NEED FOR MARKET INTELLIGENCE TO ACHIEVE RATIONAL DEVELOPMENT OF COMMERCIAL PLANTATIONS

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ABSTRACT

The expansion and development of New Zealand's exotic forest plantations cannot continue indefinitely without careful reassessment of markets and end-use requirements. Output is already surplus to our domestic needs, which are now levelling off. Of particular concern is the anticipated increase in volume of low-quality sawn wood such as that from untended stands in general, unpruned top logs, and the inner core of pruned lower logs in tended stands. Claims of world shortages of wood that will ensure markets must be qualified in relation to the type, quality and quantity of wood. The market-oriented development of radiata pine plantations could tie in with complementary development of other general purpose timbers and specialty timbers.

INTRODUCTION

New Zealand has shown itself proficient in the large-scale establishment of commercial plantations, principally of radiata pine. These plantations continue to expand. To date there have been fairly ready markets for harvested wood, which has come mainly from older stands, including large intermittent amounts of salvaged windthrown logs.

We continue to invest considerable time, money and effort into research on all aspects of management, tree improvement, harvesting and utilisation of radiata pine. However, technological progress alone will not solve marketing issues of the future. There is a pressing need for a review of the allocation of research and finance for the study of markets in relation to resource development and management.

TAILORING WOOD RESOURCE DEVELOPMENT TO MARKETS

The attitude persists in New Zealand that the continued building of a huge forest estate based largely on radiata pine is valid, in that the world will be short of wood fibre in the future and will gratefully accept everything we can produce.

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"Wood fibre shortage" is a term too often loosely used; it was probably concocted by people who forget that the low per capita consumption of wood by many countries does not necessarily imply a shortage.

The world has been "short" of wood fibre for as long as organised forestry has been a reality in New Zealand, and this will continue to be the case. Even if New Zealand were to have the wood volume to mitigate such a shortage, this should not be interpreted as a gilt-edged guarantee of trade.

Prognostications about huge potential wood markets in various parts of the world should not lull us into the attitude that the best course of action is to produce cellulose in maximum possible quantities in the minimum possible time. Many countries with a wood shortage support enormous populations at subsistence levels. Their standards of living are not likely to change at a rate that justifies the year-by-year expansion of our monoculture at the expense of alternative, albeit complementary, wood resources.

We must tailor our resources programmes and management policies selfishly to those markets that appear to offer the best base for profitable long-term trade development. This almost certainly does not mean India and greater South-east Asia, Indo-China and Africa, but rather the established wood-using countries in the West and Japan. The Middle East may be an exception in this regard.

It is also important to realise that many of the actual or potential end-use markets that we hope to enter are, and in all probability will remain, selective in relation to the type and quality of wood they require. Enhancement of radiata pine quality by silviculture and tree improvement is unlikely to meet all the needs of these markets.

Moreover, the quantity of wood demanded by these markets will expand at rates determined not simply by factors such as the need for housing, but by a much wider and more complex set of circumstances (Whiteside, 1972: Building Industry Advisory Council, 1978). As an example, New Zealand's own residential construction is not as rapid as industry would wish and our forest resources can meet. The reduced number of houses built in 1978, for example, reflected a decline in most sectors of the economy, and in particular the increased cost of loan finance (Building Industry Advisory Council, 1978).

OVERSUPPLY OF LOW-GRADE TIMBER

In New Zealand, huge volumes of timber surplus to domestic needs are coming on stream. The top-quality timber (clears and No. 1 framing or equivalent) may well sell — but, no
matter how much money is invested in silviculture on good quality sites, there is going to be a very high volume of top-log knotty wood, wood from stands not accorded silviculture and wood from the inner regions of tended logs.

Some 3 million m³/year of low-grade sawn timber (i.e., box grade and No. 2 framing and equivalent) may be produced by the end of this century (Harris, 1978a) — about five times New Zealand's current output — if the sawing option for processing our expanding wood output is adopted.

There is no clear indication as to where the market outlets are going to be for this produce sawn from lower-quality material. The initial reaction might be to suggest that it be directed to chipping, pulping or energy production, or used as fuel. Such alternatives may have drawbacks:

(1) Pursuit of the sawing option would mean an increase in sawmill residues (slabs, offcuts, edgings, saw chips) which, in combination with wood fibre from non-mill sources, may well be sufficient to supply the reconstituting industry (25 years from now the volume of sawmill residues could reach 17 to 20 million m³/year — Harris, 1978a).

(2) The handling costs of low-grade timber may well place it at a competitive disadvantage vis-a-vis sawmill residues and non-mill wood fibre intended for reconstituting or for liquid or solid fuel production. Only if there were a shortage of sawmill residues and non-mill fibre would low-grade sawn timber be competitive.

Commercial machine-stress grading could reduce the amount of low-grade wood to be disposed of, perhaps by 50%, but even so the amount would still be very large.

Private Plantations

The Government continues to spend public money on incentives to private individuals and local authorities to establish plantations, most of which are of radiata pine. In 1976 there were 7760 ha of new planting under encouragement grants and loans schemes (Harris, 1978a).

The objectives of almost all management plans drawn up for these plantations are to produce high-quality framing or finishing timber. Silvicultural schedules to these ends are clearly drawn up in the grant or loan agreements. Yet only about one in every two private owners is following these prescriptions fully (I. Frost, NZFS, Wellington, pers. comm.). The longer this situation continues, the more will be added to the resource of low-grade timber.
Integrated Processing at Plant or Mill

One means of marketing low-grade sawn boards is to use the material as solid-core stock for panels surfaced with high-quality decorative wood veneers such as those produced from domestically grown specialty species. The production of decoratively faced solid-core panels is not new in New Zealand; it is suggested that the main reason that it has not become a growth market is that there has not been a steady and reliable supply of high-quality decorative wood veneers. This is even more unfortunate in that there is a world-wide shortage of these veneers and the logs from which they are produced, a situation that will probably continue indefinitely (Groome et al., 1977).

Management for Pole Production

New Zealand lacks a developed policy on pole growing because the relative merits of pole production compared with sawlogs have never been fully investigated. Even now, when there is increasing interest by potential buyers offering good prices and prospects of long-term markets (Harris, 1978b), decisions on rational development of specialty and general-use pole resources are hampered by lack of market intelligence.

The management of forest stands for pole production as well as for sawlogs is a ready means of expanding marketing options and, commensurately, reducing the problems that might otherwise be posed by oversupply of low-grade sawn timber (Harris, 1978b).

MARKETING AS OPPOSED TO SELLING

An integrated marketing approach is needed, involving combinations of species and commodities. Forest resource managers cannot leave this to the processing industry on the assumption that where there is demand it will be exploited by the processors provided they can find the raw material. This reflects a lack of marketing consciousness by resource managers and leads to a day-to-day, hand-to-mouth selling approach by the processors. Markets cannot be developed and maintained on this basis.

With our limited resources we should be looking to a more enduring marriage of resource planning and processing development, in line with properly researched and monitored end-use markets.
MARKET INTELLIGENCE

PRICES — AN IMPORTANT FACTOR INFLUENCING DECISIONS ON RESOURCE DEVELOPMENT

Price competitiveness on overseas markets is a prime factor in resource development. In Kuwait in 1976, Chilean radiata pine for portable home construction was bought through Danish middlemen at less than 73% of the c. & f. price asked for New Zealand radiata pine of the same dimensions and quality (Groome et al., 1977). Softwood (white wood) from northern Europe, Germany, Austria, Canada and Denmark at that time was not more than 4% dearer than the Chilean material on the same market (Groome et al., 1977).

So, even in affluent areas which by our standards are short of wood, competitive price is of major importance.

Also revealing is that in 1977 New Zealand domestic prices of sawn timber were anything from 31 to 189% higher than Canadian domestic prices for equivalent grades and sizes (Utilisation Development Division, 1977).

These examples appear to contradict any notion that cultivation of a radiata pine resource allows us to place timber on the market more cheaply than other countries. Regardless of the factors influencing costing and financing in competing or potentially competing countries, we cannot ignore that many of them are able to sell more cheaply.

Our high-volume short rotations, facilitated by a fast-growing species, are only one factor in the promotion of radiata pine. This promotion is done at the expense of other species that could, by virtue of certain specialist properties, command attractive prices in their own right. Additionally, however, these species could be developed to provide the base for an integrated marketing approach including radiata pine.

INTERNATIONAL INTELLIGENCE GATHERING

Because of its inherent long-term nature, forest planning must rely to a certain degree on faith that markets will evolve. However, this is no excuse for our almost complete lack of market research to provide a rational base for resource planning.

Over-reliance on faith is linked in turn with the fact that there appears to be little appreciation of the need for systematic on-going market research and monitoring, the application of the results of this to progressive resource development and management, and the creation and development of new market opportunities. Even if this need has been appreciated, little action has resulted.

It is not without irony that while New Zealand has made little real effort at in-depth surveys of the world wood pro-
duct scene to assist development of its own resource and markets, it saw fit in 1976 to undertake a large and expensive world-wide end-use survey of wood products from tropical hardwoods, as part of its technical co-operation programme for the Association of South-east Asian Nations (ASEAN). Intelligence gleaned from that survey, which provided for recommendations covering marketing strategies and resource development to be made to ASEAN, embraced exactly the type of factors and considerations that New Zealand resource people should be seeking. Some short-term spinoff can be taken from the relevant reports, but the main value of that survey is as an example of some of the types of intelligence that should be gathered on a continuing basis for New Zealand.

A list of factors that should be considered in the formulation of forest resource development plans is presented in Appendix I.

WHERE DO WE GO FROM HERE?

First, we must acknowledge that decision-making about commercial forest resource planning in New Zealand needs to be more rationally based than it is now, keeping in mind that the development, management and marketing of specialty species could be linked with that of radiata pine rather than regarded as a separate issue.

The organisational machinery to ensure that strategic problems in marketing and resource development are minimised could operate under a semi-autonomous, quasi-governmental body such as a research association. As an independent yet integral part of the forest and forest-based industry infrastructure, such a body could be empowered to make formal recommendations to Government and industry, after analysing and interpreting the intelligence at its disposal.

Figure 1 shows how such a market research framework could be placed in order to bring about the strategic integration of markets and resource development.

The subject of staffing requires careful thought and it is beyond the scope of this paper to discuss it in any detail. However, it is suggested that it should include expertise in marketing, economics, utilisation, wood technology, forest resource management, statistics and consumer psychology. The Government and industry could share personnel as well as costs and other requirements. A willingness to take joint action would acknowledge that shortcomings in our approach and attitudes exist.
A considerable amount of continuing work would probably have to be done outside New Zealand. For this there would need to be specialised personnel stationed permanently in countries regarded as major potential market areas, with accrediting to others where there is less need for full-time contact. This would not only provide the monitoring and on-going reassessments of markets required for dynamism in resource and industry planning, but would also serve to promulgate in the market country information on New Zealand, the producer. The last point is of strategic importance in convincing our potential buyers that we can and will provide the types of product they want, with a healthy blend of continuity and flexibility.
REFERENCES


Utilisation Development Division (New Zealand Forest Service), 1977. Internal correspondence files.


APPENDIX I

FACTORS TO BE CONSIDERED IN THE FORMULATION OF FOREST RESOURCE DEVELOPMENT PLANS

The market — products required, specifications (quality aspects, dimensions, preservative treatment, moisture content), volumes or amounts, for how long required, limitations (technical, visual, etc.) on use.

Financial, fiscal, industrial development and trade policies of market country that can affect or be influenced by political, trading and cultural relationships with other countries, especially our own. The degree to which demand or preferences in other countries can affect those in the market country.

Population factors in market country, including regional trends and other sectorial aspects. Age class distribution and effect of this. Changes in relative income between groups and the way these affect preferences for different types of wood products.

Climatic conditions in market country — the way in which these affect quality requirements.

Possible tie-ups with producers of similar or complementary products in market country and with those in other producing countries aiming for the same market — possibilities of co-ordination of supply, cooperative control of price negotiations.

Research organisations in market country — degree to which they can assist in getting acceptance of our product, and in promotion.

Periodic monitoring of end-use market in order to supplement in-depth market researchproper.

Ongoing short-term forecasting from data collected during periodic monitoring, in order to allow appropriate minor modifications to resource management and processing procedures.

Influence of substitutes — applying not only to materials but also to systems in which the materials are used, e.g., new or modified building systems leading to changes in the amounts of materials tradition-
ally used. Importance of external factors on materials/products and their substitutes, e.g., technological changes resulting in outdating.

Resource and industry capabilities in market country and competing countries. In latter case, government/private policies for development of these.

Established systems or frameworks of trading — major traditional buyers and importers, their degree of understanding of the type of product, the end-use fields in which we have expertise, and the markets towards which we are aiming. Effectiveness of traditional routes of distribution. Shipping factors affecting export development.

Price competitiveness and the way this influences the setting of priorities in resource development.

Domestic forest resource — its current state, current levels of harvesting and utilisation, capability of sustaining these, flexibility in product and quality out-turn now and at final harvesting based on current management, number and variety of end-use markets able to be served, and priorities in this regard. Biotic factors. Degree to which resource is already committed regionally for specific end-use markets.

Regional priorities for establishment and expansion of timber resources, taking into account quality and quantity capabilities, existing industry and its location relative to the resource, and the need to harmonise output inter-regionally.

Government policy to assist industry, the level of assistance being related closely to economic importance attached to the industry and potential it sees for development based on well-directed market intelligence gathering, analysis and interpretation. The effect of general regional development.

Capabilities and attitudes of domestic industry in regard to processing the raw material according to current and projected markets. The need for industry to be confident that the raw material base for the development and maintenance of markets is secure and long-term.

State/private forest ownership — the need for distribution to be known and understood so that planned levels of supply can be upheld. The need for strong centralised lead aimed at co-ordination of supply, and quality control. The advantages of more sawmillers and processors becoming involved in ownership and management, and thus having vested interest in seeing investment protected by timely silviculture.

Compatibilities and complementarities of radiata pine and specialty species — the way these can be used with a view to integrating marketing.

Promotion of product end use — demonstration to overseas potential buyers that it is used locally with confidence in the types of applications envisaged in the markets to which we would aim. The effectiveness of national standards in promotion in overseas markets.

Invitation to examine long-term development plans evolved by resource and processing people — particularly key personnel from countries seen as major markets.

Continuous flow of information from market country to ours, and vice versa.