

EDITORIAL COMMENT

A New Forestry Entrepreneur

In 1974 the Government issued an invitation to industry to submit proposals to utilise the beech forests of the South Island. Now a second invitation to the forest industry has appeared — from (of all unlikely places) the Marlborough Harbour Board. While the Harbour Board differs from the Government in many respects, one is important — the Board has no timber to sell. Completely undaunted by this, however, it has, in a booklet of more than 100 pages (formally entitled *The Potential of Marlborough Exotic Forests for a Large Capacity Sawmill/Processing Plant at the Port of Picton, New Zealand*) invited industry to make proposals to utilise what in practice is likely to be nearly all of the exotic timber planted and to be planted in the Marlborough Sounds and the North Marlborough area. One might ask whether it can expect such an invitation to be taken seriously?

The answer is Yes and, provided the Board has done its homework well, the invitation must represent one of the cleverer commercial coups in the history of New Zealand exotic forestry. In essence, the Marlborough Harbour Board examined the size and the location of likely future plantings in the Marlborough region and observed that, together with existing plantations, these would occupy a crude circle with its centre close to Picton. It further noted that a large proportion of the timber would be grown in the Sounds area, where approval for planting would (under the Marlborough County District Scheme) be likely to have the restrictive condition that the wood be transported by water. This, it reasoned, would favour a processing plant in the Sounds. It further reasoned that putting such a plant at Picton would both minimise the transport distance from the region as a whole and facilitate the subsequent distribution of the processed wood either within New Zealand or overseas.

To reduce transport distances within the Sounds, the Board planned for a canal to link Pelorus and Queen Charlotte Sounds. This would facilitate the movement to Picton of timber both from the more western Sounds, and also from the Rai-Whangamoa State forest area, allowing all timber within a 25 km radius to travel almost in a direct line to the processing plant.

Armed with these plans the Board then purchased all the available land in Shakespeare Bay, adjoining Picton. In its

own words this bay "is the only area in the Queen Charlotte Sound with the necessary internal communications and access to a deep-water harbour which can be developed for industrial purposes".

It is the Board's title to the land of this Bay which puts it in the position to make proposals to the forest industry, and to attempt to dictate the timing of the construction of a utilisation plant.

There is little incentive for a processor to build a mill at present. The area of old exotic forest in the region is limited, with over 60% of the existing forest having been planted in the last five years. The area of likely future plantings is some six times as great as that planted so far. While wood availability figures suggest 1990 as the logical time to establish a large capacity plant, the Board in fact would like such development to commence *now*, so that it may proceed with some assurance on the development of the Linkwater Canal and facilities at Shakespeare Bay. It believes that this is just possible in terms of available wood, and the invitation to industry thus carries a sting in its tail: "Any unnecessary delay in receiving [an assurance that a plant will be established in the near future] . . . is likely to cause the Harbour Board to encourage other industries to become established in Shakespeare Bay." In fact, however, it is more probable that the Board's carrot — a virtual monopoly of all the future processing in the area — must rate as larger than its stick.

It seems likely that the Harbour Board will get what it seeks, and one must admire its entrepreneurial ability. The implications of the action, however, are somewhat disturbing. The Marlborough Harbour Board can and does justify its coup under the guise of forward planning to service the shipping and trade generated by local industry — a proper function of a Harbour Board. But it has demonstrated that any company or individual could, with a minimal investment in the region, dictate the future of an industry to which it has not contributed. The ethics of such a situation are questionable, and Government, which is involved either directly or indirectly in financing afforestation in most regions of New Zealand, could well view the precedent with concern.

The Jaakko Poyry Report

Following the Government's deferment (in May, 1975) of acceptance of utilisation proposals for West Coast beech forests, the services of the consulting firm of Jaakko Poyry and Co. were retained. Their brief was to examine prospects (a) of combining some of the wood resources of the West Coast with those of Nelson and Marlborough for a major

wood processing industry in the northern part of the South Island, and (b) of establishing smaller-scale beech utilisation industries on the West Coast. A summary of the report was presented at a seminar on the "Future of West Coast Forestry and Forest Industries", held at Hokitika at the end of June.

Publicly forecast by the Chairman of the West Coast Regional Development Council as "likely to be the greatest non-event in the West Coast's history", the Jaakko Poyry report indeed proved to be so.

The report proposed two processing plants to utilise non-sawlog beech wood — a 35 000 m³ per annum particleboard mill at Reefton to commence operation in 1981, expanding to 70 000 m³ in 1985; and a 580 air-dry-tonne per day bleached sulphate pulp mill in the Upper Buller region, commencing production in 1989. The latter plant would utilise both hardwoods from the West Coast and softwoods from Nelson-Marlborough. Capital investment for the two plants would be more than \$250 million, and the internal rate of return 13.5%.

Importantly, the Jaakko Poyry proposals would take the pressure off the podocarps in the northern regions by supplementing the supply with red and silver beech sawlogs. To that end, the proposals are just what the West Coast needs — see next editorial — but on both economic and marketing grounds the prospects for the industries getting under way look remote. Industry on the West Coast faces massive problems compared with that elsewhere, and there appeared to be few industrialists at the seminar who were rushing to invest their capital in the industries proposed, at the rates of return forecast. While the report generally demonstrated a considerable degree of expertise on the part of its authors, it can be criticised on the grounds that it examined only those utilisation processes whose economics were well established. The whole history of attempts to utilise beech forests on the West Coast should have indicated the need for a new approach — and the participants at the seminar were undoubtedly critical that the report did *not* discuss prospects for an ethanol production plant which — as indicated in a previous issue of this *Journal* (21 (2), 158-61, 1976) — would appear to fulfil most of the requirements for utilisation of the non-sawlog material in the West Coast beech forests. To have failed to consider such an industry, simply because the economics are unproven at the present time, appears culpable.

In a paper in this issue, A. P. Thomson proposes Government involvement in demonstrating the methodology and economics of ethanol production from wood in New Zealand. But while he envisages this being done with radiata pine in the central

North Island, it would seem much more logical to suggest that Government set up the first ethanol plant on the West Coast of the South Island, to enable the utilisation of non-sawable beech logs. Based on the demonstrated economics of this plant, which is likely to have about half the daily wood intake of a sulphate pulp mill, decisions could be made as to whether further plants are warranted.

If a chemical plant cannot be built and run economically on the West Coast, the beech forest may well remain inviolate. While such a prospect might be expected to delight conservation interests, there are indications that they may find the alternatives to beech utilisation even less acceptable — see next editorial.

The Future of West Coast Forestry and Forest Industries

A Forest Service seminar with this title was held in Hokitika last June. It posed a series of problems which, while certainly soluble, are unlikely to have solutions that will satisfy all interested parties. The essential problem is one of finding sufficient timber to keep the West Coast sawmilling industry operating until exotic logs can replace the present indigenous cut. This will not happen until after the year 2000.

The situation, somewhat simplified by ignoring differences between regions of the Coast, is as follows: 98% of the wood presently sawn on the West Coast is podocarp, and most of the remaining podocarp supplies are in State forest. If completely sawn at the present rate of cut the available quantity would last 55 years. However, 76% of the potentially available volume of podocarp in State forest is in fact unavailable for logging — 44% because of the constraints of selection logging and the new indigenous forest policy, 19% in proposed ecological areas, and 13% in riparian strips and green belts.

The remaining 24%, if cut at the present rate, will last for less than 15 years — leaving an eight- to ten-year gap before exotic wood could substitute. The problem is to find the most acceptable solution.

The hoped-for solution was to saw beech in place of some of the unavailable podocarps. This would require a means of utilisation for the large volumes of non-sawlog arisings from the beech forests — hence the Jaakko Poyry investigation. Successful utilisation of these arisings appears unlikely (at least at present — see previous editorial), and thus the remaining alternatives need critical examination.

The first possibility is to reduce the total sawn cut, either by negotiation or by declining to renew sales agreements as they terminate. This could not be done to any extent, how-

ever, without a profound effect on the economy (and probably the viability) of the West Coast, where the forestry sector directly and indirectly supports nearly 20% of the total regional population.

If the level of sawmilling is to be maintained, then the constraints of the indigenous forest policy must be examined, as well as the level of proposed reserves and/or riparian strips and green belts. Additionally, there is a need to examine the prospects of bringing exotics on stream earlier (by using fertilisers and shortening rotations), and perhaps sawing some beech without utilising the large volumes of arisings. Examination of the figures indicates that by far the worst "culprit" in locking up wood is the indigenous forest policy — tying up more wood than the proposed ecological reserves and likely riparian strips together. It was stated at the seminar that the interpretation of the policy in the West Coast forests would constitute its most important test so far.

It can be assumed that Government will not be prepared to reduce the size of the present West Coast sawmilling industry to any significant extent, although some of the present short-term sales must be under threat. To maintain the industry with exotic wood after the year 2000 will require the establishment of a further 400 ha of plantation per annum over the next 25 years. If this was done by conversion of reasonable quality hill-country forests the process could provide some 20% of the annual sawlog demand, stretching the available podocarp timber supply by perhaps another 2 to 3 years. Similarly, another 2 or 3 years might be gained by shortening exotic rotations and declining to renew some short-term sales. There are private exotic forests in north Westland which obviously will be logged, and there are several years of potentially-available podocarp-cut on unoccupied Crown land. Some compromise with reserves and riparian strips might complete the spinning out of the resource for the necessary period, but it must be accepted that movement of logs between regions will be necessary, and probably from as far afield as Nelson.

Perhaps the major West Coast share in these inevitable trade-offs will be to accept that the sawmilling industry must remain in perpetuity at its present size. The Forest Service made it very clear at the seminar that it did *not* see the Coast as a viable area in which to expand exotic forestry — despite clear calls from Coasters that this be done.

In that the seminar disseminated well-documented information in a situation of relative harmony, it must be rated a success. At the completion, participating organisations were invited to make submissions to the Minister of Forests, on

receipt of which he will make decisions. These will be political as well as technical in their content: compromise must be involved and, following the seminar, it will be clear to all parties just where the trade-offs have been. In a sane democracy such a situation should lead to quality decision-making. If in fact it does, the seminar's rating can be increased to that of a complete success.

GUEST EDITORIAL

To mark the 50th Anniversary of the Institute, an editorial written 50 years ago by F. E. Hutchinson in *Te Kura Ngahere* (a forestry journal issued by the Forestry Club of the Canterbury College School of Forestry, Christchurch) is reprinted in part. It is of interest that the issues examined by the Charter Members in 1927 do not differ greatly from those discussed at the 1974 AGM, nearly 50 years later. That the Institute has apparently changed so little in its first 50 years is certainly a tribute to its founders, but it may also be an indictment on its present membership. The changes in the Institute during the next 50 years will depend in large part on our response to the challenges set by our President in the address he delivered to the AGM, which is printed in this issue. Perhaps, like New Zealand, the Institute, too, is at the turning point. If so, it behoves us to set the next 50 years as firmly in the right direction as did our founders in 1927.

*The Proposed Institute of Foresters**

F. E. Hutchinson

The proposal, now four years old, that a society or institute be formed in this country among forest technicians, similar in aims and scope to the Society of American Foresters of the United States, for instance, or to the Canadian Society of Forest Engineers, is at last taking tangible form, and probably by the time of the next issue of this journal the institute or society will be an actual fact, thus marking another step forward in the progress of technical forestry in New Zealand, for the need for some such organisation was beginning to be felt.

The credit for first initiating the movement toward the formation of such an institute belongs to the three Edinburgh graduates who were the first technical foresters to return to

*Reprinted in part from *Te Kura Ngahere*, 2 (2): 3-5, 1927.

New Zealand after the appointment of the Director and the Chief Inspector of the State Forest Service.

The question of the aims and purposes of the Society has been settled in a manner which must be most satisfactory to all concerned. The ethical basis of service rendered was recognised as being fundamental if the institute was to have any real life and value in the profession. It was finally decided by the charter members that it was difficult to improve upon the wording used in stating the objects of the Canadian Society of Forest Engineers, and with minor alterations, these were adopted as the guiding purposes of the proposed institute. They read:— "The objects shall be:

"To advance the members in the theory and practice of forestry by the discussion of technical and professional topics.

"To promote a better mutual acquaintance among Canadian foresters, and to cultivate an esprit de corps among the members of the profession.

"To take such steps as may from time to time appear advisable for the purpose of promoting in Canada the interests of the forestry profession as a whole."

Guided by these motives, the first problem of magnitude, that of membership, was successfully disposed of. This was a matter which had caused considerable trepidation, and concern was expressed that the idea would fail, due to conflict between the trained technicians, jealously guarding their scientific status within the charmed circle of University degrees; and the practical men, who, working alone and unaided, had by dint of constant experiment, trial, error and retrial, persisted indomitably in actually doing the forestry work of this country during the past twenty-five years. It was immediately made obvious, however, that such fears were groundless. The technician on one hand admitted at once that while the basis of all forestry as an applied science lies upon the study and application of natural and physical law, the practical man has through his intimate contact with his work over a long time developed a vast store of valuable knowledge of technique and application, and is thoroughly entitled to be listened to with respect; while on the other hand the practical man ungrudgingly stated that while the basis of all accomplishment in forestry was in getting things done, yet the scientific method of approach to forestry problems is the basis of all increased understanding of the laws governing forest growth, and the technician also is thoroughly entitled to be listened to with respect.

This recognition of unanimity of purpose is the greatest accomplishment made so far. With such a basis the ultimate success of the institute seems assured. It remains now only to get the organisation functioning so that the aims and purposes set out may begin to be realised. A national organisation as is proposed will take care of the third object set out above, but for the best fulfilment of the first two objects, it seems imperative that provision be made for local sections in the various centres of forestry activity, where members may find stimulation in more frequent meetings, for the discussion of problems, research, and other matters of common interest.

A journal or other organ of expression of thought is also necessary and some provision must be made shortly in regard to this matter.

The matters mentioned above could be considerably added to. They are all machinery matters, necessary to bring the institute to its fullest scope of usefulness and service to the profession and the community. The big thing is that the need for an institute has been recognised, initial difficulties overcome, and a definite start made toward formal organisation.