

Building a better future

New Zealand foresters of my vintage have lived through massive changes in forest policy, ownership and sector institutions. A New Zealand School of Forestry field trip led me to ponder recent changes and what new professional forestry graduates might face in future.

I'm writing this from St Arnaud, where I've been staying with 16 students from the School. We spent two days with Alan Griffiths, of the Indigenous Forestry Unit, Ministry of Agriculture and Forestry (MAF). We showed them small coupe harvesting experiments at Station Creek, just north of Maruia. The students appreciated at first hand how foresters had tried to emulate natural patterns of disturbance, and how composition of regenerating stands varied with coupe size. They also saw the results of historical, large-scale clearfelling in beech forest. The following day was spent doing "rece" plots in magnificent beech and beech/podocarp stands on a property near St Arnaud, where the owners have been harvesting, in order to help the owners move from a harvesting permit to a harvesting plan. Part IIIa of the Forests Act provides for native forest harvesting in small coupes on private land under either temporary permits or more stringent, but longer lasting, plans.

Despite clear rules and guidelines for private native forest owners, we have witnessed a steady decline in outturns from native forests over the last half century. New Zealand harvested about 20,000 m³ of native timber last year; slightly more than 1% of the volume of native timber harvested in 1955, and our native forests suffer an onslaught of exotic pests. This decline in harvesting is a direct consequence of increasing plantation harvests as well as changing public values and some misconceptions about our native forests. Government policy forbids harvesting in the 80% of our native forest area that is state-owned. We depend on tax payers to finance pest control in most of our natural heritage, and the amount done is inadequate.

Meanwhile we import millions of dollars worth of tropical hardwoods, with scant knowledge of whether they have been harvested legally, and even less information about the extent to which that harvesting is sustainable. Turner et al. (this issue, page 20) assert that illegal logging impacts hugely on our sector; an 11% reduction in wood prices and an annual loss of \$177M to NZ forest growers and processors.

Sector groups and conservation organisations recently signed a declaration against wood obtained through illegal and unsustainable logging. They asked the NZ Institute of Forestry whether or not it wished to sign, with about 24 hours notice. I voted not to sign, because although I oppose illegal harvesting, the statement appeared to be inaccurate, and impacts of proposed remedies on the forestry sector had not been thought through. Poorly drafted regulations imposed in wood markets might significantly add to the

bureaucracy faced by forest managers. It would have been good if the NZIF had been asked earlier so that we could have helped draft the declaration. In the event, someone claimed to have "signed for us".

The NZIF has long been a member of Environment and Conservation Organisations of New Zealand (ECO), which is chaired by Cath Wallace. Cath announced that ECO had signed the declaration, and that this "binds" the NZIF. Now I wholeheartedly support our membership of ECO, despite politely ignoring a certain amount of taunting from Ms Wallace at an ECO AGM where I represented the NZIF. Members of ECO share our desire to make the world a better place, and although we may not always express the same opinions about how to make improvements, membership of ECO sets us apart from other forestry sector organisations, and helps underline the fact that we are not driven by a desire for profit. It should also keep channels of communication between us and other conservation groups open, but in this case it clearly didn't. We might have expected that Cath would ask for our opinions and participation before signing on our behalf, if that is in fact what our membership implies. If we make this argument within ECO then I believe we should find support among other ECO member organisations.

My students moved from native forests to plantations for a couple of days, with generous help and instruction from Mark Forward, Juri Schokking and Brendan Whitely, all of Nelson Forests Ltd., Peter Wilks of PF Olsen Ltd, and Andy van Houtte of Nelson Pine International.

We've seen massive changes in plantation forestry, including:

- Moving from from 50% state-ownership to mainly publicly listed companies, and now to non-listed pension funds and investment companies.
- Foresters moving from jobs in the Forest Service to the private sector, particularly in consulting.
- Structural regimes increasing in frequency, driven by a strong New Zealand dollar, high export transport costs, and declining relative margins for pruned logs. Forest managers are reconsidering the merits of pruning.
- Harvesting moving from easy, flat terrain to more difficult, broken country.
- Plantation ownership in small holdings increasing dramatically, along with increasing interest among farm foresters in alternatives to radiata pine.
- We are on the verge of carbon trading (with a latent issue of the impacts of afforestation on the albedo of a landscape waiting in the wings).
- Companies seriously considering the merits of clonal forestry.
- Hundreds of thousands of hectares of eroding hill farms crying out for afforestation.

We bemoan the lack of a coherent national forest policy. How much easier might it have been to plan and implement a rational future for our forest administration had we retained a national Forest Service? Maybe Hamish Levack is right, and we should resurrect it.

Clearly today's young foresters will see and influence equally dramatic changes over the next few decades, and they must be taught forestry in breadth and depth, with an emphasis on creativity rather than on rote learning. I can assure you that they are so taught. John Purey-Cust (page 43 of this issue) expresses concerns about professional forestry education, suggesting that it is narrowly focussed on current processes, but he presents no evidence and is very much mistaken. Most of the students I am with this week are enrolled in fore219, Introduction to Silviculture. In that course alone they are taught by me, Alan Griffiths (MAF), Ian Barton (Tane's Tree Trust), and Luis Apiolaza (NZ School of Forestry tree breeder). They have previously heard from Nick Ledgard, of Scion, employees of companies, New Zealand Institute of Forestry (NZIF) office holders, academics and foresters from overseas, and a wide range of other competent people with diverse

views. They were kindly hosted by the Nelson section of the NZIF on the fourth day of our field trip.

John's opinion piece arose from a small comment in the NZIF newsletter in which he complained about formulae and content in this Journal. I wrote to him, pointing out that the Journal is dependent on, and reflects, contributions from members and a few non-members, and invited him to contribute. His opinion piece is the result. I welcome suggestions from readers, and my vision for the range of content for the Journal includes his suggestions. I encourage you to read his opinion piece and then put pen to paper.

I strongly disagree with John about the formulae, though. Foresters are typically numerate, and not scared by a few equations. Our students will use them from time to time as they draw on their broad, deep, professional forestry education to help build a better future.

Euan Mason

Letters

Declaration on climate change

Sir,

We hereby declare that:

Scientists should follow the scientific method. Cause and effects are not determined by correlations.

Consensus is not science; probability values are not determined by a show of hands.

Politicians are accustomed to stopping debate, but the evolution of science requires debate.

Predictions made by researchers and psychics are not facts.

Water vapor is the dominant greenhouse gas. CO₂ is not the primary driver of climate change.

In prehistoric times, temperature levels rose perhaps 8 centuries before CO₂ levels increased.

In some places, magma will warm seawater and in some places it will melt ice.

Glacial retreats, sea-level rise and the migration of temperature-sensitive species are not proof of human induced climate change, for none of these changes has been shown to lie outside the bounds of known natural variability.

A change of 1 to 2 degrees C per century falls within known natural rates of warming and cooling over the last 10,000 years.

Some senior IPCC representatives, acknowledge that computer models cannot predict climate. Satellite data suggest that greenhouse models ignore negative feedbacks, produced by clouds and by water vapor, that diminish the warming effects of CO₂.

Climate models demand that atmospheric temperature trends be 2-3 times greater than surface temperatures but satellite data do not show these trends.

Human populations affect the atmosphere in various ways; the burning of fossil fuels creates water vapor and CO₂; certain chemicals affect the ozone layer; construction of cities and roads creates heat islands; irrigation adds water vapor; and airplanes produce contrails.

Skeptics force scientists into doing better science.

"In questions of science, the authority of a thousand is not worth the humble reasoning of a single individual." Galileo Galilei

"A good deal of skepticism in a scientific man is advisable to avoid much loss of time" Charles Darwin

"To know that you do not know is the best. To pretend to know when you do not know is a disease." Lao-tzu

Peter Brown, David Buckleigh, Bill Dyck, David South, Wink Sutton