

## Forest, Foresters and Forest Policy

Sir,

The Minister of Forests at a meeting of a section of the Institute last December admitted that the Forest Act is "hopelessly inadequate" and that "it has no philosophy at all", never mind an overriding philosophy.

New Zealand was a naturally forested country. Although the Maori first settlers may have destroyed rather more forest than was strictly necessary to provide for their system of agriculture, they did come to understand and identify with the forested environment of their new homeland. They realised its importance for their welfare and their aim was to conserve it. The book "Forest Lore of the Maori", by Elsdon Best, clearly attests to this.

The advent of European colonisation by settlers from the British Isles brought a new and different philosophy. These were people who knew little about forests and had no national tradition of forestry. They were farmers. They understood about sheep, dairy cattle and arable land. Forests were an alien and frightening phenomenon which had to be removed so that they could farm as practised in the Old Country.

One can only speculate now how different the forest history of New Zealand might have been if these European colonists had come from Germany or France, where the importance of forests had long been recognised and there was a history of sustained-yield multiple-use management of their own native forests, or even from Scandinavia where the farmers were usually foresters as well.

It is only in recent years that many Pakeha New Zealanders have begun to identify with the forests as the Maori did of old. West Coaster Peter Hooper's essay, "Our Forests, Ourselves", appeared in 1981. By now, however, a vast indigenous forest heritage and resource, along with the possibility of worthwhile management on a sustained-yield, multiple-use basis, had been destroyed, much of it wantonly and wastefully.

A correspondent in the May 1989 issue of NZ Forestry identified schizophrenic foresters, with particular reference to those in the Forestry Corporation having to put into effect Government policy regarding sale of the nation's exotic plantation forests. There should be other foresters, employees now of the Department of Conservation, feeling equally schizophrenic in view of their former responsibilities for carrying out government policy requiring clearance of indigenous forest for conversion to pines.

Inevitably, in a nation where the Forest Act itself does not even boast a

philosophy of forestry, schizophrenia in foresters surely goes back for many years. For a long time New Zealand foresters used to obtain all or part of their professional training overseas, where multiple use and sustained yield were generally entrenched as fundamental concepts. On returning to New Zealand to pursue their careers, foresters had to adapt to a society which had a very limited and one-sided understanding of the potential and purpose of forestry.

Forestry requires planned management in the national interest over the long term. The creation of the exotic plantation resource has proved the validity of this fact, although the cost of such a narrow single-species programme to a broader and more comprehensive practice of forestry is too often overlooked.

One of the great merits of government involvement in forestry is that the State can take the long-term view, where private investment would be discouraged by the time factor and delay in obtaining profit and the uncertainty of the eventual return. The Treasury dogma, that government investment should only occur in those activities which can make a specified rate of return, is as irrelevant to forestry as is the "either preservation or single-purpose profit" attitude to land use which formed the basis for the demise of the Forest Service.

Until the politicians acquire an understanding of forestry philosophy, there is unlikely to be a coherent forest policy. In the absence of such a policy, the nation's 70-year investment in the plantation forests is being sold off, probably even without management conditions, to the highest bidder for a once-only, short-term gain; reforestation of our most degraded and eroding lands, following misguided clearance for farming, is apparently being abandoned (only a quarter of the East Coast project had been completed by the time the Forest Service was axed); there are still no national guidelines for preservation, or sustained or wise use of indigenous forest on private land; the export of indigenous woodchips, the least processed form of the timber, is still permitted after a decade of continuing forest clearance; there seems to be no certainty that the covenants for the North Westland beech production forests on Crown land will be such as to ensure a properly monitored sustainable operation. One could go on . . .

Jack Westoby in his book "The Purpose of Forests", reviewed in the May 1989 issue of New Zealand Forestry, recognises failure in the attempt to bring forestry into respectability in the eyes of many national Governments. New Zealand must surely rank high up the list of such countries. It seems possibly fortuitous that the 13th Commonwealth

Forestry Conference, with its theme "Forestry - A Multiple-use Enterprise", should be taking place in New Zealand at the present time.

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## Efficiency of fire protection

Sir,

A methodology purporting to determine the efficiency of anybody's methods of dealing with any particular problem is obviously invalid if it doesn't include a definition of the nature and extent of the problem. On this ground, the article by Peter Robertson in the May 1989 issue proves absolutely nothing about the subject in question and I take issue with its methodology as a means of determining forest fire protection efficiency.

Forest fire risks and protection requirements are affected by a number of factors, all highly dynamic, such as: size of forests, locality of forests, bounding land use, climatology, land preparation methods, weed and vegetation spectrums, silvicultural methods, logging practices, access, population densities and related social climate, public access/highways etc., recreational uses, and others. This makes accurate numerical evaluation of forest fire risk and protection requirements very difficult. Furthermore, arriving at an accurate assessment that includes all the variables would still be analogous with shooting at a moving target.

In a commercial forestry environment, forest fire protection expenditures require justification along commercial lines, and although it does not answer all the questions, there is a rationale for this:

A basic formula relating to risk is:

$Risk = hazard \times exposure$   
where

Hazard = the chances of an event happening

Exposure = the amount of loss or damage that would ensue.

For example, risk in relation to a car consists of high hazard and low exposure compared with risk in relation to an earthquake in Wellington, low hazard but extremely high exposure.

The components of forest fire risk are low hazard, but especially in large forests, extremely high exposure along the following lines.

**Hazard:** weather is the most influential component relating to the chances of a forest catching fire. New Zealand has a maritime climate that generally