

1. TIMBER MARKETING IN A REVITALISED NORTH QUEENSLAND FOREST INDUSTRY: OVERVIEW OF MAJOR ISSUES

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As the harvest of timber from native forests has contracted in north Queensland, the traditional supply chain from forest to final consumer has to a large extent broken down. As a result, landholders and non-farmer investors cannot assume that timber markets will automatically exist when they have trees ready for harvest. A wide variety of research has been carried out which is relevant to timber marketing in north Queensland. Surveys of timber millers, cabinet-makers and their staff, and purchasers of timber products, as well as financial modeling of timber milling, have been used to derive information about timber markets in north Queensland. Research has been undertaken on supply chain and market analysis, attitudes of timber processors and final consumers, institutional arrangements for market facilitation, and market development.

INTRODUCTION

North Queensland has a long history of timber harvesting and marketing, originally based on exploitation of the large red cedar resource, as reflected for example in *Red Gold: The Tree that Built a Nation* (Vader 2002). A regulated industry evolved for rainforest cabinetwoods with the creation of a Forestry Department at the turn of the 20th century. This involved a well-functioning supply chain with timber sent to regional and southern markets. Particularly in the 1980s, the allowable cut was progressively reduced, and the industry contracted (e.g. see Lamb *et al.* 2001, Harrison *et al.* 2003). World Heritage listing of the Wet Tropics rainforests in 1988 brought about a sudden cessation of timber extraction from most of the tropical rainforest area. After inscription of the Wet Tropics of Queensland World Heritage Area (WTWHA), a relatively high rate of harvesting from private native forests continued for a time, in part associated with sugar industry expansion. Plantations of exotic pine and some native conifers grown by the Department of Primary Industries – Forestry (DPI Forestry) have allowed some timber milling to continue in north Queensland, the main commercial operation being Ravenshoe Timbers Pty Ltd. In spite of this activity, forestry in the north has been an example of what economists call a *declining industry*, with low harvest volumes leading to collapse of the traditional supply chain.

Since the World Heritage listing, there has been much interest in revival of the north Queensland timber industry, and various reforestation programs have been initiated, including the Community Reforestation Program (CRRP), the DPI Plantation Joint Venture Scheme, and Trees for the Atherton and Evelyn Tableland (TREAT). These programs, and efforts by the regional plantation committee - Private Forestry North Queensland (PFNQ) - and the North Queensland Timber Co-operative (NQTC) have been aimed at expanding the timber industry.

For some time it has been the ambition of researchers in the socio-economic program of the Rainforest Cooperative Research Centre to bring together a collection of papers summarizing current knowledge of timber marketing in north Queensland. To facilitate this, a workshop on timber marketing was held in Brisbane in June 2003. In this report arising from the workshop, reasons for an interest in timber marketing in north Queensland are first

reviewed. Various areas in which research relevant to timber marketing have been carried out are identified. Also, some comments are made about future market research directions.

SOME REASONS FOR AN INTEREST IN TIMBER MARKETS IN THE NORTH

Markets for products are difficult to predict and seldom assured. A manufacturer planning a new product would carry out market research. However, even with the best market intelligence, there can be no guarantees of a viable market. Consumer tastes and spending patterns change, prices and supplies of existing substitute products may change, and new and innovative products may come onto the market. The uncertainty about future markets is especially high for new products with long production lead times. Future markets for rainforest cabinet timbers and other high-quality timber species currently being considered in north Queensland are a case in point. Predicting what markets may exist 20 to 50 years into the future for trees currently being planted is no simple task. This is especially so for 'new' or 'lesser known' species for which there are thin or non-existent established markets.

For small players, such as farm foresters, there are many elements which affect their ability to access markets and over which they can have direct control, e.g. the species they plant, the way in which they manage the plantings and the timing and nature of harvest operations. All of these factors are likely to influence their access to markets. However, a critical component of being able to develop or access markets is having sufficient resource within a region to make it worthwhile for processors to establish operations and sell products domestically or, alternatively, to access international markets. Access to either market requires sufficient regional timber turnoff to be able to guarantee continuity of supply. This is something over which individual small-scale foresters have little control, especially at the establishment stages of a new timber industry within a region.

One approach in dealing with the uncertainty about future markets is to accept the belief that a market will be available. This optimism can be supported from the experiences in New Zealand a decade ago when markets and processing facilities developed for radiata pine once the resource matured (Capill 2000). This is not to suggest that simply planting trees will automatically result in a future market developing. The degree of marketing success will be greatly influenced by effective strategic planning, including the identification of 'best bet' species and markets, identifying the best locations for the resource to be established, from both site-species matching and locational efficiency perspectives, and the staggering of planting to facilitate continuity of supply to customers.

An alternative to the 'optimistic' view that markets will develop is that landholders planting tropical hardwoods in north Queensland at present to produce timber for sale 40 years into the future are investing with the blind and misguided faith that markets will develop. In south-east Queensland, the hoop pine resource appears to have created its own market. However, hoop pine is a well recognized and high-quality timber species, large volumes are available from government plantations, and there is a large market close to the plantation and processing sites. North Queensland is at a competitive disadvantage because the final consumer markets are in more heavily populated urban areas 2000 km or more to the south, and in the case of rainforest cabinet timbers, relatively low volumes of each species will be forthcoming. Further, large areas have been planted to conifers and even hardwoods (particularly Australian eucalypts and acacias) around the world, so pricing is likely to remain competitive.

It is in the small-scale hardwood market where supply may not create its own demand, unless the overall supply is sufficiently large, high in quality, and regular in supply (which will be difficult to organize with many small producers). Otherwise, cabinet makers will import tropical hardwood timber, or use conifers and composite wood products. Another forestry

option attracting private sector investment in tropical forestry is the planting of internationally recognized species (sandalwood, teak and African mahogany) in the 'dry tropics' where land parcels are large, but the financial viability of these investments is yet to be determined.

The more cautious of these views raises questions of how important it is to have a workshop to discuss timber marketing methods and prospects in north Queensland. Is this really an important topic? The following reasons are advanced to answer in the affirmative and justify the need for such a workshop.

Some product is available now. There have been various earlier planting programs in north Queensland, and a resource of farm-grown and DPI plantation caribbean pine (*Pinus caribaea*) and hoop pine or araucaria (*Araucaria cunninghamii*) exists. For the former, sale has been difficult and prices are probably about equal to production cost. For the latter, there is stronger demand, but again a low stumpage price has been accepted, in an effort to stimulate timber processing. There is also a supply of timber from native forests, including regrowth acacia as a pioneer species on previously cleared land.

Market information is demanded by investors. Venture capital providers and non-farmer investors in general are unlikely to invest in timber production without a thorough analysis of market prospects. In fact, launching a prospectus without a thorough market analysis could lead to prosecution. Investors in large and small-scale forestry will want to know whether the venture is likely to be profitable, and what level of risk is associated with it. In some cases, they will aim for a target or satisficing level of profitability. This appears to be the case of venture capital providers and probably also for ethical investors (Sharp 2002).

Information needs of government for promoting forestry development. Some rural areas in north Queensland including parts of the Atherton Tableland are economically depressed, and there is interest by government (at national, state and local level) in stimulating industry development. A substantial area of land where forestry may be the highest and best use has been identified, and information is needed on the financial viability of new softwood and hardwood plantings. The investigation of market prospects is an important part of any such financial evaluations.

An understanding of markets is needed for planning an orderly re-emergence of the industry and supply chain. If planting accelerates, and there are believers who are confident it will, consideration is needed about overall supply chain, not just the final product market.

Knowing what the competition is. An understanding of alternative sources of timber is critical when deciding whether to invest in timber, or choosing species and quality control measures. An increase in demand can be expected for tropical hardwood species as supplies are depleted in developing countries.

Picking the best-bet species to grow. Obviously, if timber is difficult to sell then having species preferred by the market will be a big advantage. This becomes a particular issue given the large number of high-value cabinet timber species which can be grown on farms in north Queensland, and the problems which can arise in processing and marketing a number of dissimilar timber types, some with little market recognition.

Potential to develop markets for small quantities of specialty timbers. Some timbers fit in niche markets, and viable processing can exist for even small quantities, provided that the timber is of high quality. Examples are timbers for musical instruments, supplies for wood turners, and cabinetwoods for small furniture manufacturers. It is to be noted, however, that sales for these products are often occasional and *ad hoc*, rather than through continuing supply chain relationships.

Deciding on silvicultural regimes. If future timber salability is determined by timber quality, then this needs to be factored into the program of weed control, pruning, thinning, and so on. Silvicultural treatments such as thinning operations can be costly and the smaller sized trees removed are often difficult to market (Lamb and Keenan 2001).

Market information is needed to make decisions involving environmental and economic trade-offs. Decisions must be made concerning choice between native and exotic species, particularly exotics which have international market recognition versus native cabinetwoods which have local and to a lesser extent national recognition. To some extent, choice of species will depend on the land type – e.g. native hardwoods (and hoop pine) require favourable sites such as on the southern Atherton Tableland while exotics can be grown on drier and less fertile sites – but choices have to be made in priorities when taxpayer support is contemplated.

RESEARCH AREAS IN TIMBER MARKETING IN NORTH QUEENSLAND

A variety of themes may be examined with respect to timber marketing in tropical north Queensland. For convenience, these may be divided into: supply chain and market analysis; market facilitation; market surveys; timber marketing experiences from other regions; and future prospects. Each will be briefly introduced, and examined in more detail in later chapters.

Supply Chain and Market Analysis

The supply chain concept provides a useful framework for examining the flows of products and resources including finance in the timber industry. Economic theory of markets and market power is also highly relevant to the industry, where there are often few market players. Government (i.e. DPI Forestry) through setting of stumpage prices has considerable impact on the market. Introduction of new sawmilling technology, including portable sawmills and innovative fixed site mills such as using radial sawing techniques, has potential to assist in reducing milling costs and allowing small-producers to process their own timber. These aspects are discussed in the first section of the report.

Market Facilitation

Scope exists for government and industry to undertake actions to facilitate timber marketing. PFNQ as an industry cluster has a role to play in promoting and assisting timber marketing. Also, as indicated by experience in other regions and other countries, a strong grower organization can assist growers in marketing their timber, and the NQTC potentially has an important role in this regard. Role clarification between PFNQ and NQTC in the marketing area is required. Of course, it is desirable for foresters to plant species which have sound future market prospects, and in this context some judgments can be made at present of what species are likely to be in demand in the future.

Market Surveys

Specific marketing requirements arise from the utilization of native species with long rotations and very high timber quality but limited market recognition outside of Australia and in some cases domestically as well. Such 'lesser known species' from north Queensland include rainforest cabinet timbers and eucalypt hardwoods, including eucalypts from Cape York. Successful marketing relies on sound information. Often the only way to obtain information about timber markets is to carry out surveys of people in the timber supply chain, whether by probability sampling or by contacting key informants. Market surveys have been undertaken which shed light on attitudes to these species by firms in the timber industry and also by purchasers of timber products. The Australian National University produces timber market reports, and has addressed marketing issues in tropical north Queensland. A comprehensive tropical forestry market analysis is, however, yet to be carried out.

Timber Marketing Experiences from Other Regions

Some of the issues which are faced in north Queensland also arise in south-east Queensland, northern New South Wales and Tasmania, where some of the same native rainforest and eucalypt species are grown. Studies in south-east Queensland provide further insights into opportunities and constraints in relation to marketing in the north.

Future Prospects

Given limits to the ability to obtain information from stakeholders, some further investigation of markets, application of marketing theory, and in general lateral thinking may help to shed light on future timber marketing prospects. A critical test of marketing capabilities is whether it is possible to export timber or timber products. The prospects for commercialization of ecosystems services in the future offers promise for increasing profitability of tree farming. A vision is required of where we would like the industry to be placed in the future, and what steps might be taken to move in this direction.

SOME IMPORTANT QUESTIONS TO BE ADDRESSED

A number of questions may be put forward which a workshop on timber marketing can address. While different people would come up with different lists, the following are some of the questions which were considered important for workshop deliberations:

What supply is currently and potentially available from north Queensland timber markets, by product type? (In other words, a woodflow assessment is needed).

What markets (categorized by type, volume over time, location and price) are currently available for timber products from north Queensland, and what new markets could be developed?

What is the potential for entry into new or niche timber markets, or new timber product development?

How can the outstanding properties of rainforest cabinet timbers be promoted? Will similar properties be achieved in plantation grown timber as opposed to native forest?

Will log markets develop if the resource becomes available?

Should production be aimed at value-adding, niche markets, mainstream domestic timber resources or export markets?

Will production of fibreboard, export of logs, export of woodchip and use of biofuel for electricity generation be possible?

Would it be desirable to concentrate on growing species which have international market recognition?

How important are economies of scale or size in timber milling, and what volumes would be required to make various forms of processing financially viable?

How can returns to growers be increased? For example, how can growers capture more of the 'resource rent'?

How can costs at various stages of the supply chain be reduced?

What is the potential role of certification systems in timber marketing?

What are the costs and markups at the various points in the supply chain?

To what extent do environmental issues affect market prospects?

What timber products or markets cannot be developed due to adverse community opinion or government imposed sanctions?

What are the prospects for viable markets being developed for credits for ecosystem services of forestry?

FURTHER DIRECTIONS OF TIMBER MARKET RESEARCH

Some speculation might be made about future directions of market research for the north Queensland timber industry. The above list of questions provides some issues which are candidates for further research. It may be that research will focus on the institutional arrangements to redevelop the north Queensland timber industry. This research will of necessity pay attention to timber marketing issues. Important amongst these issues is the choice of species to grow. It is a debatable point whether a timber resource will create its own markets, or whether the industry must be developed with close attention to the market prospects relating to tree species and type, and associated silvicultural systems.

While there will no doubt be continued interest in growing small plantations of rainforest cabinetwoods, current market realities are likely to favour larger stands of a small number of the more widely recognized and traded timber species. This suggests the need for research into threshold volumes and economies of scale in timber processing. It might be speculated that other areas of interest will be the potential for marketing ecosystem services, and supply chain issues and locational efficiency of plantations and processing facilities.

While the timber resource in north Queensland is small, there are convincing reasons for investigating timber marketing issues, particularly in relation to any initiatives to revitalise the industry. The papers presented in this monograph summarise research and provide views on a variety of aspects of market opportunities and constraints.

REFERENCES

Capill, L.G. (2000), 'Farm Forestry Success in New Zealand', in S.R. Harrison, J.L. Herbohn and K.F. Herbohn, eds., *Sustainable Small-scale Forestry: Socio-Economic Analysis and Policy*, Edward Elgar, Cheltenham, pp.123-137.

Harrison, R., Wardell-Johnson, G. and McAlpine, C. (2003), 'Rainforest Reforestation and Biodiversity Benefits: A Case Study from the Australian Wet Tropics', *Annals of Tropical Research*, 25(2): 67-77.

Lamb, D. and Keenan, R.J. (2001), 'Silvicultural Research Development of New Plantation Systems Using Rainforest Tree Species', in S.R. Harrison and J.L. Herbohn, eds., *Sustainable Farm Forestry in the Tropics: Social and Economic Analysis and Policy*, Edward Elgar, Cheltenham, pp. 21-34.

Lamb, D., Keenan, R.J. and Gould, K. (2001), 'Historical Background to Plantation Development in the Tropics: A North Queensland Case Study', in S.R. Harrison and J.L. Herbohn, eds., *Sustainable Farm Forestry in the Tropics: Social and Economic Analysis and Policy*, Edward Elgar, Cheltenham, pp. 9-20.

Sharp, B.W. (2002), *Venture Capital Raising for Small-scale Forestry in the Queensland Wet Tropics: A Strategic Alliance View*, B.Econ. Honours Thesis, School of Economics, The University of Queensland, Brisbane.

Vader, J. (2002), *Red Gold: The Tree that Built a Nation*, North Holland, Sydney.

