

EDITORIAL COMMENT

ESSAY ON THE WEST COAST BEECH SCHEME

The 1970s will be labelled by future historians as the decade of the preservationists in New Zealand. The word "preservationist" is used advisedly for those in the conservation movement whose aim is to lock up an enormous proportion of the resources of this country for very limited use; indeed it is often not clear what objectives the preservationists have in mind, or who is to benefit if they are pursued. In a previous Editorial Note (Vol. 17 (1)) it was suggested that it would be to nobody's benefit if the forest authority and the conservationists adopted a collision course. It is sad, therefore, to see that the Royal Forest and Bird Protection Society has, in a public petition, cast aside all pretence at a balanced view on the subject and may thus have done the conservation movement considerable harm.

Conservation means the care and regulation of resources. Foresters have tended to follow a great American, Gifford Pinchot, in defining conservation as "wise use of resources for the good of the greatest number of people for the longest possible time". This is in fact what professional forestry is all about, and it is clearly the practice of forestry itself which is under attack. It is thus essential for foresters to spell out their credo. The managed forest is kept intact in terms of capital — land, timber volumes and other resources — while the increase is harvested for the benefit of man. This increase may be wood, water, wildlife, recreation or what you will, but in every case the principal consideration is to keep the resource undiminished, healthy and productive. This principle should be applied to any forested area, whatever the objects of management. It is therefore ironic that, after the Minister of Forests has stated that indigenous forests will be properly managed, and when at long last the Forest Service has proposed a major management scheme for the forests of the West Coast, the preservationists are trying, by every means in their power, to ensure that no management is introduced. It is fortunate that several other bodies and many persons concerned with the environment have adopted a more judicious and balanced view and are concerned that the best possible forms of management are introduced, based on sound technical knowledge.

The proposals set out by the Forest Service in the original White Paper left a good deal to be desired, but the jungles of power are inhabited by a diversity of persons who all want to get into the act, and it is therefore inevitable that several committees have sat, and will sit, and that the proposals will generate numerous reports and a plethora of recommendations. But one has the uneasy feeling that the anonymous members of many of these bodies are too closely interrelated. Thus the Environmental Impact Report to the Officials Committee for the Environment appears to rely heavily on what

it was told by the Forest Service. It shows a serious lack of technical knowledge on the subject under discussion and appears to be rather too complacent on matters which are of major concern not only to members of the public but also to members of the Institute. However, it is the only report which has given serious attention to the people of Westland and their needs, and rightly paints a gloomy picture of the local prospects if forest management on a fairly large scale is not introduced. Its most important recommendation is that a major research effort should be undertaken as a matter of urgency to study those matters on which information is scanty or lacking. This has been taken further by the National Development Council who have recommended that a Scientific Co-ordinating Committee be set up under the aegis of the National Research Advisory Council.

The more important recommendations in the Officials report have been endorsed by the Environmental Council, particularly the need for more research, but the Council doubted "whether the proposed scheme alone will achieve a renaissance of the West Coast. If the needs of the community are to be advanced as a reason for proceeding with the scheme, then there should be a critical examination of the potential and utilization of other resources". In summing up, the opinion is stated that "the scheme could not only lead to the more effective and efficient utilization of a valuable resource, thus reducing further pressures in the future on our heritage, but could also lead to an enhanced environment in some localities". There is little doubt that public knowledge of the full situation and its implications is limited, and the Council rightly draws attention to this. "The proposals are not an attack upon a virgin resource" since the forests have already undergone "more than a century of exploitation". "Present methods of logging beech/podocarp associations are environmentally most unsatisfactory. An intolerably high proportion of wood resource is being wasted." The Council also observed, with good reason, that "with the declining availability of non-renewable resources, there will be increasing pressure for the utilization of our forests. Hence, to avoid that pressure from developing into a necessity for the felling of indigenous trees, it would seem prudent to meet the demand with exotics".

In April the New Zealand Ecological Society produced a "Critique of the Environmental Impact Report" which, with unerring precision, put a finger on all the weaker parts of the Forest Service case. The primary recommendation is similar to that of the Institute — the "proposals should be held in abeyance until sufficient information is published on which to base a properly informed decision". Indeed, it would be difficult to object seriously to most of the 17 recommendations, which tend to endorse the first, although some are arguable. Surprisingly, however, there is some surmise and several errors of fact in this critique, and some observations appear to be distinctly tendentious. As an example, the bald use of forest percentages in various countries (p. 9) without explanatory matter is misleading. At the top of page 11 the inference is that all the beech forests are to be replaced with

exotics, whereas the scheme prescribes only 7% of the forests for this use. On page 17 it is overlooked that slash is a potent breeding ground for damaging insects. And Waring's paper (p. 32) deals with a very dry climate — hardly germane to the superhumid conditions in Westland. The most astonishing omission, however, is a consideration of the needs of the people of Westland, who surely must be a part of the ecological complex there. Must we forget them in favour of maintaining a "balance on the world scale"? Are not their needs and aspirations as important as the idealistic desires of those who enjoy the rich fleshpots of distant cities? Are they of less moment than obscure aquatic creatures? The Society sees "no obvious reason for expanding the whole economy and human population of the region" which is not what the Impact Report was concerned about — the need is to salvage a local economy sinking into dereliction.

All these reports have in common a lack of detailed knowledge of the region and a limited knowledge of what forestry, and especially modern forest industry, is all about. An examination of the data available shows that only about 9% of the Westland Province is capable of being farmed economically. D. Kennedy in 1954 noted that: "Farming alone can use only a small proportion of the total land area and can therefore support only a widely scattered and sparse population." The derelict land held by private owners, noted by the Environmental Council on their two-day visit, was quite likely incapable of being farmed, for large areas of land suitable only for forestry are privately owned. Nearly 65% of Westland must be classed as protection forest land, and about 20% could be used for permanent production of wood and other forest products. Of this 20%, however, only about 38 000 hectares can be considered optimum for beech management, while some 135 000 hectares are terrace land suitable mainly for podocarp management; of this, some 80 000 hectares have been logged, burnt and abandoned. The rest is hill land, clothed in both podocarp/hardwood and beech/podocarp forests which, on present showing, could be used for growing exotic trees — a total of some 110 000 hectares, of which perhaps 40 000 hectares have been logged. Part of the proposed beech scheme lies in this area.

The scheme is largely concerned with beech/podocarp forests. Pure beech forests (apart from protection forests) are to be found only in restricted areas such as the Maruia, Matakītaki and upper Grey River valleys. Many of them lie in the "finger valleys" which the various reports already mentioned recommend should be withdrawn from the scheme. Since red beech is considered by foresters who know the region to be the only species which can be managed fairly easily, it is ironical that some bodies should on the one hand wish to exclude exotics and on the other withdraw those very forests which lend themselves readily to beech management. The greater part of the scheme covers hard beech/podocarp forest on hill land, and there is general agreement in published papers that this species is difficult to regenerate and manage, while the timber has a high silica content and is difficult to

saw and season. It is these beech/podocarp forests which have borne the brunt of logging in recent decades, following exhaustion of the pure terrace podocarp stands, but only the podocarps have been utilized; the remaining damaged beech component has fallen into decay under attacks by insects and fungi. It is this residual that the scheme proposes (among other resources) should be used for pulping so that the land can be put back into production. The public does not seem to have noted that the scheme embraces 43 000 hectares of cut-over forest, 17 000 hectares of scrub and burnt country, and 8 000 hectares of induced pakihi. Moreover, the scheme may be the only chance of rehabilitating this woeful legacy from past mismanagement.

Foresters closely connected with the situation have long deplored the continuation of purely exploitive use of the forests while being painfully aware (to quote A. Kirkland) that "the crux of the beech management problem in Westland is proper utilization of the beech timbers". Unlike Southland, where the predominant silver beech has long enjoyed an avid market, all efforts to promote the use of red and hard beech in Westland (timber of other beech species is relatively very small in quantity) have failed. Indeed, it is doubtful whether hard beech is suitable for anything but pulp, for which it gives a good yield. It is again ironical that at length having found a possible market outlet for a long-wasted resource, which will allow intensive management of the forests, there is massive public objection.

The question of beech management has generally been bypassed in the various reports. Such terms as "allowed to regenerate" are common. The evidence presented in articles in the *N.Z. Journal of Forestry* make it clear, however, that logged forests don't often regenerate to a usable crop, and these statements make it appear that the forests will be simply logged and abandoned. One would hope, sincerely, that this is not the intention; but the doubt is reinforced by the proposal to log the whole resource in 30 years when the rotation is likely to be 100 years or more if the stands are intensively managed for sawtimber. Regeneration of red beech may not be difficult to achieve, provided the proper practices are adopted, but hard beech is a different proposition altogether. Moreover, if there is any serious intention of obtaining a second crop of beech, regenerated stands cannot be left to stagnate, but need regular tending and protection. One measure proposed in the scheme is to plant failed areas of regeneration with exotics (principally ash-type eucalypts) as enrichment, but here again the matter does not seem to have been examined in the light of present knowledge of this practice. However, the main objection of the preservationists is the conversion of hard beech/podocarp forest to radiata pine, as being altogether alien to the region. The Ecological Society suggests that pines should be planted on the morainic soils and induced pakihi country (apparently beneath the notice of that Society, although of considerable ecological interest), but the chance of setting up a major industry on this basis, with present knowledge, is precisely nil. The final objection

is now *de rigeur* — the supposed dangers of an exotic monoculture. Curiously enough, it is the beech forest health which ought to cause the most serious misgivings. Following natural disasters such as earthquakes and gales, epidemics of platypus beetles have built up and caused untold damage, especially amongst the decadent veteran trees which make up so much of the beech growing stock. M. J. Conway, in 1949, noted the "scenic eyesores" in the Maruia Valley due to insect attack, and in 1952 stated that fast grown trees 120 years old or less are healthy — rot is associated with slow growth and old age. Could it be that managed crops of beech would be very much more healthy than the natural forests? It is not generally appreciated that a very large part of the major commercial forests of the world are natural even-aged monocultures of conifers, or that natural forests are subject to periodical attacks by pathogens on a massive scale. Could it be that the pines would be more healthy than the beech forests? Present evidence seems to support this view.

If the recommendations of the various bodies are followed, there is some indication that the scheme could not proceed because of too few resources and too many costs and restraints. But it is pertinent to note that no one has proposed any long-term alternative uses for wood resources and forest soils, and alternatives there must surely be. There is the view that Westland should be given over to tourism (a mixed blessing indeed — or a curse), but with the collapse of the forest industry the whole economy of the province must be in jeopardy, and it would be vastly costly to maintain public services, especially the network of roads and bridges, for the sake of a very small farm production and a seasonal tourist influx. It should be made quite clear that the future prosperity of Westland, in the long term, must lie in forest management. Those whose opinions command respect on this score have reiterated this over the years. In 1954 D. Kennedy stated: "If the forests are not managed for permanent production the land is left derelict and . . . population now dependent on these forests must . . . pass from the scene." Again in 1959 he warned: "The extent to which exotics can be used to eke out" the remaining forests "will largely determine whether or not the indigenous forest estate . . . can be brought under management." He was convinced then (and it is more true now) that "time is not on our side". For whatever we do now, it is patently clear that these forests will in time have to be managed for multiple use. There are bound to be conflicting interests. For example, while one body may want all introduced animals removed from the forests, another powerful group will want the maximum number of game animals for their legitimate recreation. Let us be sure, moreover, that the demand for softwood in our near north will in time reach astronomical proportions. Leaving out all financial considerations, have we not a duty to assist in the development of these regions by providing a nearby source of a vital commodity which they cannot produce themselves and which may otherwise be unavailable? It is worth repeating that, of the world's major industrial raw materials, the only renewable one is

wood, and that the manufacture of wood products uses the least energy per ton of any basic raw material. Let us by all means substitute steel, aluminium, plastics and glass where this seems appropriate, but let us also remember that resources of these are finite, while the effort and cost of extracting leaner ores is increasing rapidly, and the greatest crisis facing humanity is a crisis of power supplies. The use of substitutes for wood ensures more environmental pollution.

The logic of events will overtake us in time, but to return to the present the real crunch has only been lightly touched upon in the various reports — a shortcoming which the Ecological Society was quick to notice — that is, the economics of the whole complex proposal. It is on its economic feasibility that the project will float or founder, and it is extraordinary that the intention seems to be to call tenders and then evaluate them. Such a course seems to be about face, especially in view of comments in the various reports about the costs of environmental safeguards. Without economic studies, how can the scheme be evaluated? As more and more people have their say and urge more and more restraints, so costs will rise, and the taxpaying public could do well to take careful note of this. (No one has yet informed that public of the very large and long-term costs it will have to bear owing to the success of the Manapouri campaign, for example.) The assumption that forests can be simply locked up, without management, will gradually become untenable as pressure of population increases. Locking up forests will certainly involve increasing costs — directly for protection and the provision of amenities, and indirectly in terms of forgoing goods and services required by the community. At a rough estimate, the difference in yield between managing the forests for beech production, and managing them as proposed in the scheme would eventually be about 2.7 million m³ per annum. At today's prices this could amount to a difference of some \$9 million annually in stumpage alone. However, if exotics are eliminated, then the scheme will never be possible and, if the forests are to be managed, alternative proposals will become necessary. To close down sawmilling would sound the death knell of a province; to continue the present exploitation would be wrong on all counts.

What is needed now is for the embattled protagonists of the various sectional interests to stop eyeing each other with suspicion across no man's land. All parties must seek out, or impart, the full facts so that misunderstandings can be dispelled. They should then meet to parley, imbued with a determination to solve, for the benefit of the West Coast, and of New Zealand in general, what is a most complex issue of long-term national importance. Perhaps the proposed "South Island Beech Forests Management and Utilization Council" mooted in the Labour Party's election manifesto will be a suitable forum where all views can be fully aired and evaluated.

Our major resources are sun, rain and soil. If we do not use them wisely, we deserve to become the peasants of the South Pacific.

GUEST EDITORIAL

THE REPORT OF THE STUMPAGES WORKING PARTY

These comments are put forward by a working economist not expert in forestry matters nor cognisant of burning forestry issues of the day. To assist me in gaining perspective, I was courteously given a transcript of the stumpage discussions at the Annual Meeting of the Institute in Auckland in May. Together, the documents impressed on me that stumpage must be a tremendously contentious and emotional issue among foresters. Being maybe a simple-minded economist, I would have thought that conventional price theory applied equally here as universally elsewhere. Perhaps foresters have only recently arrived at economic principle after long and arduous empirical study, just as a group of economists would eventually arrive at a satisfactory method of forest measurement.

The first impression of the Stumpages Working Party report is the tremendous amount of homework that the Working Party has undertaken or has had commissioned to assist in its deliberations. The second is disappointment that the Working Party chose to report criteria, principles and conclusions largely without discussion, evaluation, or summarizing pro and con arguments and points of view. True, it could be asserted that properly the reader should turn to the listed commissioned papers and other documents for this detail. Nevertheless, such papers were only raw material for the Working Party and the reader still has little knowledge of the Working Party's views on the merit or relevance of aspects of these submissions, or the weight finally attached to some of them. A further disappointing aspect is that although there are a large number of recommendations (17 specific, 11 general) no indication is given of relative priority, urgency or importance.

The report itself revolves around two main general areas: the determination of stumpage values and the mechanics of reviewing these values over time. In both these areas the recommendations arrived at are foreseeable but nevertheless sound and creditable. However, a few quaint notions creep in along the way. For example, when considering what objectives a public agency selling wood to industry and for export should pursue (page 11), the sole criterion must be to ensure the equation of social marginal productivity of capital in forestry with capital used elsewhere in the economy. On this basis, most of the objectives listed under 5.2.1 could be suspect if without qualification (which may be commonly im-

plied in forestry circles but are not apparent to an outsider). For example, the objective of maximizing the net return to the economy from wood sales may be irrelevant if some of the capital used in forestry could be better used elsewhere. And what is the time reference for maximization anyway?

Hopefully, the objective "to value the wood resources according to the best market outlet" implies that the same quality timber might be allowed different stumpage values corresponding to different price = marginal cost situations in segmented markets.

The revaluation issue is more straightforward from a theoretical point of view, but apparently not so in practice (as page 24 indicates). Perhaps this is why the revaluation and review sections appear particularly thoughtful. The problem of inflation receives due attention, but the classical response (improvement in technology) is not specifically discussed.

Overall the report is extremely competent, with recommendations apparently reached after informed, mature and exhaustive deliberations. Particularly, the rapport of economist and technical expert is pleasing.

OWEN MCCARTHY
Professor of Marketing, Lincoln College