has never been guaranteed in the past, but all the historical evidence, including from this region, is that once conditions are sorted out the harvest of any forest intended for production has never been prevented. The Commissioner has also suggested that a long-term forest management plan submitted as part of the project application process would further reduce uncertainty over the harvesting phase.

Social and political risks have been largely unstated, but my impression is that they are perceived by many to be quite high. The East Coast region is different, particularly in the north: the high Maori population and large areas of land in multiple Maori ownership, some well-publicised social tensions in recent years, shortcomings in consultation during the development of the project, the involvement of national pressure groups in vociferous arguments over scrub clearance, and the changes to project regulations and criteria in its first years may have all contributed to these perceptions.

One of the successes of the project so far is that it has delivered some forestry in the north of the region that would not otherwise have been established, but the momentum desperately needs to be maintained. Participation by Maori, specifically by Ngati Porou in the north, is a precondition of the other objectives being fully met. The Commissioner was left in no doubt about the commitment to commercial forestry by Ngati Porou leaders who have clearly identified it as their most important development option. Space precludes discussion of the scrub clearance issue here, but this issue is and must be resolvable in order to make the project more certain and equitable, not to mention able to begin delivering on its muted nature conservation objective.

We believe that there is reasonable political commitment to long-term continuation of the project. Even if one cannot conceive of such commitment for 25 more years, this should not affect a decision to invest now, since once the trees are in and through their initial silviculture, the private benefits have been captured.

Continued uncertainty undermines the potential of any commercial solution. The Commissioner has recommended that, to help stability in the short term, there should be no significant changes to the project until after a major review, planned for the coming year, is completed. Changes may well be necessary once this review is completed in 1996. Any changes that do then take place should be based upon full consultation and should also allow adequate time for the Ministry of Forestry to discuss with stakeholders the nature of the changes and why they are necessary.

In summary, there are a number of important risk factors, a few of which are unique to the region. In total they appear high enough to have persuaded many forestry corporates not to invest or to put in unacceptably high bids. I have attempted to show, however, that many of these risks may be more perceived than real, especially in the light of increasing forest areas in the region. They also have to be weighed against such positive factors as the very favourable growth rates, the ready availability of land and labour, somewhat lower (though rising) land costs, and of course the availability of the project grants. A rethink of the risk assessment by forestry analysts may thus be in order.

Conclusion

As stated at the outset, the project has the potential to contribute strongly to more sustainable land management in the region, provided that a number of criteria are met. It is not the only answer to the present problems of the region and should form part of a comprehensive approach to future sustainable land management, supported by the Government, the Gisborne District Council and all stakeholders. It needs to be effectively targeted, non-distortional, and able to attract the participation of a range of potential forestry investors.

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Confused by figures, or the search for mediocrity

On page 184 of his book "Moa's Ark" David Bellamy writes that:

- a hectare of radiata pine (300 trees) has a mean annual increment of 20 cubic metres/year – or 0.07 cubic metres/tree, and;
- the kauri Tane Mahuta is said to be 1200 years old and the volume of its trunk is 244.5 cubic metres, giving it a mean annual increment of 0.2 cubic metres/year.

He asks, without malice, why do we not grow kauri if it grows three times as fast as radiata pine?

Is there a flaw in his argument? Can anybody tell me?

Change the subject but not the confusion. In the dim distant past, when the prophet of yield was Hans Beekhuis and computers were only a gleam in the eye, we were told that on an average site the mean annual increment of radiata pine maintained itself at a steady 20-25 cubic metres/hectare/year between about age seven and 40. Before that, it was gathering its strength and afterwards its productivity fell through competition and failing vigour.

At the same time we learned that, within this span, the older the tree the more useful and valuable its wood became. The first few years of growth lack strength and stability, but with age these improve, as does fibre quality, and of course clearwood volume after pruning. Also simple arithmetic tells us that establishment and silvicultural costs are spread over a longer period and so reduced if the felling cycle is lengthened.

Why then the fashion for "younger and smaller (trees) bringing new challenges for the wood processing sector" (Russell Dale in his paper to the 1994 AGM)? One obvious reason is likely to be that, in the short term anyway, companies have perforce overspent on forests with a concomitant increase in processing investment and so must generate cash flow. This may be too simple to admit, so the praise singers are called in to turn the mundane into the miraculous, and we risk being convinced that short-term necessity is long-term strategy.

The trade magazines, confused over whether they are in the driver's seat or simply have a tiger by the tail, give sometimes an impression that there is a deliberate preference for younger and smaller logs as a challenge to technical wizardry, and sometimes an almost puritanical delight in self-imposed suffering. Again, this makes a kind of virtue out of necessity, but it doesn't make much sense as a long-term strategy for either the grower or the user of forest products.

Here of course the economist begins to snort – does the simpleton not understand the effects of interest? Has he forgotten the Faustmann formula? The layman's answer becomes a bit blurred, bewildered by figures and assumptions, but, strangely, it seems to be the owners and managers of large forests who are keenest on short-rotation theology, while in the long term they are the ones who would seem to benefit most by more leisure in harvesting. Why set your long-term objective as the deliberate production of low-quality material?

The small grower spends money planting trees, foregoes use of that money elsewhere while the trees are growing, then reaps a reward. If profit alone governs a decision to plant – and often it does not – interest rates and market assumptions rule and the shorter the rotation the nearer to certainty we may think we are.

But in the larger communal forestry scene – the state, large companies, incorporations – the unwritten assumption is that the capital of the forest will be maintained by a sustainable level of cutting. There will be fluctuations due to irregularities of age, class distribution and changes in the area of the forest, but eventually the forest will reach some sort of "normality".

Then there is a balance between growth and harvest, and, for the forest as a whole, interest disappears as an issue because there is no longer an interval between investment and return. So long as productivity is maintained and unit value increases, so the pressure to cut recedes. Where is the virtue of a short rotation?

The financial world appears to take a different view, by denying the value of forests as an entity and analysing worth only on the assumption that harvesting equates with destruction. A recent study of the investment value of several forest-owning New Zealand companies explained its approach as follows: "Our valuation model uses discounted cash flows assuming the existing forests are managed until financial maturity. No account is taken of the company's ability to create or dissipate value through new planting or other future investment decisions", and "we adopt a managed liquidation approach where only existing standards are valued, based on estimated cash flows associated with taking them to full financial maturity. At this stage the land is sold at an estimated market price".

The financial advantage of preserving the forest entity (or in this case influencing an investment recommendation by considering which company is best set up to do this) is ignored.

This is probably only the quandary of an economist beset by too many assumptions so that yet another variable is simply the last straw. More bizarre is the rumour that some companies deliberately forego the long-term advantage of considering their forests as a whole in favour of yield calculation on a stand-by-stand basis of birth, life and death, discounting happily along to a shorter and shorter rotation. I do not know if this is really the stratregy or only a cover for financial over-stretching, but if I was a shareholder I think I would want to know how the board justified reducing long-term profit in favour of the second rate.

The only reference I can find to an opposite philosophy came in an article in the Sunday Star Times of December 4, 1994, looking at the forestry investment philosophies of the Chinese family proprietors of Ernslaw One Ltd: "Our radiata will be 33 years old in 1995, all pruned. The longer you keep it going the more clear wood you get – in hindsight, we bought it quite cheaply, but after we bought the Tapanui forests we had New Zealand consultants saying we had paid twice as much as it was worth". The company has also established 10,000 hectares of Douglas fir in Southland and has a target of 20,000 hectares by 1997. Obviously they use a different formula.

Who is right? Probably neither side, given the range of forest growing and wood-using opportunity, but have not the discounters and their single-issue wood-using allies held the floor too long?

The market has changed from the old days when industry told the forest owner what it could afford to pay for wood. Of course, it can still do so but the grower no longer needs to listen unless the price is right. The market has gone our way: when will we win over the analysts? If some of them decide that Kaiangaroa is better as a dairy farm, who will pocket the cash locked up in its sustainable (rather than liquidated) value, and who will pay ultimately to replace it? It's time that forests were valued.

John Purey-Cust

RECENT EVENTS

New code aims for safer highways

A Code of Conduct for logging truck drivers, launched in February, aims to ensure that the New Zealand motoring public has a better "view" of truckies. The initiative came from the NZ Forest Owners' Association and its transport operators.

The code, a set of guidelines and procedures developed by LIRO (Logging Industry Research Organisation), covers the 1050 people who are employed in the forest industry transport sector. It is a pro-active move by the forest industry and the road transport industry to ensure safety, courtesy and professionalism on the highways.

The code is very specific and among many things stipulates the driver must check the load properly, ensure no bark chips are loose and avoid travelling in truck convoys.

Currently, almost all forest products are transported by public road. In 1993 this amounted to 900 million tonne kilometres. As the harvest from New Zealand's 1.4 million hectare plantation forest estate increases in the next 10 years, logging trucks will become a more familiar sight on main highways, particularly in the more remote parts of New Zealand. Between 1990 and the year 2000, forestry transport is predicted to increase by 43% in total tonne kilometres (128% on district roads and 33% on state highways). Further large increases will occur beyond the turn of the century.

The districts expected to experience the biggest increase in logging traffic are Whakatane, Gisborne, Rodney, Far North, Southland, Thames/Coromandel and Nelson/Marlborough.

The road transport sector is hoping that the code will also improve its public image.

Many forestry companies and logging contractors are going one step further by providing a feedback system. Transport businesses working with Tasman Forestry already display signs featuring an 0800 number. If a motorist experiences a problem or wishes to comment, the number can be called 24 hours a day. Carter Holt Harvey Forests are introducing a similar programme. Forestry Corporation has provided a comprehensive driver training programme and has plans to introduce a system involving driver identification and certification.

The code includes professional driving techniques, a comprehensive list of mandatory equipment checks, an overview of the relevant road transport regulations and the Occupational Safety and Health (OSH) requirements. Individual forestry companies and transport operators will also include their own regulations and policies that drivers must adhere to.