EDITORIAL COMMENT

South Westland Forests

This has been a perennial topic in the pages of this journal. The nature of the management dilemma now faced because of our collective refusal as a nation over many years to consider the long-term consequences of over-cutting the podocarp forests was set out by the Forest Service in a report published in 1980 which was the subject of editorial comment in N.Z. Jl For., 25 (2), p. 117; the Institute itself made substantial submissions on the report which have been published in the Institute’s Newsletter (Vol. II, 4 April 1981), and which will be published no doubt, together with the 3 600-odd other submissions, by the Forest Service in due course. The issues are complex, like the forests. Notwithstanding this complexity, the Minister of Forests appears to have prejudiced the likelihood that some long-term economic benefit can be derived from the forests of the region by precipitately announcing, in response to pressure group activity, the preservation “in principle” of both South Okarito and the southern part of Waikukupa State Forests, in addition to the northern part of Waikukupa, added to the Westland National Park in 1980. (While such pressure group or “lobby” activity is a normal part of the democratic process, by its very nature it places heavy emphasis on a restricted focus of the issue of concern; rational decisions require equal weight to be given to all aspects.) As a conciliatory gesture, he has announced the establishment of a 10 000 ha plantation forest of radiata pine and special-purpose species in South Westland.

These actions cannot and will not solve the problem. There is no suggestion that anything will be done to reduce the present cut, which was at least four times that sustainable prior to the decision to make additional reserves, and probably twenty times that sustainable if his decision is to stand. The announced plantation forests cannot, even supposing that they can be successfully established and managed on the intractable South Westland soils, meet the current industry’s capacity for wood for 30 years. What, then, will happen from 1990 (when the cut under the Minister’s proposals must fall from 80 000 m$^3$ to a figure around 5 000 m$^3$ per annum, or even less) until 2010? It is most unlikely that those employed presently in the logging and milling industry will wish to become forest workers, so for whom are the proposed plantations, disadvantageously located and by any
conventional measures less profitable than practically any other afforestation opportunity in New Zealand, being established?

There is indeed merit in the argument for additional reservation of lowland podocarp forests. The "mountains-to-the-sea" concept for Westland National Park is one of which New Zealand can be internationally proud. But we have also, surely, an obligation to future generations of New Zealanders not to lightly put aside that which may well be of inestimable value to them, a secure and properly managed source of special-purpose timbers.

This Institute argued strongly for the reduction, if necessary by the payment of compensation, of the current annual cut to no more than that sustainable by the forests in perpetuity, after provision had been made for the permanent protection of those values requiring the maintenance of the virgin condition, and for the provision of positive assistance to industry to assist it in making the optimum use of that reduced volume. We did not attempt to cost those recommendations, but can they be significantly more than the costs implicit in erecting 10 000 ha of plantation forest of doubtful profitability and doubtful success, which cannot be less than $10m (the expenditure of which will not anyway solve the social and employment problems due in 10 years), or the value of the wood forgone in reserves the Minister proposes to create (at an absolute minimum, $16m)?

There is no need for the Minister's hasty and unjustified capitulation to the viewpoint that we cannot as a nation trust ourselves to protect any natural values unless they carry the label "National Park".

The problems are:

- inadequate representation of some forest types and habitats in permanently protected reserves.
- a rate of forest exploitation vastly in excess of that sustainable.
- insufficient time, and inadequate resources to resolve the silvicultural unknowns in forest management.
- undervalued and sub-optimal use of an increasingly scarce resource.

Given that government has by implication indicated a willingness to spend large sums on this "solution" to the problem, what better solution can there be?

- phased reduction of the cut to sustainable levels beginning immediately.
- development of local processing industry.
— the recognition of the timber's intrinsic value on some scale of comparison with alternatives, presently imported.
— investment in silvicultural research, and forest management to resolve the problems now recognised.
— the recognition of the legitimate request for additional reservation, perhaps by adding South Okarito forest to the Westland National Park, improving both the "mountains to the sea" nature of the park, and its representation of lowland podocarp forest.
— the reduction of demand on virgin forest for as long as possible to minimum levels by re-logging old cutovers, to provide time for the solution of management problems.
— a public acknowledgement that, if the value of the timber does not rise to the levels needed to support feasible management techniques (of which one extreme would be helicopter logging), or if such techniques cannot be developed given a sincere effort in research over the next 10 to 20 years, then the use of the forests for wood production would cease.

These measures might go some way to meeting the legitimate national and regional goals of proper land use, provide some basis for a long-term supply of a unique New Zealand resource, and provide some basis for the sustentation of the communities involved. There can be no basis for any forester's professional acquiescence in the Minister's present proposals.

Who Decides?

These are turbulent times for forestry in this country, particularly for the administrators of the public forest. The editorial comment above on the South Westland forest decision of the Minister of Forests illustrates the nature of the problem; forests (both natural and plantation) have extremely long planning and management horizons. Politicians, with whom the ultimate responsibility must always rest, currently exercise an unhealthy degree of influence over decisions fundamental to forest management, without benefit of any form of publicly recognised constraint, or parameters against which their decisions can be measured. Naturally, in a democracy such as ours, such a constraint would have to be devised and imposed through the parliamentary process. It would be self-imposed. But its creation would be a realistic recognition that no man is perfect and that the demands of forest management systems are not necessarily compatible with those of a three-year parliamentary term. A National Forest Policy, which incorporated in statute a Code of Forest Law, should lay
down the parameters within which administrators may recommend, and politicians make decisions, and against which concerned citizens might test decisions in the judicial process.

Alternatively, of course, and in many people's eyes a better alternative, the existing process could be made more open, and perhaps the foreshadowed "Freedom of Information" Bill, now delayed until the new Parliament, may provide that opportunity for public insight.

We do not know, for instance, what the professional forest managers recommended to the Minister of Forests on the South Westland issues. We do not know whether their advice has been for many years in favour of reducing the allowable cut to that sustainable by the forests. But we can surmise, from the spectacle of a highly regarded member of this Institute, now Director-General of Forests, publicly retracting his suggestion that the Minister's decision was essentially political, that the Director-General did not so recommend.

There are a great number of fundamental resource allocation decisions to be made in the forestry sector over the next 20 years, decisions which will determine the nature and location of forest-based industry, the social wellbeing of large numbers of New Zealanders, and in large part the economic wellbeing of the nation. There is a potential contradiction between the interests of the government of the day (which might well be satisfied in the short to medium term by exploiting the existing forest estate) and those of the nation and future governments, whose forest inheritance, both in quality and quantity, must depend entirely upon the quality of present-day decisions.

There is at present a scramble on the part of forest industry to establish positions from which a claim for a share of the rapidly rising resources after 1990 can be made. This scramble is a natural and justifiable commercial phenomenon. Where the company concerned does not own the forest resource, its horizons cannot be expected to extend beyond the normal commercial horizons, which at prevailing interest and inflation rates of 15 to 20% are not too far away.

But can we afford to have decisions made on the management and allocation of public forest resources made politically in response to these pressures, without such a Code of Forest Law or a greatly more open system of evaluation than we now have? The dangers inherent in the absence of such safeguards have recently been reinforced by the statement made by the Prime Minister that he required of his senior adviser, the Secretary to the Treasury,
no advice that was not politically feasible. What would be the result if the administrators of the public forest resource recommended against the creation or expansion of an industrial plant whose wood demands could be met from the public forest only at the expense of future profit, represented by shorter rotations, smaller trees, less clearwood, less flexibility and more risk, but whose creation or expansion satisfied a political manifesto? Does short-term political feasibility, or sound long-term forest management become the operating determinant?

**National Yield Control**

It has always been an implicit feature of the management of the State forest resource that the annual allowable cut should not exceed that sustainable (in one form of the jargon, the yield should represent a “non-declining, even flow”) although even this concept is potentially under some pressure, as discussed above.

Until relatively recently, however, the need to consider the implications of exceeding the sustainable cut have been largely academic, since there were presumed to be quite massive wood surpluses in New Zealand. The amazing success of the large-scale forest industries based on radiata pine resources and the success of the timber industry in exporting sawn timber and logs, has rapidly changed the picture; there is now a national shortage of wood, at least in terms of the capacity of the markets we would like to meet, which will last at least 10 to 15 years.

There are sound grounds for supposing that, had we been able to predict the development of this hiatus between market capacity and potential supply, we might well have adopted a different pattern of forest utilisation, such as limiting the quantum of log exports. Equally, of course, it can be argued that the basis of commercial success is the pursuit of maximum profit at minimum risk, and that the satisfaction of existing log export markets at high prices meets that goal.

While New Zealand has survived the period of rapid reduction of its stock of mature forest capital, this survival can be attributed to the control exerted by the major forest owners (both by companies having industrial plant as well as forest, and therefore an interest in sustentation of supply, and by the State which has assumed a community obligation not to overcut), and to the fact that the available supply exceeded the capacity of local industry.
We now enter a period in which
— New Zealand industrial capacity in wood processing of all types will more closely accord with potential supply.
— an increasing proportion of the resource will be held by smaller growers having no commitment to sustained yield.

In this situation, the companies dependent upon continuity of wood supply will seek control over those supplies. The establishment of such control would have far-reaching commercial, political and social ramifications, given the small size of the country and the limited number of potential industrial concerns. Yet some degree of national control is certainly desirable. It can easily be shown, using forest modelling techniques, that the reasonable objectives of the owners of a substantial, if hypothetical, forest resource of potentially crucial significance to a region, might be best met by forest liquidation. Such a liquidation would almost certainly not be in the interests of the regional social and economic structure. There will always be a potential, in any primary industry, for fluctuations in supply and rapid changes in processing technology and marketing. The effects of these in agriculture are buffered by the multiplicity of individual decisions involved, and the capacity to react quickly to external influences by changing management systems. These buffering agencies are not available in forestry and as a consequence what are now regarded as sacrosanct rights of ownership, and the right to fell and dispose of forest at any time and at any rate, will inevitably have to be subordinated to the right of the nation and community to a stable economic and social environment. The overriding nature of the community’s interest in forest land management is recognised in many parts of Europe, whose forest traditions are much more mature than our own.

It is therefore not too early to consider whether, and how, a national system of inventory and yield control can be devised and implemented. This system would be a fundamental part of the Code of Forest Law.

The National Landscape

There has recently been a proposal from the Minister of Tourism for a massive programme of beautification of the landscape by planting trees and shrubs along our highways, byways and wastelands. Within 10 years, he says, the face of New Zealand could be changed, and tourists encouraged to come here in even greater numbers to marvel at our achievements. The basic objective is admirable; there is no doubt that New Zealand has thousands
of hectares of land on which trees would flourish and improve the environment in which we must all live. But the means by which it is to be achieved needs careful consideration.

All landscapes are natural systems and, as such, they change. If they are to be retained, they must be managed; management costs money and requires resources. We have limitless supplies of neither money nor other resources, and it behoves us to utilise these lands, not only to create beauty, but to create wealth.

There are already a plethora of organisations in New Zealand possessing varying degrees of relevant enthusiasm, expertise, capability, and responsibility, to contribute to the national goal. What is required is some inspired leadership and co-ordination so they may all pull together to create, not a never-ending vista of suburban garden, but a living landscape which reflects the whole range of our cultural heritage and human condition.

Predictably there have already been calls for concentration on native species. Even supposing this were a feasible option in practical terms, such as growth rates, why should a native-clad roadside be any more compatible with the essentially European farming landscape than a roadside avenue of limes or poplars, walnuts or cypress?

The comments of the Editor of the Quarterly Journal of Forestry, reviewing The Guiness Book of Trees are apposite: “Not for the authors the fatuous conception that only native trees should be planted. They point out that . . . scores of useful and beautiful trees have been brought [to Britain] by successive invaders . . . To dismiss them as blots on the landscape and damaging to our wildlife is absurd.”*

While we have no need to utilise our land as intensively as the Chinese, it is humbling to consider their progress toward the goals that, perhaps boldly, I impute to the Minister for Tourism. They have achieved an increase in tree cover of almost 50% in 30 years; “ . . . . . eastern China is now clothed with trees and every road, every river, every canal and every city we visited has been adorned and decorated, and made safe and productive, by lines and groves and shelterbelts of trees. Chairman Mao decreed that agriculture and forestry and animal husbandry should work together to make China green like a garden with millions of trees, and this has happened in every city and commune that we visited.” “On every road and railway we travelled — and we covered about 1 000 miles on each — the shelterbelt and the

so-called ‘Four around’ planting have made the environment shady and green with trees suitable to the climate."

The Minister’s project should be applauded. Foresters have a great deal to contribute to its successful realisation. We cannot afford to perpetuate the widespread notions that forestry equates with regimented rows of radiata marching across the countryside in dark precision. This is perhaps the opportunity the profession needs to demonstrate its broader capabilities.

**Industrial Strategy**

The major increase in wood supply is about a decade away. But the investment decisions made today are of crucial importance for the future. They are important for they determine the pattern of resource use and growth and consequently the extent of regional and national benefit to be derived by utilising the wood resource. They also affect the confidence with which the forest growers and processors face the future.

Yet the task faced by the decision-maker of today is far more difficult than perhaps at any time in the past. Hyper-inflation, high unemployment, low economic growth, and energy supply problems are only a few of the issues that add to the uncertainty. The forestry sector is no more immune to these developments than any other. But it is in a somewhat more fortunate position in that the recent Forestry Conference has been able to provide some guidelines for investment decisions and at least to narrow down the factors that need to be considered.

It is reassuring to the forest grower to see the conference endorse the view that forests should be grown primarily for clearwood and other solid wood products. The Processing Options Working Party† went further to suggest:

That the small increase in clearwood supplies over the next ten to fifteen years be allocated to solid wood processing industries for the purpose of developing export markets for New Zealand clearwood products. (page 3).

It is heartening to note that, in the first major sale of State wood including pruned logs after the conference, the government

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has given effect to this recommendation. Most of the pruned logs in the Nelson sale have been allocated for plywood manufacture.

However, the allocation of the balance, 84% of the wood supply, brings into question how seriously the government has taken the recommendations of the Forestry Conference, as the following excerpts from the Processing Options Working Party recommendations make clear:

*Market Mechanical Pulp* (Thermo-mechanical, Refiner Groundwood, Stone Groundwood, Pressurised Stone Groundwood, Semi-chemical Pulps, etc.)

There are several problems associated with marketing mechanical pulps. Firstly, mechanical pulp is used primarily to produce the bulk of the furnish for relatively low cost papers. It is readily replaceable by waste paper and chemical pulp if market supply/demand circumstances move against it. These factors have, at least until now, ensured that it is a relatively low value product.

A second set of problems to consider is that the mechanical pulps form a very small fraction of international pulp trade. The majority of the world’s mechanical pulp production is consumed in integrated paper mills only some 4-6 percent of world production being traded as market mechanical pulp . . . .

Finally, there is the problem of the need to dry mechanical pulps before transporting them to the buyers. The buyer then has to re-slush the pulp, make his product and then dry it again so that the pulp is dried twice. If energy prices continue to rise in real terms this double drying process, which uses substantial amounts of energy, is likely to put market mechanical pulp at a severe disadvantage compared to the products of integrated mills where only one drying is required.

Despite these “potential” problems mechanical pulps could have a part to play in New Zealand’s expanded forest industries. (page 102).

That the sector and government recognise that an expansion of chemical (kraft) pulp industry will be needed to support paper manufacture from both chemical and mechanical pulps, and that priority be given to the establishment of at least one and possibly two new chemical pulp mills. This may necessitate delaying the utilisation of regional wood supplies until they are large enough to sustain a chemical pulp mill. (page 5).

A stand alone market mechanical pulp mill was not a viable processing option unless it was integrated with an overseas paper making partner. The smaller 300 000 m³ input mechanical pulp and paper mill was considered to represent the minimum commercially viable size for a mechanical pulp mill integrated with a paper machine. A similar wood input volume would also be required for the minimum sized market mechanical pulp mill if an acceptable overseas partner was found. (page 17).

The proposed pulp mill for Nelson does not on the face of it conform in any way with the requirements recommended by the
Working Party. A 100 to 120 tonne output per annum market mechanical pulp mill is below the minimum economic capacity; from press reports it appears that the company has no firm export outlets; the markets expected in Asia find recycled paper a cheaper import than thermo-mechanical pulp (although the adoption of the new process of pressure stone groundwood seems likely to open new market opportunities); it is not integrated with an overseas paper-making partner; there appear to be no immediate plans (or the physical capacity) to expand into paper production. Pressure stone groundwood production from radiata pine has not been undertaken anywhere else in the world and PGW technology is relatively new.

There are other aspects, too. Will the rise in electricity cost expected as a consequence of the allocation of currently surplus power to large industrial developments make the project uneconomic? The Nelson resource was one of the few potentially capable of supporting a kraft pulp mill. This development will almost certainly exclude that possibility. Will there be enough wood available for contingencies, such as fire and wind damage? Will the new $1500 million investment create any additional jobs, or will the new industry be set up at the cost of closing down existing chip and sawmills and writing off capital and losing jobs?

It is to be hoped that the dismal prospects for market mechanical pulp identified by the Processing Options Working Party are illusory, and that the undoubted courage of the Nelson company, CSR-Baigent Ltd, is rewarded for their sake and for ours. After all, there is another side to the coin: a PGW plant will develop a new technology and markets for New Zealand to exploit in the 1990s, it will undoubtedly cost less if built now rather than later, and its installation now will spread the demand for capital for new processing plant in the forestry sector. The company has significant forest resources and is potentially independent of State wood supplies; it could be argued that government has facilitated, by allocating State wood, the earlier and cheaper installation of a plant which was anyway inevitable.

Nevertheless, we must beg leave to question the wisdom of commissioning a conference to chart the way ahead for the sector, and proceeding immediately to contravene a clear-cut recommendation arising therefrom. Still, the experts have been wrong before.