

Forest management impacts and the need for basic research

The maintenance of long-term site productivity is one of the key tenets of forest managers. The special feature of this issue highlights some of the problems involved in practical implementation of this ideal.

The paper by Bill Dyck and Peter Beets reviews the impacts of various types of harvesting and site preparation on the N status of two contrasting sites. I have picked this theme up in a short note looking at a specific operation at Eyrewell Forest – the full tree harvesting of thinnings. Herb Madgwick and Bruce Webber have extended their earlier work on the biomass and nutrient con-

tents of mature radiata pine to give a method of estimating nutrient removals under a range of harvesting intensities. These three papers thus complement one another.

Andy Pearce and Pat Hodgkiss give an example of a different type of impact. Their paper emphasizes the need for care in constructing logging landings.

The papers also illustrate another important point. They are all good examples of how basic, often long-term research, can be of direct value to managers. The impact of thinning removals in Eyrewell forest has been derived from basic studies initiated to give a better

understanding of radiata pine nutrition and the changes that occur with thinning and fertilizer use. Similarly the other two nutrient related papers rely heavily on basic research and the paper on erosion from a landing failure occurred in a catchment trial at Tairua forest. In times when the pressure is for applied, short-term research it is well to remember that the more basic research may often hold the key to management questions, even though this may not have been obvious at the time the research was started.

D.J. Mead,
Editor

Cultural revolution in Canterbury?

On May 7, 1966, Mao Dzedung launched China's Great Cultural Revolution with an infamous attack on Universities. It led to the wholesale despatch of forestry schools to the remoter provinces with the exhortation to students (and teachers) to "Learn from the rich-experienced peasants!" It introduced a decade of disaster and the loss of an entire generation. To the returning visitor to China, there can be no greater shock than the naivete and stove-pipe vision of cadres and administrators, supposedly educated during that period and now in positions of responsibility and power.

The Probine Report on "Education and Training in the Forestry Industry" appears to be advocating a similar experience in New Zealand. Admittedly, the Report is concerned overwhelmingly with training (the word "Education" features only in its title), and it eschews recommendations on questions affecting universities: nonetheless, it fills more space with university matters than with certificate and industry training combined. It is not my purpose to comment on the latter but I am old enough to be concerned about the parochialism of the former.

The Probine Committee evidently sees no educational role – or responsibility – for New Zealand outside New

Zealand. Yet, at meetings of the Asia-Pacific Forestry Commission, we frequently assert our involvement with the regional community and our preparedness to share experience and expertise (at any rate with non-competitors). We comprise a fraction of one per cent of the regional population but the Canterbury School of Forestry is one of only five university schools in the region teaching forestry in an international language; to suggest that it might be relocated so as to better serve the vocational needs of the central North Island is myopic. "What can they know of England who only England know?"

The Report discusses research but only in the context of access to teaching assistance from the FRI (the former F. & R.E.S. – now the Forest Research Centre – does not appear to enter into consideration). But without engaging in research, how can university teachers command credibility? Forestry students need exposure to good research (whether basic or applied does not matter, but quality does) and New Zealand, I suggest, may well come to need the objectivity and imagination that should characterize university research. An article by John Jeffers (who recently retired from the UK Institute of Terrestrial Ecology) laments the "alarming

decline of British science" which he sees as a consequence of the customer-contractor principle – by which science was "to be bought and sold like cans of baked beans or packs of pantyhose". The concept failed to anticipate the spawning of bureaucracy within the organizations of customers and contractors which oversee the buying and the selling; the result has been, he avers, less (as well as less interesting) research and much more unproductive administration. If this happens in New Zealand, forestry will stand in need of scientists with the research experience, independence and the humility that comes from exposure to students.

To accept at face value the assertion that a staff of 12 is the minimum to teach a forestry programme of the required breadth is naive (and displays a regrettable ignorance of historical precedent – in New Zealand and overseas). Having taught in three forestry departments (in Scotland, Wales, and Papua New Guinea) and – as member and Chairman of the FAO's Advisory Committee on Forestry Education for some five years – visiting countless others the world over, I would assert with some confidence that forest science can be taught to Honours Degree standard by a staff of half that number. Moreover, there will still be

time for productive research and (as in Bangor and Lae) the successful operation of a consulting enterprise. Before the war, in many British universities, professional departments comprised a Professor, a lowly assistant and an "Amanuensis". Be that as it may, does the Probine Committee have no views on the calculation of staff/student ratios in universities? And does it consider that the University Grants Committee (a kind of Treasury) is better able than itself to evaluate professional education?

Finally, the committee expressed surprise at the fledgling Department of Conservation's "coolness" towards the recruitment of graduates in forestry. My own emotion is one of sadness, but not surprise. Four years ago, I took issue with the President of our Institute for stating that the subject of native forests "is simply not a major issue in New Zealand forestry". It appeared to me to be the major issue. The need for management of native forest lands will not disappear with the formation of the Department of Conservation. There will always be a need for people with a broad forestry education to be involved in these forests. The forestry degree should surely complement the Lincoln courses which are also thought to be providing people for the Department of Conservation. The real requirements in this area were not addressed by the Committee.

University Role

It is my impression that the Committee sets little store by university education and the pursuit of knowledge as formative and civilizing processes in themselves. Rather, it sees the role of the university as imparting technology in accord with short-term market pressures (the perceptions of rich experienced peasants?). To suggest that education has broader aims is not to argue for irrelevance. Bertrand Russell once exclaimed, "How nice it is to know things!", but nicer to know some things than others. Education according to Ashby (in a quotation given to me many years ago by John Walker) is the path to "technological humanism . . . the habit of apprehending a technology in its completeness". It can be achieved by making specialist studies the core around which are grouped liberal studies which are relevant to them. "But they must be relevant; the path to culture should be through a man's specialism, not bypassing it . . . a student who can weave his technology into the fabric of society can claim to have a liberal education; the student who cannot weave his technology into the fabric of society cannot claim even to be a good technologist!".

S.D. Richardson

The Ministry's view of forestry

The Secretary for Forestry has released the briefing papers that his Department prepared for the incoming Minister of Forests, Mr Peter Tapsell, to acquaint him with the main aspects of the forest sector in New Zealand. Such a release, which represents a break in the traditional confidentiality imposed on such documents, is to be welcomed. An effort has also been made to keep up with the times in terms of the changing commercial and economic climate: this overwhelming emphasis may be welcomed at least in parts by some, while others will be disappointed by the contents of the presentation as well as the neglect of other matters such as native forests and education. I find myself gravitating to the latter group for reasons that will be explained later.

The briefing is in five sections:

- I background data on the sector;
- II analysis of the nature and performance of three major forest companies;
- III the changed operating environment for the sector today;
- IV the role of the Ministry of Forestry;
- V key issues identified that need resolving.

The text identifies problems, but often no indication of the Ministry's views or criteria for assessing them is given. This stance is unfortunate, as it is uninformative for some, it may mislead others (particularly those with a little prior knowledge) and raises more questions than answers.

The first section could have been much more helpful than it has turned out to be. Diagrammatic representation of trends and comparative characteristics is to be encouraged provided that it is helpful. In many cases, it is not. Other aspects found wanting included no reference to any forest policy, nor indeed for any need for one, an inadequate explanation of the role of forests and forestry in New Zealand and a surprising view of the sector's acknowledged "distinctive features". One notable statistic that was presented without any comment was the low valuation of wood-processing assets throughout the country - 114, 667 and 65 million dollars for all sawmills, pulp + paper + paper board, and plywood + veneer + board plants respectively. Surely the implication of this low figure, relative to the \$800 to \$3500 million talked about for just the Corporation plantations, was worthy of some comment on accounting policies and level of investment, or even just acknowledged

ment of the replacement values for processing plants.

An interesting but somewhat slanted set of performance figures for Fletcher Challenge, NZ Forest Products Ltd, Carter Holt Harvey and, to a lesser extent, the Forestry Corporation is set out. The analysis is, however, far from penetrating; as a reader, I was left wondering what the writers of the report were trying to convey. One could look in vain, for example, to discover possible reasons why New Zealand forestry companies are investing off-shore, what could be done to promote more on-shore, why there is so much inter-company jostling, what might be the Forestry Corporation's future role in industrial processing and what are the implications of CER for our forestry companies.

Section III addresses the impact of Government policies on deregulation and liberalization of the economy on the operation of the forest industry. My main concern in this section is the apparent conflict and possible lack of direction in discussing marketing of forest products. For example, the report says "Australia and Japan can be expected to continue to be primary markets" yet goes on to list a whole series of depressing reverse trends, and fails to offer any positive suggestions on how to promote markets, confining remarks to comments like this:

"New Zealand's relatively static wood supply over the next five years will make market developments difficult as it will constrain the ability to:

- (a) develop an acceptance of *Pinus radiata* in new markets,
- (b) promote correct utilization and new uses of this species,
- (c) encourage confidence in New Zealand's ability to provide quality products at a competitive price, and
- (d) develop effective distribution systems."

Surely if there are these constraints on such an important sector development, the Ministry should be making loud calls for specific actions that need to be taken; but no, there is no later follow-up except a number of platitudes in the same vein. The sector will rue the day the New Zealand Forestry Council was dissolved, unless the Ministry of Forestry starts to encourage a really vibrant and co-operative national marketing promotion, one that the Forestry Council was indeed in the process of fostering most strongly.