

MARKETING OF FOREST PRODUCTS

A. P. THOMSON*

Thank you very much for according me the honour of inviting me to give the opening address at this meeting of the New Zealand Institute of Foresters. Your gesture is particularly appreciated since it is the last time that I can be with you in my official position as Director-General of Forests.

The title of your Symposium is the Marketing of Forest Produce. I understand that this is intended to refer primarily to the pricing and methods of sale of unprocessed wood rather than of processed forest products. Although I have had a lot of experience in selling wood from both indigenous and exotic forests, I am not sure that I am a good choice as your opening speaker. This is mainly because the price paid for wood — *i.e.*, the stumpage — must be a major consideration in any discussion on marketing, and what few constructive thoughts and suggestions I may be able to make on stumpages have already been given to the Stumpages Working Party of the Forestry Development Council which I chaired. Thus I have little new to offer. Perhaps the best way to avoid repeating myself is to produce a brief background to your subsequent papers and panel discussions by analysing some of the historical trends that have taken place in New Zealand's history of selling indigenous wood, and how these have influenced latter day policies and practices in exotic timber marketing. What I will have to say can in no way be construed as anything but a very sketchy and incomplete historical outline. Indeed, somewhat surprisingly, no one has yet undertaken the necessary research to compile a full history. The only place where the course of events of indigenous timber sales has been documented is, albeit in a somewhat fragmentary manner, in the Dominion Sawmillers' Federation publication celebrating its 50th anniversary. There is a challenge here for a forest historian.

No self-respecting speaker today can get very far unless he mentions early on one of the great EEC triumvirate, Ecology, Environment and Conservation. So straight away I will put forward the proposition that there has always been a close link between indigenous timber sales and conservation, even if in the early days the link was a negative one.

As you will all be aware, for the first century or more of New Zealand's European occupation, forests were a hindrance

*Director-General of Forests, Wellington. Address delivered to the Annual General Meeting of the New Zealand Institute of Foresters, May 1973.

and an encumbrance to land development, and the main pre-occupation was to remove them and replace them with grass. Vast areas of what would be today merchantable forest were either felled and burnt in this process, or the prime logs of the favoured species were extracted incidentally to the main operation and converted to sawn timber by small primitive bush sawmills. I do not know at what stage these logs had a positive rather than a negative value to their owners and were thus sold rather than given away or even cost money to be taken away. Indeed it is difficult to find any documented material about when and how New Zealand's first formalized timber sales were made. Probably the very first sales go back to the early days of the settlement of New Zealand when there was an export trade in kauri and kahika-tea spars, and doubtless the Maori owners received a tribute in the form of muskets or other commodities which were the currency of the day.

As forested land, by one means or another, was acquired from the Maori owners and became Crown land, the then Lands Department assumed most of the responsibility for the disposal of the merchantable timber standing thereon. Often the land and the timber were alienated as a single entity, and it was not till much later that they were valued and sold separately, a step which is completely essential to any valid national timber sales policy.

Indigenous timber continued to be in over-abundant supply during the later decades of the 19th century and was sold without appraisal or competition for very low prices. In the 1890s, for instance, standing timber commanded a peppercorn price of 3d per hundred feet board measure, or 2s. 6d per acre.

Leaving aside, for reasons of time, the lamentable and iniquitous story of the monumental give-away of New Zealand's timber resources which the Mining Laws and the Warden's Courts perpetuated for so many decades, we come to the 1900-1920 era when timber sales, under the control of a small branch of Lands Department, became better formalized. They were still, however, the reverse of conservation-oriented. This era was characterized, as previously, by the inordinately wasteful practice of sales on sawn output rather than on appraised standing volumes.

The legislators of the time did attempt to do better though the administrators did not follow their example. It is not generally appreciated that the State Forests Act of 1908 made provision for the sale of timber on Crown lands by auction or by tender. (It should be noted here how early the auction concept was introduced, and how long it is taking to have it established.) The regulations under this Act were far-sighted and indeed formed the basis for much subsequent forest policy and forest administration. They included provision for the licensing of sawmills, the branding of trees for removal with registered individual licensee brands, the definition and clearing of sawmill area boundaries, the reservation of certain trees, the seizure of produce where necessary, the volume sold to be related to the capacity of the recipient sawmill,

the rights of sawmillers to dispute both values and quantity sold.

Unfortunately, administration by District Land Boards under different regulations deriving from earlier Land Acts continued, and the good intentions of the 1908 State Forests Act were not implemented.

Likewise it is not generally known that in 1915 standards were laid down for measuring Crown timber for sale as follows:

Timber over 15 000 ft BM per acre: measure trees and estimate lengths

Timber 8-15 000 ft BM per acre: count trees and estimate contents

Timber 5-8 000 ft BM per acre: go through bush and make estimate

Timber below 5 000 ft BM per acre: pay off saw

Here we have the first move towards sale on standing tree measurement instead of on sawmill output.

In 1917 minimum royalties were established and at least one genuine conservation regulation was introduced — *i.e.*, that no standing totara or matai and no timber required or suitable for milling purposes be permitted to be cut for posts, rails, fencing stock, shingles or firewood.

Once again the administration of these regulations left much to be desired and most Crown timber was sold under different legislative provisions, including the Mining Act, almost wholly without competition, on output, and with crude rule-of-thumb valuation procedures.

Sir Francis Bell saw with clarity how these practices were squandering indigenous forest resources and even threatening their extinction. His deep concern over this prospect was one of his main motivations in advocating the separation of forestry from the Lands Department and the formation in 1920 of the new Forestry Department. Immediately the first Director, Leon McIntosh Ellis, introduced new and revolutionary measures which were at once both major marketing and major conservation reforms.

Under the forest policy established by the 1921 Forest Act, sales of State forest timber on an output basis were discontinued; standard conditions of sale were introduced; minimum stumpage rates were approved; and, of some importance, an upset price was placed on all Crown timber offered for public competition. The upsets were determined arbitrarily, not on a residual value or any other formula, but merely by what it was considered the industry should reasonably pay. Sawmill areas were measured, rather crudely, by 10% or 20% strips cruises, and (after 1923) tree volumes were calculated in cubic feet, subsequently converted to board feet by graduated conversion factors. Check appraisals were made. All sales were short term, although so-called reserve areas were allotted. Of more importance, the principle of monopolistic rights to obviously tributary areas was recognized. This gave sawmillers some degree of security of tenure, in practice, if not in law.

Although the improvements during the era of the 1920s and 1930s were considerable, it must be admitted that only the best and most accessible stands were appraised, only the best trees were marked, and only the best logs were measured; the implementation of the new policy was far from conservation-oriented. Indeed, during the depression years, stumpages were reduced and overtime was subsidized in attempts to get sawmillers to cut more timber. When the industry came out of the depression in 1936, price control of timber was introduced and this, to some degree, redressed the balance. However, the War and immediate post-War years resulted in further shortages of timber; the emphasis in the marketing policies of the time was thus towards getting more indigenous forest cut rather than less.

Meanwhile in 1939 a new Director of Forests, A. R. Entrican, had been appointed and he was quick to introduce his own reforms. He realized that the method of measurement was inadequate, resulting as it did in the over-runs as large as 50% and no under-runs at all, and he accordingly launched a policy of 100% appraisal of all trees. Check appraisals, which had been dropped, were reinstated. He realized also that valuation methods were unsophisticated and tended to favour industry rather than the forest owner. He therefore introduced the residual value formula in the face of considerable opposition. It was based, at this stage, on actual operating costs and on actual realization and, as it still is today, on the concept of the average efficient industry.

From about 1950 onwards, Entrican's timber sales administration was consistently designed to conserve native forests. The volumes which could be cut from given forests were prescribed in working plans and sawmillers were put on a more rigid annual quota system. Cruising standards were further tightened, as were cutover inspections. The whole approach of measuring and pricing for sale was designed to encourage full rather than wasteful utilization in the forest.

When the results of the National Forest Survey became known in 1956, the indigenous forest conservation policy, already crystallized and in operation, was given a further impetus. The major steps to implement more stringent conservation measures consisted of imposing a 5% reduction on the permissible North Island cut together with the reservation of forest areas as green belts and as potential seed sources. Although temporary, these steps did have a measurable conservation effect. They also made the sawmillers very angry.

In the 1950s also, the residual value formula was changed from the basis of actual to standard costs and, in an attempt to improve the operation of the residual value formula, revised cost of production schedules were produced. A tentative move was made towards encouraging greater efficiency in the industry itself by granting longer term sales. By 1960 there was one in operation in Rotorua, two in Westland, and one in Nelson.

More recent history is probably well known to all of you and does not need elaborating. The most significant event has

been the setting up in 1966 of the Indigenous Forest Timber Advisory Committee. This successfully provided a forum in which industry and the government could work together in formulating indigenous conservation and indigenous marketing policies which would be mutually acceptable. The Committee worked very well and the policy it recommended is still being followed. The major planks of this policy are:

- (1) A planned and progressive annual reduction of the permissible cut from North Island forests.
- (2) The institution of long-term (15-year) sales with the original sawmill area by public tender but with subsequent areas sold directly without competition, and on the basis of a more refined residual value formula.
- (3) More satisfactory arrangements for periodic revisions and the settlement of any disputes arising therefrom.

In the event, the unexpectedly rapid substitution of exotic timbers for indigenous caught up with this policy and in some aspects made it redundant.

It is perhaps of interest to note here how recent exotic marketing policy, by releasing wood which would substitute for native timbers and by so pricing it as to help make the substitution economically attractive, has itself been a quite major factor in implementing the indigenous forest conservation policy.

Marketing indigenous timber differs from marketing exotics perhaps in one major respect only. In the former case we are dealing with a diminishing resource and in the latter with an expanding one. Otherwise the principles governing marketing policy should be the same. It is thus of interest to see what lessons can be learnt from the era of indigenous timber sales and how applicable they are in today's predominantly exotic context. I think that the lessons could be as follows although my previous remarks have not suggested them all; they are not in order of importance:

- For any sales of forested land, the trees and the land must be valued and sold separately.
- It is essential that the seller should know the quantity of the wood he is selling and should have techniques at his disposal to get this knowledge.
- It is likewise essential that the seller should know himself and should be able to advise the buyer about the quality of the wood under offer.
- Although direct short-term sales may sometimes have a place, a tendering or auction system is the only one which simultaneously gives every would-be entrepreneur an opportunity to buy, and at the same time protects the administration and the government from possible charges of favouritism or political intervention.

- Loyalty to regular customers, provided that they are regular payers, is generally good business as well as good ethics.
- The residual value formula has the disadvantage that by its very nature it limits the profitability of industry, at the same time guaranteeing a certain profitability provided the industry is of average efficiency only. It is thus basically a cost-plus system which does not encourage greater efficiency.
- Despite the application of the unwritten "tributary area" principle, any system of short-term sales is also not conducive to efficiency since it does not give the necessary incentive for the investment of capital in modern and sophisticated equipment.
- Whereas it is incumbent upon the seller, in this case the Government, to get the best price possible for his produce, it is equally important that the stumpage level set and the conditions of sale imposed should be such that the forest industries can maintain their profitability and viability.
- A good general rule for the public seller of wood is that he is probably doing the best he can to further the public interest if as a result of his actions the industry is neither too happy nor too unhappy.
- Finally, marketing policies and procedures can and must be used as important conservation measures and be so designed as to ensure full utilization both in the forest and in the processing industry.

As time does not permit a review of exotic marketing history, I will confine myself to referring briefly to the events of 1955 for so much that has happened since is a direct or indirect result of the two major log sales then negotiated. These were the first two long-term sales of State exotic wood. One was for a relatively small quantity, for a period of 25 years with the right of renewal for a further 25 years, a bold step for a country which had previously been accustomed to a tradition of short-term sales for both indigenous and exotic wood. The sale was by tender with an upset advertised. A tender higher than the upset was accepted and a contract entered into. It was a log sale rather than a stumpage sale and it was made during the period of price control of timber. There were two reasonable and acceptable provisions for price revision based on changes in sawn timber prices under the control of the Prices Act 1947, and, in the event of price control being removed, based on movements in average wage rates. But there was also a provision, perfectly legal according to the Forests Act, that after three years and thereafter every two years the Minister had the sole and unilateral right to revalue in any way he saw fit. No revaluation criteria were spelt out in the agreement although there was provision for arbitration in the event of unreasonable revaluations being made. In later long-term sales the arbitration provision was dropped.

This sale set the pattern for most other long-term Forest Service exotic sales over the next 15 years. The pattern then established led to needless troubles, needless arguments, mutual recriminations which were often long and acrimonious, and in general did incalculable harm to relations between the Forest Service and the industry. It was against this unhappy background that the FDC Stumpages Working Party began its apparently impossible task of reconciling conflicting views, of restoring harmony and hammering out a *modus operandi* for both sales and sales revision which would be fair both to the forest owner, without whom the industry cannot operate, and to industry, without which the forests would have no realizable value.

The other sale was the first major one from Kaingaroa Forest; it was far larger, for a significantly longer term (25 years with rights of renewal for two further similar periods) and in many ways was very much more far-reaching in its consequences. The sale in question is well-known, and the original stumpage paid is public knowledge. The stumpage was a composite one embracing both sawlogs and pulpwood in the approximate proportions of one-third and two-thirds. Regrettably the separate components of this mixed stumpage were never thoroughly analysed and certainly the details were never published. As a result the stumpage, which appeared to be a low one, set the pattern for sawlog stumpages in the North Island for at least ten years, and probably fifteen years. Unfortunately, it had a severely depressing effect on the prices which private growers could get from industry for their sawlogs and even more unfortunately it acted as a significant deterrent to the further investment of private capital in forestry. Nonetheless, this much criticized sale had a great deal to commend it. The price at the time was not an unsatisfactory one considering that there was then absolutely no market for pulpwood and little competitive market for sawlogs. The deliberate concessional element in the pulpwood component of the stumpage, helping as it did to get a major new and important processing industry launched, was wholly justifiable. The price was high enough to recoup the (admittedly low) growing costs of the wood involved, including compound interest at historical interest rates. And there were certain commendable clauses in the log sale agreement which could be considered advanced even by today's standards. One notable feature was the tight specification for minimum merchantable piece size, 4 in. diameter by 4 ft length, and the provision (which has been enforced) to collect all this material or pay for what was left. There were other desirable and forward-looking features in the agreement.

Unfortunately the sale had one major and, seemingly, extraordinary defect, the deliberate absence of any provision for revaluation or price revision for a full 25 years. At the time this was considered a necessary investment incentive and its justification was rationalized by the published statement in the sales brochure:

The basic concept of the sale is to sell logs carrying as low a stumpage as possible, consistent with the recovery of growing

costs, so that the enterprise itself may operate at a high profit rate and form as attractive an investment as possible. The real value of the raw material will be secured to the Government by sharing in the manufacturing profits through appropriate capital participation.

It must be assumed that the administration of the time failed completely, not only to prophesy the extent of subsequent inflation (which they could not reasonably be expected to do), but even to consider the possibility that money values would change so markedly as to affect the viability of the original stumpage. This, of course, is exactly what has happened. In the absence of any revaluations, inflation has eroded the original price to a figure which in real money terms is now both lower than ruling rates for similar material to other purchasers in the same district, and lower than is necessary to cover current growing, management and replacement costs. In time, a long time, this situation will correct itself; and let us not meanwhile underestimate the economic benefits which the industry, so generated, has provided. But let us also beware of ever repeating the "no revaluation" mistake. It was because so many people representing both State and private growers did not heed such a warning, that the lesson of this sale, antithetical as it was to the lesson of the other 1955 sale, loomed so largely in the deliberations of the Stumpages Working Party. Perhaps history will judge that this antithesis, unilateral and unfettered revaluation on the one hand, and no revaluation whatsoever on the other, was after all a fortunate occurrence. Certainly it meant that, in as much as there were opposing sides in the Stumpages Working Party, and often there were, they were batting on an equal pitch.

These have been fragmentary and disjointed comments on the whole subject of marketing and there are many other aspects which would merit comment if time permitted. I have not dealt at all with the vitally important aspect of timing in marketing, and how this is of different importance to State and private sellers. I have not even mentioned how the criteria adopted in making marketing decisions of State-owned wood have in recent years become much more sophisticated, economically, socially, politically, nor how these criteria differ from the relatively simple ones which the private sector can adopt. I have said little or nothing about the importance of knowing with reasonable precision the exact volumes being sold although I did touch on this matter in respect to indigenous sales. As an aside, I could here restate the conviction which I have had for many years that one of the weakest aspects of the forestry profession in New Zealand is its lack of mensurational expertise. The reason for this is understandable if not excusable; it is simply that when timber is in over-abundant supply we can afford to be somewhat less than perfect in our techniques for measuring and predicting volumes, growth rates and assortments; now that wood is in short supply we cannot. Nor have I dwelt on the equally important matter of the seller knowing sufficient about the properties and the quality of wood which he is offering. We are making progress here but still have a long way to go.

No doubt these and other matters will be fully aired during the panel discussion to follow. I would hope and expect that the panel will devote some time to debating possible desirable innovations such as selling wood not only by species, but by size and quality classes; to the advantages and disadvantages of auctioning as compared with tendering or sales by direct negotiation; to the need which farm foresters and forest farmers have for greater marketing expertise and perhaps for marketing assistance per medium of co-operatives; to the effects, through marketing practices, of wood prices on competition with substitutes; to the current dilemma posed by the embarrassing difference in value between domestic and overseas markets; to the level of profit to which the forest grower can reasonably and justifiably aspire; and perhaps of importance to me because of my personal interest and involvement, to a critical examination of the validity of the main conclusions and recommendations of the Stumpages Working Party.