Hardwood plantations processing industry in Lao PDR

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Extended Abstract

Laos has an emerging forest plantation industry, based on both smallholder and corporate growers. The Lao PDR Forestry Strategy to 2020 envisages a substantial forest plantation estate, with a target of a total of 500 000 hectares of tree plantations. Plantations and planted trees have the capacity to provide significant financial benefits to Lao PDR, and to smallholder growers. The plantation resource could have an annual farm gate value of $197 million at full production and will offer further value through primary and secondary wood processing (Midgley et al 2011). However, there are many challenges, constraints and opportunities which need to be addressed in order to maximise returns to smallholders and support the development of competitive value-added wood industries.

Although the Lao timber industry has grown rapidly over the past three decades, the export value of finished wood products has been very low compared to that of squared logs or basic sawnwood. Research and development is needed in the value-adding wood processing and manufacturing sector to assist in the production of high value wood products such as furniture and flooring.

To meet these research needs the Australian Centre for International Agricultural Research (ACIAR) in conjunction with 14 partner organisations from Lao PDR and Australia are funding a project titled *Enhancing key elements of the value chains for plantation-grown wood in Lao PDR*. It is a four-year project spanning years 2012 to 2016.

The overall aim is to improve livelihoods for farmers and processing workers and the international competitiveness of Lao PDR wood industries through improved efficiency of key elements of the planted wood value chain. Specific objectives are to:

1. address constraints and inefficiencies in the value chain, from harvest to processor stages, that limit returns to smallholder growers;
2. increase returns to processors and smallholders through improved efficiencies of the primary wood processing sector;
3. improve the value and quality of wood products for domestic and export markets;
4. enhance the competitiveness and capacity of wood processing industries.

In the early stages of this project, the current primary wood processing practices and efficiencies in Lao companies have been identified and characterised through a series of onsite surveys. The outcome of this study provides a broad assessment of opportunities to improve current primary wood processing practices and efficiencies in order to optimise the research direction required for subsequent activities.

A number of companies were selected from the Vientiane and LuangPrabang areas of Lao to evaluate current capacity via a benchmarking survey of representative primary processing facilities and strength, weaknesses, oportunities and threats (SWOT) analysis to identify key areas of improvement and optimisation. Selection criteria for companies were developed and selected so a

good overview of the sawmilling and furniture manufacturing industry in the country could be established. The selected companies specialise in green sawmilling hardwood plantation material, solid wood processing, the production of furniture or a combination of these. A total of 13 companies were selected.

The assessment was based on survey questionaires which identified and listed important data and information to be collected. The questionaire covers the following topics: company profile, infrastructure, log and species data, processing and manufacturing systems, workplace health and safety, expertise and training, grading, storage and SWOT analysis. Data was collated and recommendations of possible improvements, modifications and changes were provided to each company.

Companies vary in size from small to large depending on the size of the workforce. Most companies operate for 8 hours per day and 28 days per month. Some companies are in partnership with overseas companies who also provide export markets.

All of the assessed companies are using plantation species of various ages, different dimensions and wood quality. The predominent species is teak (*Tectona grandis*) followed by a number of other exotic and native plantation species.

The majority of companies purchase timber as squared flitches from various locations. Some sawmills grade logs/flitches for price based on size but not quality.

Generally, most sawmills have some production inefficiencies which can be easily rectified by training, machine maintenance, optimised processing and production layout. Most sawmills are using equipment that is not new but usable.

The majority of companies have drying facilites but most are old designs with little control over drying conditions. Better drying regimes are required to optimise dried quality and to meet expectations of export markets.

Most manufacturing sites require better knowledge and training in the best aplication and types of glues and finishes to meet the desired needs of current and future markets.

Ocupational health and safety in most factories could be improved easily using signage, better waste management, improved use of personal protective equipment and safety systems.

The assessed companies provided valuable comments on thier current problems and most urgent issues. The majority of concerns involve: more financial support from Governement to improve infrastructure, in-house training in the areas of production mangement, machinery utilisation, product quality and marketing, and support for export market development and product design.

The companies stated that technical advice would be beneficial in the areas of kiln drying, machinery use and maintenance, production flow, product quality, marketing and design.

The outcomes of this survey have allowed the project team to target priority areas to improve the process and manufacturing effeciencies in the companies surveyed and similar companies throughout Laos. The next phase of this project objective is to assist companies to make the recommended changes to improve their productivity and quality to add value to their products. By improving the competitiveness of hardwood plantation processors and manufacturers in Laos through improved efficiency and profitability should improve the livelihhods of farmers and processing worker.

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References

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