

# Chapter 3

## Wood Processing

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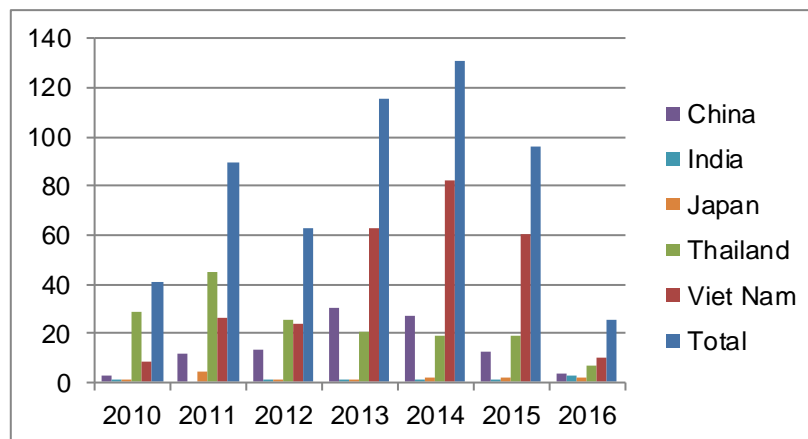
## Chapter 3

### Wood Processing

#### 1. Current State

Export values of wood-processed products from the Lao PDR peaked in 2014 and have since been decreasing sharply.

**Figure 3.1: Trends in Timber Exports of the Lao People's Democratic Republic (\$ million)**



Source: United Nations International Trade Statistics Database.  
<https://comtrade.un.org/> (accessed 13 April 2019).

A close analysis of timber exports by processing category shows an increase in exports of low-processed products.

**Table 3.1: Exports of Low-Processed Timber Products**

| Export           |             |   |
|------------------|-------------|---|
| Product          | Value       | Export destinations                               |
| Rough wood       | 173,000,000 | China 89%; Hong Kong, China 5.6%; India 3.9%      |
| Sawn wood        | 61,800,000  | China 69%, Thailand 21%, Viet Nam 6.3%            |
| Wood charcoal    | 128,000,000 | Japan 40%, Republic of Korea 29%, China 25%       |
| Veneer sheets    | 7,810,000   | India 88%, Viet Nam 7.9%, Singapore 1.9%          |
| Shaped wood      | 4,670,000   | Thailand 43%, Viet Nam 32%, Republic of Korea 11% |
| Wood carpentry   | 4,410,000   | Viet Nam 64%, Thailand 23%, Japan 7.7%            |
| Wood ornaments   | 1,520,000   | Japan 90%, United States 4.1%, China 4.0%         |
| Wood kitchenware | 860,000     | China 79%, Thailand 9.5%, Japan 8.9%              |

Note: Only the countries with the largest export shares are noted here.

Source: United Nations International Trade Statistics Database. <https://comtrade.un.org/> (accessed 13 April 2019).

## 2. Orientation of the Five-Year National Socio-Economic Development Plan and its Assessment

The following outlines the orientation of the wood processing sector in the Five-Year National Socio-Economic Development Plan, and the plan's assessment of the sector. The national goals are as follows:

- (i) develop areas for the cultivation of high value-added plants, such as teakwood and rosewood;
- (ii) establish demonstration areas for resource trees (such as rubber plants) that match local environments;
- (iii) establish one or two factories with high-level processing technology in suitable locations;
- (iv) support the creation of high-level production chains and integration in the Lao PDR; and
- (v) establish production centres for bamboo and wisteria products.

The policy direction is considered very good in light of geopolitical and world trends. However, it should be understood that the cultivation of teakwood and rosewood, which are luxury timber, takes much time and labour, and that prices are affected by the forestry technologies used. It should also be taken into account that this cultivation will not immediately result in an income increase because at least 30 years must pass before the trees can be logged as timber. In addition, trees of the same kind, if planted in one area on a large scale, are exposed

to the risk of annihilation due to disease or insect damage; therefore, the planting of multiple kinds of trees should be considered. Since rubber plants and many other resource trees are affected by fluctuations in international prices, it is necessary to select trees with limited price fluctuations and disperse risks from a medium- to long-term perspective.

The promotion of non-wood materials, such as bamboo and wisteria products, will become increasingly important from now on. Paying close attention to the market for these products, the selection of materials, and the clarification of targets (such as where and what to sell) will make it easier to select cultivation areas, secure the necessary materials, and eventually lure businesses.

### **3. The Lao People's Democratic Republic's Advantages in Wood Processing**

The Lao PDR is a forested country and has many planted trees. The country also contains several varieties of trees, including high value-added hardwoods, as it enjoys a tropical climate, is a long country measured north to south, and has mountainous areas. Farmers are very familiar with the mountains, and it is easy to search and trim trees.

## **4. Major Bottlenecks for the Development of the Wood-Processing Sector**

### **4.1. Complication of Regulations for Exports of Wood-Processed Products**

The Prime Minister's Order No. 15 (13 May 2016) was issued to toughen the management and supervision of timber logging, timber transport, and the timber business; and banned exports of all half-processed and unprocessed timber. With regard to processed wood products, the MOIC issued the (revised) agreement No. 0002 (3 January 2018) containing the list of exportable and unexportable timber products, subjecting exports of processed wood products in excess of the prescribed use and size to regulations. The regulations are aimed at producing high value-added wooden products and preserving raw wood materials in forests.

### **4.2. Obscure Information and Management**

Data on timber used by ministries and agencies are unreliable, and it is unclear whether errors in these data are the result of smuggling and other transactions slipping through

government management, or are simply incorrect. First of all, management itself is considered inadequate. Under the present circumstances, overseas buyers and investors consider it difficult to recover their investment because price differences between smuggled and regular products destabilise prices and make it difficult to purchase regular timber stably. As a result, industrial promotion in this sector has been hindered.

As shown in Tables 3.2 and 3.3 below, there are wide differences between the data grasped by the MOIC and those released by importing countries. Normally, it is reasonable to understand that some products are being either smuggled or undervalued, resulting in the loss of a large amount of tax revenues.

**Table 3.2: The Lao People’s Democratic Republic–China Export Data, by Product Category, 2014–2015 (\$ million)**

| Exports                       | MOIC        | UN Comtrade  | Difference    |
|-------------------------------|-------------|--------------|---------------|
| <b>Wood and wood products</b> | <b>28.5</b> | <b>498.6</b> | <b>-470.1</b> |
| Rubber and rubber products    | 20.8        | 83.4         | -62.7         |
| Chemicals and fertiliser      | 42.2        | 90.4         | -48.2         |
| Agricultural products         | 88.7        | 73.7         | 14.9          |
| Other products                | 72.2        | 17.4         | 54.8          |
| Metals and metal products     | 673.4       | 503.2        | 170.2         |
| Total                         | 925.8       | 1,266.7      | -341.0        |

MOIC = Ministry of Industry and Commerce, UN Comtrade = United Nations International Trade Statistics Database.

Sources: Bannister, G.J., M. Ghazanchyan, and T.P. Bikoi (2017), ‘Lao P.D.R: Assessing the Quality of Trade Statistics’, *International Monetary Fund Working Paper*, No. 17/251.

<https://www.imf.org/en/Publications/WP/Issues/2017/11/16/LAO-P-D-R-45367> (accessed 13 April 2019).

**Table 3.3: The Lao People’s Democratic Republic–Viet Nam Exports Data by Product Category, 2014–2015 (\$ million)**

| Exports                   | MOIC         | Viet Nam     | Difference    |
|---------------------------|--------------|--------------|---------------|
| Wood and wood products    | 69.8         | 404.4        | -334.6        |
| Oil and oil products      | 0.0          | 30.0         | -30.0         |
| Chemicals and fertiliser  | 63.1         | 39.0         | 24.2          |
| Metals and metal products | 14.4         | 10.8         | 3.7           |
| Maize                     | 15.5         | 0.3          | 15.2          |
| Other products            | 346.6        | 131.6        | 215.1         |
| <b>Total</b>              | <b>509.5</b> | <b>616.0</b> | <b>-106.6</b> |

MOIC = Ministry of Industry and Commerce.

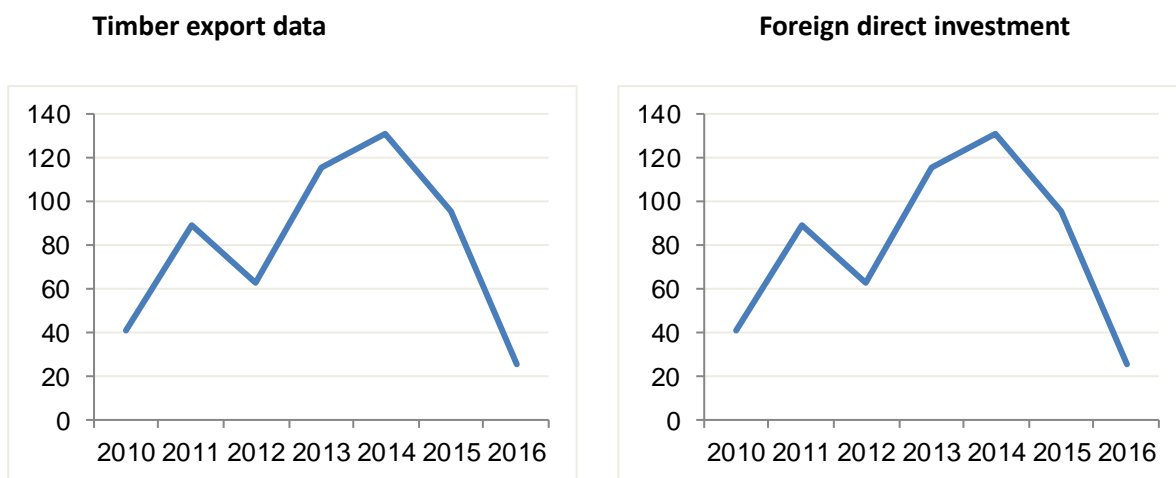
Sources: Bannister, G.J., M. Ghazanchyan, and T.P. Bikoi (2017), ‘Lao P.D.R: Assessing the Quality of Trade Statistics’, *International Monetary Fund Working Paper*, No. 17/251.

<https://www.imf.org/en/Publications/WP/Issues/2017/11/16/LAO-P-D-R-45367> (accessed 13 April 2019).

#### **4.3. Irregular Exports Accompanied by Large-Scale Development**

Table 3.2 compares the value of timber exports from the Lao PDR and FDI in the Lao PDR, and reveals that the amount of investment rose after timber exports increased. The transactions increased closely in time with large-scale projects to develop dams as well as rubber and other plantations. This suggests that timber exports were hewed out when mountains and fields were exploited, and that something was provided as incentives for investment. Such a practice hampers not only the maintenance of regular timber prices, but also the economic development of the Lao PDR by bringing in fabricated development with the aim of logging trees.

**Figure 3.2: Timber Exports from, and Foreign Direct Investment in, the Lao People's Democratic Republic(\$ million)**



Source: United Nations International Trade Statistics Database. <https://comtrade.un.org/> (accessed 13 April 2019); World Data Atlas. <https://knoema.com/atlas> (accessed 13 April 2019).

## 5. Discussion of the Current State

Under its current policy of exporting timber after processing, the Lao government gives companies incentives to process timber with the aim of increasing added values and income. Indeed, with respect to timber logging, such issues are partially legalised as areas where forest is conserved and felling is possible, tree species subject to conservation and available for use, processing methods, and so forth. However, it appears problematic that this legalisation is not widely known while the means of management remains insufficient.

In addition, the definition of timber is vague. Of all timber, wood containing materials for medical use is under the jurisdiction of the Ministry of Health, while the jurisdiction of wood for agricultural production, such as fruit, straddles multiple ministries and departments, including the department of the MOAF. This makes the definition of timber complicated and difficult to understand.

### **5.1. Policy Measures Adapted to Reality, Especially Industrial Promotion with an Eye on Exports**

The Lao PDR has many tree species, including those with high values of use by industry, and the country's climate characteristics cause trees to grow more quickly than in Japan. Therefore, it is possible both to protect forests and to use their resources by involving people in forest succession. Specifically, use of forests that is sustainable and contributes to an increase in farmers' income is possible through such means as combining trees that grow quickly but are priced low, and trees that grow slowly but have high added values, as well as the linking of forestry and agriculture. To this end, it is first necessary to implement a national production plan for tree planting, nurturing, logging, and processing to meet the overseas demand for timber.

Next, it should be made easy for citizens to understand the forestry situation at a glance by (i) clarifying that the state will manage the forestry industry; (ii) preparing a list separating tree species for preservation, use, and exclusion from management; (iii) releasing the official price list of timber; (iv) setting management regulations that show how the state will manage the process of planting, processing, levying taxes, and implementing regulations for commissions according to tree species at each stage; and (iv) enacting a timber management law to control the abovementioned issues.

Commissions set and collected by the state (e.g. commissions for environmental protection) can easily be collected by the management at each stage of logging, transportation, processing, and export. Further, it becomes possible to manage forests sustainably by earmarking the commissions as taxes applicable to forest protection or subsidies for tree planting, afforestation projects, improvement of wood-processing technology, and so forth (footnote 1). It is also necessary to toughen crackdowns on illegal logging and hold open international bidding for timber seized by the government to secure national revenues to support the recovery of mountain forests damaged by illegal logging, and to promote transparent treatment.



## **5.2. Ways to Set Proper Targets After Adopting Policy Measures**

It takes a long time for trees mature into timber. The maitiu trees used to make hard charcoal, mainly for exports to Japan, take 3–5 years to grow; acacia and locust trees, which are material for plywood, gain added values after 30 years; and more than 60 years are needed for luxury timber, such as ebony and red sandalwood. It is also important to utilise timber based on differences in growth speed in order to realise the stable use of mountain forests. Thus, planned planting of multiple tree species is necessary. At present, however, the Lao PDR lacks the processing accuracy demanded by other countries and is limited to primary processing.

According to official export data for 2014, \$1.7 billion worth of timber (8% of total exports from the Lao PDR) was shipped mainly to China and Viet Nam (which accounted for 96% of total exports by volume). With exports consisting mainly of logs, boards, and wood chips, some 80% of exports took the form of crude material. In 2015, timber exports came to \$892 million, of which raw wood accounted for 50%, boards 45%, and charcoal 3.4%. Toughened regulations are considered to have caused the change in the value of exports between 2014 and 2015. Even if demand can be accurately projected based on future legal improvements, it appears meaningless to refer to past export data (see section 3.4).

In setting target numbers for legal improvements, therefore, it is necessary to survey the current state of this sector, such as the exportable amount of timber and the amount of domestically usable timber relative to the available resources of planted and naturally growing trees. At the same time, the necessary amount of planting and afforestation to achieve forest recovery, as well as the shippable amount of timber should be calculated every 5 or 10 years to calculate the disposable amount of timber, which must not be higher than the country's rate of forest conservation. Thus, it is also appropriate to conduct a rough estimation of the future exportable amount of timber for each year.

The best option is to pursue the recovery of forested national land and the fair and profitable use of forest resources, which are an asset for the country and its citizens, by setting target numbers to be achieved every 5 or 10 years. It is also necessary to determine the proper rate of correlation between the usable amount of timber and the rate of recovery in the process of identifying final target numbers for the foreign coverage and recovery rates.

## **6. Policy Recommendations**

### **6.1. Clarification of Prices and Procedures and the Establishment of Systems in the Process of Logging Raw Wood and Processing**

The government can prevent unfair payments and illegal logging from the viewpoint of forest preservation by setting official prices for raw wood and disclosing taxes and commissions on the process from logging to export. By doing so, the MOAF can simplify its management of logging and forest preservation, as well as management at time of export at the border. At the same time, a tax incentive designed to lead to low taxes based on the degree of processing (e.g. high taxes for logging and low taxes for furniture) would not only promote transparency of government procedures but also increase demand for processed wood products. The best solution to prevent fraud is to minimise room for human judgment as much as possible by reducing the work to mechanical routine work. By simplifying and bringing transparency to the whole process in this way, the government can promote an inflow of capital from abroad and entries by foreign businesses.

#### **Box 3.1: Regulations on the Export of Timber and Timber Products by the Government of the Lao People's Democratic Republic**

The Government of the Lao People's Democratic Republic (PDR) has issued a number of regulations to restrict exports of wood and wood products with the aim of reducing illegal logging, promoting domestic wood processing, and facilitating industrial tree planting in the country.

In September 2008, the Prime Minister issued Order No. 17/PM on the enhancement of forest management, protection, and coordination in forest management and the wood business. This regulation emphasised that concerned authorities at all levels should manage and protect forests, as well as related businesses. Nevertheless, widespread illegal logging and wood exports persisted. Therefore, in 2011 the Prime Minister released Order No.10/PM banning the exploitation, buying, and selling of prohibited wood. Following these two orders, in September 2011, the Ministry of Industry and Commerce (MOIC) issued Notice No. 1904 on streamlining import and export procedures for wood and wood products. Earlier in the same month, the MOIC issued the similar Notice No. 1791 to facilitate industrial tree plantation by streamlining cumbersome import and export procedures for planted timber. Furthermore, in March 2014, the Prime Minister allowed the provinces and capital of Vientiane to approve the export of planted timber (Resolution No. 41/PM) to cut unnecessary export procedures

further. This enabled provincial industry and commerce divisions to process export applications based on the certification of plantations by the respective division. In May 2015, the Prime Minister's Office issued a notice to relevant ministries (No.790/PMO) to strictly prohibit exports of all kind of logs. Timber exploited from infrastructure projects, hydropower and mining projects, and other development projects must be sold to domestic wood processing factories to be produced for domestic use or export. With respect to wood from plantations, local processing is encouraged, but if this is not possible, then permit approval for exportation is needed. In October 2015, under Notice No. 2156 by the Prime Minister's Office, the government allowed half of all processed wood products to be exported. In May 2016, following the announcement of a new government and new Prime Minister, the government issued Order No. 15/PM to all ministries and provinces making the management and inspection of timber exploitation, timber movement, and timber business stricter, and strictly banning the export of timber from the Lao PDR's natural forests. Timber for export must be processed according to Decision No. 2005/MOIC. The order also bans illegal timber and forestry products from transiting through Lao PDR territory to a third country.

## **6.2. Use of Non-Wood Material**

A survey should be carried out to collect basic information on plants suitable for industrial use as non-wood materials, make a list of materials producible in the Lao PDR, and specify producible materials of those on the list. For example, collaborative industry-government-academia research could be conducted, as well as a development programme for plants that grow in the Lao PDR and are usable as non-wood materials.

Preferential measures can be also introduced to increase the use of not only timber but also non-wood materials, such as bamboo, wisteria, and banana fibres. In addition to the production of bamboo products, such as disposable chopsticks, toothpicks, and skewers, the clarification of preferential measures for the use of non-wood materials and pulp to produce dishes, straws, and other items as alternatives to petroleum-derived disposable products (which have become a problem across the world) is expected to promote investment.

## **6.3. Technological Improvements Concerning Wood Processing**

The Lao PDR is far behind prevailing global technology at all stages of raw wood logging, discharging, rough processing, drying, and processing into products. Those regarded as wood processing experts in the Lao PDR usually process wood using only their own techniques.

Even those trained by foreign companies that have entered the Lao PDR or through aid programmes often return to their own techniques after the period of training ends. This is because they lack basic knowledge with respect to the properties of wood, the purposes of the needed work, and the processes that should be undertaken. To address this situation, a bottom-up approach through educating shop-floor workers, rather than corporate executives and leaders of industry organisations, is necessary.

A model case to learn from is the Dissemination and Demonstration Project Relating to the Promotion of Exports from Lao PDR Utilizing Japanese Wood Processing Technology, a joint project between Takada Seizaisho, a limited liability company in Okawa City, Fukuoka Prefecture, and Legnatec limited liability company in Morodomi Town, Saga Prefecture, with the support of JICA. Under the project, Takada Seizousho will transfer the wood-processing technology that it has fostered over a long period of time, while Legnatec will offer its furniture-making technology. By combining their strengths, the two companies will work to develop human resources in the Lao PDR. The project targets the expansion of sales of 'made in the Lao PDR' wood products acceptable in the world market, including Japan, and is expected to serve as a trailblazer for other companies wishing to do business overseas in the future. It is important to create a foundation for wood processing through technological cooperation with various countries, so that 'made in the Lao PDR' products will be able to meet various needs.

#### **6.4. Promotion of Exports of Processed Wood Products and Innovations**

Since trends, designs, and functionality (among other factors) are affected by conditions in overseas countries, basic processing technologies must be improved when it comes to promoting export industries. A structure capable of coping with requested designs and specifications must therefore be established. To this end, technological cooperation with other countries is necessary (as mentioned above), as is overseas training to teach skills to people directly involved in wood processing.

## **6.5. Market Trends and the Introduction of Designs and Manufacturing Technologies Responsive to Them**

Since market trends and designs are affected by changes in fashion in countries around the world, no country can deal with all potential changes. It is therefore important to improve basic technologies for the sake of dealing with ordered plans and designs. When basic technologies, such as proper means of drying and production methods that acknowledge the properties of wood take hold, processing capable of meeting any kind of order will be possible. To this end (as mentioned above), technological cooperation with other countries and overseas skills training for people directly involved in wood processing are necessary.

## **6.6. Stable Forest Management**

The long-term management of sustainable forests will become possible through the establishment of a stable timber supply system or chain of custody.<sup>1</sup> To this end, the following steps are required: (i) a long-term national policy for forest management; (ii) systematic plans for forestation and logging; (iii) plans for periods of felling in forests subject to principal logging and thinning, areas of trimming, volumes of timber trimming, and trimming methods; (iv) plans for planting periods, planting areas, tree species for planting, and means of planting; (v) matters related to forest preservation; (vi) matters related to the establishment of work facilities, such as a network of pathways; and (vii) matters concerning the development and securement of human resources with regard to wood processing and issues related to equipment and technological improvements at factories and other facilities.

From a long-term perspective, the preparation of such plans enables forest preservation, sustainable timber exports, and the establishment of a stable income base in the agriculture and forestry sector.

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<sup>1</sup> A chain of custody provides traceability certification for production, processing, and distribution processes. The two largest umbrella certification programmes are the Program for the Endorsement of Forest Certification, and the Forest Stewardship Council. This makes it possible to track products at all stages of the supply chain. Certification by certification bodies is an environmentally appropriate and socially beneficial product that supports forest management based on economically viable methods.

## **6.7. Thorough Crackdowns on Illegal Logging**

Illegal logging and illegal exports drive down market prices of timber and upset the fair distribution of income to the state, managers, and workers. In mountainous areas, residents collect vegetables and small animals from the forest resources and supplement their livelihoods by consuming or selling them. In many cases, however, the rights to own and use forests are unclear. The destruction of forest environments by illegal logging without the permission of local villagers has occurred frequently in recent years, adversely affecting the life of local people.

According to a 2015 report by the World Wildlife Fund (Smirnov, 2015), the total value of 'made in the Lao PDR' wood products (tallied from reports from the countries into which they were brought) was several times higher than the value of timber exports, calculated according to data compiled by the Lao PDR customs department. The World Wildlife Fund report also pointed out that crackdowns on illegal logging by the Forest Management Bureau and other concerned Lao government agencies had little effect. Based on the scale of the illegal logging, it must have been conducted by big companies using a large amount of heavy equipment; however, only small-scale violations were exposed. The report added, 'Such large fleets of equipment are usually only assembled to convert forest lands for plantations, roads, transmission lines, reservoirs, mining, or geologic prospecting' (Smirnov, 2015: 1).

There is a clear correlation between deforestation and the drastic increase in Chinese and Vietnamese investments in the development of mines, agriculture, forestry, and hydraulic power generation in the Lao PDR, and the majority of land areas designated for such development projects are located in forest areas (Smirnov, 2015). While legal and properly managed projects cause no problem, the data testify to a large amount of timber exported illegally. Transparent and fair measures to promote the wood processing industry will help stabilise forest preservation and promotion in the Lao PDR in the future.

As shown in Box 3.1, the Lao PDR's current laws regarding forest preservation and wood distribution appear well arranged at a basic level. However, in reality, regulations, crackdowns, and applications of criminal punishment in accordance with the laws are only partly implemented, making it hard to say whether the laws are being strictly implemented in the wood processing sector. Due to the lack of equality in the application of these laws, it is necessary to consider formulating programmes to increase the effectiveness of the

application of the laws under relevant ministries such as the MOIC, MOAF, and Ministry of Finance.

## **7. References**

### **7.1. Company E (Japanese Company Conducting a Technological Cooperation Project Jointly with a Lao Company)**

#### **Present Business Operations**

The first project has been completed. As the smooth transfer of technology has become possible and a certain product policy goal is in sight, the company is moving ahead with the production of Lao-brand furniture, using timber from the Lao PDR. Designs by top Japanese furniture designers have been secured, enabling the company to complete the production of prototypes. Programmes for a future product line-up are underway.

#### **The Advantages of the Lao People's Democratic Republic**

Teakwood is abundant in the Lao PDR thanks to plantations, and the company is considering producing furniture using this wood as the main focus of its manufacturing operations. The stable procurement of resources is possible from a long-term perspective. Although the teakwood in the Lao PDR's neighbouring country of Myanmar is well-known, the company considers the Lao PDR better positioned because teakwood in Myanmar is mainly natural and thus tends to be extremely high in price as well as being unsustainable. Since many of the craftworkers handling wood in the Lao PDR are skilled workers, it seems likely that they will be able to learn the skills necessary to produce products acceptable in developed countries.

#### **Present Bottlenecks**

Although there are no problems with respect to the supply of materials at present, laws and regulations are often changed suddenly, raising serious concerns about long-term business operations. Due to large amounts of empty space created when packing shipments, the cost of transport is extremely high, and this significantly affects the prices of finished furniture. Another extremely worrisome problem is that many of the products produced under the existing laws and regulations do not match market needs.

### **Requests to the Government of the Lao People's Democratic Republic**

As timber and timber products require extremely long-term planting plans and huge investments in equipment, business operations must take a long-term perspective. Thus, the government should minimise changes in laws and regulations from a similarly long-term perspective.

### **Policies and Improvements Required for Future Business Expansion**

As in any other sector, legal compliance and fairness should be respected. Although the logging of natural trees and exports of logs are banned, it is not possible to take advantage of the origin of trees produced in the Lao PDR because natural trees and logs from the Lao PDR are available in countries such as Viet Nam. This hampers efforts to establish the 'made in the Lao PDR' brand and to reinforce competitiveness.

### **Measures Required for the Future Development of the Lao People's Democratic Republic**

Cartels and corruption should be eliminated to create an environment in which any country and company can use high-quality timber from the Lao PDR. The Lao government's control of timber (e.g. logging permits, prices, and taxes) can create a significant sense of security to this end.

## **7.2. Company F (Japanese Company Operating a Wood Processing Plant in the Lao People's Democratic Republic)**

### **Present Business Operations**

The company has been in the business of purchasing logs, processing them into boards, drying them, and processing them into products in the Lao PDR for many years. Recently, it has been producing materials for wooden floors, mainly using teakwood, which it exports to Japan. It is facing extreme difficulty in continuing business because the supply of timber to China and Viet Nam has sent the prices of raw wood soaring while legal revisions have made it difficult to procure timber.

### **The Advantages of the Lao People's Democratic Republic**

Local employees are skilful with their hands and there are no problems with the products they produce. While there are many kinds of rare hardwoods in the world, the use of Lao tree



species (if allowed) will make it possible to process local hardwoods into products with high added values.

### **Present Bottlenecks**

Although teakwood is abundant thanks to planting, the scarcity of well-managed plantations makes it difficult to secure high-yield timber and raw wood with beautiful grains. Moreover, the cost of transport is high, and the acquisition of export and other permits takes more time and money than in other countries.

### **Requests to the Government of the Lao People's Democratic Republic**

The fair enforcement of laws is necessary because companies that comply with timber-related laws and regulations are restricted in terms of competitiveness, compared with those that do not. When new regulations are introduced, advance notice is necessary.

### **Policies and Improvements Required for Future Business Expansion**

The company's plant, which used to continue stable production in compliance with strengthened laws, is now facing extreme management difficulties. Although the legal revisions are considered highly effective from the viewpoint of resource protection, unless illegal exports (in the form of logs and exports of quince and red sandalwood, among other types) are strictly cracked down on, product prices will be directly affected.

### **Measures Required for the Future Development of the Lao People's Democratic Republic**

The Lao PDR needs to unify procedures for price formation and the acquisition of timber, among other things. Although the Lao PDR also needs a market economy, trees are related to the natural environment and disaster prevention, and should thus be managed and cultivated through cooperation between people and the government. In Japan, the government is working out and promoting 30- to 50-year plans for the cultivation and production of forests, and has laws governing the use of forests as short-, medium-, and long-term income sources. The Government of the Lao PDR should develop and manage its forests by incorporating other countries' successful cases.