THE AUSTRALIAN FORESTRY AND FOREST PRODUCTS INDUSTRY - POTENTIAL, CONSTRAINTS AND FUTURE

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1. Introduction

Australian forests, and the industry based on them, since European settlement, have made a major contribution to economic development of the nation. But the forest products industry is at a critical stage. Australia can continue to increase its dependence on the importation of forest products such as paper, pulp and eucalyptus oil derived from eucalyptus plantations grown overseas. Alternatively, Australia's forests and Australia's forest products industry could meet all the demands of the nation for forest products, provide a major source of export earnings, while at the same time making a major contribution to reversing environmental degradation.

Australian forestry and the Australian forest products industry have been subjected to a plethora of Government and non Government reviews over many years. For example - FORWOOD 1974, Bureau of Agricultural Economics 1977, Forest Products Industries Advisory Council 1980, Commonwealth Senate Standing Committee on Trade and Commerce 1981, Australian Forest Development Institute 1985, FAFPIC (Forestry and Forest Products Industry Council) 1985, 1987, House of Representatives Committee on Environment and Conservation 1987, Australian Conservation Foundation 1987, 1988, and Centre for International Economics 1988.

It is difficult, given the many reviews that have taken place, to avoid repeating the conclusions and areas of dispute, since over the period of these reviews little appears to have changed. In this paper while it has been necessary to recapitulate some of the significant points made previously about forestry and the forest products industry, I have attempted, however, to focus on the reasons why the potential of the industry is not being realised and suggest how the problems can be overcome.

2. Current Status

- Australia has 35.3 million ha of native forests, of which 25.6 million are publicly owned. The public forests include 5 million ha of parks where wood production is specifically excluded; 7.6 million ha of vacant or leased land and 5.8 million ha where wood harvesting is restricted due to non statutory constraints imposed by forest management authorities or due to inaccessibility.

- The residual 7.3 million ha is managed for wood production on a long-term, sustained yield basis. However, the uncertain status of substantial areas of forest in Queensland and Tasmania is symptomatic of the current parlous state of the national inventory. Uncertainties about the area available for wood production prevent any reliable estimate of the total sustainable production of the public forests.

- There are 930,000 ha of tree plantations in Australia, of which 280,000 ha are privately owned. About 95% of these plantations are softwoods. Plantation establishment commenced at the end of the last century. The current rate of establishment is approximately 23,000 ha and 15,000 ha carried out by the public and private sector respectively.

- 17 million cubic metres of logs were harvested in Australia in 1986/87. About 11 million cubic metres of the logs produced were hardwoods, 40% of which were used for sawn timber production. Softwood sawlog production was approximately 3.3 million cubic metres. It is estimated that by the year 2010 the total sawlog production will be 12.1 million cubic hectares of which 70% will be softwoods.

- Australia has over 4,400 wood based manufacturing establishments employing more than 90,000 persons and generating a value added exceeding $3,000 million.

- The forest products industry contributes over 1% of Gross Domestic Product. The industry provides export income exceeding $425 million (1986/87). In 1986/87 imports of forest products exceeded $1600 million, accounting for over 4.4% of total Australian imports and giving rise to a forest products deficit of over $1,200 million. Imports are mainly pulp and paper products.

- Despite the size of the native forest and plantation resource base, and the existing contribution of the forest products industry to the economy, there are significant problems in the industry, in particular the hardwood sector as evidenced by the inability of the industry to provide even Australia's net forest products needs. Specifically -

- The rate of plantation establishment of both softwoods and hardwoods is currently not sufficient to provide sufficient resource to meet Australian sawlog demand let alone provide a significant resource for export. This situation will be exacerbated if the rate of withdrawal of native forest from timber production use increases.

- While there are significant investments in new plant and equipment in the softwood sector and in some areas in the hardwood sector, in general the hardwood sawmilling sector suffers from lack of investment in new plant and equipment. Consequently, utilisation rates are lower than they should be and in many areas of the hardwood sawmilling sector value adding is non existent.

- There are various proposals for significant investments in major pulp and paper mills, but currently these are stalled.

- As a consequence of the lack of investment in forest product manufacturing, log prices for hardwood in some States may not reflect efficient production costs.

- While there are exceptions, the hardwood sector is characterised by low investment in research technology and training.

3. The Potential For Expansion Of Australian Forestry and its Forest Products Based Industry

A number of factors combine in Australia to provide the opportunity for a significant expansion of the forest resource base and the forest product industry -

- While much of Australia is arid and not conducive to tree growth, there are significant areas

which have climatic and soil conditions which can produce wood fibre at rates equal to, or greater than, most other regions of the world.

- There is a significant area of existing native forest which has the capacity to produce a range of products on an indefinitely sustained basis. This resource has the potential to provide the base for investment in both the establishment of new forests and an expanding forest products industry.

- There is a significant existing and expanding market (provided Australia is cost competitive) for wood fibre and wood products internally and internationally. The most recent and authoritative analysis of the internal demand and supply scenario for forest products in Australia (ABARE 1989) indicates that there will be a significant deficit in the capacity of Australia to supply sufficient sawn timber to meet its requirements. A number of bodies have indicated that the significant importation of paper and pulp could be replaced by Australian mills (eg FAFPIC 1987).

There will be continuing and increasing world demand for high quality wood fibre. For example, Groome 1989, estimated that by 1997 there will be a deficit in the capacity to meet Japan's demand for hardwood fibre of 5.5 million tonnes per year. The demand for high quality wood fibre in other Pacific Rim Asian countries is increasing at a greater rate than Japan.

The availability of ornamental wood from traditional sources in the tropics and sub-tropics is declining because of the removal of forests primarily for agriculture. Consequently, there is also a significant potential market for ornamental high quality wood products (furniture, veneers, laminates, panel products) derived from Australian hardwood species.

- A number of reviews have concluded that Australia could be cost competitive both in terms of tree growing and processing of forest products. Given the large transport cost for imports of forest products into Australia, it is unlikely, provided that processing centres have even moderate efficiencies, that Australian producers could not compete in the internal market. With respect to export of wood fibre or pulp, Australia has a significant transport cost advantage relative to likely competitors because of its proximity to Pacific rim countries where the major demand for these products is located.

- There has been significant community dissent surrounding the utilisation of native forest for timber production in Australia. However, relative to other potential tree growing areas in the world the Australian political environment is essentially stable. Long term stability is an essential prerequisite before investment will occur in tree plantations.

4. Major Constraints

The constraints which prevent the expansion of the forests and the industry - cost competitiveness, new plant and equipment, research, poor marketing, low value adding, dependence on single product lines - exist because of the lack of investment. The major factor preventing reinvestment and new investment in the forest products industry is a lack of secure resource of raw materials. No private or public company can be expected to invest in new plant and equipment, research and development, and marketing, if there is a potential that there will be no raw material to process one year after investment.

The inability to provide a secure resource of raw materials to the industry is in turn a consequence of the inability of the community via its politicians to agree on the appropriate balance between

timber production and non timber production areas. Lack of security and consequent lack of processing investment also inhibits investment in plantation forestry for sawlog production (which has been proposed as an alternate way of achieving a secure resource for the industry) because while forest processing is inefficient and does not produce a variety of value added products, the price for logs will remain too low to attract investment in new plantations.

The proposal to establish significant areas of plantations to phase out use of native forest over 30 years is not a realistic alternative. Apart from unanswered questions about commercial viability and other factors, it would not be feasible to replace the existing sawlog supply from native forests over 30 years. A phasing out of the industry from native forests over the period would only compound the difficulties of obtaining investment in new plant and equipment. At the end of the period, even if a plantation resource were available to utilise, the industry might have to call on the assistance of Lazarus because trained personnel, plant and equipment, and markets, could be non existent. It is possible that plantations could provide the basis for a significant expansion of the forest resource base in the longer term. But this needs to be done in conjunction with continued usage of the native forests for reasons connected with maintaining sawlog supplies, income generation, economies of scale, plant investment, personnel training and other factors.

5. Approaches to Removing the Constraints

By any standard, Australian forestry and its associated industry, has been well reviewed and investigated. These reviews and investigations, although differing at the margins have correctly identified the major problems, suggested approaches to resolving them and even proposed strategies. In 1985, in Western Australia, the forests and the timber industry were comprehensively reviewed and Forest Management Plans and a Timber Strategy were produced (Department of Conservation and Land Management 1987a,b,c). For obvious reasons I am reluctant to use Western Australia as an example of how the problems confronting forest growers and the forest products industry can be overcome. But the Western Australian plans and strategy differ from most of the documents cited above in that they have been acted upon.

The major elements of the Western Australian Strategy are -

- The production of publicly available detailed plans and a strategy. Much of the debate and dissent over the Australian forest and the industry has been counter-productive because there has been no framework to provide a basis for resolution of conflict and, in the case of industry, to enable long-term investment to occur. The production of the Forest Management Plans in Western Australia involved a comprehensive public participation extending over 12 months.

- A principal objective of the Forest Management Plans was to achieve a publicly acceptable allocation of use to different areas of forest and to ensure that, once determined, both the tenure and purpose of the forest areas was given the maximum security. While previous Forest Management Plans had involved the setting aside of areas which were excluded from logging, there was little public input into the process and none of the areas had been given statutory security.

- In addition to providing legislative security, the Plans and the Strategy proposed that wood resource flow to industry would be secured by legally binding long-term (5-15 years) contracts.

- The Strategy proposed that the pricing of logs should at least reflect the cost of efficient

production and that pricing differentials between different grades of logs should be structured to ensure maximum utilisation.

- The Plans and the Strategy committed the grower (Department of Conservation and Land Management) to sustained yield, multiple use of forest areas where timber production could occur and regeneration of every hectare of forest logged.

- The Timber Strategy proposed a variety of measures (research and development, pricing policy, marketing, resource allocation, etc) to maximise the production of value added products.

- Equity in the allocation of resource was to be achieved by providing a proportion of resource to existing industry users on long-term contracts regardless of the size of the user, and to allocate the remainder of the resource via tenders and auctions.

- It was proposed to expand the existing forest resource base by developing techniques to establish hardwood and softwood plantations on cleared agricultural land.

The results -

- Over 30% of the forest, including representatives of all significant forest ecosystems, have been excluded from timber production and are progressively being secured by legislation as national parks or conservation reserves. This represents a 300% increase in the conservation estate in the forest. Two hundred and seventeen legally binding long term timber supply and logging contracts have been signed. The remainder of the forest is managed to maximise all forest values - recreation, conservation, water and timber production.

- Since the completion of the Plans and the Strategy, investments totalling $200 million in forest product processing plant and equipment is occurring or is being proposed. This includes a medium density fibre-board plant, three new major softwood sawmills, the investment of $100 million in upgrading and extension of hardwood sawmills, including the provision of major new high technology seasoning facilities. Over the next decade, logging contracts will earn $400 million and total revenue earned by the Department of Conservation and Land Management from log sales to processing centres will exceed $850 million.

- Royalties for logs have been increased so that they reflect the cost of efficient production of both hardwood and softwood logs. In some cases, royalty increases have exceeded 300%. The pricing structure of different grades of logs have been changed to ensure that the differential between different grades reflects the net value of the product derived. For example, the differential between first and third grade karri logs has been increased from $3.00 to $20.00 per cubic metre.

- Utilisation rates of individual logs have increased, but more significantly logs previously considered unsuitable for sawmilling are now being processed. For example, it is anticipated that within 12 months marri (Eucalyptus calophylla) which previously was only used in limited quantities for sawn timber production will contribute an additional 40,000 cubic metres of sawn timber to the Western Australian market. Value added production has also increased significantly. For example, recent investment in processing equipment by one major sawmiller will result in a 100% increase in production of dry sawn graded jarrah (Eucalyptus marginata) in the near future.

- More than $4 million of investment has been made into the development of new technologies to

improve the utilisation rates and the production of value added products. For example, a new process ''Valwood'' has been developed which permits the production of high quality furniture grade timber from young eucalypt logs (Bailey, 1989).

- There has been a major expansion of new plantations onto cleared agricultural land. A ''sharefarming scheme'' was developed which involves joint ventures between the grower and farmers. Under this scheme, farmers are paid an annuity and a percentage of the return from the final crop in return for the use of his land. In addition to providing a return for the use of the land, the farmer derives considerable on-farm benefits, such as reductions in soil erosion and shelter for crops and stock, by the integration of tree planting into the farm. Significant grazing potential also is available to the farmer during the early stages of development of the plantations. In addition to the economic benefits of the project to the community (it is estimated that a 100,000 ha of hardwood plantations could earn about $200 million annually of export income) the regional environmental benefits are also significant. Broad scale tree planting will cause major reductions in water tables, thus reducing salination and eutrophication (Shea et al 1988).

To date, eighty sharefarming agreements have been signed with farmers involving the establishment of 9,000 ha of plantations on farms. It is estimated that a further 8,000 ha of plantations will be established on cleared agricultural land in 1990.

A commercial company (Tree Fund Ltd) is being formed to provide an investment vehicle for the tree plantation project.

6. Conclusions

Forests and the forest based industry make a significant contribution to the Australian economy, but despite the fact that Australia has a number of factors which provide it with a comparative advantage for wood production and processing, the nation cannot produce sufficient wood to meet its own needs.

The factors which prevent Australia from becoming a major net exporter of wood fibre and forest products are numerous, but individually they are not insurmountable. The problems appear complex and insoluble only because they are inter-related. Consequently, a prerequisite for removing one obstacle is the prior resolution of another which itself depends on the removal of the first obstacle. The Western Australian experience suggests that the key in the ''log jam'' is the provision of security of areas set aside for conservation and security of the wood resource. Once security is provided, investment will follow. Ironically, the subsequent benefits which will flow - greater returns for forest managers, and more favourable environment for investment in plantations and improved forest management, better utilisation, more value added product, etc - will provide the opportunity for forest management agencies to achieve most of the requirements of the environmental movement without loss of economic development in the industry.

If security is the ''key'', Governments, both State and Federal, because they control most of Australia's forests and plantations, are the agents which must ''break the circuit''. Thus the community, via its politicians, has the opportunity to initiate a major expansion of a wealth producing industry which will also confer significant positive environmental benefits.

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