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THAILAND

Country Report on Forest Product Legality Requirements and Risks

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1. OVERVIEW OF THE FORESTRY SECTOR	4
1.1. FOREST RESOURCES OF THE COUNTRY	4
1.1.1. Landuse type	4
1.1.2. Vegetation types	6
1.2. FORESTRY AND WOOD PROCESSING SECTOR (E. G. LOG, SAWN TIMBER, PLYWOOD, WOOD CHIPS, PULP AND PAPER, FURNITURE, ETC.):.....	8
1.3. TRADE OF WOOD PRODUCTS (EXPORT AND IMPORT): COUNTRIES, PRODUCT TYPES, SPECIES, VOLUME AND VALUES OF TRADE10	
1.3.1. Import	11
1.3.2. Export.....	11
3.2. LEGAL RIGHTS OVER FORESTS	16
3.2.1. Land/resource tenure in National Reserved Forests	17
3.2.2. Land/resource tenure in public land outside National Reserved Forests	18
3.2.3. Land/resource tenure in private lands	18
3.3. TIMBER SOURCE TYPES, MANAGEMENT AND HARVESTING PLANNING AND PERMITS.....	21
3.3.1. National Reserved Forests	22
3.3.2. Public land outside National Reserved Forests	22
3.3.3. Private lands	22
3.4. ENVIRONMENTAL REQUIREMENTS.....	23
3.5. EMPLOYMENT AND SAFETY IN FOREST MANAGEMENT AND HARVESTING OPERATION	25
3.6. SOCIAL REQUIREMENTS	26
3.7. CONTROL MEASURES TO VERIFY LEGALITY OF HARVESTING	27
4. LEGISLATIONS ON TRANSPORTATION AND PROCESSING OF WOOD AND WOOD PRODUCTS	28
4.1. LAWS AND REGULATION ON TRANSPORTATION AND PROCESSING OF WOOD AND WOOD PRODUCTS	28
4.2. TRANSPORTATION OF LOGS	29
4.3. PROCESSING WOOD AND WOOD PRODUCTS	30
4.4. TRANSPORTATION OF WOOD AND WOOD PRODUCTS	32
4.5. THE SYSTEM OF SUPERVISION AND CONTROL MEASURES TO VERIFY LEGALITY OF TRANSPORTING AND PROCESSING WOOD AND WOOD PRODUCTS	33
5. LEGISLATIONS ON TRADING WOODS AND WOOD PRODUCTS	34
5.1. LAWS AND REGULATION ON TRADING WOODS AND WOOD PRODUCTS.....	34
5.1.1. Imports.....	34
5.1.2. Exports	36
5.2. LEGALLY REQUIRED DOCUMENTS OR RECORDS	37
6. OTHERS	39
6.1. INTERNATIONAL FRAMEWORKS / TRADE AGREEMENTS RELEVANT TO COMBATTING ILLEGAL HARVESTING AND ASSOCIATED TRADE.....	39
6.2. VOLUNTARY SCHEMES ON LEGALITY / SUSTAINABILITY OF WOOD AND WOOD PRODUCTS.....	40
6.3. OTHER OBSERVATIONS AND COMMENTS	41

1. Overview of the forestry sector

1.1. Forest resources of the country

1.1.1. Landuse type

“**Forest**” in Thailand is legally defined by the Forest Act B.E. 2484 (1941)¹ as “land that has not been taken up or acquired by other means under the Land Code.” Forestry laws therefore apply to all lands that have not been titled as private lands. The total area of “forest” is 23 million hectares in 2018, 44.8% of total land of Thailand (51.3 million ha). As such, legal “forest” may or may not have actual / permanent forest or tree cover.²

The country has various classifications of forest land, including the following:

National Reserved Forests (NRF): NRF is designated by the National Reserved Forests Act (1964)³. NRFs are essentially the same as “forest”, consisting 1,221 reserves covering 23 million hectares in total, according to DNP (2017). Note that this figure includes 7.69 million hectares of national parks and wildlife sanctuaries that fall within (overlap) the NRFs and 5.22 million hectares of degraded forests that have been transferred to the Agricultural Land Reform Office (ARLO), Ministry of Agriculture, for allocation to households and other entities for agricultural production. However, some people no longer consider the degraded forest lands transferred to ARLO as part of the NRFs.

National Parks: 127 designated parks, covering 6.32 million hectares in total (note that some of these national parks fall within NRFs).

Wildlife Sanctuaries: 58 in number, covering 3.73 million hectares in total (note that some of these wildlife sanctuaries fall within NRFs).

The Royal Forest Department (RFD), under the Ministry of Natural Resources and Environment (MONRE), has management responsibility for 11.8 million hectares of forest lands, including 10.12 million hectares of National Reserved Forests and 1.68 million hectares of permanent forest estate outside of NRFs. The Department of National Parks, Wildlife and Plant Conservation (DNP) manages all national parks, wildlife sanctuaries, watersheds and other protected areas – some of which fall within or overlap NRFs. The Department of Marine and Coastal Resources (DMCR) is responsible for management of the country’s mangrove and coastal forests.

The Land Code B.E. 2497 (1954) defines different types of tenure instruments, depending on whether an individual or legal entity can claim occupancy, utilization, or legal possession of the land. Ownership can be, and often is, separated from use rights. Individuals and corporations can secure various tenure and use rights within NRFs to grow trees. Applications are reviewed by RFD and approved by the Ministry of Natural Resources and Environment (MONRE), allowing for tree plantations to be established on areas within NRFs deemed to be degraded. Usufruct certificates have also been issued to many households that were living (and continue to live) in NRFs before those reserves were demarcated. The actual number of people living in and near forest lands is widely disputed, but some reports estimate as many as 20-25 million

¹ Thai laws are officially noted according to the Buddhist Era (B.E.) year, which is 543 years advanced from the Christian/Common Era calendar widely used throughout the world.

² Actual forest cover is reported to be 16.4 million hectares.

³ see <http://www.thailawforum.com/national-reserved-forests-act/> for English copy of the NRFs Act

people, including entire villages, are located within designated National Reserved Forests (Woods, et al., 2011; FAO, 2009).

The national forest policy established in 1985 sets targets for production and protection forest at 15% and 25% of the total land area of the country, respectively (FAO, 2015a). With the imposition of the nationwide ban on logging in natural forests in 1989, the protection forest target is *de facto* easily exceeded. Production forest is now essentially restricted to plantation forests, including those on private lands.

The Thai Cabinet issued resolutions in 1992 dividing the country's forest lands into three zones:

(1) Conservation Forest Zone (Zone C)

Conservation Forest Zone includes protected forest areas declared in royal decrees and cabinet resolutions (e.g., national parks, wildlife sanctuaries, watershed classification category 1 areas, mangrove conservation areas, etc.).

(2) Economic Forest Zone (Zone E)

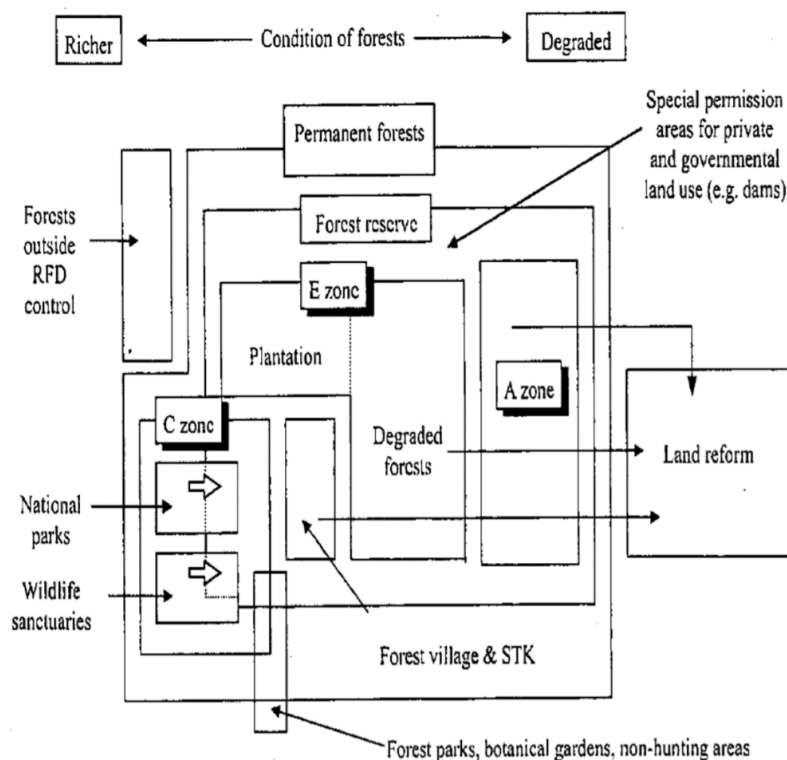
Areas within the National Reserved Forests designated for commercial tree plantations, buffer zones, mining, and other economic activities.⁴

(3) Agricultural Zone (Zone A)

Areas within the National Reserved Forest system (with degraded forests or cleared of trees) determined to be suitable for agriculture. These areas are subsequently allocated to farmers by the Agricultural Land Reform Office (ALRO).

Figure 1. Schematic of forest lands in Thailand

⁴ Many of these areas include degraded forest lands.



Source: Woods, et al., 2011

Tree plantations on private lands

The current Thai “forestry” institutional framework is unusual in that a very large proportion of domestic “timber” comes from tree plantations on private lands. Eucalyptus trees and Rubberwood grown on private lands are largely unregulated by RFD. Rubber, which in the first instance is planted for latex production, is considered an agricultural crop under the authority of the Ministry of Agriculture and Cooperatives. But, when rubber trees are cut as part of plantation replacement after latex production declines, the rubberwood timber is sold as a raw material for the forest industry. In both cases, registration of private plantations is encouraged by RFD, but not required.

1.1.2. Vegetation types

As of 2015, actual forest cover in Thailand stands at 16.4 million hectares, or 32.1% of the total land area. Forest cover has been maintained relatively steady over recent years, with a slight decline reported between 2000 and 2010, but a slight increase from 2010 to 2015 (FAO, 2015).

Primarily as a result of unsustainable industrial logging and extensive clearing for agriculture, Thailand’s forest cover shrank from 50% of the country’s land area in the 1960s to less than 25% by the mid-1980s. The country’s valuable natural teak forests were particularly hard hit, declining by 94% between 1953 and 2000 (Lawson, 2014).

Forest cover generally increased from 1990, when the area of forest cover was reported at 14 million hectares (FAO, 2015). These gross forest cover data mask, however, the continued loss of natural forests, offset statistically with continuing increases in plantations – especially

rubber plantations (FAO, 2015a). The current Thai government has given high priority to forest protection and management and has recently proposed a target of increasing forest cover from the current 32% to 55% within 20 years (National News Bureau of Thailand, 2018).

There are two main types of natural forests in Thailand: (1) evergreen forest and (2) deciduous forest (FAO, 2009).

(1) **Evergreen forest** is subdivided into tropical evergreen forest, pine forest, mangrove forest and beach forest.

- **Tropical evergreen forest** is found all over the moist part of the country. This type of forest is further subdivided into the tropical rain forest, the semi-evergreen forest and the hill evergreen forest.
 - **Tropical rain forest** is characterized by very rich flora and very dense undergrowth. This type of forest is commonly found in the Southern and the Eastern regions of the country where rainfall is above 2,000 mm. It is also found along rivers and/or in valleys in other parts of the country. The dominant species are typically *Dipterocarpus* spp., *Hopea* spp., *Lagerstroemia* spp., and *Shorea* spp., with a normal understory of bamboos, palms and rattans.
 - **Semi-evergreen forest** is scattered throughout the country where the rainfall is between 1,000-2,000 mm per annum. The predominant species are *Dipterocarpus* spp., *Hopea* spp., *Diospyros* spp., *Azalia* spp., *Terminalia* spp., and *Artocarpus* spp. The main undergrowth species consist of bamboo and rattan.
 - **Hill evergreen forest** is found on the highlands (greater than 1,000 meters above sea level) and is characterized by the presence of mosses and lichens on trees and rocks. The predominant tree species are oaks (*Quercus* spp.) and chestnuts (*Castanopsis* spp., and *Lithocarpus* spp).
- **Pine forest** has two species of tropical pines, *Pinus merkusii*, found in the northern and the western part of the Central region where the soil is poor, lateritic and podzolic, and *P. kesiya*, which found only in the highlands of the Northern and Northeastern regions.
- **Mangrove forests** are scattered along the estuaries and coastal areas of the Eastern, Central and Southern regions. The main species are *Rhizophora* spp., *Xylocarpus* spp., *Aveicennia* spp., *Bruguiera* spp., and *Nypa* spp.
- **Beach forests** occur along the sandy coastal plains especially in the eastern coast of the Southern region. The main species in this type of forest are *Diospyros* spp., *Croton* spp., *Lagerstroemia* spp. and *Casuarina* spp.

(2) **Deciduous forest** is found in various locations throughout the country. It is broadly subdivided, according to the species composition, into the mixed deciduous forest (with and without teak) and the dry dipterocarp forest.

- **Mixed deciduous forest** was traditionally the most valuable commercial in Thailand. In the Northern Region, this type of forest is called the teak forest with *Tectona grandis*, *Xylia kerrii*, *Pterocarpus marcrocarpus*, *Azalia xylocarpus* and *Dalbergia* spp. (rose wood) as dominant/common species.
- **Dry dipterocarp forest** is commonly found in the dry area (rainfall below 1,000 mm) with sandy or gravelly lateritic fertile soils. The main species are typically *Dipterocarpus tuberculatus*, *D. obtusifolius*, *Shorea obtusa*, *S. siamensis* with the presence of *Dalbergia* spp., *Lagerstroemia* spp., *Terminalia* spp. and other species.

In total, 6.7 million hectares of Thailand's forests, or 41% of the total, are characterized as "primary" forests (with little human disturbance) and 5.7 million hectares, or 35% of the total, are characterized as "other naturally regenerated" forests (sometimes described as "secondary forests") in 2015 (FAO, 2015).

In addition to natural forests, Thailand has a significant area of plantations, totaling some 3.986 million hectares, or 24% of the total forest area (FAO, 2015). The main plantation species are rubber, teak, *Eucalyptus* spp., *Acacia mangium*, and pine. Since the imposition of the nationwide ban on logging in natural forests in 1989, virtually all timber legally harvested in the country comes from plantation forests. Eucalyptus plantations are primarily located in the east and northeastern parts of the country and in parts of the west. Mature rubber plantations are mainly located in the southern part of the country, with young rubber plantations having more recently been established in the north and northeast. Teak plantations are primarily located in the northern part of the country.

1.2. Forestry and wood processing sector (e.g. log, sawn timber, plywood, wood chips, pulp and paper, furniture, etc.):

In 1989, following the worst floods in over a century in southern Thailand – which were widely blamed on mismanagement of the country's forests – the Thai government imposed a complete ban on logging of natural forests (Lawson, 2014). Following Cabinet Resolutions in January 1989, all timber concessions were cancelled and logging of natural forests throughout the country was halted.

1.2.1. Tenure

Thailand now has large areas of both rubberwood and eucalyptus plantations. The actual extent of plantation resources in Thailand is very difficult to establish.

(1) Rubberwood

Thailand has more than 3 million hectares of rubberwood plantations, with recent expansions in planting bringing the total to as much as 3.7 million hectares (Thai Rubber Association, <http://www.thainr.com/en/index.php?detail=message>). Rubber plantations are typically cut and the logs sawn into lumber when the trees reach 25-30 years of age and latex production declines.

(2) Eucalyptus

It is estimated that Thailand has approximately 438,524 - 480,000 hectares of eucalyptus plantations (Sunthornhao et al., 1997; FAO, 2000; Nakarin, 2001; Bangkok Post, 2002; Laemsak 2002; FAO, 2009). 95% of Eucalyptus plantation are privately owned, with 70% supplying wood to the pulp and paper industry as contract eucalypt tree growers.⁵ On the other hand, Nakarin (2001) reported small landowners have 300,000 ha (64%) of total Eucalyptus plantation in Thailand (466,400 ha).

⁵ Precise estimates of the area of eucalyptus plantations are difficult to determine because many trees are grown in scattered, small plots, along farm borders, and in agroforestry systems.

Besides, the Forest Industries Organization (FIO) is managing 190,217 ha mostly in NRF (Reference).

1.2.2 Production

Since imposition of the ban on logging in natural forests, virtually all legal domestic timber production comes from planted forests, including a large volume from private plantation owners.⁶

~~Wood used in Thailand in 2003 was 21,963,058 m³ as timber equivalent in total, including Eucalyptus (48.2 percent), rubber (para) (28.2 percent), teak (tectona) (0.3 percent) and other various hard wood species (23.2 percent) (FAO, 2009).~~

~~Total non-rubber timber production was 22,600 m³ in 2002 and rubber wood production was 1.7-1.8 million m³ in 2002 (Barney, 2005).~~

Domestic timber production of sawlogs and pulpwood was estimated to be 9.1 million cubic meters in 2015 (FAO, 2015).

The country is the world's largest producer of industrial rubberwood – with a large volume of the rubber logs absorbed by the country's furniture manufacturing sector (and a lesser volume used to manufacture panels) (Woods, et al., 2011). Rubberwood (mostly domestically sourced) supplies more than 85% of the raw material for wood furniture production in Thailand (FAO 2009)

Eucalyptus plantations supply a large part of Thailand's domestic pulp and paper demand in 2003 (FAO, 2009).

Contract farming of eucalypts was started by woodchip and pulp and paper companies in the 1980s (Boulay, 2010?), with an aim of establishing secure domestic sources of wood supply for their processing plants. Pulp and paper production in Thailand currently involves an estimated 60,000 contract eucalypt tree growers in lower northern, northeast and central Thailand (Barney, 2005; Boulay et al., 2012). Thailand's six main pulp and paper companies use eucalypts as their main raw material and collectively produce approximately 1.1 million tons of pulp annually (Boulay, 2010; Boulay et al., 2012).

The Forest Industries Organization (FIO) reported harvesting slightly more than 280,000 cubic meters of timber from their plantations in 2017 (RFD, 2017), mostly teak and eucalyptus.

Thailand's wooden furniture industry, which was largely restructured in the 1990s following the 1989 ban on logging of natural forests, is now almost entirely reliant upon plantation rubberwood as a raw material source.

⁶ Very small volumes of timber are legally harvested from natural forests in areas of officially approved infrastructure projects.

Thailand is also a significant producer and exporter of wood-based panels, including particleboard, MDF, and plywood, and these industries are also heavily reliant upon domestic rubberwood supplies (FAO, 2009).

In 2017, RFD registered 9,648 wood processing mills and wood dealers. Of this total, 5,582 registrations were for shops selling lumber and other wood products. There were 780 machine-powered saw mills and 2,845 machine-powered woodworking factories (RFD, 2017).

Table 1 provides estimated production and consumption figures of key forest products in Thailand in 2015.

Table 1. Production and consumption of key forest products in Thailand, 2015⁷

Product	Unit	Production	Consumption
Industrial roundwood	1000 cum	14,600	14,771
Sawnwood	1000 cum	2,850	1,234
Wood panels	1000 cum	5,400	1,451
Wood pulp	1000 MT	927	1,386
Paper & paperboard	1000 MT	4,829	4,953
Wood charcoal	1000 MT	1,449	1,538

Source: FAO, 2015

1.3. Trade of wood products (export and import): countries, product types, species, volume and values of trade

Thailand is both a major importer and major exporter of forest products. Thailand is a major regional forest products manufacturing hub, competing with China, Malaysia and Vietnam, while also exporting large volumes of raw materials, especially to China, in the form of sawn rubberwood and eucalyptus woodchips.

Total wood and wood-product imports totaled more than US\$2.3 billion in 2015 (FAO, 2015), while all wood-based exports – including wooden furniture and parts – topped US\$3.0 billion (Office of Industrial Economics, 2016). Export values have continued to rise since 2015. Table 2 provides volumes and values of key primary wood products imports and exports of Thailand in 2015.

Table 2. Imports and exports of key primary wood products, 2015

(volume in thousand cubic meters for roundwood, sawnwood and panels, all others in thousand metric tons; values in thousand US\$ CIF)

Product	Imports		Exports	
	Volume	Value	Volume	Value
Industrial roundwood	184	15,123	13	8,147
Sawnwood	684	250,923	2,301	844,282
Wood panels	184	190,797	4,133	803,168
Wood pulp	631	454,423	172	124,796
Paper & paperboard	1,002	1,153,883	879	684,567
Wood charcoal	127	14,318	37	14,052

⁷ Note that some products are used in the manufacturing of other value-added products. Apparent consumption greater than production reflects imports.

Wood chips and particles	52	1,927	4,3984	275,972
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Source: FAO, 2015

1.3.1. Import

After the ban on logging of natural forests, wood imports also increased exponentially. By 2011, -more than half of Thailand’s industrial wood demand was being met from imports, which totaled 10 million cubic meters of roundwood equivalent that year (Lawson, 2014). Since then, log exports from neighboring countries have been significantly restricted and the volumes of wood imported have declined. Concurrently with these developments, the Thai wood sector has evolved (e.g., more use of rubberwood for furniture making and a reduction of furniture making based using imported teak and other hardwoods. There is also now more rubberwood available in Thailand than in the past as more older plantations reached replacement age.

Imports of wood and wooden furniture were mostly raw materials such as processed wood, plywood, veneer and logs – much of which was imported to support the Thai furniture and construction industries. Major recent (2015-2017) exporting countries of the wood to Thailand are inconsistent among years and data sources (RFD; DNP, 2017; FAO Forest Product Yearbook; FAOSTAT).

Major log exporting countries to Thailand are New Zealand, Congo, USA, PNG, Solomon Islands, and Myanmar⁸ with volumes continuing a steady decline in recent years as many countries curtail exports of unprocessed logs. Until recently, Thailand imported significant volumes of logs from the neighboring countries of Myanmar, Cambodia, Laos, and Malaysia (Sarawak), but those countries (except Malaysia) have stopped exporting unprocessed logs one by one. Cambodia about 6-7 years ago; Laos about 2-3 years ago; Myanmar about 2-3 years ago. In recent years, Malaysia has been the only neighboring country, with direct border, still exporting unprocessed logs legally.

Most of the processed wood imports came from Malaysia, Myanmar,⁹ Laos, USA, New Zealand and Brazil. Malaysia has also traditionally provided the majority of imported sawnwood to Thailand (684,000 cubic meters in 2015, down from more than 1 million cubic meters per year prior to 2010) (FAO, 2015). Most sawnwood imported to Thailand is cut from non-rubberwood species (i.e., natural forest hardwoods), which are commonly used in the construction industry or in furniture manufacturing in Thailand.

Plywood and wood veneer were imported mainly from China, Malaysia, Vietnam and Indonesia.

1.3.2. Export

Thailand’s leading wood product exports are sawnwood, paper and paperboard, fiberboard, particleboard and wooden furniture and furniture parts (mostly made from rubberwood). Only a very small volume of unprocessed logs are exported each year (mostly plantation-

⁸ Export of unprocessed logs from Myanmar is no longer permitted.

⁹ With exports of unprocessed logs from Myanmar banned, Thailand has significantly increased imports of sawnwood from Myanmar since 2015.

grown teak) by the Forest Industry Organization (FIO), which is the only legally authorized entity for exporting unprocessed logs.

Thailand ranked second in the world, in 2015, in the volume of exports of non-coniferous sawnwood – trailing only the United States (FAO, 2015). Almost all of the country’s sawnwood exports were rubberwood lumber. Customs Department statistics from 2017 indicate 4.4 million cubic meters of sawnwood were exported, valued at US\$1.65 billion. Almost all of the rubberwood sawnwood exports went to China (99%), with a very small fraction (valued at US\$2.9 million) exported to Japan (DNP, 2017). Recent reports are that rubberwood sawnwood exports to China are declining in 2018 as a result of import tariffs that the U.S. has imposed on Chinese-made furniture (making Chinese furniture less competitive in the U.S. market) and tightening of environmental controls on Chinese furniture manufacturers – precipitating a decline in demand for rubberwood sawnwood used for furniture making. As a result, many rubberwood sawmills in southern Thailand have reportedly ceased operations or cut back their output (Jhongsathit Aungvitayatorn, personal communication).

Thailand ranked third in the world in exports of particle board in 2015, shipping more than 20% of its total exports to each of Korea (28%), China (23%), and Malaysia (20%) and another 28% to other countries (FAO, 2015). In 2017, Thailand exported particleboard valued at US\$424 million, with 46% going to Korea, 18% to Malaysia and 11% to China. Japan imported less than 1% of Thailand’s particleboard exports, valued at US\$2.5 million (DNP 2017).

In 2015, Thailand was the world’s third-ranking exporter of fiberboard, shipping about 37% to Middle Eastern countries and the rest to a wide range of other buyers (FAO, 2015). Exports of fiberboard reached US\$591 million in 2017, with Japan importing a very small portion, valued at US\$1.4 million (DNP, 2017).

Thailand exported more than 4 million cubic meters of wood chips and particles annually during 2010-2015 (FAO, 2015; DNP, 2017). Thailand ranked fifth in the world in terms of the volume of wood chips and particles exported in 2015 (FAO, 2015). In 2017, slightly more than 2 million tons of wood chips and particles were exported, valued at US\$224 million (DNP, 2017), with 53% exported to China and 47% to Japan.

Customs Department data indicate Thailand exported paper and paperboard products (HS 48 category) valued at US\$1.6 billion dollars in 2017. The largest amounts of exported paper and paperboard in 2017 went to Vietnam (17%), Korea (8%), Indonesia (8%), China (8%), and Malaysia (7%). Japan imported just over 2% of Thailand’s paper and paperboard exports in 2017, valued at US\$39 million.

Exports of wooden furniture topped US\$840 million in 2015 (Office of Industrial Economics, 2016). Major export markets for furniture and furniture parts are Japan (30%), USA (20%), European Union (10%) and China (8%) (Bangkok Post, 2018). Official Customs Department statistics indicate a much lower value of wooden furniture exports of about US\$296 million in 2017 (DNP, 2017) – perhaps reflecting confusion and differences in classification of products and reporting.

1. Overview of the relevant government organizations

2.1. Legal authorities

Table 3 provides a list of the key organizations and agencies responsible for administering and regulating the forest and wood-based sector in Thailand

Table 3. Organizations/agencies responsible for harvesting, processing, distribution and trade of woods and wood products

Name of organization	Roles and responsibilities
Royal Forest Department (RFD), Ministry of Natural Resources and Environment (MONRE)	<ul style="list-style-type: none"> ▪ Manages National Reserved Forests and the Permanent Forest Estate ▪ Oversees and regulates timber harvesting, transport, processing, manufacturing, and trading
Department of National Parks, Wildlife and Plant Conservation (DNP), Ministry of Natural Resources and Environment (MONRE)	<ul style="list-style-type: none"> ▪ Manages national parks, wildlife sanctuaries, watersheds and other protected areas ▪ CITES Management Authority authorized to grant CITES permits for fauna
Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment	<ul style="list-style-type: none"> ▪ Manages all marine and coastal areas, including mangrove forests
Forest Industries Organization (FIO)	<ul style="list-style-type: none"> ▪ State forest corporation previously responsible for logging operations on state lands ▪ Following ban on logging in natural forests, FIO has focused on management and harvesting of plantation forests
Department of Lands, Ministry of Interior	<ul style="list-style-type: none"> ▪ Registers landholdings, issues land titles and land-use certificates ▪ Conducts cadastral surveys
Department of Agriculture, Ministry of Agriculture and Cooperatives	<ul style="list-style-type: none"> ▪ Issues phytosanitary certificates for export of wood and wood products (in coordination with RFD) ▪ Responsible for flora management and enforcement under CITES (in coordination with RFD) ▪ Issues relevant permits for export of CITES annexed tree species and derivatives (in coordination with RFD)
Agricultural Land Reform Office (ALRO), Ministry of Agriculture and Cooperatives	<ul style="list-style-type: none"> ▪ Allocates land to farmers pursuant to Agricultural Land Reform Act
Cooperative Department, Ministry of Agriculture and Cooperatives	<ul style="list-style-type: none"> ▪ Registers plantation farmer cooperatives
Department of Public Welfare, Ministry of Interior	<ul style="list-style-type: none"> ▪ Implements land settlement projects ▪ Allocates public land to farmers
Ministry of Commerce	<ul style="list-style-type: none"> ▪ Responsible for registering businesses
Department of Industrial Works, Ministry of Industry	<ul style="list-style-type: none"> ▪ Approves factory licenses
Thailand Industrial Standards Institute (TISI), Ministry of Industry	<ul style="list-style-type: none"> ▪ Develops national standards for key industrial sectors (including forestry) to support the growth of industry, trade and economy of the country
Revenue Department, Ministry of Finance	<ul style="list-style-type: none"> ▪ Responsible for tax collection ▪ Registers Value Added Taxes (VAT) ▪ Collects individual and corporate income taxes

Name of organization	Roles and responsibilities
Customs Department, Ministry of Finance	<ul style="list-style-type: none"> ▪ Controls the imports and exports of goods into and out of the country ▪ Combats illegal trade and other forms of customs fraud ▪ Collects tariffs and duties
Department of Labor Protection and Welfare, Ministry of Labor	<ul style="list-style-type: none"> ▪ Responsible for monitoring and enforcement of labor laws and regulations, including occupational safety and health
Provincial Administrative Organizations (PAOs)	<ul style="list-style-type: none"> ▪ Each of the country's 77 provinces has a PAO, which includes staff from MONRE and RFD ▪ PAO officials advise the Provincial Governor on provincial land and resource use and review permits, licenses and certificates issued by District (Amphoe) and Tambon officials ▪ Together with District (Amphoe) heads, the Provincial Governors often adjudicate conflicts of natural resources
District Authorities (Amphoe)	<ul style="list-style-type: none"> ▪ 878 districts in the country ▪ District officials review and approve various administrative decisions and actions of TAOs
Tambon (local government) Administration Organizations (TAOs)	<ul style="list-style-type: none"> ▪ Operate at the sub-district level (more than 7,000 in the country) ▪ Lowest level of local government administrative structure in Thailand ▪ Oversee and approve various activities at village and sub-district level, including land and resource use

2. Legislation on harvesting of forest resources

3.1. Laws and regulation on harvesting of forest resources

Table 4 provides a list of key legislation and regulations governing forest and resource tenure, forest management, timber harvesting, etc. HTML links are provided for most key laws and regulations (English translations).

Table 4. Laws and regulations regulating access to forests, management of forest and issuance of permits and licenses

Name of laws and regulations	Year	Description
Forest Act B.E. 2484 (1941)	<ul style="list-style-type: none"> ▪ 1941 ▪ amended in 1948, 1982, 1989, 2014 	<ul style="list-style-type: none"> ▪ Basic legislation dealing with forestry in the country ▪ Strongly focused on forest management and extraction ▪ Provides basis for allocation of use rights to public forest lands ▪ Elaborates rules for harvesting, transport, processing and sales of timber ▪ Establishes system of royalties and fees (http://thailawforum.com/database1/forest-act.html)
National Reserved Forests Act B.E. 2507 (1964)	<ul style="list-style-type: none"> ▪ 1964 ▪ Amended in 2016 	<ul style="list-style-type: none"> ▪ Determined national reserve forests and assigned responsibility for their control and maintenance to RFD ▪ Outlines approved uses of NRFs and terms for allocation of use rights, including harvest of timber and non-timber forest products ▪ Allows for allocation of agricultural use rights and reforestation of degraded forests within NRFs

Name of laws and regulations	Year	Description
		(http://www.thailawforum.com/national-reserved-forests-act/)
National Park Act B.E. 2504 (1961)	<ul style="list-style-type: none"> ▪ 1961 	<ul style="list-style-type: none"> ▪ Established countries national park system ▪ Outlines protection and maintenance activities for national parks and the establishment of a national park committee ▪ Prohibits occupation within the boundaries of national parks ▪ Prohibits the harvesting or removal of resources from national parks http://thailawforum.com/database1/national-park-act.html
Wildlife Preservation and Protection Act B.E. 2535 (1992)	<ul style="list-style-type: none"> ▪ 1992 ▪ Repealed previous wildlife act of 1960 	<ul style="list-style-type: none"> ▪ Authorizes establishment of Wildlife Sanctuaries and Non-Hunting Areas ▪ Prohibits the ownership or occupation of land within Wildlife Sanctuaries ▪ Prohibits timber harvesting within Wildlife Sanctuaries http://thailaws.com/law/t_laws/tlaw0317.pdf
Commercial Forest Plantation Act B.E. 2535 (1992)	<ul style="list-style-type: none"> ▪ 1992 ▪ Amended in 2015 	<ul style="list-style-type: none"> ▪ Outlines eligibility for registering forest plantations of 58 species (rubber and eucalyptus are not included) grown on private land or eligible public land with certificate of utilization under the Land Code or National Reserved Forests Act ▪ Specifies conditions for harvest and transport of timber grown in registered plantations ▪ Details requirements for marking timber cut from registered plantations with owner's seal ▪ Exempts timber from registered plantations from forest royalties and forest maintenance fees ▪ 2015 amendment clarified list of restricted and unrestricted species http://extwprlegs1.fao.org/docs/pdf/tha70240.pdf
Plant Act B.E. 2518 (1975)	<ul style="list-style-type: none"> ▪ 1975 	<ul style="list-style-type: none"> ▪ Authorizes monitoring and control of CITES listed plant species, known as "conserved plants" http://thailaws.com/law/t_laws/tlaw0502.pdf
Plant Quarantine Act B.E. 2507 (1964)	<ul style="list-style-type: none"> ▪ 1964 ▪ Amended in 1999 and 2008 	<ul style="list-style-type: none"> ▪ Regulates the import and export of plants and plant materials ▪ Provides for inspections and issuance of phytosanitary certificates http://www.doa.go.th/ard/FileUpload/import/1.4%20QA/1.4.1%20QA/QA02E.pdf
Land Code B.E. 2497 (1954)	<ul style="list-style-type: none"> ▪ 1954 ▪ Amended many times 	<ul style="list-style-type: none"> ▪ Stipulates the conditions and eligibility for individuals and legal entities to own and use land ▪ Allows for titling of private lands and use certificates for public land ▪ Facilitates the maintenance of the country's land register ▪ Stipulates conditions for land transfers http://thailawforum.com/database1/Thailand-Land-Code.html
Agricultural Land Reform Act B.E. 2518 (1975)	<ul style="list-style-type: none"> ▪ 1975 	<ul style="list-style-type: none"> ▪ Provides for allocation for use of public land for agricultural use to small-scale farmers under land reform program, including in some instances land previously designated reserved forest ▪ Established Agricultural Land Reform Committee and Agricultural Land Reform Office (ALRO) https://www.samuiforsale.com/knowledge/thailand-land-title-deeds.html

Name of laws and regulations	Year	Description
Agricultural Land Consolidation Act B.E. 2558 (2015)	<ul style="list-style-type: none"> ▪ 2015 ▪ Repealed 1974 act of same name 	<ul style="list-style-type: none"> ▪ Includes provisions for individuals previously entitled to own or use land prior to land consolidation initiative to obtain land title (http://web.krisdika.go.th/data/outside21/file/Agricultural_Land_Consolidation_Act_BE_2558_(2015).pdf)
Allotment of Land for Living Act B.E. 2511 (1968)	<ul style="list-style-type: none"> ▪ 1968 	<ul style="list-style-type: none"> ▪ Provides public land to rural households for utilization and livelihood related to agriculture, of not more than 50 rai (8 hectares per family) (http://www.cpd.go.th/cpd/en/images/Allotment.pdf)
Cooperatives Act B.E. 2542 (1999)	<ul style="list-style-type: none"> ▪ 1999 	<ul style="list-style-type: none"> ▪ Provides for establishment and registration of cooperatives, including farmer and tree-grower cooperatives (http://www.cpd.go.th/cpd/en/images/coop_act.pdf)
Electrical Saw Act B.E. 2545 (2002)	<ul style="list-style-type: none"> ▪ 2002 	<ul style="list-style-type: none"> ▪ Regulates the registration, ownership and use of chainsaws ▪ Requires registration of dealers and importers of chainsaws (http://www.thailawforum.com/electrical-saw-act-english-translation/)
Cabinet Resolution of 17 January B.E. 2532 (1989)	<ul style="list-style-type: none"> ▪ 1989 	<ul style="list-style-type: none"> ▪ Terminated all logging concessions in natural forests except in mangrove forests
Cabinet Resolution of 13 August B.E. 2539 (1996)	<ul style="list-style-type: none"> ▪ 1996 	<ul style="list-style-type: none"> ▪ Terminated all remaining logging concessions in mangrove forests, effectively making any harvest of timber from natural forests illegal (other than those under special order for public infrastructure projects)
Labor Protection Act B.E. 2541 (1998)	<ul style="list-style-type: none"> ▪ 1998 ▪ Amended 2008 and 2017 	<ul style="list-style-type: none"> ▪ Basic labor code of Thailand, governing worker and employer rights and responsibilities, salaries and benefits, working conditions, occupational health and safety, protections, etc. (https://www.labour.go.th/en/attachments/article/18/Labour_Protection_Act_BE2541.pdf)
Occupational Safety, Health and Environment Act B.E. 2554 (2011)	<ul style="list-style-type: none"> ▪ 2011 	<ul style="list-style-type: none"> ▪ Outlines employer and employee rights and responsibilities regarding worker safety, work conditions, training, protective equipment, etc. (http://legal.labour.go.th/2018/images/law/Safety2554/safety54_eng.pdf)

3.2. Legal rights over forests

Land and resource tenure is extremely complicated in Thailand. No less than 17 different land ownership, use and possession instruments are potentially available to facilitate timber production, including on small-scale agricultural land holdings. Lands are classified as “private” or “public” with all lands *not legally acquired* by any person under the Land Code defined as “forest” (even if not covered by trees).

It must be noted that there are considerable misunderstandings over what various tenure instruments legally allow, especially with respect to land utilization and transfers. There are also numerous cases of misuse of land-tenure instruments and fraudulent transfers of land under existing systems – either intentionally or through ignorance of allowable transfer rights.

In addition, there is a great deal of speculation among long-term occupiers of land (and outright land encroachers) that they may eventually be granted more favorable and more legitimate legal land allocation by the government in the future. Such speculation is not without reason, as this has often happened in the past and the current Thai government has signaled its intentions to grant more favorable tenure to forest land occupants. Thus, the entire land allocation process is highly politicized and controversial.

3.2.1. Land/resource tenure in National Reserved Forests

Plantation License

- Degraded forest land within National Reserved Forests can be leased to individuals (issued a *Por Sor 31 Plantation License*, by the Director of RFD, pursuant to Section 20 of the National Reserved Forests Act 1964) for purposes of establishing tree plantations or restoring degraded forest areas. Leases are for up to 30 years; leases previously allowed for leasing up to a maximum of 320 hectares, but 1992 revisions of the program reduced the maximum area to be leased to 8 hectares. Older leased areas greater than 16 hectares required a detailed project document, including start time, objectives, budget and staffing/workers. Leases cannot legally be transferred or sold.
- Entities that have been granted leases (*Por Sor 31*) to establish plantations within degraded NRF land are required to perform weed control at least twice a year, protect the area from fire, and conduct pest and disease protection measures. These activities are to be reported in the Plantation Annual Management Report (*Por Sor 32*) submitted at the end of each year (TEFSO, RFD and MONRE, 2017).

5 years leases to smallholders

- Leases of 5 years duration (extendable up to 30 years) are provided to smallholders who occupy land in NRFs for purposes of livelihood or agriculture and livestock production (issued *Por Sor 23*, by RFD, pursuant to Section 16 of the National Reserved Forests Act 1964). Planting of trees within *Por Sor 23* areas is permitted with RFD approval. The leases cannot legally be transferred or sold. Note that these areas are not eligible to be registered under the Commercial Forest Plantation Act.

Allocation of Land Use to Households Long Occupying NRF Lands

- Under the *Sor Tor Kor* (National Forest Land Allocation) initiative, NRF land with degraded forests (or no forest cover) was leased to individuals long occupying lands (usually prior to the establishment of the NRF) for purposes of utilization and livelihoods (including tree plantations). Leases of 5 years, renewable, extend up to 3.2 hectares per household. Leaseholders are issued *Sor Tor Kor 1A*, *Sor Tor Kor 2A*, or *Sor Tor Kor 1B* documents. *Sor Tor Kor* certificates extending over 1.2 million hectares of NRF land were issued prior to closure of the STK program in 1987. By 1990, approximately 700,000 households had obtained *Sor Tor Kor* (Barney, 2005). Administration of the *Sor Tor Kor* allocated lands continues under Cabinet Resolution of 1998.
- In 1995, jurisdiction over *Sor Tor Kor* lands was transferred from RFD to Agricultural Land Reform Office (ALRO), but the land technically remains the property of the state. Legally, the leases cannot be sold or transferred, except passed to heirs, but this has not stopped

numerous instances of *Sor Tor Kor* holders transferring their rights to others, even without formal ownership documents (Lakanavichian, 2006).

3.2.2. Land/resource tenure in public land outside National Reserved Forests

Permits of Utilization under the Forest Act

- Section 54 of the Forest Act (1941) allows for issuance of Permits of Utilization of 10 years in duration for agricultural and livelihood activities and up to 30 years for tree plantations. Note, however, that these areas are not eligible to be registered under the Commercial Forest Plantation Act.

Right to utilize public land for agriculture or livelihood under the Agricultural Land Reform Act

- *Sor Por Kor* (Land Reform for Agriculture) certificates, lease agreements, lease-purchase agreements, and land compensation agreements, authorizing the right to utilize public land for agriculture or livelihood are issued by ALRO pursuant to Section 30 of the Agricultural Land Reform Act. Areas allocated are up to 8 hectares (16 hectares if large livestock are being raised). Lands may not be transferred except to heirs. 6.4 million ha was transferred from RFD to ALRO (Barney, 2005).

Certificates for land utilization under the Agricultural Land Consolidation Act

- Certificates for land utilization have also been issued under the Agricultural Land Consolidation Act.

Utilization Certificates under the Allotment of Land for Living Act

- *Nor Kor 3* Utilization Certificates (issued by the Department of Social Development and Welfare) and *Kor Sor Nor 5* Cooperative Settlement Utilization Certificates (issued by the Cooperative Promotion Department) allocate up to 8 hectares of land per household for agricultural and livelihood activities, under conditions outlined in the Allotment of Land for Living Act.

Others

- Land leases and other contracts issued under the Ratchaphatsadu (state) Land Act B.E. 2518 (1975). Lease contracts specify activities permitted, including tree growing is so specified.
- Land title of public bodies, state enterprises (e.g., Forest Industries Organization¹⁰) and other state agencies, as governed by specific laws related to the entities involved.

3.2.3. Land/resource tenure in private lands

Freehold title deed under the Land Code

- Freehold title deeds (*Nor Sor 4*, *Nor Sor 4 Kor*, *Nor Sor 4 Khor*, *Nor Sor 4 Ngor* and *Nor Sor 4 Chor*), also known as “*chanote*”, issued under the Land Code, convey absolute rights of

¹⁰ The Forest Industries Organization manages 244 plantation areas throughout the country, covering approximately 160,000 hectares (RFD, 2017).

ownership, with no restrictions on the use of the land. Titled lands can be sold or transferred freely.

Utilization Certificates under the Land Code

- Utilization Certificates (*Nor Sor 3, Nor Sor 3 Kor, Nor Sor 3 Khor*), issued under the Land Code, designate possessory rights, but the lands involved have never been officially surveyed for issuance of a title deed. The possessor is entitled to request the Land Department to survey the land and issue a title deed. These lands can be legally sold or transferred.

Pre-emption Certificates issued under the Land Code

- Pre-emption Certificates (*Nor Sor 2*), issued under the Land Code, acknowledge temporary land possession. The possessor is required to start utilization of the land within six months of issuance and achieve land utilization goals within three years. If specified conditions are met, possessor is entitled to request a title deed or utilization certificate for the land involved. The subsequent title deed or utilization certificate cannot be sold or transferred for 5 or 10 years, respectively, as outlined in the Land Code.

There are very high numbers of people living in and near Thailand's forests and protected areas. An estimated 1.2 to 2.0 million people are reported to live within the boundaries of national parks and wildlife sanctuaries and as many as 20 to 25 million live within or near NRFs (FAO, 2009). The government has legitimized some forest residents through the land tenure instruments elaborated above, but many more are living in an uncertain legal state. Many such residents have occupied forest lands for generations, including long before official designation and classification of the lands. RFD has registered more than 10,000 community forestry sites in public land, most are NRFs (RFD, 2017), covering approximately 200,000 hectares (Lakanavichian, 2006), and provides varying degrees of support, while awaiting political decisions regarding their long-term disposition. Generally, however, authorities have taken harsh measures against occupancy within national parks and wildlife sanctuaries (Usher, 2009). The current Thai government has signaled that it intends to promulgate legislation in the near future that would legitimize a wider range of forest occupants in NRFs (allowing commercial tree growing) and (perhaps) even occupancy in protected areas and Watershed Categories 1 and 2 for subsistence living (but not allowing commercial activities). In line with this, there is also expectation of approval of the long-deliberated Community Forestry Act.¹¹

The Commercial Forest Plantation Act of 1992 (amended in 2015) is intended to streamline procedures for harvesting and transport of timber from planted forests in private or public lands (relative to previous legislation originally geared toward control of harvesting and transport of timber from natural forests under the traditional forest concession system). Under the Act, plantation owners growing one or more of 58 listed species, that – once harvested – could be confused with timber originating from natural forests, can opt to register their plantations with RFD (obtaining a *Por Sor 3*). Registration requires submitting an

¹¹ Starting in 1993, several versions of legislation covering community forestry have been drafted and debated, but until now no clear legal mandate has been enacted clarifying rights and procedures for community forest management in the country.

application along with copies of national ID card, house registration, land title or usufruct tenure instrument, and description of the plantation area. Once approved, the registration allows for relaxed harvest and transport of timber and exemption from royalties and forest maintenance fees. Importantly, the Commercial Forest Plantation Act only covers 58 species that were thought to be potentially confused with timber from natural forests. As such, the Act does not cover plantations of eucalyptus or rubber – the species most commonly planted by farmers. The Act does, however, cover teak and rosewood species. Registration provides some benefits, including long-term security of tenure for the plantation owner, but there also appears to be disincentives (including requirements for RFD approval of harvesting) and many private plantation owners appear reluctant to register (Heuch et al., 2012; Rungnapa Wattanavichian, personal communication).

Timber grown on private land is not subject to regulation under most forestry laws. Owners can establish a plantation, harvest the trees, transport and market the timber without need of permits, with the exception of teak (*Tectona grandis*), yang (*Dipterocarpus alatus*) and rosewood (*Dalbergia* spp.), which require special approvals.

The complex and confusing land and resource tenure laws of Thailand pose considerable risks with respect to legal land use (and, consequently, legal tree growing on such lands). Clear and long-term security of tenure is only confidently associated with private lands having freehold title deeds. Provisions for issuing land-use rights to public land are spelled out in various legislation and regulations, but in practice issuance of such tenure instruments is commonly fraught with anomalies and corruption. Reports of widespread bribery, facilitating the fraudulent issuance of land documents to ineligible individuals, are common. In many instances, sales or transfer of such leased land and land-use rights have been made, despite the illegality of such transfers. In still other cases, individuals have encroached and cultivated lands illegally (including in national parks, wildlife sanctuaries and NRFs) – sometimes with hopes or expectations of later legitimization of their occupancy. Land disputes are not unusual in untitled lands.

Risk

These uncertainties have significant implications for legality of the most common timber species in the Thai supply chain – rubberwood and eucalyptus – which are overwhelmingly grown by smallholder farmers, many of whom are occupying and using public land under less-than-definitive tenure arrangements. One expert (requesting anonymity) stated that there are more “gray” rubberwood plantations (meaning not necessarily illegal, but lacking unambiguous and clear tenure) than “black” in Thailand.

Table. 5

Land tenure	Permits for management, harvesting, transporting
National Reserved Forests	
Plantation License (Por Sor 31)	<ul style="list-style-type: none"> ■ Required to submit ■ Annual operating plan ■ Plantation Annual Management Report (Por Sor 32) for holders of Por Sor 31 ■ Harvesting Permit (Por Sor 2) and Removal Pass (Transportation Certificate) for timber of all species
5 years leases to smallholders (Por Sor 23)	
Certification of National Forest Land Allocation (Sor Tor Kor) [1.2 million ha]	

	<p>cut from plantations unless plantation is registered under Commercial Forest Plantation Act.</p> <ul style="list-style-type: none"> ■ If registered under Commercial Forest Plantation Act, Sor Por 13, Sor Por 8 and 9, and Sor Por 15 requirements must be met for harvesting and transport.
Public land outside National Reserved Forests	
Permits of Utilization under the Forest Act 1941	<ul style="list-style-type: none"> ■ Harvesting Permit and Removal Pass (Transportation Certificate) (unless plantation registered under Commercial Forest Plantation Act) ■ Permission to harvest, transport and trade <ul style="list-style-type: none"> - Category A (158 species): authorized by RFD - Category B (13 species): Ministerial approval ■ Removal Pass (Transportation Certificate) for all restricted species cut from non-registered plantations (obtained from RFD prior to initiating transport) ■ Removal Pass (Transportation Certificate) for unrestricted species from non-registered plantations (obtained at the first RFD checkpoint from where the timber is transported) ■ If registered under Commercial Forest Plantation Act, Sor Por 13, Sor Por 8 and 9, and Sor Por 15 requirements must be met for harvesting and transport
Right to utilize public land for agriculture or livelihood under the Agricultural Land Reform Act (Sor Por Kor) [6.4 million ha]	
Certificates for land utilization under the Agricultural Land Consolidation Act	
Utilization Certificates under the Allotment of Land for Living Act (Nor Kor 3)	
Land leases and other contracts under the Ratchaphatsadu (state) Land Act B.E. 1975	
Private Land	
Freehold title deed under the Land Code (Nor Sor 4, Nor Sor 4 Kor, Nor Sor 4 Khor, Nor Sor 4 Ngor and Nor Sor 4 Chor)	<ul style="list-style-type: none"> ■ No harvesting permits are required except for teak, yang and rosewood ■ Harvesting permit for teak, yang and rosewood ■ No transport permits are required except teak, yang and rosewood ■ Removal Pass (Transportation Certificate) for teak, yang and rosewood
Utilization Certificates under the Land Code (Nor Sor 3, Nor Sor 3 Kor, Nor Sor 3 Khor)	
Pre-emption Certificates issued under the Land Code (Nor Sor 2)	

3.3. Timber source types, management and harvesting planning and permits

Legal requirements to obtain a harvesting permit depend on the species involved and the area where the trees are grown.

As there has been no legal timber harvests in natural forests since 1989, the focus of legal domestic timber harvesting has shifted entirely to planted forests and trees.

A royalty is applied to all timber cut from public lands, with exceptions made for

- 14 non-restricted species (i.e., rubberwood, eucalyptus and 12 other common species) grown on public lands outside of NRFs and
- all timber generated from plantations registered under the Commercial Forest Plantations Act (NEPCon, 2017). 58 tree species explicitly eligible for registration under the Commercial Forest Plantations Act.

3.3.1. National Reserved Forests

- Legal requirements for management planning only apply to plantations in NRFs. Plantation license holders in NRFs (i.e. holders of *Por Sor 31*) are required to submit an annual operating plan prior to the start of operations each year and a Plantation Annual Management Report (Por Sor 32) at the end of each year. The annual report is to include information on the plantation size, demarcation, species, survival rates, maintenance, weeding, pest control, fire protection, and infrastructure development. If harvesting is to be conducted in the plantation, operators are to submit a map showing areas to be harvested, along with tree inventories, at the time of requesting permission to harvest. Previous reviews indicate that there is weak implementation of these planning and reporting requirements (NEPCon, 2017).
- The Forest Act and National Reserved Forests Act require operators to obtain a Harvesting Permit (Por Sor 2) (TEFSO, RFD and MONRE, 2017) from provincial forestry authorities (RFD) where the timber is located, unless the plantation is registered under Commercial Forest Plantation Act. The harvesting permits are required for cutting of all timber species grown on NRFs, including non-restricted species.
- In securing a Harvesting Permit, the operator must request RFD to review the plantation owner's documents with respect to legal right to occupy the land upon which the trees were grown, inspect the area proposed for harvest, and inspect the trees to be cut (noting species, size, and estimated volume).

3.3.2. Public land outside National Reserved Forests

- Harvesting of tree plantations grown on public land require a harvesting permit unless they have been registered under the Commercial Forest Plantation Act.
- Section 6 of the Forest Act classifies "restricted" timber species into Category A (158 species) and Category B (13 species). Permission to harvest, transport and trade Category A restricted species is authorized by RFD, while permission to cut trees belonging to Category B requires ministerial approval (NEPCon, 2017; TEFSO, RFD and MONRE, 2017).

3.3.3. Private lands

- On privately owned lands, no harvesting permits are required, with the exception of harvests of teak (*Tectona grandis*), yang (*Dipterocarpus alatus*) and rosewood (*Dalbergia* spp.)¹². These restricted species require harvesting permission, even when grown on private lands. In 2017, RFD issued 156 cutting permits for teak and yang grown in plantations on private lands (RFD, 2017).

According to conditions stipulated in the Commercial Forest Plantation Act, those wishing to harvest timber from plantations in public or private lands *registered under the Act* (i.e., holders of *Por Sor 3 Plantation Certificates*) submit a Notification of Harvest to provincial authorities, which is then acknowledged by the Registrar of Plantations, who issues a *Certificate of Cutting/Felling Notification (Sor Por 13)*. The operator wishing to harvest also must register

¹² Legislation is currently being considered to relax restrictions on growing, harvesting, transporting and processing some currently restricted species (e.g., teak, rosewood) on private lands and public lands outside NRFs to further encourage more tree growing by farmers and smallholders (Rattanasat Warangkana, personal communications).

their private seal (for marking harvested timber) with the authorities, obtaining a *Seal Registration (Sor Por 8)* and a *Seal Certificate (Sor Por 9)*. At the time of harvest, the operator must also prepare an acknowledged letter of timber account or *Plantation Timber Packing List (Sor Por 15)* (TEFSO, RFD and MONRE, 2017).

Risk

The legality risks related to harvesting of domestic plantations mainly relate to whether or not the operator has obtained legal authority to access particular land plots and establish their plantation at the outset. The risk of illegal occupancy and use of land is perhaps greatest with respect to rubber plantations and there are frequent reports of illegal encroachment of rubber plantations into unauthorized NRFs and even into national parks and wildlife sanctuaries (Bangkok Post, 2018c; The Nation, 2017; Phuket News, 2017).

For registered plantations, and plantation harvesting for which harvesting permits have been issued, legality risk is considered to be very low. Risk may arise from cutting outside of approved areas, but reports of such are uncommon.

Illegal logging (timber poaching) in Thailand's natural forests continues to be a significant problem, particularly of high-value species such as rosewood (*Dalbergia cochinchinensis*) and other redwood species, and agarwood (*Aquilaria* spp.). Most of the illegally harvested rosewood and redwood species is smuggled out of Thailand and eventually reaches markets in China (EIA, 2014). Illegally harvested agarwood is often processed to extract the oil, which is then generally exported to countries in the Middle East.

Illegal harvesting of teak and other timber trees from natural forests is also not uncommon – albeit far less frequent than in the past. Some illegally harvested wood makes its way directly into local domestic markets, while there have been elaborate schemes in the past to transport timber illegally cut in Thailand across national borders; the timber then “imported” back into Thailand and “laundered” as legally imported from neighboring countries.¹³

3.4. Environmental requirements

Thailand has a well-established and relatively well-managed protected area system, including national parks, wildlife sanctuaries and Category 1 and 2 watersheds. These are the key areas of the country containing high-conservation value forests and associated resources and all timber harvesting is strictly prohibited in these areas. While there are sporadic reports of illegal logging and encroachment in these areas, for the most part they are well-managed and protected.

Beyond the strictly protected areas, many of the areas of the country legally classified as forest are heavily degraded and contain few trees. Some of these areas have been made available for allocation and lease by the government to individuals and companies under various land-use allocation programs. Safeguards have been put in place to ensure that only degraded

¹³ Reports of such nefarious timber laundering have declined in recent years with increased monitoring and control both in Thailand and in neighboring countries. Neighboring countries have also increasingly restricted the export of unprocessed logs. Thailand has also periodically restricted the importation of logs and sawnwood through border crossings with Myanmar to thwart timber laundering schemes.

forest lands are allocated to individuals, households and companies and – despite sporadic reports of improper leases and occupancy of rich forest – the land allocation system is generally restricted to degraded forest lands.

RFD has a defined procedure for inventorying site that may be categorized as “degraded”. It involves species count and inventory of sample plots of no less than 5% of the area being considered and complete tall of all trees 50 cm dbh remaining in the area. In the past, there was considerable abuse of the designation of “degraded forest,” where areas that were, in fact, still above the threshold for good forest were inappropriately declared “degraded” (usually with collusion of land and/or forestry officials), allowing for allocation of leases in contravention of regulations. In other cases, people intentionally degraded forests so they could be declared “degraded” and then leased under various lease of public lands programs.

Specific definition/determination of “degraded forest” involves a series of threshold determinations:

- An area or part of an area in National Reserved Forest where there are few remaining valuable timber trees and it is difficult for the forest to recover naturally.
- Less than 20 saplings per rai (0.16 hectare) that are 2 meters in height or more and less than 2 trees per rai that are greater than 100 cm dbh.
- In watershed headwater areas, in addition to above thresholds, if there are more than 8 trees in the size class 50-100 cm dbh.

Thailand has no regulatory requirements related to approval of harvest plans prior to commencing activities, or for harvesting operations, health and safety, or post-harvest rehabilitation. There are no regulatory requirements, specific to forestry, governing the use of pesticides or other chemicals in forests or forest plantations (NEPCon, 2017). Forest harvesting practices and permissions are prescribed in the National Reserved Forest Act, but these regulations were geared toward commercial harvesting in natural forests and most are mostly irrelevant for harvesting in plantations.

The only enforceable law related to timber harvesting is the Electric Chainsaw Act, which requires registration of chainsaws and is aimed at curbing illegal logging.

Thailand ratified CITES in 1983 and is therefore committed to regulating the trade of CITES-listed species. Important CITES-listed trees species native to Thailand include agarwood (*Aquilaria* spp. and *Gyrinops* spp.), Siamese rosewood (*Dalbergia cochinchinensis*), and ebony (*Diospyros ferrea*) – which are all listed as CITES Appendix II species. *Podocarpus neriifolius*, which is found in isolated locations in Thailand, is listed in Appendix III.

The main CITES-listed species of major concern is Siamese rosewood (*Dalbergia cochinchinensis*), which is highly prized in Asian markets, particularly in the Chinese *hongmu* market. Illegal harvest and trade of Siamese rosewood has been well documented in the past decade, including a wide range of illegal felling and transport, bribery, smuggling, misdeclaration, and fraudulent documents (EIA, 2014). The Thai Government has taken various measures in an attempt to stem the illegal rosewood trade. Thailand reported 4,386 seizures of rosewood to CITES during a 2-year period from 2012 to 2014, totaling 2,975 cubic meters (CITES, 2016). Nonetheless, news reports confirm that serious problems continue,

including strong involvement of influential Thais and linkages to Chinese buyers (Bangkok Post, 2018a). One study noted 835 independent seizures of illegal rosewood reported in the Thai media over a 28-month period from 2014 to 2016, totaling tens of thousands of logs and rough-sawn timber (Siriwat and Nijman, 2018). Considering that these reports only reflect actual confiscations, the true scale of the illegal trade – including undetected and unprosecuted – may be far greater.

In 2016, Thailand issued more than 150 export permits for *Aquilaria* spp. wood, chips, roots, oil, powder and other derivatives (<https://trade.cites.org>). All were indicated as sourced from artificially propagated plants. As there are several plantations of *Aquilaria* in Thailand, such exports may be legal and proper. However, there have been various reports of illegal poaching of agarwood from natural forests in the past several years, raising the possibility that illegal harvests of agarwood from natural forests may be exported under claims of having been derived from plantations, or smuggled out of the country without CITES permits.

There is considerable risk that any Siamese rosewood timber traded in Thailand, or exported from the country, is illegal. Trade of agarwood and agarwood products and derivatives should be approached with caution, but may well be legally sourced from artificially propagated trees (plantations).

Aside from the risks associated with illegal logging in natural forests, noted in section 3.3, there are few legality risks associated with *environmental* requirements since there are very few specific environmental laws directly related to timber harvesting currently in effect.

3.5. Employment and safety in forest management and harvesting operation

While there are no specific labor or occupational health and safety regulations governing forest management and harvesting operations, forestry work is categorized as “agricultural labor” and is governed by the Labor Protection Act (1998) and the Occupational Safety, Health and Environment Act (2011), among others. These laws prescribe employer and employee rights and responsibilities with respect to salaries, benefits, worker conditions, safety, personal protection equipment, safety training, health services, etc.

Employers are required to maintain employment registers for each workplace, detailing worker names, gender, nationality, date of birth, date employment started, position, duties, wages and benefits, and projected expiry of employment. The Social Security Office issues a Social Security Certificate of Registration to the employer and a social security card to the employee. Records of payments and salaries, including overtime pay, are also to be maintained. Regulations cover minimum legal wages, equal wages for men and women, sick leave and overtime benefits, access to clean drinking water, personal protection equipment, etc.

Employers hiring workers between 15 and 60 years old are required to submit information of employment to the Social Security Office and register employees for Social Security insurance. In the case of use of contractors and subcontractors, Thai law places joint responsibility on employers and sub-contracting employers to ensure safe working conditions. Employers are required to give adequate training to workers on safety measures and provide personal protective equipment, as appropriate for tasks involved. Records of training provided should be maintained at the workplace for potential inspection. Workplace conditions need to be inspected regularly with respect to lighting, temperature, noise and air quality and the analysis

report kept on site for possible review by inspectors. Health checks of employees are to be provided by the employer at regular intervals, according to the Occupational Safety, Health and Environment Act.

Workers must be at least 15 years of age and those between 15 and 18 require special notification to the Department of Labor Protection and Welfare. Any business hiring 10 employees or more must post “work rules” informing workers of their rights and benefits and conditions of work.

Thai law guarantees a minimum wage, adjusted by location, but not less than the designated basic national minimum wage rate.

All foreign workers are required to obtain a work permit and a resident permit for stay in Thailand. Employers are responsible for ensuring that foreign workers hold valid work permits.

Thailand has been under considerable pressure and scrutiny in recent years for violations and weak enforcement of various labor laws and occupational safety and health regulations. Common criticisms are of workers (particularly in the informal sectors and in rural areas) not being paid the minimum wage and benefits, forced overtime, lack of holidays, unexplained deductions from wages, unsafe working conditions, etc. Child labor remains a problem and conditions and terms of employment of foreign workers is particularly problematic in some sectors.

Most Thai workers do not have access to union support and employers use various tactics to limit union membership and activities. Thailand has not ratified the ILO conventions on trade union rights and discrimination.

Thailand is heavily dependent on foreign labor, including several million workers from neighboring countries of Myanmar, Laos and Cambodia. While precise numbers not available, estimates generally range between 3 and 5 million. Poor workplace conditions and exploitation are reportedly commonplace, including in the agriculture, fishing, food processing, and factory sectors. Some improvements have been made in recent years, which resulted in Thailand being “upgraded” from Tier 3 to Tier 2 in the most recent Trafficking in Persons Report issued by the U.S., but widespread abuses are still recognized by authorities. Personal communications with wood processing mill managers indicate that legal checks on foreign workers have become much stricter in the past two years, with regular mill site visits and verification of permits to stay and work permits by labor authorities.

To the extent that that timber legality will include considerations of compliance with labor laws, this is an area of considerable risk. As monitoring and enforcement of the country’s labor laws are outside the authority of forestry officials, coordination with the Department of Labor Protection and Welfare is essential if compliance with labor laws is to be considered a serious element of timber legality.

3.6. Social requirements

While the Thai government recognizes the existence of ethnic groups (often referred to generically as “hill tribes”), it advocates assimilation policies and does not recognize customary rights with respect to forest and resource access and tenure. Indigenous people who live in

forest areas are often characterized as “destroyers” of the forest rather than custodians – even in cases where people have lived in particular forested areas for generations (Usher, 2009).

RFD has adopted a pragmatic co-management approach with many forest-dwelling communities, registering more than 10,000 such community forests.¹⁴ However, despite decades of legal consideration, the country has not passed legislation that would govern and legitimize community forests in the country. There are optimistic expectations that the current military government will push through community forestry legislation prior to elections anticipated in 2019, but this is far from certain.¹⁵ If a Community Forestry Act is promulgated, it is still unclear if it would cover only communities in NRFs, or if it would also allow occupation of lands within national parks and wildlife sanctuaries.¹⁶ New community forestry legislation is expected to emphasize communities’ roles and responsibilities in protecting existing natural forests, and allowing commercial timber exploitation only from planted trees.

There is no Thai legislation addressing “free, prior and informed consent” (FPIC) or the need to consult local residents regarding forest management. Nonetheless, frequent conflicts arising in the past from the lack of consultation in allocating degraded public lands to various entities has motivated more pragmatic consultation of local people prior to making such allocations. The *Sor Tor Kor* and *Cor Tor Chor* programs subsequently gave priority to local people occupying degraded forest lands in allocation decisions.

3.7. Control measures to verify legality of harvesting

Control measures related to harvesting are focused on stemming illegal harvest of timber from natural forests and ensuring that operators wanting to harvest plantation-grown wood have legal ownership over the timber to be harvested.

The current Thai government has made forest protection a high priority and arrests for illegal logging and poaching have increased in recent years. Joint operations involving forestry officials, police, military, Customs and others are now common. RFD and DNP have both established special forest protection task forces (named “Phayak Prai” and “Phaya Sua,” respectively). In 2017, a “Forest Protecting Operations Centre” was established to link various government agencies’ task forces and other authorities to facilitate more effective monitoring, law enforcement, and prosecution of illegal forest activities cases (The Nation, 2017a).

In fiscal year 2017, RFD registered 2,279 cases of illegal forest land encroachment or clearing and 3,014 cases of illegal timber felling or processing (RFD, 2017). There have been numerous arrests and confiscations of rosewood, in particular – including several involving foreign

¹⁴ It is estimated that there are approximately 20,000 communities located in and near NRFs that could be affected by anticipated new community forestry legislation (Warangkana Rattanasat, personal communication).

¹⁵ See ITTO, 2011 for further elaboration on some of the complex perceptions of community forestry and why it has been so difficult to enact related legislation.

¹⁶ In 2007, the Department of Parks, Wildlife and Plant Protection estimated 550,000 individuals were living within the boundaries of national parks, wildlife sanctuaries and non-hunting areas, but other estimates are consistently much higher.

nationals (mostly Cambodians accused of crossing the border and poaching rosewood in Thai forests along the border).

According to recent reports from the Ministry of Natural Resources and Environment, more than 23,000 individuals were arrested since 2015 on charges of illegal logging and poaching of wild animals, leading to losses to the state of an estimated 100 billion baht (US\$3.2 billion). Reported confiscations since 2014 include 1.3 million logs and other wood products (Bangkok Post, 2018b).

There have also been several high-profile forest encroachment or illegal occupancy cases, including the eviction of encroachers and dismantling of structures illegally built on public forest land (see for example, The Nation, 2018). Recent reports from the Ministry of Natural Resources and Environment indicate more than 100,000 hectares of illegally occupied forest land has been reclaimed by the government since 2014 (Bangkok Post, 2018b).

Control of legal harvesting of restricted species (or timber harvesting on public lands requiring harvesting permits), is exercised by RFD through surveys/inspections of plantations to be harvested. After harvesting, the Authorized Officer (usually designated from RFD) verifies the harvest, including documentation of the species, size and volume of timber harvested.

4. Legislations on transportation and processing of wood and wood products

4.1. Laws and regulation on transportation and processing of wood and wood products

Table 6 list key laws and regulations related to transport and processing of timber and wood products. HTML links are provided for most laws and regulations.

Table 6. Laws and regulations regulating transportation and processing of wood and wood products

Names of laws and regulations	Year	Description
Forest Act B.E. 2484 (1941)	<ul style="list-style-type: none"> ▪ 1941 ▪ Amended in 1948, 1982, 1989, 2014 	<ul style="list-style-type: none"> ▪ Basic legislation dealing with forestry in the country ▪ Elaborates rules for harvesting, transport, processing and sales of timber ▪ Various Ministerial Regulations provide implementing details with respect to transport, possession, processing, and trading of timber and sawnwood ▪ Establishes system of royalties and fees http://thailawforum.com/database1/forest-act.html
National Reserved Forest Act B.E. 2507 (1964)	<ul style="list-style-type: none"> ▪ 1964 ▪ Amended in 2016 	<ul style="list-style-type: none"> ▪ Outlines allowable uses of NRFs and terms for allocation of use rights, including harvest of timber and non-timber forest products http://www.thailawforum.com/national-reserved-forests-act/
Commercial Forest Plantation Act B.E. 2535 (1992)	<ul style="list-style-type: none"> ▪ 1992 ▪ Amended in 2015 	<ul style="list-style-type: none"> ▪ Specifies conditions for harvest and transport of timber of 58 listed species grown in registered plantations ▪ Details requirements for marking timber cut from registered plantations with owner's seal ▪ Exempts timber from registered plantations from forest royalties and forest maintenance fees

Names of laws and regulations	Year	Description
		<ul style="list-style-type: none"> ▪ RFD issued various implementing regulations on the transport of timber and sawnwood from registered plantations elaborating the Commercial Forest Plantations Act, as amended in 2015 ▪ 2015 amendment clarified list of restricted and unrestricted species (http://extwprlegs1.fao.org/docs/pdf/tha70240.pdf)
Labor Protection Act B.E. 2541 (1998)	<ul style="list-style-type: none"> ▪ 1998 Amended 2008 and 2017 	<ul style="list-style-type: none"> ▪ Basic labor code of Thailand, governing worker and employer rights and responsibilities, salaries and benefits, working conditions, occupational health and safety, protections, etc. (https://www.labour.go.th/en/attachments/article/18/Labour_Protection_Act_BE2541.pdf)
Occupational Safety, Health and Environment Act B.E. 2554 (2011)	<ul style="list-style-type: none"> ▪ 2011 	<ul style="list-style-type: none"> ▪ Outlines employer and employee rights and responsibilities regarding worker safety, work conditions, training, protective equipment, etc. (http://legal.labour.go.th/2018/images/law/Safety2554/safety54eng.pdf)
Emergency Decree on Managing the Work of Foreigners	<ul style="list-style-type: none"> ▪ 2017 ▪ Further amended in 2018 	<ul style="list-style-type: none"> ▪ Updates and supersedes the Alien Workers Act of 2008 ▪ Outlines the requirements for hiring foreign workers in Thailand and strengthens controls and regulation of foreign workers ▪ Highlights the rights and responsibilities of employers of foreign workers ▪ Significantly increased penalties for hiring undocumented foreign workers (https://www.doe.go.th/prd/assets/upload/files/bkk_th/3c35c06309c7e8942a8f6ea363b8b916.pdf)

4.2. Transportation of logs

Required transport approvals are issued by the Forest Checkpoint Bureau of RFD.

For transport of logs from registered plantations:

For logs harvested from plantations registered under the Commercial Forest Plantation Act, the operator wishing to transport cut logs is required to register their private seal with RFD. They must also prepare a book of packing lists in line with RFD prescribed format (Plantation Packing List Sor Por 15) and have the book registered with the competent officer in their province. The packing lists are to include information on the species, size, volume, seal or tag details, and sequential number of logs.

After harvesting the logs, the operator is to mark or tag all logs with the registered private seal, along with the log number in sequential order, and the year of harvest.¹⁷ Logs are to be measured, with respect to length and diameter, and recorded in the packing list. The Plantation Packing List (Sor Por 15) is acknowledged by the authorized officer (usually an RFD officer), which should be kept with the logs being transported in case of random inspection.

¹⁷ The requirement for marking of individual logs was established with large-sized logs in mind; in practical terms, transport of small-diameter logs are often not individually marked or numbered.

The transport officer should also be in possession of the previously acknowledged Certificate of Cutting/Felling Notification (Sor Por 13) in case of inspection along the route.

For transport of logs from other sources:

For logs harvested from other sources (not from registered plantations), including: a) timber of all species cut from plantations on NRF lands; b) restricted species from plantations on public lands outside of NRFs; and c) teak (*Tectona grandis*), yang (*Dipterocarpus alatus*) and rosewood (*Dalbergia spp.*), the approvals for transport are similar. The operator must notify the responsible authority (usually RFD) to inspect the harvest site and the logs to be transported. The responsible officer then issues a Removal Pass (Transportation Certificate), including information on the species of logs to be transported, details of the seal or tags marked on the logs, sequential numbers, and royalty paid (if relevant).¹⁸

For transport of logs of unrestricted species cut from non-registered plantations grown on public lands other than NRFs, the operator transporting the logs is required to apply for a Transportation Certificate at the first RFD checkpoint where the timber is transported from. The RFD officer at the first checkpoint verifies the species, volume and other details of the logs at the time of issuing the Transportation Certificate. The documentation is subject to review at every RFD checkpoint passed.

For all species grown on private lands other than teak, yang and rosewood, no transport permits are required. As the domestic timber supply comprises a large volume of logs of species exempt from transport permit requirements (especially rubberwood and eucalyptus), currently more wood being transported is exempt from transport permit requirements than covered by such.

Risk

Legality risks relate to confusion, differing interpretations and uneven enforcement of the legal requirements for transporting logs from different sources, including the differing requirements for logs from registered plantations versus unregistered plantations, restricted and unrestricted species, etc. Confusion, differing interpretations of regulations and uneven enforcement inevitably lead to the transport of some logs in ways that do not strictly comply with legal requirements. There is also potential risk of unscrupulous operators transporting restricted species of logs (without required permits) by mixing such species into trucks hauling species exempt from permit requirements and simply bypassing checkpoints.

4.3. Processing wood and wood products

Operators of wood processing plants must obtain a Transformation of Timber Permit from RFD, which must be renewed annually. In 1960, the government stopped issuing licenses for new sawmills, but in 1989 the government again started issuing licenses for new sawmills processing rubberwood. In 1994, new sawmills were also allowed to process 13 additional unrestricted species. Licenses for such mills are relatively easy to obtain, with submission of

¹⁸ All timber grown in plantations registered with the Plantation Registrar in accordance with the Commercial Forest Plantation Act and all non-restricted species (including rubberwood) grown on private lands are exempted from royalties and forest maintenance fees.

usual personal and corporate registrations, tax records, etc. (Jhongsathit Aungvitayatorn, personal communication). As a result, there are a relatively small number of older sawmills (pre-1960) that have licenses to process a wide range of timber species, while most existing sawmills (established since 1989) can process the following domestically produced timber species¹⁹ (Heuch, et al., 2012):

- *Eucalyptus* spp.
- *Azadirachta excelsa*
- *Casuarina equisetifolia*
- *Casuarina junghuhniana*
- *Acacia auriculiformis*
- *Acacia mangium*
- *Leucaena leucocephala*
- *Cocos nucifera*
- *Tamarindus indica*
- *Baccaurea ramiflora*
- *Bouea macrophylla*
- *Samanea saman*
- *Borassus flabellifer*
- *Hevea brasiliensis*

To obtain a license for a pulp/paper mill producing more than 50 tons of paper, paperboard or other paper products per day, operators must hire a licensed firm to prepare an Environmental Impact Assessment and submit to the Office of Natural Resources and Environmental Policy and Planning (ONEP) for approval prior to the start of operations. Regular monitoring reports on air and water pollution and mitigation are required to be submitted, every six months, to ONEP and the Department of Industrial Works.

The main operating requirement from the perspective of RFD is for the processing plant operators to maintain three related timber accounts (Item 6 of Ministerial Regulation No. 25, 1976). The timber accounts record the details of: 1) wood raw materials coming into the factory; 2) the volume of transformed timber and subsequent volume of manufactured wood products (i.e., transformed wood) that are sold or shipped elsewhere; and 3) the volume of timber and products held in stock (TEFSO, RFD and MONRE, 2017). The factory timber accounts must accompany the annual request for renewal of the Transformation of Timber Permit (Section 48 of Forest Act 1941) and must also be available to RFD authorities during on-site inspections. The timber accounts are supposed to include all timber inputs, including those of species exempted from the Transport Permit requirements. It does not, however, include semi-processed wood or panels that are used in further downstream manufacturing. The timber account for pulp and paper mills includes inputs of wood chips and logs, but not of purchased pulp or recycled paper inputs (Heuch, 2012).

Wood processing plants must comply with regulations outlined in the Labor Protection Act (1998), the Occupational Safety, Health and Environment Act (2011), and the Foreign Workers

¹⁹ These 14 species are also exempt from requirements for transport permits and checkpoint procedures applied to restricted species.

Management Emergency Decree (2017), among others, prescribing employer and employee rights and responsibilities with respect to salaries, benefits, worker conditions, safety, personal protection equipment, safety training, health services, etc., as outlined in Section 3.5 above (TEFSO, RFD and MONRE, 2017). Issues related to registration, visas, and permits of foreign workers are particularly relevant. Reports indicate that checks of worker conditions and work permits of foreign workers are now frequently made by the Department of Labor Protection and Welfare.

Wood processing plants are required to submit regular reports to the Ministry of Labor, documenting compliance with the Occupational Safety, Health, and Environment Act. Operators using hazardous materials in their processing operations are also required to obtain a Hazardous Substance Possession Permit and annually submit a report on use and operations to the Department of Industrial Works (TEFSO, RFD and MONRE, 2017).

To the extent that that timber legality will include considerations of compliance with labor laws and environmental laws related to processing plant operation, this is an area of considerable risk, although perhaps a declining risk relative to the past. The current government has given higher priority than in the past to monitoring compliance with labor and environmental laws, particularly those related to employment of foreign workers. As monitoring and enforcement of the country's labor laws are outside the authority of forestry officials, coordination with the Department of Labor Protection and Welfare is essential if compliance with labor laws is to be considered a serious element of timber legality.

Legality of wood supplies used by wood manufacturing plants is difficult to verify under current procedures in Thailand, due to the fact that mills can legally receive wood of non-restricted species (including rubberwood and eucalyptus) with little or no documentation of source or legality. This means that in many mills, documented wood (traced from legal sources) may be mixed together with undocumented wood. While still having a reasonable likelihood of being legally harvested and transported, there may be no documentation to confirm or assure such legality. Even if one component or the timber supply chain is known with precision and has comprehensive, accurate and reliable data, once it is mixed with other timber (of unknown origin, unknown quantities, or unknown legality) then, from that point on, it becomes increasingly difficult to make statements about the composition or legality of the mixed product (Heuch, et al., 2012).

Thailand recognizes these weaknesses in the current supply chain with respect to documentation of legality and chain of custody and is in the process of developing a robust timber legality assurance system (TLAS). This process is proving to be lengthy and contentious, however, and it may be some time before a rigorous TLAS is fully in place (Rungnapa Wattanavichian, Erica Pohnan, Sapol Boonsermsuk, personal communication).

4.4. Transportation of wood and wood products

Legal aspects related to transport of wood and wood products from primary processing or trading facilities are outlined in Sections 48-53 of the Forest Act B.E. 2484 (1941) and subsequent amendments) (<http://thailawforum.com/database1/forest-act.html>), and related

Ministerial Decrees and Regulations. Required transport approvals are issued by the Forest Checkpoint Bureau of RFD.

Thailand has an established system for authorizing the transport of sawnwood. This system was traditionally paper-based, but is currently in the process of evolving to an electronic system of approvals compatible with the National Single Window (Sapol Boonsermsuk, personal communication). Under the paper-based system, sawn timber transported from processing plants or trading facilities to wood dealers, other downstream manufacturing plants, or to points of export require a white-form Sawn Timber Certificate for transport, which is valid for up to 24 hours. A yellow-form Sawn Timber Certificate is used only for transporting sawnwood or chips from a mechanized processing facility licensed to process rubberwood and wood of the other 13 unrestricted species noted above in Section 4.3 (e.g. eucalyptus); this certificate is valid for up to 7 days. Licensed restricted wood dealers use a Restricted Wood Product Certificate for transporting sawnwood made from restricted species (valid for 2 days). The back side of these certificates/forms include a packing list description of the sawnwood or products to be transported, including type/species, quantity, size, and the seal or mark. The transport certificates also note the location to which the sawnwood is to be delivered (NEPCon, 2017).

These procedures are not applied to transport of processed wood products such as furniture, panels, or pulp and paper. Companies may choose to issue their own documentation for transport of finished products.

Due to confusion over regulations, differing interpretations, uneven enforcement, and potential collusion of responsible authorities, there is risk of illegally sourced wood (sawnwood and other products) entering the supply chain during transport operations. Some risks link back to wood sourced from land occupied without legal authorities/tenure. Risks also relate to restricted wood and products mixed with legal wood. There are also risks of fraudulent transport documents and trading permits (NEPCon, 2017). Reportedly, it is not uncommon for sawmills to process restricted timber species and transport/sell to local traders – often with complicity of authorities (Anonymous, personal communication).

4.5. The system of supervision and control measures to verify legality of transporting and processing wood and wood products

Each wood processing plant in Thailand is subject to inspection and review by RFD prior to annual renewal of its operating license. At the time of license renewal, the processing plant's timber accounts are also reviewed by RFD. Officials may also make spot inspections without advance notice throughout the year to verify timber accounts. In addition to monitoring by RFD, wood processing mills are subject to periodic review and on-site or documents inspection by officials from the Department of Labor Protection and Welfare, Ministry of Labor, Department of Industrial Works, and others. Monitoring of the employment of foreign workers is particularly rigorous in recent years as the country strives to improve its image from past reports of failure to respect foreign workers rights.

With respect to transport of wood and wood products, RFD maintains a system of 39 checkpoints nationwide. "Category 1" checkpoints are located in 38 provinces and operate 24

hours a day. A “Category 2” checkpoint is operated in Bangkok (with 4 branches), open only during daytime work hours. Category 1 checkpoints are mostly located near major land border crossings and near the wood processing centers near Bangkok.

According to the RFD Regulation on the Transportation of Timber and Forest Products B.E. 2552 (2009), forest checkpoint officials verify transport documents for validity and expiration and note if any relevant royalties due have been paid. If all is in order, a sample check of at least 20% of the load is made. Once verified, officials stamp the personal seal and a removal seal on the sample-checked items and sign the transport document. If the original transport document has expired, checkpoint officials issue a new removal pass, with expiration date up to a maximum of 30 days from date of issue (NEPCon, 2017).

In most cases, the checkpoints are not physical barriers that force vehicles to stop, but rather are dependent on transport conveyances stopping at the checkpoints to request relevant permits and recording transport in accordance with previously issued permits. Essentially, operators are simply required to present a transport document with the relevant packing list to the checkpoint official within the specified timeframe for the sawnwood or products being transported. Thus, given the potential for concealing sawnwood and other products under tarps or in containers, or otherwise bypassing the checkpoints, the effectiveness of the checkpoint system as a means of deterring determined efforts to transport illicit wood and wood products is somewhat questionable (Heuch, 2012).

5. Legislations on trading woods and wood products

5.1. Laws and regulation on trading woods and wood products

The Customs Act B.E. 2560 (2017) regulates all general procedures for import and export of products into and out of Thailand.

(http://www.customs.go.th/data_files/a48902e107a80bbbfc83d38742957569.pdf)

All importers and exporters are required to obtain and Import/Export License. This can be obtained electronically and the paperless license is valid for three years.

Thailand uses the Harmonized Commodity Description and Coding System (HS), developed by the World Customs Organizations (WCO), which is also the basis for the ASEAN Harmonized Tariff Nomenclature.

5.1.1. Imports

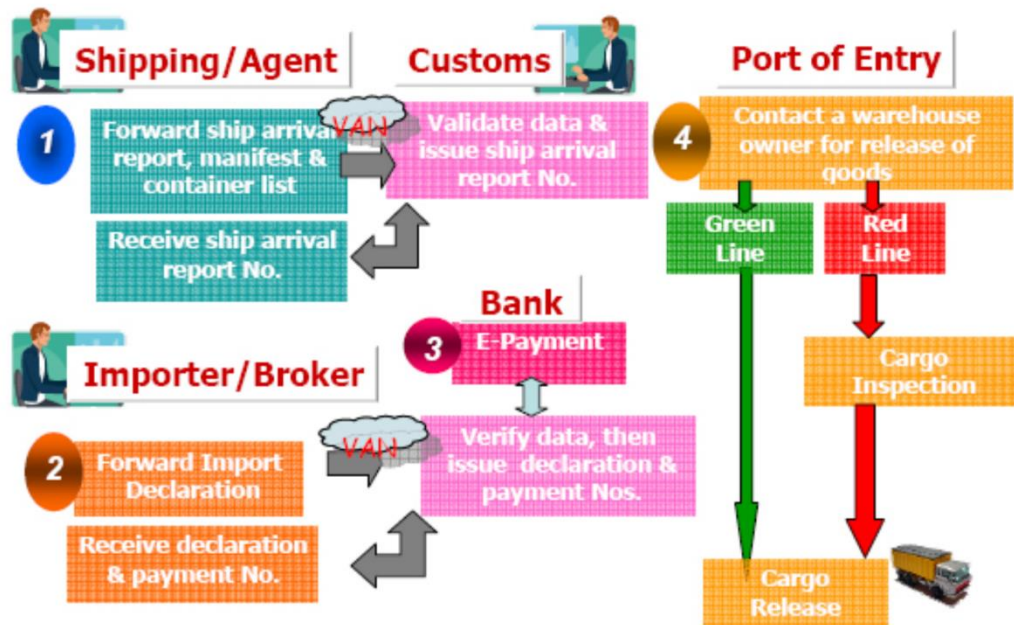
An importer or agent wishing to import and transport logs or sawnwood at seaports or land border crossings submits the required documentation to appropriate officers of the Customs Department, RFD, and the Department of Agriculture. Importing agents must provide the following documents when their goods arrive:

- Customs Import Declaration (Customs Form 99 or 99/1); can be submitted electronically through the Electronic Data Interchange (EDI) system
- Packing list
- Invoice
- Bill of lading
- Insurance invoice

- Foreign Transaction Form (if the import value exceeds Baht 500,000 or approximately US\$16,000)
- Copy of Import License
- Evidence of timber export permit from country of origin (if applicable)
- Certificate of Origin

Figure 4 illustrates the generic requirements for importing goods into Thailand.

Figure 4. Import procedures for Thailand



Source: Thai Customs Department website (<http://en.customs.go.th/>)

Much of the documentation processing can be accomplished via the e-Customs and e-Payment electronic portals. As most wood and wood products require additional scrutiny, imports are usually assigned to the red lane, requiring specific inspections.

The Department of Agriculture inspects the imported items, as appropriate, with respect to phytosanitary conditions. Each shipment of wood and wood products must be accompanied by a valid Phytosanitary Certificate issued by the country of origin, indicating the kind of quarantine treatment requested and/or applied, if any.

The Customs Department and RFD officers inspect the shipment to ensure the declared imported items are consistent with those listed in the invoice/packing list and customs declaration with respect to species, volume, and description and that any stamps/marks physically on the timber being imported match those appearing on the packing list.

The RFD officer conducting the inspection then also stamps the imported timber with his/her personal RFD hammer and serial number. The Customs Department levies relevant import duties and issues receipt for same. Payment of duties can be made by bank or cashier check or electronically through the EDI system or bank transfer.

Inspecting officials from all three inspecting agencies sign the release of goods form.

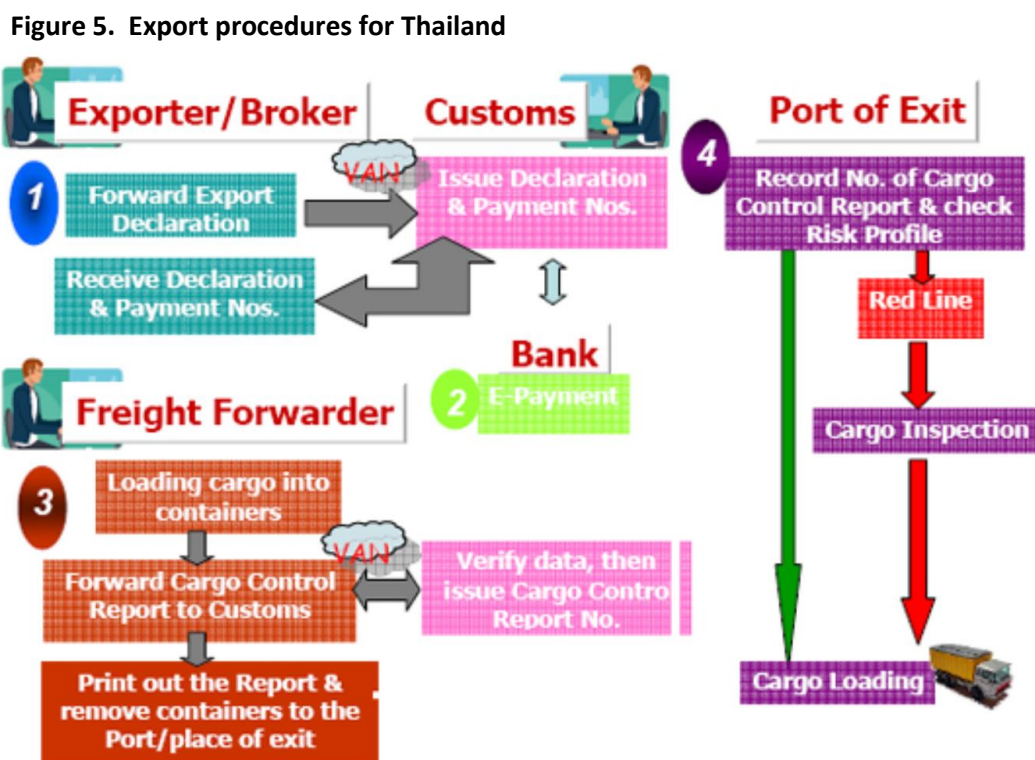
The importer transporting timber from the point of entry then reports to the nearest RFD checkpoint to obtain a Transport Permit (providing documentation as submitted to the Customs Department, proof of payment of import duties, and timber account indicating species, quantity and volume of timber to be transported). RFD issues a Transport Permit, which allows the importer to move the timber to a processing mill or timber trading facility.

Thailand imports large volumes of wood and wood products from other countries, some of which are consumed locally and some of which are further processed to make finished wood products. The legality of imported wood is highly dependent on the legality systems in place in the exporting countries. Currently, there is little assurance of legality of imported wood as the only significant documentation required is the Certificate of Origin, which does not provide assurance of legality. In some cases, the Certificate of Origin does not even accurately reflect the actual origin of the timber, if the wood has been re-exported from an intermediary transit country.

The greatest assurance of legality of imported wood can be attached to imports of low-risk species, from low-risk countries, with independent verification or certification. At the opposite end of the spectrum are imports of high-risk species from high-risk countries, without independent verification/certification.

5.1.2. Exports

Figure 5 illustrates the generic requirements for exporting goods from Thailand.



Source: Thai Customs Department website (<http://en.customs.go.th/>)

In addition to the general requirements for export illustrated in Figure 5, exporters of logs, sawnwood, or charcoal derived from any species of wood must obtain an Export Permit from the Department of Foreign Trade. To obtain such Export Permit, exporters are expected to submit proof of legality to the Department of Foreign Trade. Legality documents may include RFD-issued certificates for charcoal, logs or sawnwood, issued for each consignment, as well as a Removal Pass (Transportation Certificate). For charcoal, RFD will also issue, upon request, a Certificate of Charcoal from Private Lands (if sourced from private lands). A Certificate of Restricted Wood Product is issued for furniture and wood products made from restricted species. If a Certificate of Origin is required, exporters can apply for such from the Department of Foreign Trade. For export of products of CITES-listed species, a Conservation Species Export Permit is issued, as appropriate, by the Department of Agriculture. Teak logs and teak sawnwood, while they should be harvested only from plantations, can be legally exported only by the Forest Industry Organization (FIO), based on Ministry of Commerce Regulation of Log and Timber Exporting B.E.2549 (2006).

In addition, Phytosanitary Certificates are issued by the Department of Agriculture.

These documents, as relevant, need to be submitted together with standard export documents, including Export Declaration (Customs Form 101 or 101/1), invoice, bill of lading, insurance, packing list, and a Foreign Transaction Form (if the export value exceeds Baht 500,000 or approximately US\$16,000) to the Customs Department.

5.2. Legally required documents or records

Table 7 lists required documents for importing and exporting wood and wood products into and out of Thailand

Table 7. Legal documents to import and export wood and wood products

Name of document	Description	Issuing authority
Imports		
Evidence of timber export permit from the country of origin	Validates legitimacy of wood exporter	Relevant agency in exporting country
Phytosanitary Certificate	Certifies products as disease free and/or receiving phytosanitary treatment	Authorized agency in the exporting country (reviewed by Thailand Department of Agriculture, as appropriate)
Invoice	Detailing products to be exported and agreed prices	Exporter
Bill of lading	To acknowledge receipt of cargo for shipment	Courier or freight handler (or their agent)
Packing list	Detailed descriptions of contents of each crate, box or container being shipped	Exporter

Customs Import Declaration (Customs Form 99 or 99/1)	Official declaration of goods imported	Submitted by the importer to the Customs Department, manually or through e-Customs electronic system
Certificate of Origin	Confirms the originating country of items being imported	Designated authority in exporting country
Exports		
Export Permit	Required for export of logs, sawnwood or charcoal of any species	Department of Foreign Trade
Removal Pass	Authorizing export of wood products	RFD
Certificate of Charcoal from Private Lands	Authorizing export of charcoal produced on private lands	RFD
Certificate of Restricted Wood Product	Issued for furniture and wood products made from restricted species	RFD
Sales invoice	Detailing products to be exported and agreed prices	Exporter
Bill of lading	To acknowledge receipt of cargo for shipment	Courier or freight handler (or their agent)
Packing list	Detailed descriptions of contents of each crate, box or container being shipped	Exporter or agent
Phytosanitary Certificate	Certifies products are disease free and/or received phytosanitary treatment	Department of Agriculture, Ministry of Agriculture and Cooperatives in consultation with RFD
CITES Certificate (if relevant) (Conservation Species Export Permit)	Facilitates the export of CITES-listed tree species and derivatives, as appropriate	Department of Agriculture (in consultation with RFD for CITES-listed wood species)
Export Declaration (Customs Form 101 or 101/1)	Detailed declaration of items and products to be exported	Submitted by the exporter to the Customs Department
Certificate of Origin (if required by importing country or requested by exporter)	Verifies country of origin of exported products	Department of Foreign Trade

6. Others

6.1. International frameworks / trade agreements relevant to combatting illegal harvesting and associated trade

Thailand is a member country of the Association of Southeast Asian Nations (ASEAN), the Asia-Pacific Economic Cooperation Forum (APEC), the International Tropical Timber Organization (ITTO), and the Food and Agriculture Organization of the United Nations (FAO) – all of which are working to combat illegal forest harvesting and associated trade. Thailand has, in the past, and is currently, engaged with several projects and initiatives of these organizations related to timber legality, including ongoing efforts to develop a Timber Legality Assurance System (TLAS).

Thailand is a signatory party of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES). The country has taken a leadership role in advancing the protection of Siamese rosewood (*Dalbergia cochinchinensis*) under the CITES framework, including pushing to replace Annotation 5 with Annotation 4, which subjects the trade of all parts and derivatives of Siamese rosewood (except seeds and seedlings) to CITES controls. Thailand has also hosted three meetings (2014, 2016, and 2017) of the *Regional Dialogue on Preventing Illegal Logging and Trade of Siamese Rosewood* and hosted the *Fourth Regional Dialogue on Combatting Trafficking of Wild Fauna and Flora* in 2017, which included discussions on the trade of Siamese rosewood. Thailand has signed several MoUs with border countries, such as Cambodia and Lao PDR on preventing the illegal logging and trade of Siamese rosewood.

Within ASEAN, Thailand has been active in working groups addressing FLEG, the Pan ASEAN Timber Certification Initiative, and the development of ASEAN criteria and indicators for sustainable forest management (which would provide a foundation for legality definition and national certification systems) and the ASEAN Chain-of-Custody Framework.

Thailand also participates actively in APEC's Expert Group on Illegal Logging and Associated Trade (EGILAT).

Thailand has been one of the leading ASEAN countries in developing its National Single Window (NSW) – which is eventually to interface with the ASEAN Single Window – to link all relevant agencies and parties involved in trade and transport of products within ASEAN. The NSW system allows single submission of cargo clearance data, synchronous and simultaneous processing, and decision making through a single channel. Thailand's NSW development includes at least 36 government agencies, including the Department of Agriculture, Royal Forest Department, Office of the Rubber Replanting Aid Fund, Department of National Parks, Wildlife and Plant Conservation, Department of Foreign Trade, Customs Department. Thus, the foundation exists for the Thai NSW to effectively accommodate timber and wood products trade (EFI, 2014). While various components of the NSW are operational or in testing stages (including some related to forest products), the NSW is not yet fully functional. The current government is, however, pressing relevant agencies to accelerate the implementation of the NSW (Sapol Boonsermsuk, personal communication).

Thailand is a signatory to the ASEAN Trade in Goods Agreement (ATIGA), which aims to achieve free flow of goods in ASEAN. Under the agreement, ATIGA Form D is used by countries as the certificate of origin issued to exporters, which has the potential to incorporate timber legality documentation (EFI, 2014).

FLEGT VPA

Importantly, in 2013, Thailand initiated a formal process to negotiate a Voluntary Partnership Agreement with the European Union. The Royal Forest Department established the Thai-EU FLEGT Secretariat Office (TEFSO) to coordinate and support all FLEGT related matters in Thailand in 2013. After preparatory technical work, the first official negotiations took place in June 2017. The Ministry of Natural Resources and Environment is the lead ministry for Thailand in the VPA negotiations. In support of the process, Thailand is receiving technical assistance from the EU (through the EU FLEGT Facility coordinated by the European Forestry Institute and the FAO-EU FLEGT Programme) in developing a Legality Definition, TLAS and Chain-of-Custody system.

6.2. Voluntary schemes on legality / sustainability of wood and wood products

Forest Stewardship Council (FSC)

There are currently 19 forest areas that have Forest Stewardship Council (FSC) forest management certification, covering 84,216 hectares ([file:///C:/Users/HP/Downloads/Facts and Figures 2018-08-01%20\(1\).pdf](file:///C:/Users/HP/Downloads/Facts_and_Figures_2018-08-01%20(1).pdf)). All of the FSC forest management certificates in Thailand are for three species (teak, rubberwood, and eucalyptus). All of the teak plantations that are FSC certified are managed by FIO. Additionally, 156 companies have FSC chain-of-custody certificates.

In early 2018, the Thai government committed to support smallholder rubber planters to comply with the standards of the FSC. It is generally recognized that most rubber growers (especially those who established plantation many years ago) and rubberwood producers are operating legally and largely in a sustainable manner. There are more questions of the legality of many rubber plantations established more recently as some are known to have been established illegally on public land without legal leases. FSC certification would be highly useful in determining the legality of rubber plantations as legal access to land is a key requirement for FSC certification. As most plantation owners are smallholders, however, traditional FSC certification is beyond their financial capability. Thus, efforts are being made to establish robust and practical group certification for smallholder rubberwood producers (<https://blogapac.fsc.org/2018/04/07/thailands-support-for-fsc-standards-background-reasons-and-impacts/>).

Programme for the Endorsement of Forest Certification (PEFC)

In 2016, Thailand established formal ties with the Programme for the Endorsement of Forest Certification (PEFC), when the Thailand Forest Certification Council, under the auspices of the Federation of Thai Industries, was officially accepted as the National Member for Thailand by PEFC. National standards for forest certification and chain-of-custody have been drafted by a team of experts, in consultation with relevant stakeholders, within the framework of the Thailand Industrial Standards Institute (TISI). Together with other stakeholders, the Thai

Federation of Industries is working to further refine the national standards (including field testing with two major corporate partners), with the aim of developing a national certification system to be submitted to PEFC for possible endorsement – possibly as early as 2019 (Rungnapa Wattanavichian, personal communication).

A number of initiatives are underway in Thailand to develop stronger certification and legality assurance systems, especially for currently unregulated and unrestricted timber (e.g., rubberwood and eucalyptus) and imported timber and wood products. Several of these initiatives currently hinge on voluntary self-declaration (with provision of proof of legality) of plantation-grown wood produced on private lands.

E-Tree system

RFD's E-Tree online database, which is part of RFD's Single Window program, provides an opportunity for private plantation owners to register information on plantation ownership, species, stock, harvesting, sales and transport – including those growing tree species not currently eligible to be registered under the Commercial Forest Plantation Act (Sapol Boonsermsuk, personal communication). The E-Tree system reportedly still has various technical constraints, however, and many tree growers are reluctant to register under the system as currently configured (Rungnapa Wattanavichian, personal communication).

The Federation of Thai Industries (FTI) is currently exploring the viability of a number of self-declaration approaches that would provide simple, low-cost, practical methods for tree farmers to validate the legality of their trees. Methods being explored include paper or electronic self-declaration through the Rubber Association of Thailand (RAOT) and/or other tree growers associations or cooperatives, trees validated by RFD field inspection, and self-declarations witnessed by local village or district authorities. These self-declarations could potentially be subsequently linked the RFD's E-Tree system (Rungnapa Wattanavichian, personal communication).

Tree Bank program

An additional form of "self-declaration" of tree ownership is through the Tree Bank program, which was established in Thailand to promote economic tree growing by smallholders. The Tree Bank program is administered by the Bank for Agriculture and Agricultural Cooperatives (BAAC) and allows tree farmers to secure loans with their plantation growing stock. Although the self-declarations of ownership under the Tree Bank program are of questionable legal standing, they do help smallholders secure recognition of tree ownership even if the tenure of the lands on which they are growing is unclear. To date, some 150,000 tree farmers have enrolled in the Tree Bank program. The program was recently expanded to include more tree species, including high-value timber species such as teak and rosewood (Bangkok Post, 2018d).

6.3. Other Observations and Comments

Forest and resource management are undergoing considerable change in Thailand at the present time. Many of the timber and wood legality conditions and requirements currently in place are likely to change in the near future. The current military-led government has

demonstrated strong interest in forests and forest protection, while simultaneously signaling favorable consideration to forest land occupants (many who are currently living with insecure land tenure status) and exploring efforts to reinvigorate the forest plantation and wood processing sectors.

Prospects are better than they have been for many years that the long-debated Community Forestry Act could finally be passed, giving recognition to millions of forest-dwelling communities (albeit unlikely to accommodate those occupying lands within national parks and wildlife sanctuaries). The government has also said that it intends to relax or eliminate regulations constraining smallholders from growing, transporting and marketing currently restricted high-value tree species, including eliminating constraints on growing, transporting and selling species currently designated as “restricted” under Section 7 of the Forest Act. Senior government officials have also expressed plans to establish a goal of increasing forest cover in the country to 55% by the year 2037, from the current level of 32%.

Also likely to have significant impacts on the forestry sector in the coming years are the ongoing efforts to develop more robust timber legality systems, including clearer definitions of legality, clear chain-of-custody procedures, and national TLAS and certification schemes.

Despite the disruptions to industry from the banning of timber harvests in natural forests nearly three decades ago, the Thai forest industry has demonstrated surprising resilience and ability to adapt and thrive. Initially, the sector was sustained through (often dubious) imports of raw material from neighboring countries. More recently, Thailand has vastly restructured the wood sector by drawing on the country’s vast rubberwood resources and expanding the involvement of smallholders in tree growing.

With much of the wood industry currently dependent on rubberwood and eucalyptus for raw materials, legality issues primarily link to legal rights to occupy and/or use specific areas for tree growing. As wood and wood products made from these two species are easy to identify and readily distinguishable from species grown in natural forests, the main legality issues relate to whether or not the timber was grown on land by people with legal right to access and use the land. Nonetheless, Thailand’s highly complex and ever-changing tenure systems create continuing challenges for legality of rubberwood and eucalyptus. If government plans to grant more favorable access and use rights to land are implemented as policy, it should significantly serve to solidify the legality of plantation-grown timber.

The legality of timber imported into Thailand is often questionable and relates directly to the robustness and reliability of the legality systems in place in the exporting countries. With much of Thailand’s imported wood currently sourced from countries with weak forest governance, the legality of many products made in Thailand from imported wood is frequently questioned. The legality of such products would depend on the source(s) of raw material, assurances of legality of the imports, and due diligence practices of importers. Of course, the strongest assurances of legality of imported raw materials derives from certification of forest management and chain-of-custody.

As many of the woods imported from neighboring countries are the same or similar to species growing in Thailand’s own natural forests, there is potential for timber illegally harvested from natural forests in Thailand to be laundered into the supply chain. Based on frequent reports of

arrests and confiscations of illegally harvested timber in Thailand (including high-value Siamese rosewood), this issue remains a challenge. The government’s plans to encourage more growing of high-value timber species in plantations will create yet more challenges with respect to sourcing (i.e., plantation-grown timber versus timber derived from natural forests).

Ongoing measures to develop a clear legality definition and establish reliable and robust TLAS and chain-of-custody systems for Thailand are critical for increasing confidence of the legality of Thai wood products in the future.

Labor law violations provide final area of concern with respect to timber legality. Monitoring and enforcement of labor laws (including particularly for foreign workers) has strengthened significantly in recent years, especially for larger wood-processing mills. Enforcement at smaller facilities and in harvesting operations is less consistent. To the extent that compliance with labor laws is considered a factor of timber legality, this remains an area of concern.

5. Interviews/Field Survey (Logistic Records)

7.1. Interviews

Table 8. List of interviews

Date	Name of interviewees	Title	Organization	Main topics
Various dates	Bruno Cammaert	Forestry Officer	FAO-EU FLEGT Programme	General issues of legality; sources of information; contacts
Various dates	Erica Pohnan	Consultant	FAO-EU FLEGT Programme	General issues of legality; sources of information; contacts in Thailand
3/9/18	Preecha Ongprasert	Chief, International Special Program Section	Intl Forestry Cooperation Office, Royal Forest Department	Thai forestry statistics, forest classification, forest management legislation
Various dates	Josil Murray	Consultant	FAO-EU FLEGT Programme	General issues of legality; sources of information; contacts
22/8/18	Pawinee Udommai	Thai Legal Expert	GOPA Consultants	Thai forestry legislation and legal regulations
30/8/18	Allison Lewin	Team Leader	Responsible Asia Forestry and Trade (RAFT) Program	General issues of legality; sources of information; contacts in Thailand
5/9/18	James Sandom	FLEGT consultant	Independent Consultant (working with	Legality definition, chain of custody, risk

6/9/18			European Forestry Institute)	assessment, due diligence system
6/9/18	Panjit Tansom	FLEGT Expert	Thai-EU FLEGT Secretariat Office	Land tenure legality, requirements for harvesting, transport, manufacturing and trade
7/9/18	Sureeratna Lakavichian	Head, Department of Highland Agriculture and Natural Resources	Chiang Mai University	Forest management and resource tenure; illegal logging and trade
10/8/18 (via skype)	Tong Pei Sin	Lecturer	University Tunku Abdul Rahman, Malaysia	Trade of CITES-listed tree species in Southeast Asia
22/8/18	Bill Maynard	Consultant	Global Forestry Services	Regional forest products trade and legality systems
10/9/18	David Gritten	Senior Program Officer	RECOFTC – The Center for People and Forests	Land and resource tenure; traceability and legality of plantation timber; community forestry
10/9/18	Warangkana Rattanarat	Thai Country Program Coordinator	RECOFTC – The Center for People and Forests	Regional legality issues; international and regional trade
10/9/18	Sophie Lewis	PhD candidate	University of British Columbia	Local people's participation in FLEGT policy decision making
11/9/18	Jhongsathit Aungvitayatorn	Rubber plantation and sawmill owner	Nakorn Sri Parawood Co., Ltd.	Procedures/practices for harvesting, transporting and processing rubber wood; wood processing controls; export procedures
20/9/18	Ranya Chungsuksiri	Marketing Manager	Gold Bell Furniture, L.P.	Timber sourcing, furniture manufacturing operations, export procedures
26/9/18	Robert Nasi	Director General	Center for International Forestry Research	Regional trade and governance

27/9/18	Chen Hin Keong	Timber Trade Programme Leader	TRAFFIC, International	Regional trade, customs regulations, training and capacity building, trade statistics
28/9/18	Rungnapa Wattanavichian	Manager	Thailand Forest Certification Council (TFCC), Federation of Thai Industries	Certification and chain-of-custody initiatives, piloting of Self Declarations for unrestricted timber species
28/9/18	Sapol Boonsermsuk	Director	International Forestry Cooperation Office, Royal Forest Department	Ongoing legislative and regulatory reforms, inport/ export regulations, transport regulations, NSW development

7.2. Field Survey

The compiler of this report has lived in Thailand for 24 years – working in the forestry sector on regional issues that entire time period. As such, much of the information compiled for this report has been obtained over an extensive period of time, beyond the duration of this immediate consultancy. Intensive review of documents, reports, websites, and news articles was conducted between 1 August 2018 and 30 September 2018. Surveys and meetings were conducted mainly in the month of September, although some occurred earlier in August. The surveys comprised individual meetings with key informants and focus group discussions with interest groups. Discussions were designed to collect data, information and documents, and validate pre-identified findings from initial desk work. Site visits were also made to the Bang Sue area of wood dealers in suburban Bangkok, the Gold Bell Furniture factory and showroom in Bangkok, Khao Yai and Thap Lan National Parks, and tree plantations in Saraburi and Nakhon Ratchasima provinces.

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