and there are not many suppliers in the Vietnamese market.

At the moment, BMFV is collecting SBP non-compliant feedstock but with legal status as stipulated by Vietnam law. This feedstock is provided by nine suppliers

2.3 Actions taken to promote certification amongst feedstock supplier

BMFV is planning to obtain FSC CW, SBP, and GGL certificates. BMFV started to do FSC CW for its material areas in Nghe An and FSC CoC for its wood pellet factory. In the next two-year-roadmap, BMFV would like to increase up from 15,000 – 20,000 ha FSC CW to ensure all raw materials feeding to its factory are controlled wood.

BMFV company is the only one pioneer FDI company targeting the social and environmental responsibilities which are highly recognized and appreciated by Nghe An provincial authority. BMFV was certified by JIA FIT standard in September 2019. This standard allows wood pellets to be exported to Japan. Therefore, BMFV must source all wooden materials from legal sources and make sure they are traceable.

2.4 Quantification of the Supply Base

Supply Base

- a. **Total Supply Base area (million ha):** 14,61
- b. **Tenure by type (million ha):**10.35 (Public), 3.05 (Privately owned), 1.21 (Community concession)
- c. **Forest by type (million ha):**14.61 (Tropical)
- d. **Forest by management type (million ha):**4.32 (Plantation), 10.29 (Natural)
- e. **Certified forest by scheme (million ha):**0.21 (FSC)

Describe the harvesting type which best describes how your material is sourced: Clearcutting

Explanation: Clearcutting by plot, row or the whole area is decided by forest owners. If plantations are invested by State budget then it is necessary to make a cutting design for approval by authorities. Cutting is done by electric chain saw. Timber are transported manually or by animal and trucks

Was the forest in the Supply Base managed for a purpose other than for energy markets? Yes - Majority

Explanation: At present, the forest in the Supply Base managed mainly for wood chip and furniture processing

For the forests in the Supply Base, is there an intention to retain, restock or encourage natural regeneration within 5 years of felling? Yes - Majority

Explanation: Forest stand regeneration is conducted at the next afforestation season right after being harvested following both national legislation and common practices

Was the feedstock used in the biomass removed from a forest as part of a pest/disease control measure or a salvage operation? No

Explanation: A part of feedstock is from salvage operation (thinning) following Vietnam regulations and silvicultural techniques.

Feedstock

Reporting period from: 02 Feb 2020

Reporting period to: 31 Dec 2020

- a. **Total volume of Feedstock:** 1-200,000 tonnes
- b. **Volume of primary feedstock:** 1-200,000 tonnes
- c. **List percentage of primary feedstock, by the following categories.**
 - Certified to an SBP-approved Forest Management Scheme: 0%
 - Not certified to an SBP-approved Forest Management Scheme: 80% - 100%
- d. **List of all the species in primary feedstock, including scientific name:** Acacia spp (Acacia); Eucalyptus spp (Eucalyptus); Melia azedarach (Chinaberry); Pinus spp (Pine); Ficus spp (Fig tree);
- e. **Is any of the feedstock used likely to have come from protected or threatened species?** No
 - Name of species: N/A
 - Biomass proportion, by weight, that is likely to be composed of that species (%): N/A
- f. **Hardwood (i.e. broadleaf trees): specify proportion of biomass from (%):** 89,84
- g. **Softwood (i.e. coniferous trees): specify proportion of biomass from (%):** 10,16
- h. **Proportion of biomass composed of or derived from saw logs (%):** 88,78
- i. **Specify the local regulations or industry standards that define saw logs:** Saw logs means wood that has been sawn or cut into cubes, strips or boards. In Vietnam, biomass fuel production source saw logs from planted forests at the age of 4-5 years. While sawmills and furniture processing source saw logs from planted forests at the age above 7 years.
- j. **Roundwood from final fellings from forests with > 40 yr rotation times - Average % volume of fellings delivered to BP (%):** 0,00
- k. **Volume of primary feedstock from primary forest:** 0 N/A
- l. **List percentage of primary feedstock from primary forest, by the following categories. Subdivide by SBP-approved Forest Management Schemes:**
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme: N/A
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: N/A
- m. **Volume of secondary feedstock:** 1-200,000 tonnes
 - Physical form of the feedstock: Chips, Offcuts, Clean chips or dust
- n. **Volume of tertiary feedstock:** 0 N/A
 - Physical form of the feedstock: N/A

Proportion of feedstock sourced per type of claim during the reporting period

| Feedstock type | Sourced by using Supply Base Evaluation (SBE) % | FSC % | PEFC % | SFI % |
|-----------------------|--|--------------|---------------|--------------|
| Primary | 0,00 | 0,00 | 0,00 | 0,00 |
| Secondary | 0,00 | 0,00 | 0,00 | 0,00 |
| Tertiary | 0,00 | 0,00 | 0,00 | 0,00 |
| Other | 0,00 | 0,00 | 0,00 | 0,00 |

3 Requirement for a Supply Base Evaluation

Is Supply Base Evaluation (SBE) is completed? No

N/A

4 Supply Base Evaluation

4.1 Scope

Feedstock types included in SBE: N/A

SBP-endorsed Regional Risk Assessments used: N/A

List of countries and regions included in the SBE:

N/A

4.2 Justification

N/A

4.3 Results of risk assessment and Supplier Verification Programme

N/A

4.4 Conclusion

N/A

5 Supply Base Evaluation process

N/A

6 Stakeholder consultation

N/A

6.1 Response to stakeholder comments

N/A

7 Mitigation measures

7.1 Mitigation measures

N/A

7.2 Monitoring and outcomes

N/A

8 Detailed findings for indicators

Detailed findings for each Indicator are given in Annex 1 in case the Regional Risk Assessment (RRA) is not used.

Is RRA used? N/A

9 Review of report

9.1 Peer review

N/A

9.2 Public or additional reviews

N/A

10 Approval of report

| Approval of Supply Base Report by senior management | | | |
|--|---------------------|-----------------------------|-------------|
| Report Prepared by: | Nguyen Thi Thu Thuy | Material Purchasing Manager | 08 Mar 2021 |
| | Name | Title | Date |
| The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report. | | | |
| Report approved by: | Eisuke Nomura | General Director | 09 Mar 2021 |
| | Name | Title | Date |
| Report approved by: | Michio Kaneko | General Manager | 09 Mar 2021 |
| | Name | Title | Date |
| Report approved by: | Si Minh Ngo | Deputy General Manager | 09 Mar 2021 |
| | Name | Title | Date |

Annex 1: Detailed findings for Supply Base Evaluation indicators

N/A