Vietnam

Diagnoses and Regulatory Assessment of Small and micro forest Enterprises in the Mekong Region

11 June, 2018

Submitted by:

Contents

1 Executive summary

This report assesses the preparedness of small and micro enterprises (SmEs) in the forest sector in Vietnam for changes in market structure due to increased enforcement of requirements for legality verification. It makes recommendations on how reforms and other mechanisms can be developed to improve the productivity, competitiveness and revenue of SmEs. It also recommends actions to mitigate potential negative impacts caused by shifts in market structure and the future implementation of the European Union (EU)-Vietnam Voluntary Partnership Agreement on forest law enforcement, governance and trade.

The study examines actors engaged in timber production and timber products manufacturing and trade in four value chains: imported rosewood used in wood villages; domestic acacia plantation timber; domestic rubberwood plantation timber; and domestic scattered trees. All these value chains supply domestic and export markets. The study also seeks to understand gender issues in the value chains, and identify particular legal or regulatory effects on women and men.

1.1 Main findings

The main findings of this study are as follows:

1. SmEs are vital for the livelihoods of millions of households

Many SmEs participate in the four selected value chains. They include approximately 30 wood villages, each with 2,000-3,000 households and 3,000–8,000 hired labourers. Households and labourers involved in the rosewood value chain use an estimated nearly 500,000 m^3 of valuable timber species, including imported timber to make wood products for the export and domestic markets each year. The average annual household income of these households is USD 17,000–22,000, and the monthly income of a hired labourer is about USD 220-300.

SmEs also include about 1.4 million households, with an average of 1-2 hectares of forestland each. These households are part of the acacia wood value chain, producing about 10 million m^3 of acacia timber with a value of USD 500-700 million, and feeding the wood chip (for export) and wood processing industries (export and domestic markets). In addition, SmEs include some 264,000 smallholder rubberwood growers, each with less than three hectares of rubber trees. Annually, these growers supply about 1.3 million m^3 of rubberwood with a value of USD 195 million.

SmEs also include some 0.8-1.6 million local households in approximately 81,000 villages[1] that are part of the scattered tree value chain. Annually, they provide 3.3 million m^3 of timber worth USD 330 million from scattered trees to the market.

Across the four selected value chains, SmEs generate income for millions of households in rural areas, many of which are poor, for hundreds of thousands of hired labourers (mostly without contracts), and for those directly involved in tree planting, wood processing, and trade. For many SmEs, such as those in wood villages, wood-related income is the only income source. Smallholder tree growers are also an important source of wood materials for wood processing companies at the upper levels of the chain, and act as a vital income source for hundreds of thousands of paid labourers working at these levels. SmEs therefore make a substantial contribution to local livelihood and poverty alleviation, especially in rural areas.

2. The legality of timber and timber products in the four value chains varies

There is wide variation in the legality of the timber and timber products produced by each value chain, from the uncontroversial — such as acacia grown on land granted to households whose legality status is certified by a land-use certificate — to the high risk and controversial, as with rosewood timber species imported from Cambodia, Laos or African countries.

The variable legal status of timber in each value chain relates to both the type of land used for growing trees and the availability (or lack) of evidence proving the legality of land and timber. Most acacia timber, rubberwood and scattered trees grown by smallholders have clear legal status, proved through the land-use certificates. However, a small proportion of acacia timber (20-30% of the volume produced by smallholders) and rubberwood (10-20% of the volume produced by smallholders) has unclear legal status. This is mainly because these households have not received land-use certificates from the Government. Proving the legality status for land and the timber trees grown on it is not, however, too daunting a task for households as district and commune authorities can help verify and certify the legal status of the land.

The legal status of the imported rosewood species used by households in wood villages is unclear, mainly due to the lack of legal documents. Households using

[1] On average, each village has 100-200 households according to results of the 2011 Rural, Agriculture and Fishery Census, which the National Statistics Bureau published in 2012.

timber species listed under the Convention on International Trade in Endangered Species (CITES) do not have any documents showing legality. Broadly speaking, most households in wood villages do not pay attention to legality documents and do not ask for them. When buying acacia, rubberwood and scattered trees from tree growers, timber traders hardly ever ask for legal evidence (e.g. land-use certificates). A recent study by Forest Trends and the Vietnam Timber and Forest Products Association (VIFORES) showed that only 8% of households in five surveyed wood villages acquired some form of legal document to show timber legality (To et al. 2018), resulting in a high legality risk for timber products.

3. SmEs operate in a precarious environment and experience other legality risks

Except in areas where provincial and district authorities have designated particular sites for production, most households in wood villages do not have separate production sites. Over 70% of households using rosewood timber species had an insufficient production area, forcing them to use their residential areas as production sites (To et al. 2018).

Mixing living and production areas negatively affects household health and living environments, and generates legal problems for timber products. Specifically, households in the rosewood value chain seldom comply with Government regulations on fire protection and prevention, or waste and pollution control. Wastewater, noise and wood residuals are serious problems in all villages. This is a violation of the Vietnamese Environmental Protection and Labour Code (2012) mandating safe working environments in production areas.

Households in wood villages face other legality risks. Government regulations require wood processing households in wood villages to register their businesses. However, 70-80% of such households operate informally and do not register. Households in 30 wood villages working on rosewood hire some 100,000–200,000 labourers, and do not have formal work arrangements with their labourers. A study by Forest Trends and VIFORES of five wood villages found that hired labourers did not have work contracts (To et al. 2018).

Furthermore, households in wood villages do not comply with the Labour Law on health and work safety, payment levels, social insurance and security for hired labourers. Although the lack of formal work arrangement is often regarded to be of mutual interest, keeping things flexible in an uncertain business setting, the lack of formal work arrangements triggers an additional legality risk.

Wood processing households in wood villages and acacia timber and rubberwood growers find it difficult to access Government loans, particularly loans that allow long-term investment. While there are Government credit programmes that households could access, they often demand complicated paperwork and collateral that is beyond the capacity of most households. Another problem is that the loans are often small (e.g. USD 200-450) and/or have a short payback period (e.g. two years). This prevents households from investing in processing facilities (requiring a larger investment) or establishing tree plantations with long gestation periods (e.g. 5-7 years for acacia trees). A new law on support to small and medium enterprises entered into force on 1 January 2018. It offers incentives, including access to cheaper loans, for entities to register their economic activity.

4. There is limited vertical and horizontal coordination and collaboration among SmEs and with other actors along the value chains

In general, there is no coordination and collaboration among SmEs. Households in wood villages compete with each other over buyers. Tree growers do not consult each other when selling wood. This often comes as a cost for households. There are many examples of traders making use of competition and weak coordination among households to pressurise households in wood villages to reduce the price of their products. Households also do not have access to market information on their products.

There is almost no direct relationship between smallholders supplying acacia, rubberwood and scattered tree timber, and companies processing this timber. In practice, tree growers and processors are linked to each other through extensive networks of traders that operate at various scales. The high transaction costs incurred by a large number of smallholders is a major factor in the lack of a direct relationship between the two sides. There has been little effort, particularly from government (national or local) to foment such relationships.

The high transaction costs are partly due to the lack of SmE representatives. About 90% of households in wood villages are not part of any formal organisation. Although the newly-established Forest User Groups[2] and Farmer's Union[3] could potentially serve as platforms for tree growers, including those growing acacia timber, rubberwood and scattered trees, virtually none of these growers belong to an organisation. The lack of representation excludes SmEs from participating in policy formulation and implementation processes.

In some areas, acacia growers have formed grower groups to reduce transaction costs and increase opportunities for collaboration with wood processing companies.

[2] http://hcr.siteam.vn/default.aspx

[3] http://www.hoinongdan.org.vn/SitePages/TrangChu.aspx

Some of these households receive support from wood processing companies for certification of their plantation products. The companies also guarantee a market for certified timber. In other areas, households in wood villages faced with constraints in selling their rosewood or other high-value timber products to China have collaborated with wood processing companies to shift their raw materials from rosewood to domestic plantation timber (e.g., acacia, rubber) or imported timber from the EU and the United States. Shifting from high-risk to low-risk raw material may be a long term, sustainable development path for households participating in the imported rosewood value chain.

5. Robust policies for gender equity exist but are unenforced, largely due to traditional and cultural norms

The Vietnamese Government is strongly committed to fostering gender equity in the workplace and at home through, among others, the Gender Equity Law (2016) and the National Strategy on Gender Equity 2011-2020). However, gender inequality still exists in all stages of the selected value chains. There is a severe imbalance in women's right to access and own productive land compared to men. For example, women's names appear on land-use certificates only 30% as often as men's names (Hoang et al. 2013). There are many cases of land-use certificates being granted to households with only the husband's name. This raises the risk of disputes between the two sides and of situations in which a husband uses the land-use certificate for his interest and without his wife's consent.

Hoang et al. (2013) showed that at the household level, husband-wife conflicts over land rights, ownership and other issues are usually resolved in favour of men. Local conflict resolution vehicles discourage challenges to the traditional status of women, reflecting the overall social pressure discouraging women from exercising their land rights in a land dispute. In the family, husbands usually make the final decision on the timing of harvest (for acacia, rubberwood and scattered trees) and on buyers of the timber. They also usually decide how to spend the sales income.

Women participate prominently in the rosewood value chain as hired labourers, but are often paid less for the same work and have less job security than men. For example, a female labourer is typically paid VND 120,000–150,000 (roughly USD 6-7) for a day of sanding work, whereas a male labourer receives VND 170,000-200,000 (USD 7.5-9 US) for the same work. Female labourers are also more disadvantaged as regards access to higher paid jobs. For example, male labourers are perceived to be more skilful than females, and thus are more often hired for wood sawing and carving. At the national scale, among the 9.8 million labourers operating in the informal sector without work contracts, about 5.7 million (58%) are women (Ngo 2011).[4]

6. Policies and support measures for SmEs are not effectively implemented or accessible for SmEs

The Law on Forest Protection and Development (now the Forestry Law, which comes into force on 1 January 2019) and subsequent decrees have stipulated various kinds of support, including support for tree growers. This includes favourable loans for establishing timber plantations, capacity building in cultivation techniques, development and quality control of seedlings, and establishment of market connections for tree growers. Other kinds of support include the development and encouragement of SmEs participating in wood processing and trade. A recent Law on Support for Small and Medium Enterprises, which entered into force on 1 January 2018, also outlines various types of support.

However, experience shows that much support for Small and Medium Enterprises outlined in the laws either does not materialise or is inaccessible to the SmEs. For example, for many years, acacia and rubber growers have complained about the low quality of seedlings — a result of an enduring weak enforcement mechanism to control seedling quality. Lacking quality control, growers have to place their plantations in the hands of seedling providers. In principle, households can access Government loans for establishing plantations but, as mentioned, the loan size and repayment periods are inappropriate. The Law on Support to Small and Medium Enterprises highlights support for SmEs, but very few SmEs in the value chains covered by this study meet the legal requirements[5] as they have not registered as household businesses or enterprises. They are therefore not eligible for support.

[4] It is not clear from the study whether female hired labourers working in wood villages are included in this figure.

[5] The Law defines small and medium enterprises as employing fewer than 200 regular employees who are covered by social security, having a total investment of no more than 100 billion VND (roughly USD 4.4 million) and with a total income in the preceding year not exceeding 300 billion VND (USD 13.2 million)

1.2 Recommendations

For each of the four value chains and for the cross-cutting issue of gender, the following tables summarise the current situation, policy issues and options, and actions required.

Value chain 1. Imported rosewood used in wood villages for domestic and export markets

Current situation	• The scale of the value chain is large, in both the volume of rosewood used and the number of participating SmEs . There are approximately 340 wood villages in Vietnam, with 24,000 households and 100,000-200,000 hired labourers working in these villages. The total amount of imported wood used by wood villages is 1.4-1.75 million m^3 roundwood equivalent. • Among these villages, approximately 34% use imported rosewood for manufacturing timber products for export and for domestic markets. On average, each village hosts 1,000-3,000 households that use about 13,500 m^3 roundwood equivalent of imported rosewood species. The total volume of rosewood used by these villages for export amounts to 459,000 m^3. • At the household level, there are two levels of legality risks associated with the use of imported rosewood. First, lack of evidence proving the legality of the wood (e.g. lack of CITES permit, tax invoice, sale contract). Second, all transactions between households using the wood and traders providing wood to the households, and between households as sellers of timber products and buyers, occur informally and without legal documents. • Households in wood villages operate in precarious environments (e.g. the lack of business registration, production space, labour contracts, and the violation of environmental regulations). This adds another layer of legality risk to timber products.

<u>Policy issues and options</u>	• Activities by households in wood villages are largely informal, and many are illegal. • Policy support to formalise the informal sector is necessary to ensure operators are able to demonstrate legal compliance. Formalisation requires a step-wise and comprehensive approach to ensure minimal disruption and impacts on households. It includes requirements for households to comply with existing regulations. For example, households are required to register their business and control their production inputs and outputs. Formalisation also needs to provide strong incentives to households, such as technical and legal advice, tax exemption, and loans with favourable conditions to motivate them to shift from being informal to formal entities. Policies should also facilitate switching from high risk to low risk timber. This could be done by supporting collaboration between wood processing companies and households in wood villages, or through public procurement policies that mandate the use of legally certified products made by households in wood villages. • It is important to encourage households to collaborate with each other to establish collective legal entities, such as cooperatives so they can shift to the formal model and operate under the Cooperative Law. Collaboration with each other and forming a legal entity can also help reduce transaction costs and facilitate participation of households in policy-making processes.
<u>Actions required</u>	• The Ministry of Industry and Trade, in collaboration with the Ministry of Agriculture and Rural Development (MARD) should design a comprehensive support programme to formalise wood villages. This programme should outline specific roles of different agencies and allocate sufficient budget to implement those roles. The two Ministries should provide clear guidelines on legality procedures for households. The Ministry of Labour and Social Invalid Affairs can help to improve the capacity, knowledge and skills of people

	working in SmEs in, for example, the areas of legal requirements, tree planting and wood processing techniques. The Ministry of Information and Communication can help communicate legal requirements on fire protection and prevention, environment protection, labour use and work safety, and the use of legal timber. • Development agencies have potential to provide technical support to emerging models (e.g. establishing cooperatives, collaboration between processing companies and households) and to facilitate the upscaling of the models nationwide. Timber associations can play an important role in connecting the companies and households. • NGOs and mass organisations (e.g. Farmer's Union, Women's Union) could help with communication by, for example, reaching out SmEs with information on legal requirements concerning registration and the legality of the wood, among others.

Value chain 2. Domestic acacia plantation timber for domestic and export markets

<u>Current situation</u>	• 1.4 million households hold 3.4 million hectares of forestland, of which 1.6 million hectares are plantation forests • 86.3% of forestland is held by smallholders with land-use certificates; the rest lack land-use certificates and legal evidence showing their legality status for the land. • The total volume of acacia timber harvested by smallholders is approximately 9.6-10 million m^3 per year. • Average household income derived from acacia timber is USD 780-920 per year, which is too little for households to live on. • About 70-80% of acacia timber produced by smallholders is small timber (diameter less than 12 cm) sold to the wood chip industry. The remaining 20-

	30% is larger timber (12 cm and above) used to make furniture with more added value than wood chips. • There are many reasons preventing households from lengthening their plantation cycles for more added value. These include poverty, household financial liquidity, low quality of seedlings and natural calamity risks (e.g. wind). • Most households sell the timber to traders. About 98% of the sales occur informally and without legal evidence, which traders do not request. • Demand for acacia timber has been high and increasing, mainly due to the expansion of wood chip and furniture companies. Acacia is considered to be a low legal risk timber, and thus is used intensively for export products intended for the United States, the EU and other environmentally-sensitive markets.
Policy issues and options	• The Government should provide further land access to households so that they can establish acacia plantations. Increasing household land access could be implemented by the Government transferring land currently used ineffectively by state forest companies and/or commune People's Committees (3 million hectares). • A specific strategy for supporting household acacia plantations should be developed. The strategy should identify conditions and prioritise the area and the households with financial resources for long-term investment that should focus on large tree production or those who are not ready for that. The Government should adopt a step-wise approach when implementing the strategy, with different kinds of support for different groups of households depending on their resource availability. • To support the shift of production from smaller to larger diameter trees (for furniture manufacturing), the Government should help address constraints that smallholders face (e.g. difficulty in access to long-term loans, low quality of seedlings, risk of natural calamity). Lessons learned from smallholder group certification could be used for establishing support for

	establishment of smallholder cooperatives, and for collaboration between wood processing companies and smallholders.
Actions required	• The shift from smaller to larger diameter timber requires different kinds of support. For example, the Bank for Social Policies, the Agricultural Bank should create a tailored credit line that prioritises large tree production by SmEs. The State Insurance Agency and Ministry of Finance should work with the MARD to establish an insurance programme for acacia plantation. MARD, the Ministry of Labour, Invalids and Social Affairs, Farmer's Union, and Vietnam Cooperative Alliance should develop clear guidelines and support the formation of smallholder cooperatives. Financial and technical support from international development agencies is important for piloting the switching of models and future scale-up. • Timber associations can play an important role in connecting companies and smallholders. VIFORES and local timber associations such as Binh Duong Forest Association (BIFA), the Handicraft and Wood Industry Association of Ho Chi Minh City (HAWA), and Binh Dinh Timber and Forest Products Association should act as facilitators, connecting wood processing companies and tree plantation smallholders. • The Ministry of Finance, the Ministry of Industry and Trade and MARD should work on a public procurement policy that mandates the use of legal timber, including acacia, by Government agencies. • MARD, the Ministry of Finance and provincial and district authorities should provide financial and technical support for collaboration between wood processing companies and smallholders.

Value chain 3. Domestic rubberwood plantation timber for domestic and export markets

Current situation	• The country's total rubber plantation is 974,000 hectares. Rubber trees are grown on forestland (therefore rubberwood is considered as a forest product), agricultural land (on which rubber is an agricultural crop), and household swidden/farmland (on which it can be either a forest product or agricultural crop). The Forest Protection Department is mandated to control the legality of wood grown on forestland, whereas the district and commune People's Committee is responsible for controlling the legality of the wood from agricultural land. • There are 263,876 households with a total area of 409,300 hectares of rubber plantations, or 43% of the national rubber plantation area. Most (87%) of these households have rubber plantations of three hectares of less. • Total rubberwood produced by these households is 1.3 million m^3 per year or almost 40% of total national production (which is 3.3 million m^3) • Market demand for rubberwood for both domestic and export consumption has been rising. • Most smallholders sell the wood to traders informally. There is no effort from either side to obtain official documents proving the legality of the wood. • Data on the area of rubber grown on forestland and on agricultural land are unavailable. • There is a Vietnam Rubber Association, but the members are all large-scale companies most of which belong to the state-owned Vietnam Rubber Group. Rubber plantation smallholders are not members of the association. There is no organisation representing rubber plantation smallholders.
Policy issues and options	• The Government should provide support to clarify the legality of smallholder rubberwood. A comprehensive survey is needed to identify the smallholder rubber area grown on forestland and agricultural land. The

	survey data would provide a foundation for verification and certification. • The commune People's Committees should be mandated to verify and certify the legality of the wood produced by smallholders. • The Government should facilitate the collaboration between wood processing companies and rubber plantation smallholders by requesting local Government officials (at province, district, and commune) to facilitate the collaboration (e.g. providing information on land tenure, land certificate, guaranteeing the legality status of the households on the land, organising smallholders into a group/collective entity to reduce transaction cost). • Support should be provided to rubber plantation smallholders to form cooperative entities (e.g. rubber plantation smallholder associations or cooperatives) so that they can gain a legal status and enter into business relationships (e.g. with wood processing companies) • All traders should be required to record their inputs and outputs, and comply with requirements for proving legality of the wood. • The public procurement policy should also encourage the use of rubberwood.
Actions required	• The MARD should direct its research organisations to undertake a comprehensive survey to identify the current situation of rubber plantation by smallholders (e.g. area of plantation, type of land, years of plantation, socioeconomic status of households, networks of traders). • The Ministry should develop guidelines and procedures on verification and certification of the legality of rubberwood grown on forestland and agricultural land, and communicate these guidelines and procedures to local authorities, including commune People's Committees via different channels (e.g. branch offices from province to district, mass media). • The Vietnam Rubber Association, Farmer's Union, Vietnam Cooperative Alliance, local authorities,

	development agencies and NGOs should provide technical and financial support to rubber plantation smallholders to establish their collective entities (e.g. cooperatives or being part of Vietnam Rubber Association). • Timber associations should help connect wood processing companies and rubberwood smallholders.

Value chain 4. Domestic scattered trees for domestic and export markets

Current situation	• 55 million scattered trees are planted in Vietnam each year. • 3.3 million m^3 of timber per year is harvested from this source, accounting to 14% of the total timber plantation harvest (23.7 million m^3). • Almost 25% of wood processing companies use timber from scattered trees. • Scattered trees grow on various types of land, including residential land, garden land, agricultural land and forestland, and common land such as river banks and school yards. • At present, a legal framework for verifying and certifying legality of the scattered trees does not exist. However, the legality definition in the EU-Vietnam VPA explains the requirements to support verification of legality of the wood from this source. • Households sell the wood to traders without legal evidence.
Policy issues and options	• The Government should issue guidelines and procedures for the verification and certification of wood legality. These guidelines and procedures should be simple so that they can be easily adopted by local authorities and households. • The Government should formalise transactions between traders and tree growers through simple legal requirements that traders and tree growers can comply with. For example, legality evidence from timber harvest, sale and process should be obtained

	by the households and traders, as required by the current VPA.
<u>Actions required</u>	• In consultation with other agencies and local authorities, MARD should issue guidelines and procedures for verification and certification of wood legality. • The commune People's Committee should be the agency in charge of legality verification and certification, with support from the district People's Committee and technical staff from district departments of forest protection and agriculture, • MARD, the Ministry of Industry and Trade and the Ministry of Finance should collectively work on requirements for formalising transactions between traders and tree growers. The requirements should be sufficiently simple for enforcement agencies (e.g. commune People's Committee) to follow.

Gender inequality in SmEs

The four value chains studied have some distinct gendered elements, but overall there are some common observable patterns:

- Each of the value chains studied is male dominated at all stages (60% male, but still a considerable female workforce). It appears that most enterprises are male-owned, although there are no clear figures available on male or female ownership of SmEs.
- From overall figures relating to ownership of small and medium enterprises and microenterprises, women own 21% of the total, with most of them being microenterprises (IFC 2017). It is probable that there is much lower female ownership and entrepreneurship in SmEs.
- Women play a limited role in any intermediary position and are mainly engaged as workers, minimising their exposure to business networks and capability to engage in major decision-making processes.
- Women tend to do less physical work than men, focusing on wood finishing activities such as sanding and polishing, packing materials for despatch, and back office services, including financial management and sales. Gendered work segregation increases the likelihood of gender pay gaps and difficulties of ensuring women get fair pay.

- Female workers are paid less than their male counterparts for equivalent work (for example, labourer wages of USD 9-11 for men and USD 8 for women). Men retain the major areas of decision making including accessing finance, identifying markets and buyers, and making investment decisions for expansion of family-owned businesses.
- Strong cultural perceptions still constrain the role women can play in decision making and entrepreneurship, and create biases against women as business owners (IFC 2006) despite a generally more supportive environment for women's engagement in business. Women often do not have their names recorded on the land-use certificates, preventing them from accessing commercial loans where land is required as collateral. This acts as a considerable barrier to women developing their own businesses or asserting their rights to decision making over major financial decisions.
- From wider business surveys, it is apparent that banks do not have tailored support to women entrepreneurs, and women are perceived as more risky and potentially costlier to support than men (IFC 2017), resulting in lower levels of lending to women, and poorer female access to bank loans. There is no evidence provided in this study concerning women's voice in wider representational organisations, such as timber associations.
- However, from other studies in Vietnam (e.g. HAWASME and MBI, 2016), it is clear that women's more limited exposure to the formal networks and spheres of operation, including membership of trade associations, reduces women's capacity to access information and relationships necessary to build their own professional expertise within the business.
- Women's business clubs, developed by the Vietnam Women's Union, provide important support to women, and access to information and social networks. However, the more specialised sector-based associations — including those in the forest product sector— remain male dominated and have not adapted their operations to the needs of women entrepreneurs or to specific gender-related issues.

<u>Current situation</u>	• There are robust policies for gender equity in Vietnam, as reflected in the Gender Equity Law, the National Strategy on Gender Equity, and the country's ratification of international conventions relating to gender equity. In principle, these legal frameworks show a strong policy commitment to gender equity in the workplace and domestic spheres.

	• However, enforcement of these policies has been weak. Gender imbalance and inequity is found at all stages of the four studied value chains, for example in the issuance of land-use certificates, domestic decision making, wage payments, job security and access to jobs. This is mainly attributable to the social beliefs and structures perpetuating the status quo.
Policy issues and options	• Specific policies and measures for gender equity that improve the productivity and quality of women's employment — such as access to land, credit and other production resources — are needed. • Gender mainstreaming is needed in all Government policies and programmes targeting SmEs, including policies and measures for increasing land access for smallholders, forming collective entities, accessing credit, collaboration between smallholders and wood processing companies, and formalising enterprises and employment.
Actions required	• The Vietnam Women's Union, representing the legal and legitimate rights and interests of the Vietnamese Government, should ensure all SmE policies, programmes and support includes a strong gender dimension. • The Vietnam Women Entrepreneurs Council (VWEC) of the Vietnam Chamber of Commerce and Industry should encourage access to business development services, particularly targeted to women in the SmE sector to support their growth as entrepreneurs and their capabilities to support female workers, in particular to improve their conditions. • The VWEC should also encourage the participation of women in forest product associations to ensure these associations represent men and women entrepreneurs equally. This should include support to training on gender equality in these associations, which remain male dominated both in terms of membership and understanding of the sectoral interests and issues. • The Ministry of Labour, Invalids and Social Affairs, in collaboration with the Vietnam Women's Union and

	other organisations such as the International Labour Organization and development agencies, should design a comprehensive training programme targeting women, especially as regards improving their work skills, their legal status and their power in the workplace and the home. • Some campaign is also required to ensure women have their names on the land-use certificates as well as men, and receive equal pay for equal work.

2 Introduction

In the past 15 years, countries in the Mekong region have emerged as new manufacturing hubs for the global timber trade, with centres in Vietnam, Thailand and China. Across the globe, manufacturers both big and small are increasingly subject to increased legality verification requirements, especially where required by legislation as in the European Union (EU), the United States, Australia and soon, Japan, South Korea, Indonesia and possibly China.

Larger, more-established enterprises are better equipped to meet these market requirements than their small-scale counterparts. In the Mekong region, four countries — Laos, Myanmar, Thailand, and Vietnam — are currently engaged in Forest Law, Enforcement, Governance and Trade (FLEGT) processes or FLEGT Voluntary Partnership Agreements (VPAs) with the EU.

FLEGT processes are designed to promote good governance in the forest sector, with an overall positive impact for all actors — large and small — due to improvements in the rule of law and management of natural resources that result from a robust consultative process that includes all stakeholders.

However, there is concern that without due consideration for small-scale actors, FLEGT processes and other emerging market demands for verified legality — such as due diligence or sourcing practices — will have unintended social and economic consequences by subjecting small-scale forest enterprises and marginalised groups — including women — such as those operating outside the legal framework in the form of traditional/community forest enterprises or other informal sectors to more stringent legal enforcement and the higher costs of compliance.

2.1 Small and micro forest enterprises in Vietnam

Although the productivity growth of small and medium enterprises typically does not compare with that for large enterprises, collectively they are an important economic factor. Each country will have its own national strategy for creating opportunities for informal micro enterprises — such as smallholder tree growers and household-based wood processors — and small and medium enterprises to advance national development and reduce poverty, through broader sector reform, technical assistance and financial support. However, most national strategies will not be able to disaggregate their analysis and recommendations to sub-sectoral levels and will pay comparatively less attention to rural and household-level enterprises.

The Government of Vietnam has specific indicators for classifying enterprises according to their scales (see Table 1).

Table 1. The Government of Vietnam's definition of micro, small and medium enterprises[6]

Sector	Micro	Small		Medium	
	Labourers	Total investment	Labourers	Total investment	Labourers
Agriculture, forestry and aquaculture	1–9	Less than 20 billion VND (USD 0.88 million)	10–199	20–100 billion VND (USD 0.88–4.4 million)	200–300
Industry and construction	1–9	Less than 20 billion VND (USD 0.88 million)	10–199	20–100 billion VND (USD 0.88–4.4 million)	200–300
Trade and service	1–9	Less than 10 billion VND (USD 0.44 million)	10–49	10–50 billion VND (USD 0.44–2.2 million)	50–99

Small and micro forest enterprises (SmEs) dominate Vietnam's forest production and wood processing industry. Most have not registered their business with the government, and therefore operate informally. SmEs are diverse and important not only in terms of timber supply, but also with regards to wood processing and supplying timber products mainly to domestic markets, and to a much lesser extent export markets. SmEs are thought to number in the millions and are thus very important for local livelihoods and poverty alleviation. Many SmEs both make products for final sale and as inputs to larger-scale industries, creating a mutually beneficial interdependence between SmEs and larger-scale industries.

Vietnam's informal SmE sector is so extensive for three main reasons. First, few of them know that they have to register — they have been operating informally for years and have not been told that they need to register. Second, registration is

[6] Source: Government Decree 56/2009/ND-CP, 30 June 2009 on Support for the Development of Small and Medium Enterprises. http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=88612

complicated. It requires a lot of paperwork and communication with various government agencies, and this is beyond the capacity of many SmEs. Third, registering means a shift from an informal to a formal entity, and the latter is subject to taxation and thus increased production costs.

Cling et al. (2011) found that there were 8.4 million household businesses in all sectors in Vietnam. The largest group was 'manufacturing and construction' accounting for 43% of total employment in the informal sector, followed by the 'trade' (31%) and 'service' (26%) groups. The proportion of SmEs in each of these groups is unclear, however. According to government reports, there are about 18 million hired labourers working in the informal sector, most of them working in traditional handicraft villages, some of which manufacture wood products.[7]

The World Bank 'Doing Business 2018' report assesses how well the regulatory framework is applied to local enterprises according to ten topics or areas of regulation — such as regulations for 'starting a business', 'registering property', 'paying taxes', etc. Vietnam ranked 68th of 190 countries in terms of business regulations and enforcement (World Bank 2018). This means that enterprises, probably including enterprises operating in wood sector, continue to face many constraints.

To date, knowledge about small and medium enterprises in general and particularly about SmEs is very limited, mainly because many of them operate informally. A comprehensive understanding of SmEs would require a systematic and extensive survey across the country. Wherever possible, this report offers informed insights on what is likely at the national level in terms of scale, its contribution to the local economy, and legal aspects.

[7] Source: https://vnexpress.net/tin-tuc/thoi-su/gan-18-trieu-lao-dong-phi-chinh-thuc-khong-co-bao-hiem-xa-hoi-3650856.html.

2.2 This study

This report examines actors engaged in timber production, timber products manufacturing and trade. It focuses particularly on small and micro forest enterprises (SmEs)SmE, which it defines as including:

> **Smallholder tree growers:** This group includes smallholder (household) acacia growers, smallholder scattered tree growers, and smallholder rubber growers.
>
> **Household-based wood product producers:** This group includes households making wood products — such as furniture — for domestic and export markets. Most of these households are in 'wood villages', particularly in the Red River Delta region. Most do not register their business activities with the government and therefore operate informally.
>
> **Household-based wood traders**: This group includes small-scale traders, mostly household-based, who buy imported timber from import companies and sell it to households in the same village for making wood products. This group also include small-scale traders who buy timber — such as acacia, rubberwood or scattered trees — from local households and sell it to sawmills or wood processing companies. They are small-scale because most of them do not hire any labour or have only 1-2 workers. Their capital investment is small, about USD 20-50,000 on average. Most traders register their business with the government, but some operate informally.
>
> **Small-scale enterprises:** This group includes wood processing enterprises that make wood products mainly for the domestic market. It includes small-scale sawmills that buy timber from traders or smallholders and sell processed wood (e.g. sawnwood) to wood-processing companies or other traders. Usually, enterprises in this group have to hire labourers, but the number of hired labourers is small, fewer than 10 on average. They register their business with the government and operate under the Enterprise Law.
>
> **Hired labourers:** This groups includes people who work for the households or traders in wood villages, or for small-scale enterprises. Few have formal work contracts.

This report assesses the preparedness of SmEs for changes in market structure due to increased requirements for legality verification. It makes recommendations on how broader reforms and other mechanisms can be developed to improve the productivity, competitiveness and revenue of SmEs, and to mitigate potential negative impacts caused by shifts in market structure and the future implementation of the EU-Vietnam VPA.

The report presents primary data and analysis of four important value chains involving SmEs (see Annex 1 for the methodology used to select and analyse value chains):

Value chain 1: Imported rosewood used in wood villages for export and domestic markets

Value chain 2: Domestic acacia plantation timber for domestic and export markets

Value chain 3: Domestic rubberwood plantation timber for domestic and export markets

Value chain 4: Domestic scattered trees for domestic and export markets

All currency values are presented in Vietnamese Dong (VND) and US Dollars (USD).

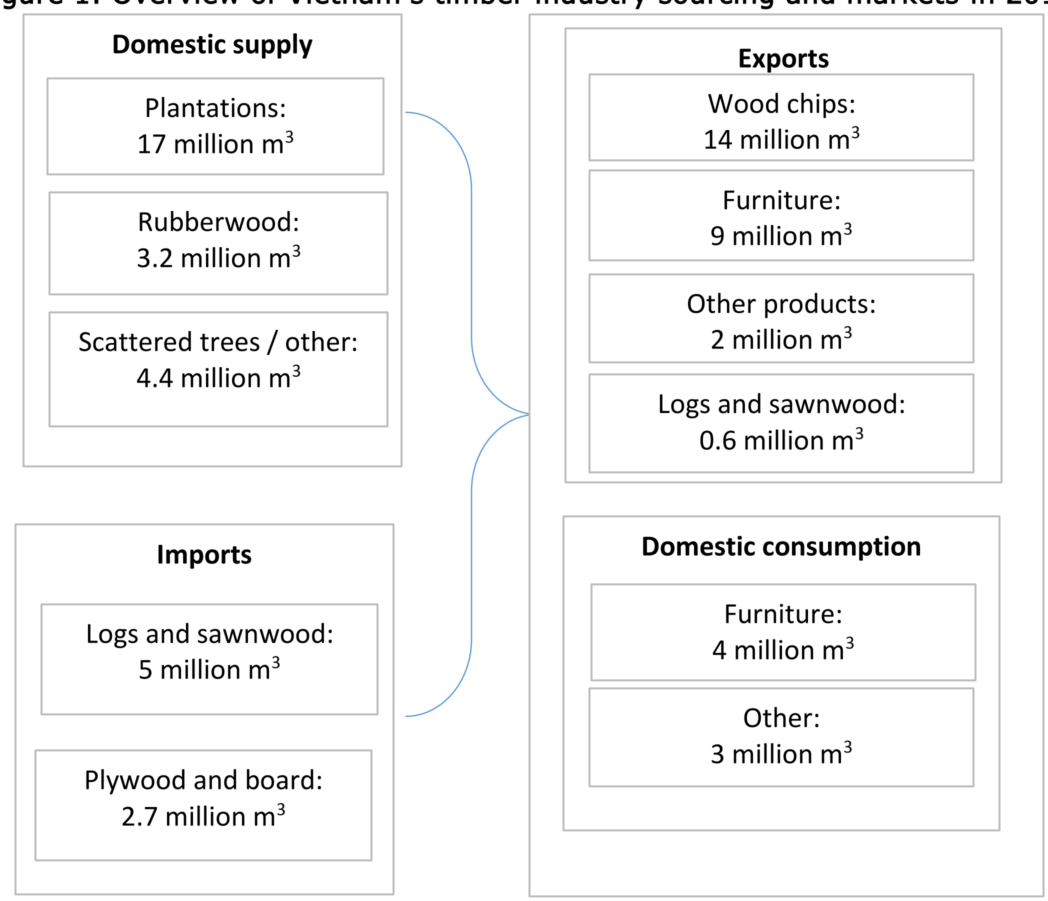
3 Background and Context

3.1 Overview of Vietnam's timber sources and markets

Vietnam's wood industry uses both domestic and imported raw materials. Figure 1 shows the volume of raw wood in cubic metres (roundwood equivalent) sourced and marketed in 2016. With the burgeoning growth of Vietnam's manufacturing centres, the wood product industry has been eager to continue to:

- Augment domestic supply by incentivising plantation development
- Limit exports of low value-added timber products (especially wood chips)
- Increase imports to meet the supply gap

Figure 1. Overview of Vietnam's timber industry sourcing and markets in 2016.



Source: Adapted and modified from Nguyen et al. 2017, To et al. 2017, Vietnam customs data. Units in m^3 roundwood equivalent

3.1.1 Domestic supply of industrial wood

The domestic supply of industrial wood is expanding to keep up with spectacular growth in demand in Vietnam's domestic and export markets. This also reflects the Government decision to protect the country's forests and promote forest plantations. As a result, domestic production in 2016 reached 22.6 million m^3, composed of:

- **Plantation timber**: About 17 million m^3 of plantation timber is harvested per year, of which 80% is acacia. Nearly 60% of the total harvest is from smallholders (1.1 million households) with the remaining 40% coming from State Forest Companies. Both the total plantation area and harvest volumes have expanded.
- **Rubberwood:** About 3.2 million m^3 of rubberwood is harvested annually. More than 43% of it comes from smallholders (263,876 households with rubber plantations) and the remaining 57% from (mainly) state-owned and private rubber companies.
- **Scattered trees:** Millions of smallholders produce 4.4 million m^3 of wood from trees. Of this total, 3.3 million m^3 are classified as coming from scattered trees.
- **Conversion timber and other sources:** About 1 million m^3 of timber comes from other sources, including conversion forest — such as timber harvested from infrastructure projects such as mines or dams — and illegally harvested timber.

3.1.2 Imported raw material

Vietnam's domestic production far exceeds its imports, which, while increasing year on year, were only 7.7 million m^3 in 2016. The 4.5-5 million m^3 of logs and sawnwood that Vietnam imports come from more than 100 countries and territories, and represent over 150-160 timber species. Tropical hardwoods comprise half of the total quantity. The other half is from the United States and Europe, which together account for 80% of this half of the total, Latin America and New Zealand, among others.

3.1.3 Exports

Vietnam's export market is much larger than its domestic market, with over 25.6 million m^3 of wood products exported each year compared to 7 million m^3 sold domestically. Exports include:

- **Wood chips**: With a total volume of about 7 million dry tonnes (14 million m^3 roundwood equivalent), wood chip exports are valued at more than USD 1 billion each year. Vietnam exports approximately 60-70% of the wood chip volume to China. Despite a furniture industry supported wood chip export tax to reduce exports of low value-added timber products, there has not been a reduction in wood chip plantation area, production, or export.

- **Furniture**: Exports of furniture accounts for 70% of total timber export revenue, exceeding USD 4 billion per year. The United States is the largest market for Vietnamese furniture, followed by the EU. Half of the revenue is from the sale of outdoor furniture, and the remainder is from indoor furniture and wood-based handicrafts.
- **Other products**: This includes various wood products classified under Harmonised System (HS) codes 4401-02, 4404-06, and 4419-21.
- **Logs and sawnwood:** Vietnam mainly imports tropical hardwoods, including rosewood species, from other Mekong countries and Africa. It re-exports imported logs and sawnwood of rosewood species to China.

3.1.4 Domestic market

With more than 90 million people and an expanding middle class, Vietnam's domestic market is increasingly prominent, consuming approximately 4 million m^3 roundwood equivalent in the form of furniture and 3 million m^3 for housing and construction needs, valued at about USD 2 billion in total (Nguyen et al., 2016). However, information on the dynamics of the domestic market is scant, with little systematic collection of data concerning scope, operations, products and distribution networks as they evolved over the past half-decade.

Other sources estimate that the market is much bigger, with annual consumption about 10 million m^3 roundwood equivalent (To 2017), broken down as follows:

- **Furniture:** 4.2 million m^3, including tables, chairs, bedroom furniture, kitchen furniture, etc.
- **Construction:** 1.5 million m^3, including pillars, wood used for construction sites, etc.
- **Housing:** 4.5 million m^3 of timber
- **Mining and boat construction:** 0.5 million m^3

The study posits that timber produced for domestic markets is primarily sourced from domestic plantation timber (acacia), scattered trees, rubberwood, imported timber from the United States, EU and Latin America, and imported timber from tropical forests in Cambodia, Laos, Myanmar and Africa.

To et al. 2017a examined the domestic market through the lens of timber product groups sold on this market. This approach adopts the following classification, and helps to delineate the potential risk of illegal sourcing:

- **Normal products:** Diverse products in terms of design made from domestic plantation timber, rubberwood, plywood, and scattered trees. There are legality risks associated with products made from illegally-harvested timber.
- **Modern style products:** Products such as tables, chairs and flooring made from imported timber from the United States, EU and Latin America are mostly consumed by young people in big cities. The high-end products have bright colours. Products made from lower-value species sourced from the United States and EU are exported back to the source countries or sold on the domestic market. There is a low level of legality risk associated with this source of timber.
- **Traditional products:** High-value species imported from tropical countries are typically transformed into heavy, dark-coloured and ornate furniture. Some of these products come from tropical timber species illegally harvested from Vietnam's natural forests.[8] Prices are much higher than those of normal or modern style products. Customers tend to be traditional, and in the middle or older age groups. These products are at the highest risk of illegal sourcing.

3.1.5 High-risk product flows

Disaggregation of the supply and demand volumes reveals how most of Vietnam's smallholder and plantation forests supply mainly low-risk species, such as acacia and rubberwood, that feed the low value-added wood chip export industry. On the other hand, about half of imported materials are tropical hardwoods, some of them rosewood species from countries in the Mekong and Africa with high risk profiles as regards timber illegality. These species are mainly manufactured and sold in Vietnam's domestic markets, with some high-value rosewood products exported to China.

[8] Illegal logging from Vietnam's natural forest has been widely reported by local media. For example: https://baomoi.com/can-canh-lo-go-lau-nghi-do-lam-tac-pha-rung-tao-ton-tai-binh-dinh/c/23376824.epi; https://tuoitre.vn/tuon-go-lau-khoi-rung-giua-ban-ngay-20170921100516344.htm; http://soha.vn/them-3-nghi-can-vu-pha-rung-po-mu-ra-dau-thu-20160820110316161rf20160820110316161.htm. Timber from this source is often used for the domestic market.

3.2 Vietnam's informal sector and the SmE products industry

According to Prime Minister's Decree 78 (2015)[9], households involved in agricultural, forestry, aquaculture and salt-producing activities, and street vendors, mobile traders and service providers with low income do not have to register as a legal entity under the Vietnam Enterprise Law (2014). Provincial People's Committees decide on the income threshold in their respective province.

Decree 78 spells out clearly that the household businesses with incomes above the threshold have to register. Box 1 shows the requirements for household registration.

Box 1: Registration of household businesses (Article 66, Decree 78/2015)

- A household business as owned by a Vietnamese citizen, by a group of persons or an individual household, may be registered for business at a geographical location only, may employ up to 10 employees, shall not have a seal, and shall be liable for its business activities to the full extent of its assets.
- Household businesses that engage in agriculture, forestry... production… service provision, earning low income shall not be required to register their business, unless they conduct business in conditional lines of business. People's committees of cities and provinces under central authority shall stipulate the applicable level of low income within their locality. The stipulated level of low income may not be higher than the stipulated threshold at which personal income tax is payable in accordance with the law on tax.
- Any household business which employs regularly more than 10 employees must register as an enterprise.

[9] https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Nghi-dinh-78-2015-ND-CP-dang-ky-doanh-nghiep-290547.aspx

The "Informal sector" in Vietnam thus includes:

- Small-scale households engaging in business activities that are not required to register due to their low incomes (legal); Most households in the agricultural and forestry sectors are informal (a higher proportion than the overall national average); and
- Households or enterprises that meet all the requirements under the Vietnam Enterprise Law, but choose not to register (illegal). About 78% of household businesses in Vietnam in all sectors have an income level that exceeds the income threshold, but do not register officially with local and national authorities and therefore operate illegally (Cling et al. 2011).

An 'informal labourer' or 'informal employment' refers to labourers without a formal work contract, and who are therefore not covered by social protection policy. Informal labours are found in both the informal and formal sector. Vietnam has 18 million people working in the informal sector (informal employment), accounting for 57% of the total labour force (Nhan Dan Newspaper, 4Oct 2017).[10] This figure does not include people working in agriculture, forestry and aquaculture households that have not formally registered. About 44% of the total are classified as vulnerable groups: 32% are self-employed and almost 12% work as unpaid family labour.

In Vietnam, informal labourers are marginalized in at least three ways (Nhan Dan Newspaper, 4 Oct 2017)[11]: quality of job, access to job opportunities, and working hours. They are often seen as people with fluctuating insecure jobs, no formal work contract, low incomes (their salaries average two-thirds of those paid to formal sector labourers[12]), untrained (only 15% have received training), long working hours, lack of health and social insurance (only 2% covered), and ineligibility for government benefits (ibid.) [13]. They have been 'forgotten' by public policy[14].

---

[10] Nhan Dan Newspaper, 4 Oct 2017 http://www.nhandan.com.vn/xahoi/item/34295202-de-lao-dong-phi-chinh-thuc-khong-bi-bo-quen.html

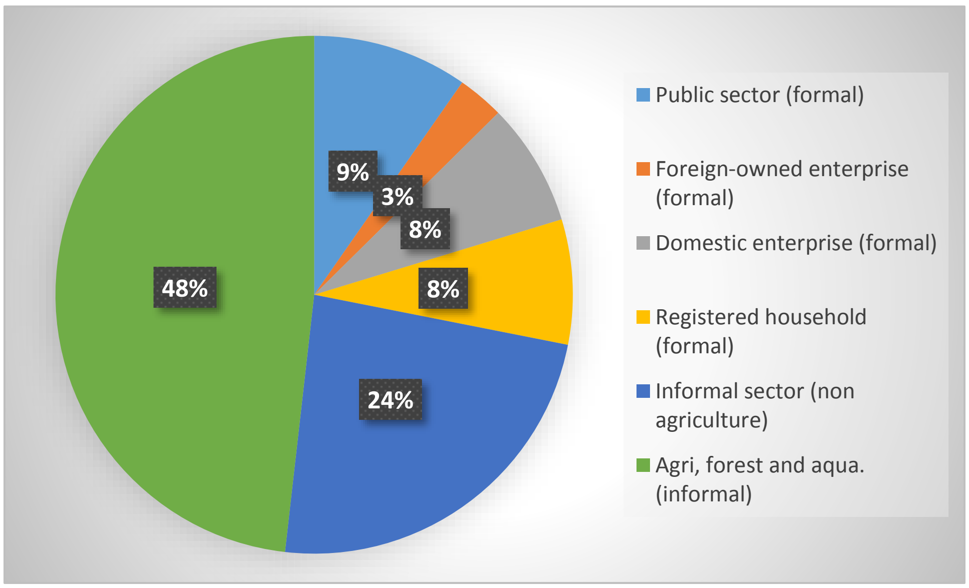
[12] http://www.ilo.org/hanoi/Informationresources/Publicinformation/newsitems/WCMS_579925/lang--vi/index.htm

[13] https://tuoitre.vn/nang-chat-luong-giam-dan-lao-dong-phi-chinh-thuc-20171005112605781.htm

[14] Same source as footnote 13

Figure 2 presents employment by institutional sector. The formal sector (public sector, Foreign Direct Investment (FDI), domestic enterprises, and registered households) accounts for about 28% of the total labour force, while the proportion of labourers in the informal sector (excluding informal labourers in the agriculture, forestry and aquaculture sector) is 24%.

Figure 2. Employment by sector.



Source: LISSA, based on Labour Force Survey 2009, no date.

12.4 million of the "informal households" in Vietnam cited by Hanns Seidel Foundation et al (2012) generate about 24% of the country's income. In the timber manufacturing sector, "informal sector" households and enterprises also comprise an important proportion of total manufacturing and trade of timber products. As with SmEs in all sectors, there are several likely reasons why a household cannot or chooses not to comply with the Vietnam Enterprise Law (2014) and/or to register, including among others:

- **The incentive to under-report the number of employees:** According to the Enterprise Law (2014), households with fewer than 10 regular labourers have to register as a business entity, which allows them to enter into economic transactions (buying, selling, exporting). Households employing more than 10 regular labourers have to register under the Enterprise Law and are subject to taxes and registration fees.

- **Registration fees:** Registered households must pay registration fees (100,000 VND or USD 4.4)[15]
- **Licence fees:** Registered households must pay yearly licence fees, which are determined by the household monthly income (Table 2). A household earning USD 50 per month, for example, would need to pay the USD 40 annual licence fee, which would represent 7% of their total income. Households reporting a smaller monthly income, such as USD 20, would need to pay USD 4.40, equating to 2% of their total income.

Table 2. Licence fees for household enterprises.

Monthly household income — VND	Annual licence fee — VND
More than 1,500,000 (USD 50)	1,000,000 (USD 40)
1,000,000–1,500,000 (USD 40-50)	750,000 (USD 30)
750,000–1,000,000 (USD 30-40)	500,000 (USD 20)
500,000–750,000 (USD 20-30)	300,000 (USD 13)
300,000–500,000 (USD 13-20)	100,000 (USD 4.40)
Under 300,000 (USD 13)	50,000 (USD 2.20)

- **Value added taxes:** Registered households must pay 1-5% of their turnover, depending on their area of business.
- **Personal income tax:** Households with an annual income of less than 100 million VND (USD 4,400) do not pay personal income tax. Households with a larger personal annual income pay 0.5-5% income tax depending on their area of business. Poor households, as defined by Provincial People's Committees based on a certain level of income, are often tax exempt.

[15] Ministry of Finance Circular 176 (2012) and https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Thong-tu-176-2012-TT-BTC-quy-dinh-muc-thu-che-do-thu-nop-quan-ly-su-dung-le-phi-149998.aspx

Households engaging in business activities are required to self-declare their activities, total revenue and income using a book provided by local authorities, which check this information and decide whether a household is required to pay taxes. While there is a significant incentive to under-report revenues and income in any self-declaration system, the list of households required to pay taxes, and how much, is made publicly available.

The World Bank "Doing Business" project provides measures of business regulations and enforcement across 190 economies. In its 2018 report (World Bank 2018), it assessed 11 qualitative indicators on regulations for:

- Starting a business
- Dealing with construction permits
- Getting electricity
- Registering property
- Getting credit
- Protecting minority investors
- Paying taxes
- Trading across border
- Enforcing the contract, and
- Resolving insolvency

Overall, Vietnam ranked 68th of 190 economies, which was lower than countries such as Malaysia and Thailand in the region. This highlights constraints that many enterprises face and which may also disincentivise formalisation.

3.2.1 Institutional oversight of Vietnam's informal sector

Vietnam's Ministry of Planning and Investment has issued guidelines for household registration. At provincial levels, the Departments of Planning and Investment are responsible for managing registration. In practice, however, District People's Committees are responsible for implementation. People's Committees at the local level (commune, district) are in charge of monitoring registered household groups.

Vietnam's Ministry of Finance is responsible for collecting taxes from registered households. At local levels, tax departments work with local government to collect taxes.

3.3 Legal and regulatory frameworks

3.3.1 Forest law

Vietnam's National Assembly passed the Forestry Law on 15 November 2017, and the law will take effect on 1 January 2019. It is a revision of the 2016 Forest Protection and Development Law.

Regarding forest protection, supervision of the legality of wood, and development of production forest, the Law stipulates:

Article 4. Government forestry policy

- The state protects legal rights and benefits for organisations, households, individual and communities undertaking forestry activities.
- The state guarantees that ethnic minority and local communities living dependently on the forest are allocated with forestland for production purposes and are allowed to collaborate with others for forest protection and development, and to share benefits from the forest.

Article 10. Foundation for forest planning

- Forest planning has to have participation from organisations, households, individuals and local communities… the process has to be transparent, open to the public and equal between men and women.

Article 27. Sustainable forest management

- The state encourages forest user groups, being local households, individuals, and communities to collaborate to develop sustainable forest management plans.

Article 42. Checking the legality of wood products

- Checking the legality of the wood includes checking of legality documents, harvesting activity, transportation, processing, import and export…

Article 48. Production forest development

- Establishing concentrated plantation area, adopting high-tech and biotechnology and modern cultivation techniques to increase productivity of plantation to provide wood material to wood processing industry
- Promoting multi species plantation... combining short- and long-cycle trees, shifting small tree to large tree plantation in the area with favourable conditions

Article 50. Plantation of scattered trees

- Planting of scattered trees in area classified as non-forested land to increase tree cover area, contribute to environmental protection and create wood sources
- Central and local state organisations are responsible for propaganda and mobilising all people in planting scattered trees
- State has supporting policy regarding seedling, cultivation technique for scattered tree plantation

Article 58. Harvesting timber from natural production forest

To be allowed to harvest timber from natural forest classified as production forest:

- Forest user groups as organisations have to have sustainable forest management plans approved by state agencies
- Forest user groups as individuals, households and local communities have to have harvesting requests approved by district People's Committees.

Article 59. Harvesting timber from plantation classified as production forest

- Forest users decide on the harvest of plantations owned by themselves
- In the case of plantations established with the Government's financial support, forest users have to prepare harvesting plans and the plans have to be approved by relevant state agencies

Regarding wood processing, the Law emphasises the following:

Article 66. Policy promoting wood processing

- Supporting cooperative, joint venture and linkage to establish raw material area, sustainable forest management, wood product consumption, adoption of high and new technology and green solutions, increased added value.
- Prioritising supporting the wood processing industry
- Providing training support to human resource for wood industry

Article 68. Rights and obligation of wood processing entity

A wood processing entity has the following rights:

- To make products those are not banned by the state
- The state protects legal rights, supports establishment of wood processing supply chain… supports the processing industry as stated in Article 66.

A wood processing entity has the following obligations:

- Compliance with legal requirements on investment, operation of enterprise, environment protection, labour, finance, and wood legality documents

Article 69. Vietnam Timber Legality Assurance System

- The state establishes and operates a timber legality assurance system; issue criteria, mandate, procedure for classification of the organisations in charge of timber harvest, transportation, processing and export of wood products.

Regarding the trade of wood products:

Article 70. Policy regarding development of market for wood products

- Organisations and individuals collaborating with each other in procuring and marketing of wood products are given loans with favourable conditions
- The state supports the development of brand names, market promotion and development, market information regarding domestic and international markets

Article 71. Rights and obligations of wood trading organisations

A wood trading entity has the following rights:

- Trading of wood products not banned by the government
- The state protects legal rights and benefits to the organisation and supports the development of wood trading supply chains.

Wood trading organisations have the following obligations

- Compliance with legal requirements concerning investment, enterprise operation, environmental protection, labour use, and the legality of wood.

3.3.2 Law on Support to Small and Medium Enterprises

Vietnam's National Assembly passed the Law on Support to Small and Medium Enterprises on 12 June 2017. This law entered into force on 1 January 2018. It specifies various types of support to be granted to such enterprises operating in the formal sector. Support is also intended for registered households (formal household businesses) to lift them up to the level of enterprise, operating under the Enterprise Law.

However, there are some concerns regarding government support to small and medium enterprises. First, it will take time to translate support stated in the law into concrete activities. Second, there may be resource constraints that may prevent the materialisation of the law in practice. Third, there is a substantial number of micro-enterprises, or household businesses, operating in informal sector (hence so-called informal household businesses). These are not classed as small and medium enterprises and so are not eligible for Government support under the new law.

The law defines small and medium enterprises as those that employ fewer than 200 regular employees who are covered by social security, and that have a total investment of no more than 100 billion VND (roughly USD 4.4 million) and total income from the preceding year not exceeding 300 billion VND (USD 13.2 million) — see Table 1.

Under the new law, support for small and medium enterprises includes:

- Technical and administrative support to lift up enterprises to a level that is eligible to access loans with favourable conditions from the Government
- Favourable conditions regarding tax terms, payments, and simplified administrative procedures and requirements — to incentivise compliance
- Government provision of professional premises with favourable rent rates
- Support for technology incubation, market expansion, and capacity building

Newly-established small and medium enterprises that have been scaled up from household business are also a Government's priority. Support for this group includes free advice to help them comply with legal requirements (e.g. in registration) and exemption from various types of tax during the three years after registration.

Loans, technical training and information support will also be provided to small and medium enterprises to facilitate their participation in the supply chain. A special fund targeting small and medium enterprises will be established.

3.4 Gender issues

This study sought to understand gender issues in the value chains, and to identify particular legal or regulatory effects on women and men. It is known that women's work often takes place in the least lucrative parts of value chains. Women are often home-based or informal workers. They tend to be underpaid and their (informal) jobs are less secure than men's. Women have low profiles visible despite performing critical roles, such as finishing furniture. Rural businesses owned by women tend to face many more constraints and receive far fewer services and less support than those that men own.

The Government of Vietnam's commitment to gender equality is reflected in a number of national laws, in Vietnam's ratification of key international conventions such as Convention on the Elimination of all Forms of Discrimination against Women and in various policy papers supporting Vietnam's five-year Socio-Economic Development Plan.

By law, women's and men's access to productive land appears to be equal:

- The Vietnam Land Law (2013) states that "if land rights are property of husband and wife, the land use certificate shall have the names of both husband and wife."
- The Marriage and Family Law (2000) stipulates clearly the equal access to productive land between a husband and wife.
- Prime Minister's Decree 70 issued in 2001 promulgating the implementation of the Marriage and Family Law[16] states, "in case the property [e.g. resident land, forestland, house] is owned by husband and wife, if the property certificate only has the name of husband or wife, the husband and wife can request government authority to reissue the certificate. Even if the husband

[16] http://moj.gov.vn/vbpq/lists/vn%20bn%20php%20lut/view_detail.aspx?itemid=23123

and wife do not request the reissue, the property is considered shared by the husband and wife."

Vietnam's Constitution and broader national gender equity laws, regulations and institutional mandates support the above statutes:

- Article 26 of the Constitution states that "Male and female citizens have equal rights in all fields. The State shall has a policy to guarantee equal gender rights and opportunities."
- Labour Code (2013) has provisions on non-discrimination and women's labour rights, including prohibition of sexual harassment, extension of maternity leave for six months, and equal pay for work of equal value.
- The Gender Equity Law (2006) emphasises that women and men have equal rights and obligations in society and family.
- The National Strategy on Gender Equity 2011-2020 includes the following objective: "By 2020, ensure the equality between men and women regarding opportunity, participation and benefits in political, economic, culture and social areas". Under the Strategy, Government Ministries and Provincial People's Committees are responsible for implementing gender equity action plans, with a focus on gender equity in political decision-making and access to job opportunities, labour and income generating activities, education and training, and healthcare.

In practice, however, there is a severe imbalance in women's rights to access and own productive land, compared to men. A study in ten provinces by Hoang et al. (2013) showed that women's names are on land use certificates only 30% as often as men's names — with some variation among familial systems found across Vietnam (Table 3). The number of rural women who are sole or joint owners of a land use certificate has increased over the years, but gender gaps remain significant.

Among the ethnic majority Kinh people, women's names were on 47.9% of all land use certificates — either on their own or jointly with their husbands. In patrilineal ethnic areas, women were named on only 17.5% of certificates. This is important for the implementation of land rights — if a land use certificate only has the husband's name, he can use it as collateral for a bank loan without asking his wife's permission — potentially increasing household liability without her consent or even her knowledge.

Table 3. Proportion of land use certificates that name wives, husbands or both partners.

	Kinh (ethnic majority group)	Patrilineal ethnic minority groups	Matrilineal ethnic minority groups	Bi-trilineality (ethnic minority groups)
Households with land use certificates (%)	85.4	80.8	69.2	78.0
Person whose name on land use certificate				
Husband	40.6	74.2	46.0	43.8
Wife	19.3	11.3	21.4	25.0
Husband and wife	28.6	6.2	2.4	12.5
Other	11.5	8.2	30.2	18.8
Total respondents	689	101	127	96

Source: Hoang et al. 2013

When there is no land use certificate, husbands rather than wives tend to have the actual rights to the land, such as the right to decide how land should be used. This is particularly common among patrilineal ethnic groups (Table 4).

Table 4. Person with actual land rights in the absence of a land use certificate (%).[17]

	Kinh (majority group)	Patrilineal ethnic groups	Matrilineal ethnic groups	Bi-trilineality
Husband	29.1	66.7	33.9	39.3
Wife	19.8	20.2	30.5	17.9
Husband and wife	38.4	6.7	16.9	14.3
Other	12.8	6.7	18.6	28.6

[17] Figures in the table are original. Percentage numbers in each column do not necessary add up to 100%.

Total respondents (n)	118	23	56	27

Source: Hoang et al. 2013

Hoang et al. (2013) found that wives are always at a disadvantage in land conflicts between spouses. This is reflected in the following:

- Local conflict resolution teams discourage challenges to the traditional status of women, reflecting overall societal pressure that discourages women from exercising their land rights when a land dispute occurs.
- Ethnic minority women without national language skills are unable to obtain legal support services, which are provided in the national language (Kinh). In general, women's national language skills are weaker than men's. Even among the Kinh ethnic majority, women have lower comprehension of legal language / terminology than their husbands — this is compounded by the overall lower education levels of women.
- Women have weaker social networks, while men have more connections to relatives, friends and business associations who can influence their access to land.
- In general, societal beliefs and structures favour the traditional status quo, with women's efforts to claim land access seen as a threat to community stability and solidarity.
- Women represent a much larger share of unpaid family workers, particular in agriculture.
- Wage employment seems to be more easily available for men than for women, although for women in wage work, working conditions appear more favourable than for male wage workers.
- Women from poor households and from rural areas also face a double disadvantage because of limited availability of public infrastructure and services to reduce redistribution of their unpaid domestic and care work.
- Three groups of women with paid employment have been facing specific challenges and constraints: small-scale women farmers, domestic paid workers, and garment factory workers.
- Two key policy areas for improving the productivity and quality of women's agricultural employment are land and extension services.Vietnam's economic development strategy is increasingly centred around greater global integration and international competitiveness, and hence investing in the

skills and productivities of women who work for a wage in export-oriented factories must be key policy priority

4 Detailed analysis of value chains

4.1 Imported rosewood used in wood villages for domestic / export markets

4.1.1 Overview of Vietnam's imports of high-risk timber, including rosewood

In Vietnam, the word 'rosewood' is not commonly used. The Government classifies all timber species in the country into eight groups.[18] Species belonging to Group 1 and Group 2 are precious ones, such as *Dalbergia* spp., *Pterocarpus* spp., *Sindora* spp., *Xylia* spp. and *Erythrophleum* spp.

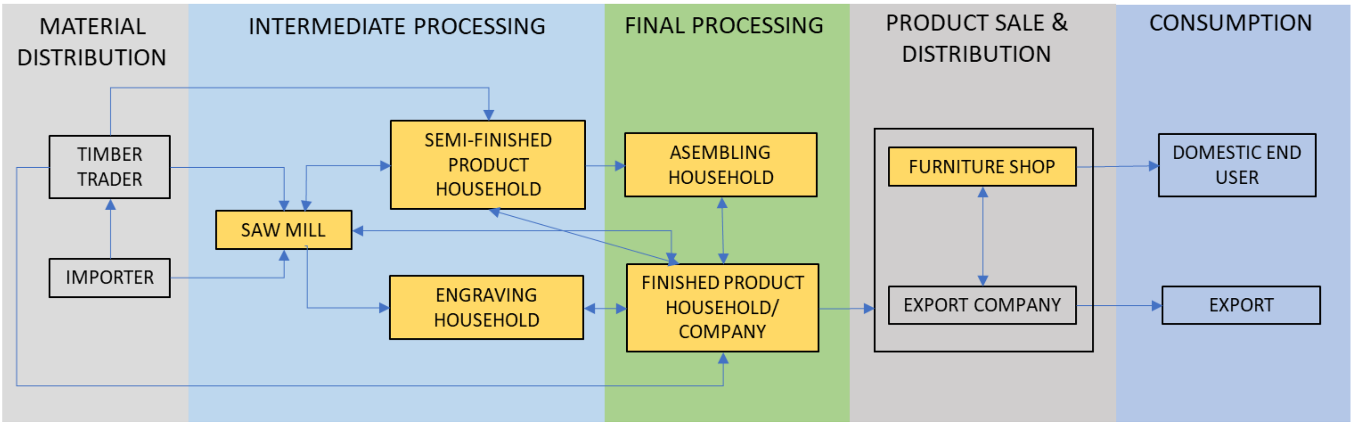
The Government of China uses the term 'Hongmu' to refer to all rosewood. It has established national standards for Hongmu species, which include 33 timber species (5 from Africa, 7 from South America, and 21 from Asia, from five key genera: *Pterocarpus*, *Dalbergia*, *Diospyros*, *Millettia*, and *Cassia* (Treanor 2015).

This report uses the term 'rosewood' to refer to all imported species that belong to Group 1 and Group 2 of the Vietnamese government's classification. Imported species those are not listed in Group 1 and Group 2 are not considered as rosewood.

In general, the value chain of imported rosewood follows the general pattern of all high-risk timber. The manufacturing of imported rosewood for final consumption in either Vietnam itself or export markets follows the same value chain through to final processing, with the chain diverging afterwards when products are sold either directly to furniture shops or domestic end users, or to export companies for direct export (Figure 3).

[18] The names of all species in these eight groups are listed at http://moj.gov.vn/vbpq/lists/vn%20bn%20php%20lut/view_detail.aspx?itemid=1582

Figure 3. Trade flow of imported rosewood for domestic and export markets.



4.1.2 Actors

The main actors engaging in the value chain of imported rosewood raw materials for domestic and export markets include:

- Households and companies trading in raw rosewood material
- Sawmill households, including drying in some cases (intermediate processor)
- Processing households (including satellite processing households) and companies producing semi-finished and engraving products and boards (intermediate processor)
- Households and companies specialising in assembling and finishing complete products (final processor)
- Households and companies with furniture shops/showrooms inside or outside of the village.

As this study concerns SmEs, it focused on the most relevant actor groups and their key characteristics.

Importers of high-risk timber

A large number of companies import high-risk timber into Vietnam (Table 5). The numbers of enterprises importing high risk-timber from Africa has been growing the fastest (from 138 to 383 between 2013 and the first quarter of 2017) while the number of enterprises importing from Laos dropped significantly in 2016, by nearly half, when Laos began to implement a ban on exports of logs and sawnwood.

Table 5. Number of enterprises importing timber from high-risk sources into Vietnam.

Source	2013	2014	2015	2016	2017 (first 3 months)
Cambodia	44	118	150	100	83
Africa	138	196	222	316	383
Laos	453	484	410	275	35

Source: To et al. 2017 a.

Most importing companies are able to provide a full set of documents — such as customs declarations, timber origin certification, sale contract, transportation bill, packing list, plant quarantine certificate. Government authorities and companies accept the importing documents as proof of legality. However, there have been some major concerns regarding illicit processes through which traders have obtained the documents.[19] When the timber arrives at the wood village, district-based forest rangers check and verify the legality status of the wood before it is warehoused or sold to local households.

4.1.3 Use of high-risk timber (including rosewood) in Vietnam's wood villages

About 70% of the wood from high-risk timber sources, including rosewood, is processed within Vietnam's extensive network of households within wood villages. The total amount of imported wood used by wood villages is about 1.4-1.75 million m^3 roundwood equivalent. In Dong Ky village, on average, each production household uses 0.5 m^3 of wood per month — enough for the production of a tea table and 4 chairs. In comparison, each cooperative or company uses 10-15 m^3 of wood per month.

Vietnam has 340 wood villages with about 24,000 households and 150,000 labourers. The wood villages are mainly in the Red River Delta. The import companies and timber traders of high-risk timber imports sell directly to households in the wood villages (as well as to other companies not included in this value chain analysis). Before processing timber into semi-finished or finished products, household enterprises typically, but not always, arrange for sawmills to minimally

[19] There is well-known perception that some documents have been obtained through bribing and collusion (e.g. see EIA report in 2017).

process logs into lumber, with specifications according to the final product design (e.g. cabinet, bed, table).

Forest Trends and the Vietnam Timber and Forest Products Association (VIFORES) recently surveyed five wood villages (Dong Ky, Van Diem, La Xuyen, Lien Ha, Huu Bang) that process imported rosewood for domestic and export markets (see Table 6). The survey revealed that over 70% of households in the villages (except Lien Ha village) were engaged in wood processing. The number of labourers working in each village ranged from 2,600 to 8,000 people.

Most households in wood villages had a focus on furniture production. Less than 10% of them engaged in both production and trade. In general, households complained of a shortage of labour, especially before and after Tet (New Year holiday) — which coincides with peak selling season as Vietnamese families tend to buy furniture for Tet.

The survey also highlighted that a significant amount of Vietnam's high-risk imported timber is processed in an extensive network of wood villages. When the timber is sold to traders and/or households in the village, typically no paper is involved — it's just a verbal deal. Thus, at the village level, there are no documents verifying the legality of the wood traded.

Documents to demonstrate legality of timber products made in wood villages are scarce. The survey revealed that only 8% of processing households reported that they requested, and had enough documented proof, for their purchased imported timber. Transactions between traders and households are exclusively informal, with no legally required documents such as tax invoices.

Decree 78 of 2015 (see above) requires households to be registered to be formal so that they can export their products. In Dong Ky, timber products are exported to China. However, most households have not registered. To export their produce, they group together and sign a contract with a company who represents them and signs a sale contract with Chinese buyers. This arrangement facilitates the export process in the village.

In all wood villages in the survey, business registration is a major constraint faced by households. Approximately 75% of the households in the five wood villages surveyed did not register as a business entity.

In principle, households manufacturing wood are required to have legal documents to prove the wood legality. Local authorities, however, argue that human resource constraints do not allow them to enforce this requirement. What is important, according to them, is to check the legality of the wood at the point of the trader, before the wood changes hands to households.

Table 6. Raw material sources, major products and key markets of five wood villages.

	Name of wood village	Major wood species			Major products	Key markets
		Imported	Imported source	Domestic species		
1	Dong Ky (Tu Son - Bac Ninh)	*Pterocarpus, Sindora, Dalbergia, Diospyros mun*	Africa, Laos, Cambodia	No use	Traditional handicrafts: tables, chairs, wardrobes, plank-carved beds, worship handicrafts	Domestic, China
2	Van Diem (Thuong Tin, Hanoi)	*Pterocarpus, Sindora, Dalbergia, Dyospyros mun.*	Africa, Laos, Cambodia	No use	Traditional handicrafts: tables, chairs, wardrobes, plank-carved beds, worship handicrafts	Domestic
3	La Xuyen (Yen Ninh, Y Yen, Nam Dinh)	*Pterocarpus, sindora*, jack-fruit tree, other wood species	Africa, Laos, Cambodia	No use	Traditional handicrafts: Tables, chairs, wardrobes, plank-carved beds, worship handicrafts	Domestic
4	Huu Bang (Thach That - Ha Noi)	*Prunus arborea*, European oak, US oak	Africa, European Union, USA	*Acacia* sp., *Melia azedarach*, *Eucalyptus*, particle/fibre boards	Common products with modern style: Tables and chairs for dining room, meeting room, bed, wardrobe, TV shelf, etc.	Domestic
5	Lien Ha (Dan Phuong - Hanoi)	*Prunus arborea*, oak, mangosteen, *Senna siamea*	Africa, Laos, Cambodia, EU, USA	*Acacia*, particle/fibre boards	Common products with modern style: bed, wardrobe, TV shelf, dressing table, etc	Domestic

Sources: To et al. 2012, 2018.[20]

[20] Source: To et al. Et al., 2018. Wood village in the context of market integration: Current situation and policy options for sustainable development. Forest Trends and VIFORES (http://goviet.org.vn/upload/aceweb/content/Bao%20cao%20lang%20nghe%20go%20-%201%20Feb%202018.pdf)

4.1.4 Processing

After cutting, production households/companies process timber into semi-finished or finished products. There are two interlinked groups of households: Group 1 (also called satellite households) are the households that produce semi-finished products. Group 2 are those that obtain semi-finished products from households in Group 1 and turn them into final products for the domestic market or export. Usually, households in Group 1 work for households in Group 2 as hired labourers, under verbal contracts.

Households in Group 2 either sell the finished products at home, or sell them to other households or companies in the village that have warehouses by main roads (hence accessible and visible to customers), or join other households to export the products to China by way of an export company working on their behalf.

4.1.5 Gender and labour issues in the value chain

Aside from a household's own labour, many processing households and companies hire labourers from their own and nearby villages. The survey of five wood villages by Forest Trends and the Vietnam Timber and Forest Products Association (VIFORES) in 2017 (To et al. 2018) revealed that:

- All households have to hire labourers, the number of whom is equivalent to 30-130% of the household's own labour. The average household hires 1-5 labourers. Larger households may hire up to 30 labourers.
- Most labourers working in wood villages are seasonal labour paid on a daily basis. Some are paid by the workload, with payment determined by the completion of the work. No labourers have work contracts, thus they are not covered by social protection.
- The age of hired labourers varies from 15 to 60 years for men and from 15 to 55 for women. A few labourers are below or above working age (younger than 16, or older than 55 for women or 60 for men).
- Labourers are 68% male and 32% female.
- Male labourers tend to work in stages of wood processing that require more physical power or are in hazardous conditions, like heavy lifting, loading logs to machinery, operating machinery (sawing, joint-making, varnishing, or spray-painting). Men also mainly take care of work such as selecting timber (when buying raw materials as well as when processing), designing products and managing workers.
- Female labourers tend to work on less physical activities, such as sanding and polishing but also on financial management, shop management and sales.

- Female workers are paid less than their male counterparts. On average a female worker gets 170,000-190,000 VND (USD 7.5-8.4) per day, or around 4-7 million VND (USD 175-310) per month, while a male worker is able to get 280,000-300,000 VND (USD 12.3-13.2) per day, or around 7-11 million VND (USD 310-485) per month. A common explanation obtained during the survey was that women work on simpler and less physical tasks than men.

4.1.6 Worker health and safety in the value chain

In the five villages surveyed, workers did not have adequate facilities to protect themselves in all stages of production:

- Lacking professional premises has forced most households to use their residential areas for production. Machines, logs, wood waste, etc. are located within living areas or in front yards of the residence. About 64% of the interviewed processing households do not have production area. The remaining 46% have separate workshops but still use living space for storing materials and machines and for other forms of production.
- Most of the households do not have fire prevention systems.
- Noise, dust, wastewater, and wood-derived waste pollution are severe problems in the wood villages.

As most households are not registered officially as business entities, they are not monitored or regulated by government authorities on environment protection, waste management, fire prevention, etc. They expressed during the interviews that they have had no connection with law enforcement agencies, and do not have information on legal requirements on wood material, environment, tax, fire prevention, among other regulations.

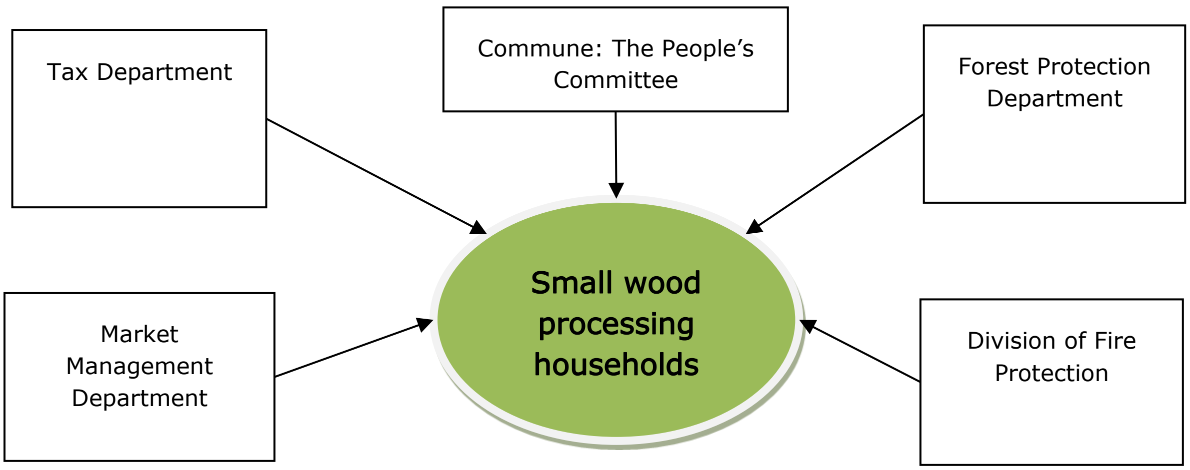
Figure 4 illustrates the connection between households in wood villages and the following local state agencies, which are mandated to oversee production and trade of timber products at the household level.

- The commune People's Committee (at commune level) is responsible for overseeing overall operations of production, including, for example, registration licences, enforcement of safe production areas, and waste management at household level
- The Tax Department (district-level) is in charge of tax collection
- The Forest Protection Department (district-level) is responsible for the legality of the wood inputs and products

- Market management department (district-level) is in charge of overseeing legal compliance associated with business activities (e.g. operation licences, trading activities).

Since most of the households in the village do not register and so operate informally, they are not subject to law enforcement. Interviewed villagers revealed that they have little or nothing to do with government agencies.

Figure 4: Bodies responsible for law enforcement relating to the forest products industry in wood villages



Source: Phan 2014

4.1.7 . Rosewood products for export

Our expert meetings show that about 10% of the wood villages in Vietnam (equalling 34 villages) are engaging in export markets. Rosewood used for export are high-value species, such as *Dalbergia cochinchinensis, Pterocarpus macrocarpus, Dalbergia oliveri,* and *Afzelia xylocarpa*. Annually, households in each village use approximately 13,500 m^3 of wood on average. The total volume of wood processed by these 34 villages is about 459,000 m^3. This accounts for 18.4-23% of the total high-value wood imported to Vietnam every year. China is a key export market for Vietnam's high-value wood products, particularly furniture. Vietnam also exports a small amount of these products to Taiwan, Hong Kong, and Japan.

Total revenue from rosewood product exports could be as high as USS 1.7 billion. Since 2012, China's demand for high-value wood products from Dong Ky village has declined, as China has diversified its source countries for rosewood species (with the centre of trade moving from the Mekong region to Africa). Demand for rosewood has also declined significantly since 2014, due in part to generational preferences, anti-corruption efforts, and use of existing stockpiles. The number of labourers working in Dong Ky has dropped accordingly.

About 30% of wood products from Dong Ky households, cooperatives and companies are sold to China. Chinese traders often provide the product design and specify the wood material needed. In a normal day in Dong Ky wood village, three trucks fully loaded with rosewood furniture (about 15 tonnes, or 15 m^3) depart for China. The total volume of wood products exported to China from this village is 45 m^3 per day.

Chinese traders also come directly to Dong Ky to buy furniture from the village. Almost all Chinese traders have developed long-term relationships with traders or household producers in Dong Ky. They then pay transportation companies to move the products to China. Five transportation companies operating in Dong Ky transport wood products from the village to China. Some of these companies are operated by Chinese management and staff.

When it comes to export, as households do not have legal status (e.g. due to the lack of registration license for operation), they have to get together and appoint one person representing them to sign a contract with an export company. The company works on behalf of the household group, signs sale contracts with Chinese buyers and receives commission from the households in return. For each customs declaration form, the company receives 1.5 million VND (USD 66). On average, each company helps with 30 customs declaration forms every month.

4.1.8 Final Sale

The survey by Forest Trends and the Vietnam Timber and Forest Products Association (VIFORES) in 2017 revealed that 73% of the finished products sold in wood villages have no document proving the legality of the products. A common reason quoted by villagers is that proof is simply not a requirement from the buyers. About 26% have a sale invoice, and only 1% have VAT invoice together with timber origin verification of forest rangers.

4.1.9 Rosewood for domestic market

Annually, the domestic market consumes 1.5-2 million m^3 roundwood equivalent of imported tropical hardwood, including rosewood. However, rosewood species used for domestic consumption are of lower market value than those used for the export market. Similar to the products exported to China, rosewood products consumed domestically are processed by villagers in wood villages. Major products are similar to those for export, including tea table sets and wardrobes with traditional styles. Compared to exported products, those used for domestic consumption often require lower skill levels to make and are of simpler design and specifications.

Products intended for domestic markets are sold to customers who come directly to the villages to select and procure the products. Village households also sell their products to the villagers who have warehouses near the main roads. Many warehouse owners then sell the products to a network of traders who have shops selling products in major cities.

4.1.10 Revenues

In Dong Ky, annual revenues of the households surveyed varied:

- 41.3% of households generated annual revenues of less than VND 500 million (approximately USD 22,000)
- 20.6% of the households have annual revenue of VND 1-2 billion (USD 44-88,000)
- 17.2% had revenue greater than VND 2 billion (USD 88,000).

The average household revenue in Dong Ky was about VND 400-500 million/year (USD 17,620–22,000). In comparison, cooperatives or larger companies in Dong Ky had an annual revenue of VND 3-5 billion (USD 132,000-220,000).

The price of timber products manufactured by households in Dong Ky is very high, with a traditional living room furniture set selling from a few tens of million VND to more than a few billion VND due to the high price of the precious timber (0.4-0.6 m^3 used) and labour involved (320-480 working hours) (Phan 2014). The price structure was described as, on average:

- 45% raw material
- 5% sawing
- 40% processing
- 10% sale
- 7-15% profit

The total revenue from the 2,500 households in Dong Ky is about USD 44-55 million (USD 50 million on average).

4.1.11 Investment and access to credit

Household investments vary depending on the type of business (involved in production and/or trade), its scale and capacities. On average, each household invests from 1.3-2.6 billion VND (USD 57,300-114,600) in production, of which float capital accounts for approximately 35-40% of the total investment.

Manufacturing timber products requires various type of machinery:

- Production households use diverse machinery, from large sawing machines to hand-operated drills. Most of them are Chinese (49%) or Vietnamese (38%) products though some households use machines made in Japan or Germany.
- On average, each production household uses 0.48-1.4 billion VND (USD 21,200-61,700) to invest in machinery for production. The very small-scale households (1-3 labourers) invest less, about 0.1-0.3 billion VND (USD 4,400-12,300) in equipment only.

Companies and households in wood villages use their own money for their businesses and rarely get loans from other sources. Survey results from the five wood villages show that only 11% of the households borrow money from their relatives or financial institutions (mainly commercial banks). Household access to loans from commercial banks does not seem to be a constraint, provided that the borrower can demonstrate collateral (e.g. residential land title). Those who do not have collateral cannot access bank loans. The annual interest rate is relatively high, at about 9-10%.

Poor households can borrow money with a favourable interest rate from the bank. However, the size of these loans is small, only up to 60 million VND (USD 2,600), and loans must be paid back within a year. Access to longer-term loans (two or more years) is a constraint, as banks do not provide such loans to households.

4.1.12 Access to information

Processing households in wood villages generally have limited ability to access information on policies related to their production. Approximately 96% of wood-related households surveyed do not have access to policy information.

4.1.13 Compliance with legal requirements under the FLEGT VPA between the EU and Vietnam

Under the VPA, household have to comply with seven principles of legal requirements. The VPA defines households subject to Vietnam's timber legality assurance system (VNTLAS) as all domestic households, individuals, village communities and all other entities not defined as Organisations (such as forest companies, state forest enterprises, and other enterprises involved at any stage of the supply chain and that have business registrations). Household businesses employing more than ten labourers on a regular basis are, however, required to register as enterprises and are considered as "Organisations".

Those categorized as "households" must comply with the following VNTLAS principles:

- **Principle I:** Harvesting of domestic timber complies with regulations on land use rights, forest use rights, management, environment and society

- **Principle II:** Compliance with regulations regarding handling of confiscated timber
- **Principle II:** Compliance with regulations on import of timber
- **Principle IV:** Compliance with regulations on timber transportation and trade, including all transport and trading of:
    - Unprocessed timber harvested from concentrated timber plantation forest, home gardens, farms and scattered trees
    - Imported timber and timber products that are not domestically processed
    - For timber purchased from an Organisation, an invoice as required by Ministry of Finance is needed
- **Principle V:** Compliance with regulations on timber processing, including:
    - Fire prevention plan approved by local authorities
    - Rules of hygiene safety in place
- **Principle VI:** Compliance with regulations on custom procedures for export
- **Principle VII:** Compliance with regulations on tax regulation

The VPA details legal requirements for the households engaging in wood processing and trade. Specifically, the VPA requires these households to prove the legal origin of the wood they use. The wood origin legal requirements include:

- Compliance with regulations on legal timber dossier (all applicable documents) from timber harvested from the household's forest (e.g. packing list)
- Compliance with regulations on legal timber dossier from timber purchased from an Organization (tax invoice and packing list)
- Compliance with regulations on legal timber dossier for the timber purchased from household (packing list)

None of the households interviewed in wood villages demonstrated an ability to meet these requirements. Potential difficulties for wood villages to be able to meet VPA requirements (Phan 2014) include the following:

- The VPA would complicate procedures of licences and conditions, production and receipts, and so forth. This may lead to increased production costs (e.g. high facility investment, high timber cost, high working and transportation costs)

- Lack of funding due to the lack of mortgage (securities) or supporting mechanism
- Small and inappropriate production scale (e.g. due to the lack of area for production)
- Narrow business markets (e.g. due to poor designs, limited access to market, poor ads)

4.2 Domestic acacia plantation timber for domestic / export markets

4.2.1 Locating plantations in Vietnam's forestry sector

The Government of Vietnam classifies the country's forest into special use forest (mainly national parks), protection forest (protected watershed areas), and production forest.

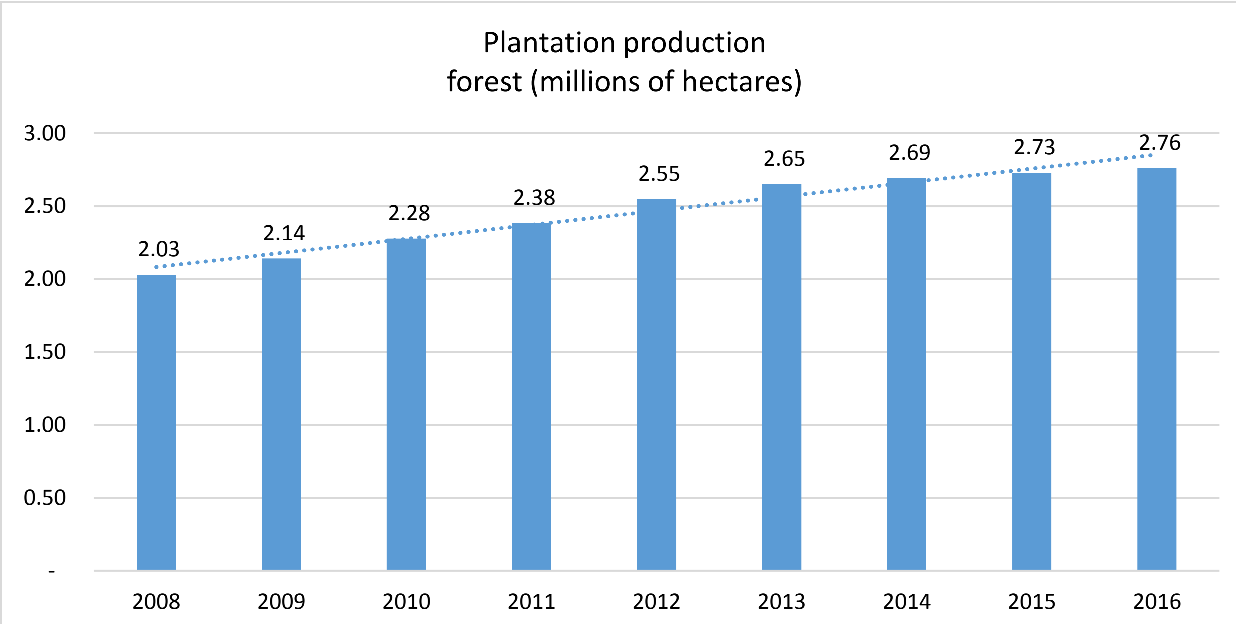
By December 2016, Vietnam had approximately 14.4 million hectares of forest, with forest covering 41.2% of the land. Plantation forest accounted for to 4.1 million hectares (MARD 2017). Plantation spans all three forest classifications (special use, protection and production), though the government only allow the harvest of plantation timber from production forest.

As of December 2016, total plantation area under production forest category was 2.76 million hectares (MARD 2017). Of this, 1.6 million hectares is owned by approximately 1.1 million households. A large-scale forestland allocation programme, under which the state transfers forestland to individuals, has driven the expansion of forest plantations and increased the country's forest cover.

Annually, 200,000-300,000 hectares of new plantations are established (Nguyen et al. 2016). This contributes to the increase in forest cover. Another key factor contributing to the increase is the country's ability to outsource deforestation to neighbouring countries (Mayfroidt and Lambin 2009). Figure 5 shows the trend of plantation expansion until 2016.

Vietnam's new Forestry Law, approved by the National Assembly on 15 November 2017, allows seven groups of actors (so-called forest user groups) to receive forestland from the government. Table 7 presents the distribution among forest users in 2016.

Figure 5. Growth of forest plantation area 2008-2016.



Sources: FPD 2009-2016; MARD 2017.

Table 7. Forested areas distributed by forest owner groups in 2016 (ha)

	Forest area (hectares)		
	Natural forests	Plantation forests	**Total forested area**
Special-use management boards	1,958,727	84,293	**2,043,019**
Protection management boards	2,491,299	494,380	**2,985,678**
State forestry organisations	1,145,029	464,726	**1,609,755**
Non-state forestry organisations	118,299	148,144	**266,443**
Foreign companies	2,355	13,608	**15,963**
Households	1,329,058	1,601,001	**2,930,059**
Communities	1,069,003	59,093	**1,128,096**
Armed forces	125,577	61,687	**187,263**
Other economic organisations	45,788	46,666	**92,453**
People's Committees	1,957,008	1,161,944	**3,118,952**
TOTAL	10,242,141	4,135,541	**14,377,682**

Source: MARD (2017)

Land use rights granted to the households receiving production forestland, include (To and Tran 2014):

- Rights to harvest products from the land (e.g. plantation timber)
- Management rights over products from the land, if the products are produced through household investment (e.g. timber plantation)
- Rights to land use certificate (certifying the legal status of the household on the land)
- Duration of rights: 50 years
- Right to transfer land to others
- Right to exchange land with other villagers living in the same area
- Right to rent out the land for three years
- Right to use the land as bank collateral
- Right to pass the land to the next generation
- Right to contribute the land to a joint venture (e.g. collaboration with a wood processing company)

Land use certificates are important legal documents certifying the legal status of forestland holders. By the end of 2011, about 86.3% of the land allocated to forest user groups including local households were granted land use certificates . This percentage varied by region; in the southeast, the rate was 87.6%; in the Central Highlands, the rate was 71.6% (To and Tran 2014). Without these certificates, there is no evidence that landholders have legal status to their forestland.

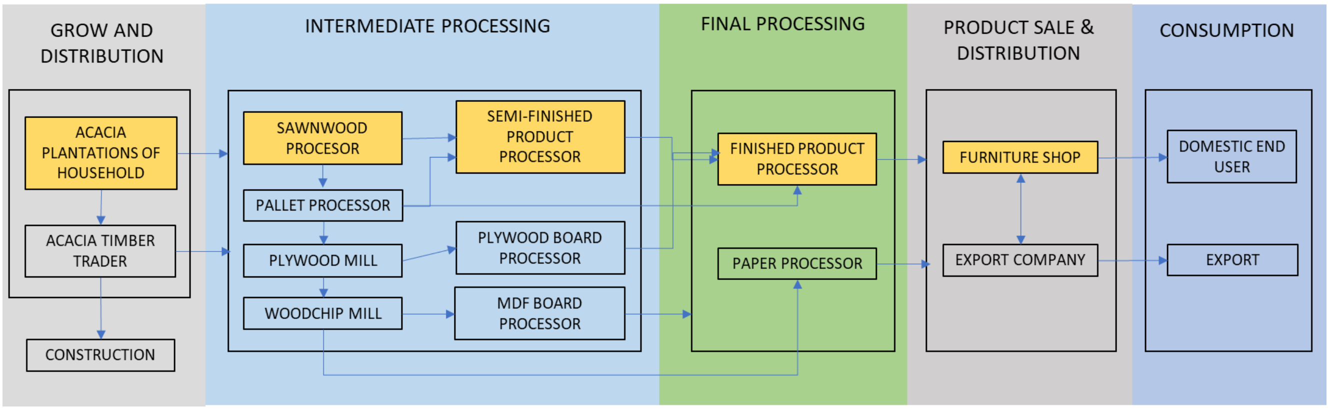
4.2.2 Smallholder plantations

Almost all of the smallholder-owned plantation area detailed above is comprised of acacia species.

Annually, about 16-17 million m^3 timber is harvested from plantations, 60% of which comes from smallholder areas, and the remaining 40% from other forest user groups such as cooperatives or State Forest Companies.

70-80% of the timber harvested from plantations is small (less than 12 cm in diameter) and is used for wood chip. The remaining 20-30% is large-diameter (larger than 12 cm), and used for furniture. Figure 6 presents the flow of acacia timber grown by smallholders in the country.

Figure 6. Flow of Acacia timber grown by smallholders in Vietnam.



4.2.3 Actors

Smallholders: 1.1. million smallholders supply approximately 9.6-10.2 million m^3 of wood (almost all acacia, with some eucalyptus to the market each year.

Household timber is usually harvested on rotation after 5-7 years of growth and then sold to timber traders (either local traders or those from nearby provinces) or directly to local sawmills.

On average, after 5-7 years each hectare of acacia generates 60-70 m^3 of timber per year, valued at 90-105 million VND (USD 3,900-4,600). An individual household derives USD 780-$920 per year if the household keeps their plantation for five years. Households cannot live on this income.

Most acacia growers sell to timber traders, with only 6% choosing direct sales to primary processors. In most cases, when the timber is sold to and between traders and households in the village, a verbal deal is applied and no documents are required. Buyers and sellers negotiate prices directly. The buyer has to take care of harvesting timber, and transporting logs out.

Households typically do not submit reports and requests for verification of timber sources from commune People's Committee. If needed, the buyer will go to the commune People's Committee or local forest rangers to ask for the proof documents.

Traders*:* Timber traders are intermediaries who buy standing trees directly from growers/households (through direct price negotiation) and arrange for cutting and transportation. Traders normally buy standing trees from several households at a time, then load them together and transport them to the buyers, who can be local or outside processors, or households/companies that supply construction services (e.g. pillars for construction). The buyers may have a prior agreement or no agreement with the traders about the supply of raw materials. Thousands of traders operate at commune, district and provincial levels. Each can procure dozens to several hundred cubic metres per month.

Usually before harvesting trees, a trader pays 30% of the total value of the tree. The remaining 70% is paid at the time of harvest.

Acacia is in high demand in Vietnam, since it is used for furniture production, wood chip, and board making. Traders compete with each other in buying wood from smallholders.

Primary processors - Sawmills and wood chip companies: This group includes primary processors such as sawmills, chip-making and plywood mills, that either purchase wood material directly from households or through traders.

The primary processors supply their products to secondary processors (processors of finished products). The secondary processors supply their products to the furniture selling shops for domestic consumption, or to a company for export.

The proportion of acacia material timber coming through each actor of the value chain varies, depending on location.

- According to Hoang (2016), acacia growers in Quang Ninh province sell 50% of their acacia timber to traders, 30% to furniture processors and the rest of 20% to chip-making mills. Timber traders then supply 5% to coal-mining companies (which use the wood for mining pillars or construction purposes); 0-20% to furniture processors; and 80-95% to chip-making mills.
- In Phu Tho province, 71% of household growers' acacia timber is sold to timber traders, 19% to primary processors (including forestry companies that undertake wood processing), and 21% to small saw mills and chip-making mills.[21] Primary processors then supply 91% (mainly chips) to Bai Bang paper mill and 9% to saw mills and other processors. Timber traders sell 70% to Bai Bang Paper Mill and 30% to saw mills and chip-making mills (Hoang 2016).
- Direct interviews and observations by the study team in Doan Hung and Ha Hoa districts of Phu Tho province revealed that acacia timber from households is also sold to pallet and plywood producers. The plywood

[21] Some households sell their timber to different buyers.

producers then sell to secondary processors for producing plywood board. Some timber traders there also sell to construction works.

According to Blyth and Hoang (2016), total capacity of the sawmilling industry is estimated to be around 4 million m^3. While reliable data on sawmill numbers are unavailable, it has been estimated that there could be more than ten thousand sawmills scattered throughout the country. Most are privately owned family businesses and are relatively small, producing 1,000-2,000 m^3 per year.

According to Dang Viet Quang et al (2013), sawmills are unable to meet timber legality requirements for various reasons, including:

- Household sawmills do not have tax invoices, which means that processors do not have proof of purchase.
- The lack of labour contracts or anything to guarantee occupational safety.
- Most sawmills do not have a written commitment to protect the environment.
- The difficulty of identifying the origin of timber from different sources after being sawn up in the sawmills.

There are 130 woodchip processing companies operating in Vietnam (Hoang 2016). In 2016, Vietnam exported 7.2 million tonnes of woodchips, or 16.4 million m^3 roundwood equivalent, from which the country derived USD 986 million (To et al. 2017b)

4.2.4 Gender and labour issues in the value chain

Men and women participate in all activities of the acacia supply chain and play distinct roles and have different responsibilities in the activities involved in a production process. Men are responsible for the technical and heavy work. Women are responsible for less technical work.

There are no clear patterns as regards the proportion of men and women working for intermediate processors: some have more female workers than male.

For intermediate processors like sawmills, there is no difference in terms of the work of men and women in different stages of production (saw operation, timber classification, loading timber to saw, etc.)

Finished product processors: more women than men tend to work in polishing and painting.

In any stage of production, even with the same level of skill (or health conditions) women are always paid less than men. In Phu Tho province: men are paid 220,000-250,000 VND per day, while women receive 180,000-200,000 VND per day. Even when paid according to the workload, women receive 10-15% less than men.

Men mainly make the decisions in the production process. Women are asked for their opinion before decisions are made, but men have the last word.

4.2.5 Legal frameworks relevant to the value chain

Acacia is usually grown on forestland allocated to the household under the government forestland allocation programme. The legality status of the household on the land is clear. However, there are still households that have not received land use certificates, so lack evidence of the legality status.

There are households who grow acacia from encroached land (e.g. land allocated to state forest companies, or land managed by the commune People's Committee). The legality status of wood produced from this source is vague. Some key points regarding the current legal framework on plantations are as follows:

Land policy: The forestland allocation policy has been implemented since the 1990s. The policy has been an important driver for the development and expansion of plantations in Vietnam. The Forest Protection and Development Law (2004) stipulates the household's bundle of rights on the land given to them (see above). Prime Minister's Decree 23 in 2006 limits to 30 hectares the largest area of forestland given to an individual.

The Land Law (2013) and Forest Protection and Development Law (2004) stipulate that the maximum duration of rights given to the households receiving the land is 50-70 years. The laws also clearly state that landholders have rights in deciding timber species used for seedlings and the harvesting time for the forest allocated to them, rights to products (e.g. timber trees) produced from the land through the household's labour investment in the land, and rights to be compensated if the Government withdraws the land.

To and Tran (2014) summarise the advantages and disadvantages of forestland allocation to local households. Such allocation has contributed to the improvement of local household's income, job creation and reduction of illegal forest encroachment. The allocation of forestland to local communities shows the potential for protecting the remaining forest. However, there are constraints in implementation as the process is inconsistent and varies among localities. This can make the legal status of the land recipients unclear. In some places, forestland allocation was implemented without land use planning, resulting in a weak basis for land distribution, and causing land conflicts (To and Tran 2014).

Investment policy: Policies supporting the development of forest plantations by smallholders include the Prime Minister's Decision 147 in 2007, Decision 66 in 2011 and Decision 57 in 2012. These policies stipulate the support available for local households for developing forest plantations, nursery gardening, etc. In general, implementation of these policies is limited due to lack of resources.

Prime Minister's Decree 210 on 19 December 2013 stipulates various types of financial and institutional support for forest plantations. It includes land rental support with favourable conditions given to companies and individuals investing in plantation and wood processing. Financial support is also available for wood processing companies (e.g. 20 billion VND or almost USD 1 million for a company establishing medium-density fibreboard; 10 billion VND (USD 400,000) for a company producing plywood, and 1,500 VND/tonne/km for transport costs incurred in procuring raw materials).

The Government's Decision 66 in 2011 stipulates that it will provide up to 4.5 million VND (USD200) per hectare to local households for developing a tree plantation if the household adopts a growth cycle of at least 10 years, and up to 3 million VND (USD 132) per hectare when there is a shorter cycle (e.g. 7 years).

Decision 55 in 2015 allows households to obtain a loan of 55 million VND (USD 2,400) from the Government commercial bank for plantation development.

Decision 75 in 2015 stipulates that poor households are eligible for a 5-10 million VND (USD 220-440) per hectare loan with favourable interest rates for buying seedlings, fertiliser, etc., to establish plantations.

Despite these facilitating policies, there has been limited actual support for households and companies to establish plantations. Access to bank loans, even with favourable interest rates, has been impossible for many local households due to the lack of anything to use as collateral. In addition, most commercial banks are not interested in investing in plantations, which require long-term investments.

Despite this, acacia planting has been on the rise, mainly by smallholders with their own resources.

4.3 Domestic rubberwood plantation timber for domestic / export markets

This value chain of rubberwood produced by smallholders (households) was selected due to (i) the large number of smallholders participating in the value chain, (ii) the large volume of rubberwood supplied from these sources, and (iii) the important economic and social implications as regards future implementation of the VPA between Vietnam and the EU.

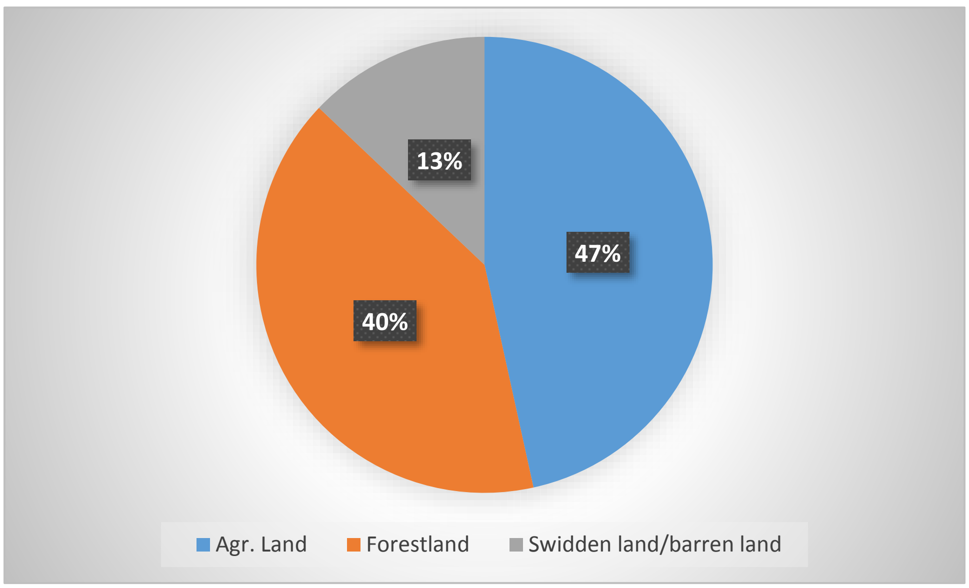
4.3.1 Actors

Smallholder rubberwood producers: The total rubber plantation area in Vietnam is about 974,000 hectares (NSB 2017). It is grown on agricultural land, forestland, swidden land and barren land (see Figure 7 for the proportion of rubber plantations on each type of land).

Vietnam's Government classifies rubber as a multi-purpose tree (Ministry of Agriculture and Rural Development Decision 2855, 17 September 2008).[22] This means that rubberwood could be considered as an agricultural product or crop.

The signed VPA considers rubberwood to be an important source of raw material, and thus the VPA legality definition and timber legality assurance system include legality requirements for rubberwood.

Figure 7. Proportion of rubber plantation area by type of land.



Source: IPSARD 2017.

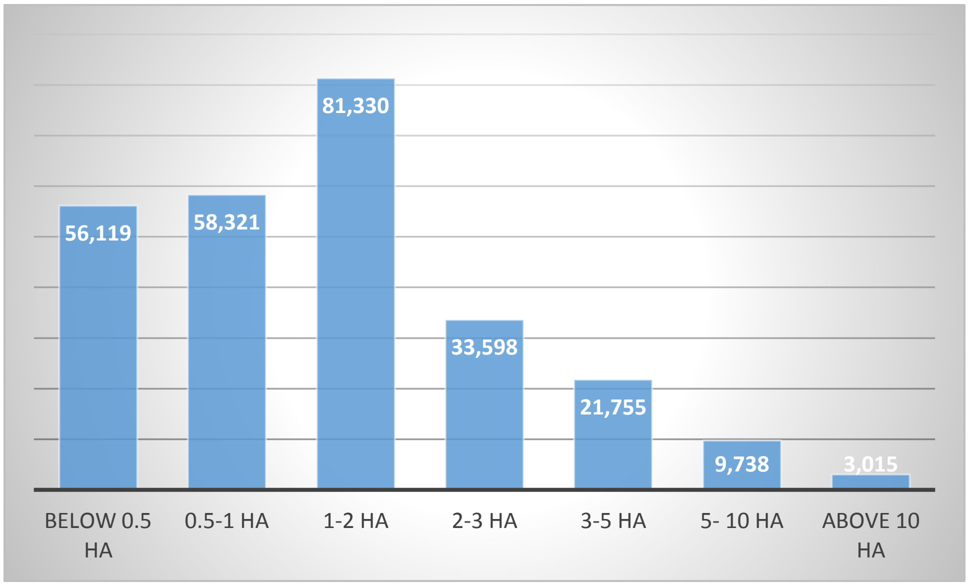
Rubber is grown in all regions (northern mountain, northeast, central-north, central-south, central highlands, and south-east) of Vietnam. The central highlands and the south-east have the largest areas of rubber plantation, accounting for 26.4% and 55.1% of the country's total rubber area (974,000 ha), respectively (IPSARD 2017). The area grown by smallholders is 409,300 hectares, or 43.2% of the total rubber area (NSB 2017).

[22] https://thuvienphapluat.vn/van-ban/Linh-vuc-khac/Quyet-dinh-2855-QD-BNN-KHCN-cong-bo-viec-xac-dinh-cay-cao-su-la-cay-da-muc-dich-70866.aspx

The number of households involved in rubber plantation is 263,876 (NSB 2017). Each has 1.55 hectares on average. Provinces with the largest number of rubber tree growers are Binh Phuoc (65,789 households), Binh Duong (42,175), Tay Ninh (30,542), Kon Tum (24,412), Binh Thuan (13,243), and Gia Lai (11,434). Approximately 87% of the smallholder rubberwood growers have less than 3 hectares each (NSB 2017).

Figure 8 presents the distribution smallholder rubber growers by the area of their land.

Figure 8. Number of HH rubber plantation size



Source: NSB 2017.

Rubberwood production: The annual harvest of rubberwood is about 3 million m^3 and is projected to reach 8 million m^3 by 2040 (Tran 2016). Smallholder rubber plantations account for 43.2% of the country's rubber area, so produce about the same proportion of the total rubberwood, equalling 1.3 million m^3.

Rubberwood has become an important source of raw material for Vietnam's wood industry. It is used to make products for domestic and export markets. In 2016, for example, exports of rubberwood logs and sawnwood reached USD 387 million while the export revenue derived from rubberwood products was USD 1.15 billion (Tran 2016). Rubberwood accounts for 40-50% in the product's price structure.

Table 8 presents the area of plantation where the rubberwood is harvested, total volume of the rubberwood harvested in Vietnam and the volume of wood harvested by smallholders. Figure 9 shows the flow of rubberwood through the value chain.

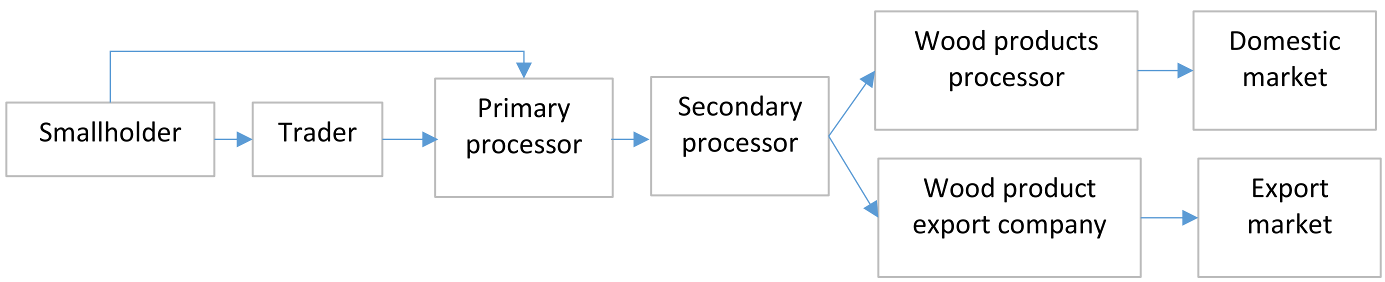
Table 8. Rubber harvesting area, total volume and volume harvested by smallholders.

Year	Harvested area (1,000 hectares)	Total harvested wood (1,000 m^3)	Wood from smallholders (1,000 m^3)
2005	24.15	1,570	659
2006	26.1	1,697	713
2007	27.8	1,807	759
2008	31.6	2,054	863
2009	33.9	2,204	925

2010	37.6	2,444	1,026
2011	40.1	2,607	1,095
2012	45.9	2,984	1,253
2013	47.95	3,117	1,309
2014	48.95	3,182	1,336
2015	49.05	3,188	1,339
2016	48.7	3,166	1,330

Source: Compilation based on figures by Nguyen et al. 2016, NSB 2017 and IPSARD 2017

Figure 9: Rubberwood timber flows



The value chain of smallholder rubberwood starts with the rubber tree growers. Households harvest the wood after 25-30 years of harvesting latex — by which time the latex productivity is no longer economically viable.

Household sells wood to traders who then sell it to sawmills. Sawnwood is then sold to secondary processors who turn the wood into furniture for domestic and export market.

Residuals are sold to the wood chip companies and those producing medium-density fibre-board for use as firewood.

About 70% of the wood from smallholders, equalling 0.9-1 million m^3, is used to make furniture. The remaining 30% (0.4 million m^3) is for veneer, wood chips and firewood.

Smallholder tree growers: Each household has 1.55 hectares of rubber plantation, on average, with 300 trees per hectare. At the time of harvest, each tree is sold for approximately 1 million VND (USD 44).

About 35% of rubberwood from smallholders is sold to traders, who buy standing trees from and organise the harvesting and transport.

About 63% of the rubberwood from smallholder is sold to sawmills in the local area, while 2% of the harvest is sold to other small-scale primary processors in the local area.

Traders: Traders sell 47% of the wood acquired from smallholders to medium wood processing companies, which use the wood to produce indoor furniture and veneer. Traders sell the remaining 53% to sawmills and small-scale wood processors who live in the area.

Sawmills /primary processors: Some sawmills buy wood directly from smallholders, often in the form of standing trees. Usually before harvesting the tree, the sawmill owners have to pay 30% of the tree's value to the growers. At the time of harvest, the sawmills have to pay off the remaining 70%.

The demand for rubberwood has been high and is on the rise, leading to strong competition among sawmills and between sawmills and traders. The 30% deposit is used by sawmills (and traders) to ensure tree growers honour the deal.

Most of the transactions between sawmills (and traders) and tree growers is largely informal (e.g. through a verbal or hand-written contract). Very few transactions between the two sides are certified by the commune People's Committee.

Wood from traders and growers is processed into sawnwood by sawmill operators/primary processors. Approximately 84% of sawnwood is sold to secondary processors; the remaining 16% is sold to household-based furniture producers in the local area.

Sawnwood is used as flooring, indoor and outdoor furniture (accounting for 75% of the total sawnwood volume). These are popular products for domestic and export markets. About 25% of the remaining amount is used to produce veneer.

4.3.2 Gender and labour issues in the value chain

Smallholder rubber tree growers

Interviews of smallholders in Binh Phuoc province reveal that most of the households use their own labour (usually 1-5 labourers) to plant and protect trees, and to tap rubber latex. A few households with more than 10 hectares have to hire rubber companies to plant and protect the trees, for a fee of 17-18 million VND (USD 750-790) per hectare.

Within households, there is no clear difference between male and female labourers regarding their contribution to tree planting, protecting, latex tapping, etc. However, the households with a large area of land and with a need to hire labourers pay male labourers more (200,000-250,000 VND a day, or USD 9-11) than female labourers (180,000 VND a day, or USD 8).

Primary and secondary processors

Sawmills hire labourers, usually fewer than ten each. The hiring is informal. Labourers are not covered by insurance and are paid on daily basis.

Small-scale wood processors hire seasonal labourers to work for them, also on an informal basis. Payment is daily or depends on the workload. According to some processors, both sides do not have to prepare a formal work contract. Hired labourers believe that without labour contracts they are paid better as both sides do not have to pay a social insurance and tax required by Labour Law.

Female hired labourers in primary and secondary processors accounts for 40% of the total hired labour. The remaining 60% are male.

In the processing stage, male labourers are responsible for heavy work such as moving wood, operating machines, and running dry kilns. Female labourers are in charge of less heavy work such as sanding, pasting glue, and packing products.

Male labourers are paid more than female labourers for similar jobs. Men earn 200,000-250,000 VND per day (USD 9-11) while women earn 180,000 VND (USD 8). Under the workload arrangement, women receive 10-20% less than men.

4.3.3 Legality issues in the value chain

Smallholder tree growers

- Rubber tree is grown in both forestland and agricultural land. In Binh Phuoc province, for example, of 234,850 hectares of rubber plantation, 52,096 hectares are on forestland.
- Most households have less than 5 hectares of rubber.

- Rubberwood grown on agricultural land is considered as agricultural crop. The commune People's Committee can certify the legality of the wood grown on this land. The legality of the wood grown on forestland has to be certified by district's Forest Protection Department.
- In Binh Phuoc, many households received forestland under the Government's forestland allocation programme. However, in the period 2009-2011, many households illegally converted forest into rubber plantations. This is in contravention of the Forest Protection and Development Law. Wood from this source is considered to be illegal.
- In Hon Quang district of Binh Phuoc province, there were 7,000 hectares of forestland given to the commune People's Committees. However, most of the area was encroached by local households for rubber (and cashew) plantation. Households with encroached land do not have land use certificates. This means that rubberwood harvested on this land is perceived to be illegal.
- Transferring ownership of rubber plantations is common in some areas, and often without the Government's knowledge. Transfers are often made by hand-written documents, not formal contracts. This blurs the legality of the wood.
- Some primary processors selling wood to wood exporting companies require households to get a formal document from the commune People's Committee to certify the legality of the land (and the wood).
- There are cases where sale contracts are prepared between the traders and smallholder rubber growers, along with commune People's Committee certification for legality of the wood. But this happens only when the value of the sale is large (e.g. a contract with sale value of 5 billion VND or USD 220,000).
- Most transactions between households and traders are informal. This incurs no tax payment by either side.

Traders

- By law, traders buying wood from smallholders are required to obtain documents from the sellers certifying the legality of the wood. Documents could include the commune People's Committee's certificate for the land, or a harvest permit granted to households by the district Forest Protection Department.
- In practice, traders only require legal documents when they buy wood for producing sawnwood. They don't require legal documents for producing veneer or wood chip.

Secondary processors

- About 90% of the rubberwood used by secondary processors is from smallholders; the remaining 10% is from rubber companies.
- When buying rubberwood from smallholders, secondary processors do not care if the wood is from agricultural land or forestland, or from land illegally encroached. When a legality document is required, traders or processors approach the commune People's Committee or district Forest Protection Department for obtaining the legality document from these agencies.
- Most of the companies using rubberwood for export require the legal evidence for the wood.

4.3.4 Investment

Fieldwork in Binh Duong and Binh Phuoc provinces shows that the average total investment of each primary processor is about 8-10 billion VND (USD 35,000–44,000). The monthly capacity of a processing enterprise is about 7,500–8,000 m^3 sawnwood each.

4.3.5 Access to credit and technical support

Rubber tree growers

Tree growers only have access to loans from commercial banks with unfavourable interest rates. They use land use certificates as collateral for obtaining the loan.

Households without land use certificates or any large property that could be used as collateral are not able to access these loans.

Rubberwood is a valuable commodity. At the time of harvest, each hectare of rubberwood could generate as much as 300 million VND (USD 13,200). This is a substantial cash income for a local household.

Primary and secondary possessors

Primary and secondary processors can also access loans from commercial banks without favourable interest rate, so long as they have some large property for collateral.

Some remarks

- There is a lack of regulatory clarity about which Government agencies at local level are appropriate for certifying/verifying the legality of the wood.
- Wood harvested from illegally-encroached land still enters in supply chains.
- Transactions between traders and rubberwood growers are largely informal. Primary processors such as sawmills are operated informally. Workers in

primary processing enterprises are employed on a seasonal basis and do not have formal labour contracts.

- There is no legal requirement regarding the origin of rubberwood. There is common perception that the origin of rubberwood is clear. The lack of clear legal requirements on the origin of wood makes it easy for wood of unclear origin to the supply chain.

4.3.6 VPA requirement on rubberwood

The VPA's Principle II for households shows requirements for the legality of rubberwood. It includes two required indicators:

Indicator 8.1. Complying with legal regulations on land use right and forest use right, one of the following documents is required:

- Decision on land allocation
- Land use certificate
- Land lease

Indicator 8.2. Complying with regulations on archiving harvesting documents, the following document is required:

- Report on harvesting location and volume
- Packing list
- If these requirements are met, rubberwood harvested by smallholders is considered as legal.

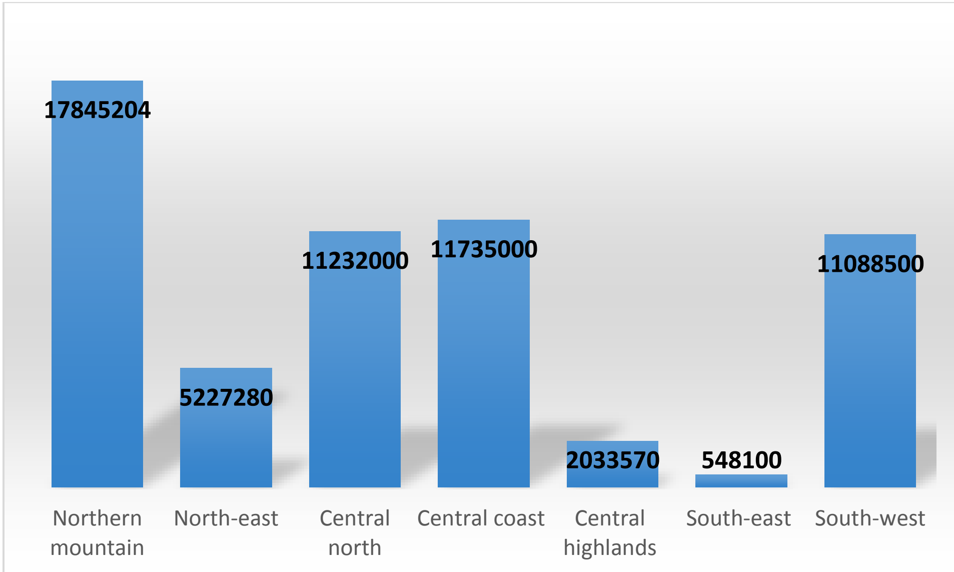
4.4 Domestic scattered trees for domestic / export markets

4.4.1 Production

This study follows the EU-Vietnam VPA definition of timber from scattered trees (also called dispersed trees) as "timber exploited from trees outside planned areas for forest land and concentrated plantations, including trees around the house and garden, on roadsides, embankments and field-sides, and around temples and pagodas".

About 55 million scattered trees are planted each year (IPSARD 2017). This figure, however, includes rubber trees. Figure 10 shows the distribution of scattered trees in the country by region.

Figure 10. Distribution of scattered trees by region.



Source: VNFOREST, cited in IPSARD 2017

In Vietnam, scattered trees (excluding rubber trees) include:

- Scattered trees in cities (usually grown and managed by city government's department of city planning)
- Scattered trees by local households (trees grown in home gardens, river banks and near paddy fields, etc.)
- Fruit trees

In the Central Highlands, there are 578,000 hectares of coffee plantation and there are many scattered trees (e.g. avocado, jackfruit, durian) intercropped with the coffee (IPSARD 2017).

Scattered trees are an important source of raw material for Vietnam's wood industry. In 2016, the total volume of scattered trees harvested was 3.3 million m^3 roundwood equivalent, accounting for nearly 14% of the annual total plantation timber supply to market (23.7 million m^3) (Nguyen et al. 2016). The harvest volume has been rising.

Main species of scattered trees include:

- Precious/high-value species planted on residential land and in home gardens: *Dalbergia tonkinensis* (sua), *Erythrophleum fordii* (lim). Other common species grown on residential land include jackfruit, mango, longan, pomelo, *Hopea odorata* (sao đen), *Dipterocarpus* spp. (dầu), and *Melia azedarach* (xoan ta).

- Species grown on household farms (or mixed home garden-forest areas): acacia, eucalyptus, cinnamon, *Melia azedarac*h. The mixed home garden-forest area is the area of production forestland allocated to households and household's adjacent garden land. Usually, each household has 1-2 hectares of this land.
- Species planted on production forested area outside the planned area for forest land include acacia, eucalyptus, and *Senna siamea* (muồng). This area is mainly planted by mass organisations such as Youth Union, Farmer's Association, local governmental agencies, and companies in the area.
- Species grown on other area: Common species include *Sindora siamensis* (xà cừ) *Lagerstroemia* spp. (bằng lăng), acacia, and eucalyptus. These species grown by local mass organisations and local governmental agencies.
- Households plant scattered trees voluntarily. Local organisations do so as part of the government's ongoing programme on the development of scattered trees.

Table 9 presents the volume of harvest by tree type. Common species with large harvested volume are acacia, *Melia azedarach* and cinnamon. These species are planted on home garden-forest area of households, and on areas outside the planned area for forest land.

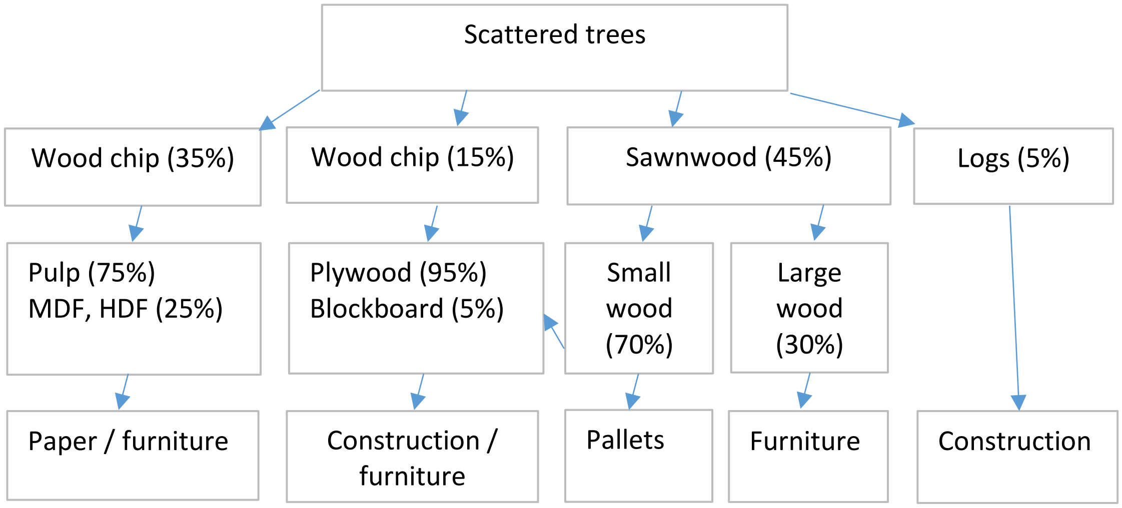
Approximately 60% of a household's scattered tree harvest is for the household's own consumption. The remaining 40% is for commercial purposes. The Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) surveyed 94 wood processing companies and found that 21 of these (22.3%) used scattered trees. Figure 11 shows the proportion of scattered trees put to different uses.

Table 9: Volume of scattered trees (excluding rubber trees) by species in 2016.

Species	Volume (m^3)
Acacia	1,473,580
Eucalyptus	283,370
Melia azedarach	82,390
Pine tree	13,630
Sindora siamensis	13,830
Other trees	413,660

Source: IPSARD 2017

Figure 11. The use of scattered trees in Vietnam.



Source: modified from IPSARD 2017

4.4.2 Actors

There are several actor groups involved in the value chain (IPSARD 2017).

Service providers: Various actors provide seedlings, fertiliser and machinery to scattered tree growers. These service providers include both state-owned and private entities. On average, 40% of the seedlings come from forestry companies (state-owned and private); 30% are from households with a registered licence, and the remaining 30% are from local households without a licence. The quality of seedlings, particularly those provided by unregistered households is not controlled by the Government, and is often low.

Tree growers: Many households grow scattered trees and sell the wood they harvest to primary processors.

Traders: Networks of traders connect tree growers with primary processors. Many traders work at the commune level and seek households wanting to sell the trees. Traders and growers negotiate prices of the trees and the trader is usually in charge of cutting and transportation. Larger traders at district or province level gather wood from smaller traders (commune-based). Small trees and branches are sold to wood chip or veneer factories. Large traders have their own harvesting and transportation teams.

Primary processors: This group includes sawmills, woodchip and veneer producing companies. Scattered trees from local households or mass organisations are brought to sawmills. Sawnwood is sold to secondary processors whereas residuals go to woodchip factories. Some scattered trees go to veneer producing companies.

Secondary processors: This group includes the companies using sawnwood from scattered trees to make furniture. Major products are tables, chairs, doors and flooring products. This group includes companies using the tree to produce veneer.

Shops and warehouse owners (distribution): There is an extended network of distributors of wood products, including products made from scattered trees. There is no data on the number of distributors but in a major city such as Hanoi and Ho Chi Minh City, there are several thousand.

4.4.3 Legal frameworks relevant to the value chain

The Vietnamese Government has promoted the development of scattered trees. This is reflected in various polices, such as the following (IPSARD 2017):

- Prime Minister's Decision 661, dated 29 July 1998, sets out the objective of growing one million long-cycle industrial trees and fruit trees, and mobilising local people and organisations to plant scattered trees.
- The Ministry of Agriculture and Rural Development's decision 2241, dated 3 February 2006, approving a 2006-2020 development plan for scattered trees, with the objective of planting two billion scattered trees, comprising 1.2 billion large trees, and 0.8 billion small trees. Due to budget constraints, only half of the targeted objective has been achieved.
- The Forest Protection and Development Strategy 2006-2020 has the objective of supporting the planting of 200 million scattered trees per year.
- Prime Minister's Decision 38 on 14 September 2016 stipulates that the government will provide financial support to tree growers at 5 million VND per hectare (1,000 trees).

Provincial governments also have policies to support the development of scattered trees. These policies are often embedded in a broader policy framework (e.g. policy supporting the national forest development and protection strategy).

Although policies at both national and local level support the development of scattered trees, these policies are inconsistent and resources for implementing them are often unavailable.

4.4.4 Gender and labour issues in the value chain

Household timber growers

Households mainly use their own labour for planting and taking care of timber trees. When buying wood from the households, traders and sawmill owners are the ones who arrange the cutting and transportation. Within a family, it is usually the husband who decides when to sell the tree and to whom.

Primary and secondary processors.

Our fieldwork in Phu Tho province reveals that:

- Primary and secondary processors hire a small number of labourers to work for them. Of the 236 primary processors in Doan Hung district, 206 hired between one and ten labourers; the rest have up to 40 hired labourers. About 32 processors used their own family labour (one or two people each).
- Most of the labourers do not have work contracts and thus lack social and health insurances. They are seasonal and paid on day to day or workload basis.
- Compared to men, women tend to work more within activities such as polishing and painting.
- For the same quality of work, women always are paid less than men. For example, a male labourer is paid 220,000-250,000 VND per day, whereas a woman only gets 180,000-200,000 VND. When payment is based on workload, women are paid 10-15% less than men.

4.4.5 Legality issues in the value chain

Household ST growers:

- Most scattered trees are grown on legal land (home gardens and combined home gardens and production plantation forestland, or farms) certified by land use certificates granted to local households.
- Trees planted in residential areas and home gardens include precious species such as *Dalbergia tonkinensis* and *Erythrophleum fordii*, as well as fruit trees, and are mainly for household's own consumption (e.g. building a house or a pen for livestock). When harvesting the tree and selling it, households do not submit reports to or ask for a permit from commune's People's Committee.
- When harvesting scattered trees from mixed home garden and forestland, households do not request for verification of timber sources from the commune People's Committee.

Timber traders

- Some timber traders are registered, while others are not and therefore operate illegally.
- Our interviews with local authorities reveal that it is difficult to manage traders and monitor their tax payments.
- There are no legal documents proving the legality of the wood when traders buy scattered trees from households.

- Traders buy scattered trees from local households in their province. Many also buy scattered trees from other provinces. This makes the value chain complex.
- There are cases where primary processors ask traders for legal documents for the wood (particularly for acacia). The latter then arrange the document from the commune People's Committee. Traders explain that a legality requirement is needed for acacia as it is used for producing furniture for the export market.
- There are cases where traders already harvested scattered trees and sold logs to primary processors for a long time, but they still ask commune People's Committee for legality document and obtain it. This implies that there is no constraint in obtaining legality documents from the commune People's Committee.
- According to the Ministry of Agriculture and Rural Development Circular 21/2016/TT-BNNPTPT, a legal document proving the legality of the scattered trees is not required.

Primary and secondary processors

- Most of products from primary processors (sawnwood, boards, chips, plywood) are sold to other primary processors or secondary processors. Major finished products are cloth cabinets and beds.
- When buying raw materials from timber traders, most of primary and secondary processors do not know about the source of timber; they do not ask for legally verified documents.
- In cases where a legal document is required, processors come to the commune People's Committee to obtain the document. Some of them ask traders to do that.
- In Doan Hung district, cinnamon and cherry birch are species used intensively to make furniture, which is then transported to shops in the province and to other provinces (e.g. shops in Huu Bang wood village in Hanoi, 120 km away).
- Almost all transactions occur in the absence of legal documents.

Furniture shops

- The final products made by small processors (like those in Phu Tho province) are consumed locally and serve consumers in these areas.
- Interviews with some shop owners in Hanoi show that buyers never ask for the legality of the products, but only ask for the name of the wood and the

product price. This highlights that average consumers do not yet care about the legality of the products. This also means that substantive work is needed to change consumer's practices and use of legal wood products.

4.4.6 Investment

Primary and secondary processors

- Survey data from Doan Hung district shows that a primary processor in the district invests from 100 million VND (USD 4,500) to 13 billion VND (USD 550,000) in their production. Each of them processes 150-36,000 m^3 of raw material each year.
- A secondary processor invests around 1 billion VND in their production.
- Primary processors have a lower level of investment. More than half of the 166 primary processors in the district have a total investment of less than 500 million VND.
- Most primary and secondary processors use simple machines imported from China (sawing machine, crafting and drying machine). These machines are cheaper than those made by other countries. Some processors use machines made in Vietnam.

4.4.7 Access to credit and other support

- Though government policies supporting the development of scattered trees exist, the materialisation of these policies is weak. In some remote areas, tree growers receive free seedlings from the government. But the support is small-scale and inconsistent.
- In principle, poor households could borrow a small loan from commercial banks for growing scattered trees. But they need to have property collateral in order to access to the loan and many poor households cannot meet this requirement.
- Preferential credits are not available for processors. A processor who would like to borrow money for their production can approach a commercial bank with no favourable lending conditions.
- In principle, tree growers are entitled to technical support from government's extension services. However, those services are limited, both in terms of scale and severe limits in reaching out to tree growers.

4.4.8 Legality requirements for scattered /dispersed trees under EU-Vietnam VPA

Criterion 7 of the VPA timber legality definition for households presents requirements for the legality of the scattered trees (also called dispersed trees):

- **Indicator 7.1**. Compliance with regulation on harvesting documents. The scattered tree grower is required to report on harvesting location and volume to local authorities.

- **Indicator 7.2.** Round timber that ≥25 cm in diameter at the larger end and ≥1 m in length, and timber that is sawn or squared in the forest and is ≥1 m long, ≥5 cm thick and ≥20 cm wide, and harvested from plantation forest and subject to rare, precious and endangered timber must be placed with forest hammer marks in accordance with regulations. When harvesting the wood, the scattered tree grower is required to have minutes on placing forest hammer marks and packing list.
- **Indicator 7.3.** Timber harvested is not subject for placing forest hammer marks as regulated in Indicator 7.2, when buying timber from tree growers, processors must have a packing list.

5 References

Blyth, M.J. and Hoang, L.S., 2016. *Socio-economic factors influencing smallholder production of acacia sawlogs in Vietnam*. Australian Centre for International Agricultural Research. Canberra, Australia.

Cling, J., Razafindrakoto, M. and Roubaud, F., 2011. *The informal economy in Vietnam*. Ministry of Labour, Invalids and Social Affairs and Internal Labour Organization. Hanoi, Vietnam.

Dang V. Q., Quach H.N, Pham D.T, Nguyen T.T and Cao T.C., 2013*. Xưởng xẻ gỗ hộ gia đình trong bối cảnh FLEGT-VPA* [household-based sawmills in the context of FLEGT VPA]. Forest Trends, GIZ and VIFORES.

Environmental Investigation Agency, 2017. *Repeat Offender: Vietnam's persistent trade in illegal timber*. https://drive.google.com/viewerng/viewer?url=https://eia-international.org/wp-content/uploads/Repeat-Offender.pdf

Hanns Seidel Foundation and ILSSA, 2012. *Social protection for the informal sector and the informally employed in Vietnam: Literature and data review.* Hanoi, Vietnam. https://southeastasia.hss.de/fileadmin/migration/downloads/120101-illssa-publication-social-protection-engl.pdf

HAWASME & MBI, 2016. *Women-owned Small and Medium Sized Enterprises in Viet Nam: Situation analysis and policy recommendations*. HAWASME and the Mekong Business Initiative. www.mekongbiz.org/wp-content/uploads/2017/07/WOB-Position-Paper_English-1.pdf

Hoang, C., Le, S. Nguyen, C., Ngo, L., Tran, N., and Vu, L., 2013. Tiep can dat dai cua phu nu trong xa hoi Viet Nam hien nay [women's access to land in temporary society of Vietnam]. UNDP, Report.

Hoang L.S., 2016. Thực trạng và giải pháp phát triển các mô hình liên kết theo chuỗi giá trị gỗ rừng trồng [current situation and solution for the development of value chain model for plantation timber]. Hanoi Agriculture Publishing House. Hanoi, Vietnam.

IFC, 2006. *Women Business Owners in Vietnam. A National Survey.* International Finance Corporation. https://www.ifc.org/wps/wcm/connect/5d2f6200480c4599ac36ac7a6268cde4/PSDPVN-21-Eng.pdf?MOD=AJPERES

IFC, 2017. Women-owned enterprises in Vietnam: Perceptions and Potential — Executive Summary. International Finance Corporation. https://www.ifc.org/wps/wcm/connect/5a8ca0f6-8ca5-44c5-8350-

2b3b353a3725/Women-owned+enterprises+in+Vietnam-Perceptions+and+Potential+-+Executive+Summary.pdf?MOD=AJPERES

IPSARD, 2017. Gỗ phân tán ở Việt Nam và tiềm năng phát triển trong khuôn khổ Hiệp định đối tác tự nguyện về tăng cường thực thi lâm nghiệp, quản trị rừng và thương mại gỗ (FLEGT VPA) với Châu Âu [scattered trees in Vietnam and their potentials in FLEGT VPA]. Institute of Policy and Strategy for Agriculture and Rural Development.

MARD, 2017. *Báo cáo tổng hợp thực hiện dự án "Tổng điều tra, kiểm kê rừng toàn quốc giai đoạn 2013-2016"*. Ministry of Agriculture and Rural Development. Hanoi, Vietnam.[Project report on inventory of the country's forest in the period 2013-2016]

Mayfroidt, P and Lambin, E.,2009. Forest transition in Vietnam and displacement of deforestation abroad. Proceedings of the National Academy of Sciences 106: 16139–16144.

NSB, 2017. Data on rubber production 2017. National Statistics Bureau. Hanoi, Vietnam.

Ngo V.T, 2011. Research on informal employment in Vietnam: Current situation and solution. Hanoi National Economics University: Discussion paper.

Nguyen T.Q, Cao T.C., To X.P and Tran L.H, 2016. Thực trạng sử dụng gỗ nguyên liệu trong chế biến gỗ [current wood material use in wood processing industry] Forest Trends, VIFORES, HAWA, FPA Binh Dinh: A report. http://goviet.org.vn/upload/aceweb/content/1482216238_Thuc%20trang%20nguyen%20lieu%20CBG.pdf

Nguyen T., Le D.P., To X.P., Cao T.C. and Nguy T.H., 2017. Làng nghề chế biến gỗ trong bối cảnh thực thi FLEGT và REDD+ tại Việt Nam [wood village in the context of FLEGT and REDD+ implementation in Vietnam]. VIFORES and Forest Trends: A report.

Phan, T.G., 2014. *LIA Report: Livelihood Potential Impact Assessment of a VPA on Red River Delta Wood Processing Households: Dong Ky and Huu Bang villages*. VNFLEGT NGO network, Phan Trieu Giang.

To X.P. et al., 2017a. Phát triển ngành gỗ theo hướng bền vững: Loại bỏ gỗ nhập khẩu rủi ro cao ra khỏi chuỗi cung [Sustainable development of the Vietnamese timber industry: Removing high risk import timber from supply chain]. Forest Trends, VIFORES, HAWA, FPA Binh Dinh.

To X.P. et al., 2017b. Việt Nam xuất khẩu dăm gỗ: Diễn biến thị trường đến hết tháng 6 năm 2017. Forest Trends and VIFORES.

To X.P., Nguyen T.Q, Huynh V. H., Tran L.H. Cao T.C., 2012. Wood village in Vietnam in global context. Forest Trends, VIFORES, HAWA, FPA Binh Dinh.

To, X.P., 2017. Liên kết trong ngành chế biến gỗ: Tăng cường cơ hội, giảm rủi ro vì mục tiêu phát triển bền vững [linkage in wood processing sector: Strengthening opportunity and mitigating risks for sustainable development]. Forest Trends: A report.

To, X.P. and Tran, H.N., 2014. Giao đất giao rừng trong bối cảnh tái cơ cấu ngành lâm nghiệp Việt Nam: Cơ hội phát triển rừng và cải thiện sinh kế vùng cao [forestland allocation in the context of forest sector's restructuring]. Forest Trends and Tropenbos, 2014.

To X.P., Dang V.Q., Cao T.C. and Nguyen T.Q., 2018. Wood village in the context of global market integration. Forest Trends and VIFORES.

Tran T.T.H., 2016. Nguồn cung gỗ cao su tại Việt Nam (rubberwood supply in Vietnam). Presentation made at the national workshop *Wood material situation in 2017.* Ho Chi Minh City, 14 December 2016.

Treanor, N.B, 2015. *China's Hongmu Consumption Boom: Analysis of the Chinese Rosewood Trade and Links to Illegal Activity in Tropical Forested Countries.* Forest Trends. https://www.forest-trends.org/wp-content/uploads/2015/12/doc_5057.pdf

World Bank, 2018. *Doing Business 2018: Reforming to create jobs: Economic Profile Vietnam.* World Bank.

Annex 1: General description of methodology

This study, and others in the same series for Laos, Myanmar and Thailand used a common methodology that was adapted for each country context. The value chain analysis used methods including focus group discussions, direct observation and questionnaires. Guidelines and research procedures were also developed.

Use of value chain analysis

A value chain refers to a complex range of activities implemented by various actors (primary producers, processors, traders, and service providers) to bring a raw material through a supply chain to the market place.

A value chain analysis follows the raw material as it is transformed, combined with other products, transported, packaged, displayed, etc., until it reaches the final consumer. In this process the raw materials, intermediate products and final products are owned by various actors who are linked by trade and services, and who each add value to the product.

Various types of public and private services, like business development services, electricity, transport, financial services, etc., are as important as favourable framework conditions, i.e. laws, regulations and their enforcement.

The value chain analysis model supposes that by understanding interactions between all these actors, it is possible for private and public agencies to identify points of intervention to (1) increase efficiency and thereby increase total generated value, and to (2) improve the competence of intended actors to increase their share of the total generated value.

Selecting value chains

During early stages of the projects, the project team and national stakeholders scoped several value chains (culminating in a national experts meeting). Four value chains were selected for their relevance to meeting the project objectives. Characteristics selected for included:

- Involvement of households, micro and/or small enterprises, wood villages.
- Relevance to the trade in illegally or unverified legally sourced wood products in Vietnam, in terms of overall importance to this trade by volume, value, or potential impact. This would help to identify the potential effects of VPAs or other market shifts related to demand for legally verified timber, through the enforcement of the legal and regulatory frameworks on these value chains and the actors.

- Potential for a value chain to relieve the pressure on actors to source from high-risk timber suppliers through the provision of increased levels of legal timber.
- Potential to affect poverty, gender and rights issues.
- Recognising that the small-scale forest products enterprises may include any enterprise in forest product value chains from household and community forests, logging organisations, transporters, traders, primary and secondary manufacturers and retailers that typically employ fewer than 20 people.

For Vietnam, through the literature review and consultation with experts, the four value chains selected for the study related to imported rosewood and plantation timber:

- **Value chain 1**: Imported rosewood used in wood villages for domestic and export markets
- **Value chain 2:** Domestic acacia plantation timber for domestic and export markets
- **Value chain 3:** Domestic rubberwood plantation timber for domestic and export markets
- **Value chain 4**: Domestic scattered trees for domestic and export markets

Mapping value chains

Where possible, the various characteristics of each selected value chain were described, by:

- **Step 1**. Mapping the core processes in each value chain
- **Step 2.** Identifying and mapping the main actors involved
- **Step 3.** Mapping flows of products
- **Step 4.** Mapping knowledge and flows of information
- **Step 5.** Mapping the volume of products and numbers of actors
- **Step 6.** Mapping the geographical flow of the products
- **Step 7.** Mapping the value at different levels of the value chain
- **Step 8.** Mapping relationships and linkages between the actors
- **Step 9.** Mapping services that feed into the value chain
- **Step 10**. Mapping constraints and potential solutions

Collection of primary and secondary data

Primary data were derived from interviews (in September and October 2017) with each value chains' key actors and local governmental officials in four provinces:

- Bac Ninh province (Dong Ky Wood Village) for imported rosewood
- Binh Duong and Binh Phuoc provinces for rubberwood and scattered tree timber
- Phu Tho province for acacia and scattered tree timber.

Other discussions with trading companies and furniture shops, as well as consultations with national timber trade experts were conducted in Hanoi and Ho Chi Minh City. A total of 80 people was interviewed. Table 7 provides detailed information of interview locations and numbers of informants in each actor group.

Methodologies for primary data collection included:

- **Focus group discussions**: Two guidelines or checklists were designed to guide focus group discussions with value chain actors and local government officials, respectively. The focus group discussions were structured around these sets of carefully pre-determined questions, with the discussion free-flowing.
- **Questionnaires**: Six questionnaires were developed to collect new primary data from the following groups of informants (interviews lasted 30-45 minutes — no more than one hour):
    - Households processing imported rosewood
    - Household growers of rubber, acacia and scattered trees
    - Timber traders
    - Saw mill owners
    - Wood processing companies
    - Furniture shop owners
- **Direct observation**: A key method to observe and record data, direct observation provided some qualitative information or narratives about participant activities, and as much as possible experience the realities of the issue being assessed. Direct observation was conducted along each value chain to gain on-the-ground understanding of the value chain in action.

Aside from primary data collected direct interviews and observations, this study also used information from relevant reports and legal documents.

Table 7. Interview locations and number of informants in each actor group.

	Total*	Interview locations					
		Bac Ninh	Phu Tho	Binh Duong	Binh Phuoc		
		Tu Son	Doan Hung, Ha Hoa	Dau Tieng, Thuan An	Binh Phuoc, Chon Thanh Dong Phu		
Focus group discussions:							
Household processing imported rosewood	4	4					
Household grower of rubber, Acacia or scattered trees	5		5				
Timber trader				3			
Owner of saw mill							
Wood processing company	5			5			
Furniture shop owner							
Local governmental authority	16	4	9		3		
Questionnaire interview:							
Household processing imported rosewood	8	8					
Household grower of rubber, Acacia or scattered trees	14		10		4		
Timber trader	6	4			1		1
Owner of saw mill	11	3	6		2		
Wood processing company	14	5	4		3		2
Furniture shop owner	7	3			1	3	
Local governmental authority	6	2	4				
Total	**80**	**26**	**34**	**5**	**9**	**3**	**3**

*Note: * Some informants were in multiple categories of actors, such as saw mill together with wood processing and timber trade; wood processing together with furniture shop; etc.*

Annex 2: Vietnam's timber imports

Vietnam imports more than 160 species of timber from over 100 countries and territories. Imported timber is divided into two main groups:

- **Group 1.** Wood species originating from tropical forest countries such as the countries in the Mekong region and in Africa (Table 8). This timber is considered as high risk. It accounts for nearly 50% of total imports. Most species in this group are rosewood.
- **Group 2:** Wood species from the United States and countries in Europe and Latin America. Annually, Vietnam imports 1-2 million m^3 roundwood equivalent from this source. Major source countries are the United States, New Zealand, Chile, Brazil, Finland, and Germany.

Tables 10 and 11 show the key sources and volumes of high-risk (Group 1) logs and sawnwood that Vietnam has imported since 2013. More details of Vietnam's Group 1 imports of logs and sawnwood follow the tables.

Table 10. Vietnam's imports of high- and low-risk timber (million m^3 roundwood equivalent).

	2013	2014	2015	2016	Q1 / 2017
High-risk source					
Laos + Cambodia	0.863	1.256	1.490	0.567	0.272
Africa	0.313	0.396	0.644	0.943	0.288
Low-risk source					
European Union	0.316	0.498	0.590	0.647	0.217
United States	0.758	0.711	0.756	0.748	0.188
New Zealand	0.282	0.240	0.239	0.280	0.005

Table 11. Key countries supplying high-risk logs to Vietnam (1000 m^3).

Countries	2013	2014	2015	2016	Q1 / 2017
Laos	225.8	308.7	321.7	36.2	0.1
Cameroon	177.1	191.1	314.7	420.7	108.9
Myanmar	120.7	56.4	-	-	-
Papua New Guinea	71.5	66.1	105.2	183.1	47.5
Nigeria	14.3	31.8	47.7	85.6	20.3
Cambodia	0.4	0.5	59.3	139.3	119.0

Table 12. Key countries supplying high-risk sawnwood to Vietnam (1000 m^3).

Countries	2013	2014	2015	2016	3 months of 2017
Laos	385.5	494.9	383.1	97.1	2.3
Cambodia	51.1	153.2	375.0	171.4	102.9
Cameroon	22.8	23.1	33.8	47.6	17.0
Gabon	19.0	31.4	51.0	58.7	22.9

Source: To et al. 2017a

Group 1 (high-risk) imports from Laos

Logs

Since the second half of 2016, there has been a sharp decline in the volume of timber materials, including logs, imported from Laos into Vietnam. Until 2017, most imported wood from this source was no longer available. The main reason was that, since April 2016, the Lao government had applied a policy banning timber material exports. Previously, the species of logs imported into Vietnam were mainly precious wood species such as white seraya, menghundor, Chinese fir, Burma padauk, and apitong.

Sawnwood

The lumber supply to Vietnam from Laos has mostly been lost since the second half of 2016. Before that, the volume of lumber imported from Laos into Vietnam was very large and mostly was precious wood species, in groups 1 and 2. In 2016, species with high import volumes and values included:

- Burma padauk — 26,900 m^3 valued at USD 30.3 million, down from 90,100 m^3 and USD $104.3 million in 2015
- Sepetir — 22,300 m^3 valued at USD 12.2 million, down from 55,800 m^3 and USD 32.9 million in 2015

Group 1 (high-risk) imports from Cambodia

Logs

In 2016, the volume of logs imported into Vietnam from Cambodia surged to nearly 139,000 m^3, from 57,700 m^3 in 2015. Before 2015, Vietnam generally did not import logs from Cambodia. In 2016, the main log species imported into Vietnam included:

- Batal — 26,400 m^3
- Apitong — 48,260 m^3
- Mukulungu — 5,330 m^3
- Merawan — 4,270 m^3

Sawnwood

The volume of lumber imported from Cambodia into Vietnam has increased dramatically since 2014. Most of the imported lumber is of precious wood species. In 2016, timber species with high import value and volume included:

- Burma padauk — 54,730 m^3, USD 96,8 million
- Batal — 47,050 m^3, USD 22.7 million
- Rosewood — 2,630 m^3, USD 4.6 million
- *Anacardium* — 13,110 m^3, USD 2.6 million

Although the imported volume in 2016 was smaller than the imported volume in 2015, it rose sharply again in the first quarter of 2017. In those three months alone, Vietnam imported 102,850 m^3 of lumber from Cambodia. The volume of Burma padauk accounted for 30,580 m^3, equivalent to USD 37.8 million, and the volume of batal was 34,700 m^3 (USD 16.7 million).

Group 1 (high-risk) imports from Gabon

Logs

Gabon is the largest supplier of logs for Vietnam, both in volume and value. In 2016, Vietnam imported approximately 420,000 m^3 of logs from this source, with an import turnover of over USD 164 million. These figures are much larger than the import figures for 2015 from this country (314,600 m^3 and USD 133.5 million). In 2016, the species of logs with high volume and value included:

- Tali — 324,590 m^3, USD 124,3 million
- Doussis — 20,430 m^3, USD 9.8 million
- Mukulungu — 33,200 m^3, USD 12.8 million
- Surian — 23,900 m^3, USD 9.2 million

Sawnwood

The volume of lumber imported from Gabon into Vietnam is approximately 50,000 - 60,000 m^3 per year. Similar to lumber species imported from Cameroon, imported species from Gabon are predominantly precious wood species, belonging to groups 1, 2, and 3. In 2016, a total imported lumber of 58,820 m^3 into Vietnam from this source had 47,500 m^3 of tali. The remaining species such as Burma Padauk (6,650 m3), rosewood (3,340 m^3), doussis and some other species have small volumes.

Group 1 (high-risk) imports from Nigeria

Logs

Nigeria has become an important supply of timber for Vietnam. In 2016, the Vietnamese timber industry invested approximately USD 36 million to import 85,490 m^3 logs. Most of the imported logs were Burma padauk (81,680 m^3, USD 34.5 million).

Group 1 (high-risk) imports from Cameroon

Sawnwood

The lumber volume of 47,560 m^3 imported into Vietnam included 33,820 m^3 of tali. The remaining species are doussis (8,110 m^3), and other species of lumber such as Burma padauk and Burmese rosewood, which had an import volume of under 1,000 m^3 for each species. In general, lumber species imported from Cameroon into Vietnam are precious wood species.

Annex 3: Dong Ky wood village survey

Household involvement

In Dong Ky wood village, there are 3,500 households (with 16,000 people), of which only 14.2% (500 households) are not engaged in timber production and/processing. Altogether, more than 8,000 labourers are involved in the timber product business.

Overall, 90% of household income is from wood processing and the trade in wood products. Of the 3,000 households involved in the wood work:

- 200-250 households are involved in trading of raw material
- 2,500 households are involved in processing
    - 500 households with business registration
    - 2,000 households do not have registration
- 100 households are involved in wood transportation (e.g. moving wood from retail market to sawmill or households)

On average, the total volume of wood used by Dong Ky village is about 30-40,000 m^3 of wood /year. About 60% of wood is from Africa and 40% from Cambodia and Laos. The village operates 10 months of the year (two months off for holidays). The total amount of wood used by the village is 3,000 - 4,000 m^3/month.

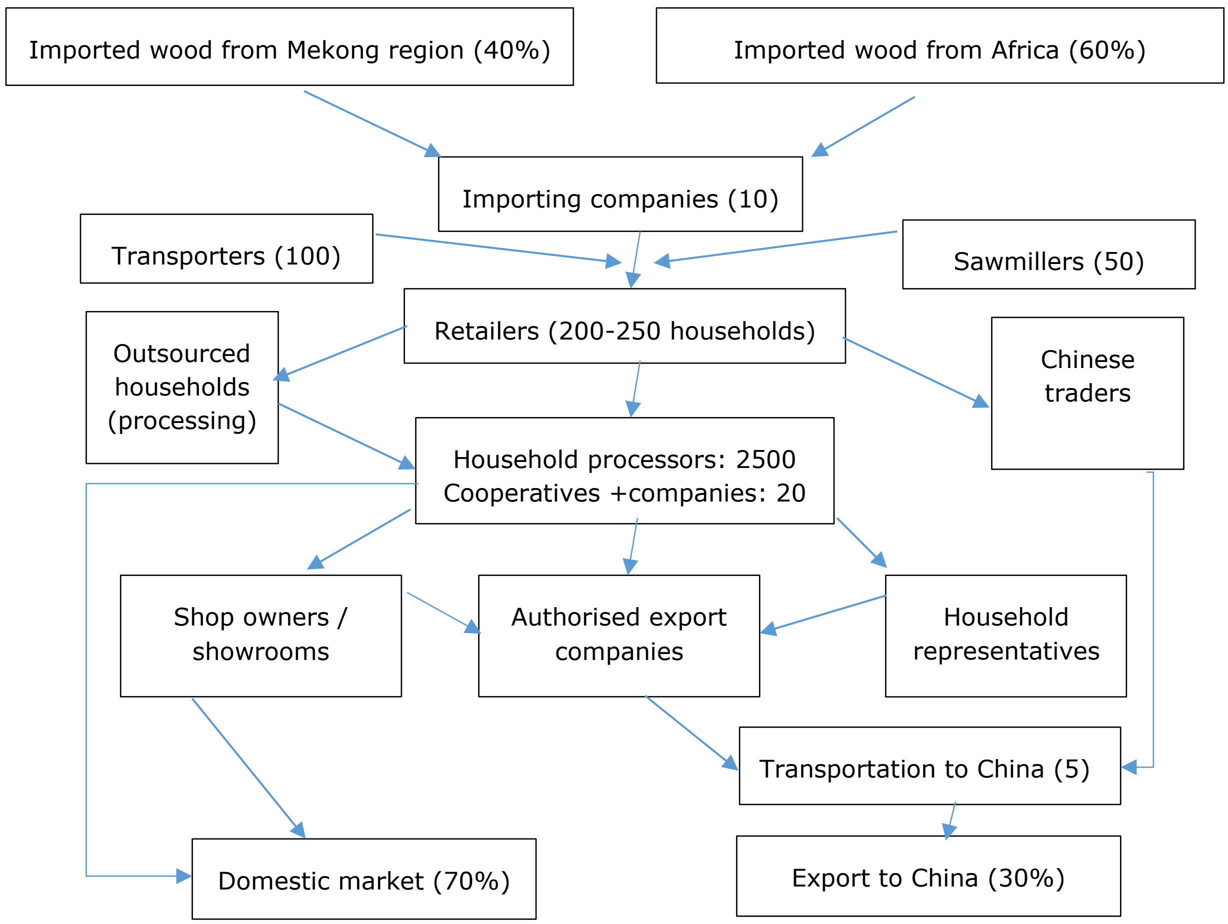
In Dong Ky, about 10 trading companies (importers or traders) supply wood to the village. Wood is then sold to retailers who hire sawmill operators to saw the wood to sell in the market. Sawn wood is sold to village households who are wood processors (2,000 households in Dong Ky), cooperatives and small-scale companies in the villages (20 in total). These households, cooperatives and companies turn wood into furniture for export. Many of them hire other households in their village or in neighbouring villages (outsourced households) to process wood.

On a normal day in Dong Ky wood village, three trucks fully loaded with wood products — mainly table sets, about 15 tons (15 m^3) — made from imported rosewood head off for China. The total volume of wood products exported to China from this village is 45 m^3 per day.

The price structure is as follows: 45% raw material; 5% sawing; 40% processing; 10% sale; 7-15% profit.

On average, each production household uses 0.5 m^3 of wood /month. This enough to make a dining table and four chairs (used for living room). There are 10 companies and 10 cooperatives. Each cooperative or company uses 10-15 m^3 of wood /month. The production procedure is shown in Box 2.

Figure 12. Value chain in Dong Ky wood village



Source: Phan, 2014

Box 2. The production stages of a household in Dong Ky

Mixed/sawn wood group: Usually three people. This group saws wood to form general shapes according to orders.

Technical group: About 1-3 people. This group's work is wood processing, sawing, carving to form the patterns for the detail carving group.

Carving group following patterns: Usually three people, including a perforation worker, a wood processing worker and a wood shaper and refiner. An engraver needs about one year to learn before independent work.

Product completion group: Usually four people, including three sanding workers and one refining worker.

Painting group: Usually three people, including one painting worker and two sanding workers. (This group should work outside residential areas.)

Source: Phan 2014.

70% of the wood products produced by households, cooperatives and companies in Dong Ky are sold domestically, while the remaining 30% are sold to China. Some Chinese traders come directly to Dong Ky to buy wood from retailers. Most of them have developed long-term relationships with traders / household producers in Dong Ky. The Chinese traders specify the design and wood material of the products they desire. They then pay transportation companies to move the products to China.

Wood products processed by households, cooperatives and companies are sold to showrooms or shop owners in the village, who then sell it to Vietnamese buyers who come to the village to buy, or through their distribution networks in the country (e.g. furniture shops in major cities).

When it comes to export, as households do not have legal status (e.g. due to the lack of registration licence for operation), they have to get together and appoint one person representing them to sign a contract with an export company.

The company works on behalf of household group and signs sale contracts with Chinese buyers. The company receives commission from the households in return. For each customs declaration form, the company receives 1.5 million VND (USD 66). On average, each company helps with 30 custom declaration forms/month.

In Dong Ky village, there are about five companies that are responsible to transporting wood from the village to China, and some are Chinese-operated. The company is responsible for all paperwork required for transportation (and export).

Trust is a key element in the trade. Chinese traders have developed a long-term relationship with local household procedures. Households can produce goods based on orders made in advance by the Chinese traders. When products are ready for export, households inform the traders who then ask the household to bring the products to the transport companies with whom the traders have good relations.

When products are gathered at the transportation company warehouse, the transportation company uses the traders' money to pay the households. Households selling products to the traders do not have to prepare any legal documents — the transport company and trader are responsible for all paperwork.

About ten households have warehouses in China to sell products to Chinese customers. All have to hire transport companies to move their products to the warehouses. As for the deal between the company and the households, the company is in charge of all paperwork required for transportation. The company will receive payment for transportation only when products reach the warehouses, which takes 1-3 days.

Timber used in Dong Ky

- The timber is mainly of high value, such as huong (*Pterocarpus macrocarpus*), trac (*Dalbergia cochinchinensis*), cam lai (*Dalbergia oliveri Gamble*), mun (*Diospyros sp.*), gụ (*Sindora tonkinensis*) and others like cam xe (*Xylia xylocarpa*), chieu lieu (*Terminalia chebula*) in small amounts.
- The price of Dong Ky products is very high. A traditional living room furniture set sells from a few tens of million VND to more than a few billion VND due to the high price of the precious timber (0.4-0.6 m^3 used) and labour involved (320-480 working hours) (Phan 2014).

Survey data from Dong Ky village

Legality: Of 29 interviewed households, 11 were registered for operation and 18 were not (62% operated illegally). Registered households pay a flat rate of licence tax, which is about 200,000 VND (USD 8) per year on average. Many households do not register as they have been operating this way for many years without any constraints. For many households, registration means increasing transaction costs, and risk for payments.

Documents (for legality requirement of the products): All households do not have required documents when buying /selling wood and wood products (e.g. tax invoices). Households that export products group together and sign a contract with a company which signs contracts with buyers on behalf of the households.

Most (90%) of households focus on furniture production; 4% engage in both production and trading. The Forest Protection Department and commune People's

Committee say that due to the constraints in human resources it is impossible to ask all households in the village to obtain all legally required documents proving the legality of the products. What's important, according to them, is to check the legality of the wood at the retail market where the households buy it.

Revenue: 41.3% of the surveyed households have an annual revenue of less than 500 million VND (approximately USD 22,000); 20.6% have annual revenue of VND 1-2 billion (USD 44-88,000); 17.2% have revenue larger than 2 billion VND. On average, each household obtains about 400–500 million VND (USD 17,620-22,000) per year. The total revenue from 2,500 households in Dong Ky is about USD 44–55 million.

The annual revenue of each cooperative /company is 3-5 billion VND (USD 132,000-220,000).

For the 34 wood villages in Vietnam with direct access to export market (China), the total revenue from wood product exports could be as high as USD 1.7 billion. This figure corresponds well with the insight from the chairman of Dong Ky timber association that when the export market peaked (around 2012), the annual export revenue from Dong Ky only could be hundreds of millions of US dollars.

Capital investment: Household capital investment is low, about 1.5 billion VND per household (USD 66,000) on average. Most of the capital is owned by the household. Access to loans from commercial bank is not a constraint for households, provided that the household has collateral (e.g. residential land title). The annual interest rate from commercial banks is about 9-10%. Several households reveal that as long as there is market demand for the products, they can access to the loan from the bank without difficulties.

Production area: Most (90%) of the surveyed households do not have a production area so use their own residential area for this. The average production area is 155 m^2. Lacking production area triggers many problems for almost all households in the village. Problems of noise and air pollution, work safety, waste management, etc., have been longstanding in Dong Ky as in most wood villages in the country (To et al. 2012).

Labour: See the description of value chain on high-risk timber for domestic market. Since 2012, China's demand for high-value wood products has been falling. The number of labourers working in Dong Ky has dropped accordingly.

Gender: See the description of value chain on high-risk timber for domestic market.

Disclaimer. This report has been produced by NEPCon and Forest Trends in association with the EU FLEGT Facility, with the assistance of the European Union and the Governments of Finland, France, Germany, the Netherlands, Spain, Sweden and the United Kingdom. The contents of this report are the sole responsibility of its authors and can under no circumstances be regarded as reflecting the position of funding organisations.