PLANTATION FORESTRY

Hardwood plantation industry needs new model to drive future

By Jon Lambert

AUSTRALIA'S HARDWOOD timber requirements are derived from three main sources. Historically, the majority of our solid wood products have been sawn from native forest resources however, in recent years, these needs have increasingly been topped up by imported hardwood (particularly from countries in Asia and the Pacific region) as conservation of public forests increases. Australia also has approximately 1 million hectares of hardwood plantations - that were established at a rapid rate over approximately 15 years - that are primarily supplying chips to domestic and export markets.

As our Governments come under increasing pressure to minimise commercial forestry from public resources, our country faces a dilemma about how we will supply our future hardwood for the solid wood products market. With inevitable growth in carbon markets and population increases, Australia's hardwood needs are only set to increase.

Research points to the fact that pulpwood plantations are unlikely to provide significant resources for solid wood markets, given the absence of thinning and pruning. In addition, pulpwood plantation managers have made species choices on the basis of pulp yield and growth rates rather than desirable solid wood traits such as strength, durability and appearance features. Therefore, our industry really has only three options; (1) we can continue to import hardwood timber to make up the deficit; (2) we can increase the amount of public forests we cut; or (3) we can develop a viable hardwood sawlog plantation industry.

The first option is not a long-term solution given that Australia already has a wood products trade deficit of more than $2 billion and pressure continues to mount on the Federal Government over imports of hardwood timber from Asian and Pacific nations with poor forestry practices and questionable chain of custody.

The second option is also unlikely to occur given Australia's direction in the last 10-15 years to vastly reduce commercial activities in public forests.

The final option - to develop a viable hardwood sawlog plantation industry - is the most likely scenario. However, important questions remain unanswered as to what format it should take and how can it be developed to succeed in what is now an extremely fragile industry?

Historically, Australia has opted for large industrial formats for our plantation forestry. Both our softwood and short-rotation hardwood pulpwood industries are testament to this. This format is highly cost-effective because of the economy of scale. In addition, it enables large areas to be developed in a relatively short space of time. The industrial model also enables easier coordination of wood flow. This occurs because the management decisions for thousands of hectares can be made by one organisation.

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In contrast, many European countries source their timber from a vast number of very small private forest lots (often only a few hectares). In countries like Finland and Sweden, this has led to a very different forest industry to Australia. As a result, most of the forestry in these countries is defined by high efficiency and advanced technology. This has been driven by a need to maximise yields and reduce the high costs associated with having so many forest owners. It is not uncommon for forest managers in these countries to coordinate several harvesting operations in a day. They will also negotiate with hundreds of landowners to achieve sawn timber volumes that could otherwise be achieved under an industrial model in a single clearfall. Notwithstanding, there are some significant advantages to having so many forest owners. The most important being that these countries do not have the polarized political battles that have dragged down the Australian forest industry for so long. The reason is simple. A large percentage of people in the community own and therefore, participate in and understand forestry.

Attempts have been made in Australia to create smaller private forestry resources across a broader ownership base. This format is known as "farm forestry". Broadly defined, it is the integration of forestry with agriculture to achieve a dual objective of conservation and profit. Although farm forestry has many forms and has been encouraged by a range of Government schemes and incentives over more than 25 years, it has failed to make any significant contribution towards Australia's timber needs. Like the notorious Managed Investment Schemes (MIS), many of the farm forestry initiatives undertaken by Governments have failed in the long run because they attempted to create new resources by providing up front financial incentives (usually in the form of grants) to encourage participation.

A forestry model that attempts to find the middle ground is the grower-based format being used by Heartwood Plantation (HP) in Victoria. In this format, the rural landowners have a stake in the industry. They maintain ownership of the land and participate in the forestry investment (either funding it entirely or via a joint venture). HP has been facilitating this format since 1996 and now manages over 1,500 hectares of hardwood sawlog plantations in Victoria. The average size of these plantations is 15-20 hectares and up to three species are grown in each plantation depending on the site characteristics. It is important to note that this model does not have the speed of expansion of industrial models and it requires time to seek and educate new investors about the benefits of forestry. The result is a gradual build up of resources grown for a specific market (in this case durable hardwood predominantly for outdoor feature markets), where timber demand is the primary driver of the investment. Other drivers, such as conservation and aesthetics, are also more prominent because landowners are making some of the decisions about what species to grow (within a small range) and how to design the plantations on their properties. Unlike farm forestry however, the management of these plantations is guided by professional foresters to ensure the right species are established and the highest quality timber is achieved. From a catchment perspective the HP format has advantages over the industrial model. Key challenges such as salinity, biodiversity, improved agricultural productivity and water quality, all benefit far more from, for example,10 well-placed 20-hectare HP plantations across the catchment compared to a single 200-hectare industrial plantation. In addition, the land ownership is retained and therefore socially, there are less dramatic changes occurring in the rural areas.

Whether the HP forestry model could be replicated and expanded in other regions to gradually build a robust hardwood sawlog sector of the forest industry will be known in the coming years as the first plantations reach maturity and are harvested, processed and used for their purpose.

Perhaps the more important question for the immediate future however, is how to return confidence to an industry that has been shattered by so many company collapses and the bitter debates over native forest utilization.

A return to an honest forestry format that is demand driven and directly involving a greater proportion of the community will be a good start. Although it will take more time to develop and a greater investment in education, the result will be worthwhile if it stands the test of time and financially rewards those who participate.

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