

## A second opinion on the Conference

By Cris Brack

**F**orestry in a climate of change - a great theme for the annual NZIF conference, and a great introduction for this Aussie to my NZ counter-parts. I enjoyed and even took notes during all the presentations and was impressed by the enthusiasm and positive nature of the vast majority of presentations and questions - very much the opposite of a dour or defeatist attitude I was told I could expect in the current climate of economic hardship and political uncertainty!

Given the theme and the current political interests, it was not surprising that many of the presentations related to climate change, although there were some very topical and useful presentations on the nature of social values and uses of forests, native forest research, and even one on experimental design for evaluating the threats of burning the grasslands during recreational vehicle use. One presentation was significantly different to the others, using newspaper quotes and references to previous "disaster scenarios" to question the very underpinning of anthropogenic climate change. Not too much robust debate later, it seems that a general conclusion was reached that the establishment and management of more forests was essential to meet the known patterns of human population growth and over exploitation of our non-renewable resources. A feeling that the profession could, and indeed should ignore, anthropogenic climate change in all their planning and lobbying for more forest establishment seemed to flow from the final conference question time.

I personally agree that the establishment and use of well managed forests can be justified by the necessity to meet many of the needs of the increasing number of humans. I do not think it matters if the climate was "worse" - hotter, more CO<sub>2</sub> in the atmosphere, etc. - before humans were around, or that sun spots can make it all worse again in the future without input from humans. I also do not particularly care if the current climate change is anthropogenically induced or not, but I do believe that there is creditable evidence that there is a change in the climate since we began measuring it. I think the change we should be especially concerned about is in the magnitude and variations of our weather. To give one personal piece of evidence of this change, the cash-strapped Government in my original homeland Territory recently spent a small fortune strengthening bridges and dams because the amount of rain experienced in the Australian Capital Territory was decreasing... but when it came, that rain came in larger storm events. So even though the total rainfall may not have been much different, the variability of that rain was different and very significant. The Government had good reason to believe that they were getting their "once in 100 year flood events" much more frequently than every 100 years and the roading infrastructure could not cope with that even if the total rainfall was less than expected. Failure to act on that increased variation could lead to chaos and significant



*Climate change plea - more forests please. Dave Evison.*

loss to the community. This increased variation is the real issue of climate change, not changes in the average. Even an "anthropogenic climate sceptic's" conference presentation was full of reports, albeit newspaper-based ones, of extremes in temperature and rainfall events. Does it matter if the increased variance, or increase in extremes is human induced or not? To my mind, no. Should we simply ignore this change because "we" might not have caused it? To my mind, again the answer must be no.

Firstly, should we ignore changes in climate variation even if these can only be modelled as probabilities rather than certainties? Those who heard my presentation to the conference would know that I think the answer is clearly "no". Optimal decisions on what to do when made under an assumption that the future is well known (deterministic) will be different from those made when uncertainty about the future is considered. These differences in optimal action are based on rational and even economic arguments. I did not even have to invoke the *Precautionary Principle*, which some people have interpreted as "if you are unsure of the consequences of your action, you should assume the worst" or "when in doubt, don't!" More usefully, the precautionary principle has also been loosely defined as *avoiding decisions or actions that risk catastrophic and or irreversible outcomes in the face of uncertainty and ignorance...* even if there is a perception that the risk of such outcomes is low. The application of that principle here

would be to act as if human-induced climate change were a certainty that places human society or even life was under threat of extinction, so don't do anything that makes this worse. So, assume that emission of greenhouse gases will definitely do bad things to our current environment and to us as a society and so we must stop it! Of course, other sectors of society will claim that stopping industry that causes greenhouse gas emissions may also lead to the destruction of our society as we know it, so under the precautionary principle we should not do that either!

But, of course, we cannot simply stop the emission of greenhouse gases anyway. It is foolish to just say "stop that..." without also being able to add "and do..." What then should forest owners, managers and users do? The two big questions I see now are (1) should we be doing anything different in the light of the increased variation observed; and (2) can humans deliberately achieve anthropogenic climate change and try to reduce the increased variation we have been observing?

A number of the conference papers did address the first question above - addressing or coping with the variations in the "natural" climate or in the changing political and economic climate. For example, Euan Mason outlined a growth modelling approach that stopped ignoring climate variation and resulted in more precise estimates of yield; while Hugh Bigsby, Richard Meade, David Evison and Thomas Adams all tried to show how markets, valuations or management should change to react to the mechanisms that politicians and policy-makers have put into place in response to perceived climate change. Of course, I am biased when I say that my presentation clearly and definitely showed that even the most simple of forest decisions should be re-thought in the light of uncertainty, including uncertainty about the future climate and policy reactions or financial incentives.

I think the answer to the second question is the one that will put "forests", sustainable wood products and forestry back into the preeminent position it should always have had. We need to do "our bit" to change our environment back to a less variable one in terms of climate. We also need to recreate a less hostile and ignorant environment in terms of society's perceptions of forest management. Humans may have changed the variability of the world through the felling of forests and the exploitation of fossil fuels, but I am sure they did not anticipate that outcome. We however should be able to foresee the positive impacts on greenhouse gases, biodiversity, friendly energy, clean water and air, social improvement, etc., that good forest management can create, and deliberately set out to "change the world".

Our profession needs to deliberately explore ways of integrating forest products and the forests themselves into every positive aspect of modern society, and we need to do it under our conditions of an uncertain climate, policy and economic future. We need to have policy makers, economists and political commentators evaluating their actions in terms

of the potential to increase plantation establishment, to increase the substitution of non-wood based products with wood based ones, to increase the income to people who live around, support and maintain the forest environment. New Zealand foresters in particular must ensure no one evaluates a policy, economic or political option in terms of reducing "de-forestation" or restricting actions on plantations because these options always have a consequence of reducing the establishment and value of growing trees.

No country can afford to have the irrational result, reported during the conference by Stephanie Rotarangi, where the beauty of a forest meant that the owners were denied the use of their resource. Similarly, no society can afford to have the irrational result of using more environmentally destructive resources because forests need to be "saved", that is, locked into restricted management regimes that fail to use all their environmental and production potential. Finally, our planet cannot afford the paradoxical conclusion that the actual or potential addition of a "carbon value" for forests means that fewer land managers will establish forests for their carbon services.

I don't think foresters should get involved in the arguments about the causes of climate variation - that should be left to climate scientists. There would be much less confusion about climate change if we, and the whole host of scientists and non-scientists who rely on popular reporting of the "issues" and "facts" by info-entertainment agencies (also known as newspapers, TV and "Current Affairs" programs - entertainment masquerading as information providers), just kept out of that debate. We must do what we are best trained and experienced at - developing and working with an environmentally positive resource that will make the "world a better place" but which will be significantly influenced by changes in natural, social or policy climates. We must learn how to make robust decisions - good decisions under a range of possible climates. And we must "take society" with us so that they know that establishing new forests, maintaining the economic value of existing forests and using forest products in an expanding range of appropriate places is a fundamental part of any "environmental answer".

I offer then the following indices so you can measure the success of "forestry" in a climate changing world - are you doing your bit?

- 1) An increase in the area of plantations established/re-established in NZ - substantially more than this year's record setting low;
- 2) An increase in quantity of forest-based products substituting steel in manufacturing or diesel, fossil fuels and gas in energy generation;
- 3) An increase in positive info-entertainment articles on forests;
- 4) An increase in the number of students enrolled at all levels of training, study and research in forestry and the wider forest industry;

- 5) An increase in number and popular acceptance of the ways to demonstrate value of forest management and use of forest products and services for individuals, communities and societies;
- 6) An increase in the ability of individuals, companies and governments to think more globally and make robust decisions - those that are good for a range of possible futures.

Let us hope that the next NZIF conference will provide an opportunity to present some more of success stories and that the positive “buzz” I felt at Nelson will be repeated. There is no doubt that there is a “problem” with the current business scenario and many of our natural environments as well as with the foreseeable climate. But there must be no doubt in people’s minds that the establishment and use of forests and forest products is part of any “answer”.

## Letter

### Restore the Forest Service?

Sir,

I must comment on Hamish Levack’s article on the NZ forestry League and his calls to resurrect an independent forestry agency. I share his views that the disestablishment of the Forest Service has had a damaging effect on forest policy and practice, allowing both Chile and most recently Australia to overtake us in terms of area of managed planted forests and value of wood product exports. In the mid 1980’s, neither Ronald Reagan nor Margaret Thatcher sold their state forests, only the labour governments of New Zealand and Sweden. (Thatcher tried and the Forestry Commission even sold a few woodlots before a revolt by the ladies who supported the Conservative Party persuaded their local MP’s with threats of boycotts of the afternoon teas and “bring and buys”. Particularly in England, the ladies used the forests for walks and privatisation would restrict access - the power of the non timber values of forests). Sweden realised its mistake and re-nationalised much of its former state forests that are now managed by Sveaskog (4.2 million ha, net profit NZ\$275 million).

Hamish states that NZ’s indigenous forests continue to degrade but the magnitude is unknown because DOC is not required to monitor them (How then does Hamish know that they are degrading?). However, supervised by MfE, a National Forest Inventory of the indigenous forests has just been completed and the data analysed. Some 1200 PSPs have been installed on an 8 x 8 km grid over all indigenous forest and all shrubland. By incorporating some 170 existing NVS plots into the sample frame, it has been possible to estimate change since 1990. The PSPs will be remeasured over the next 5 years as a Continuous Forest Inventory. The first year’s remeasurement was completed this year and hopefully the current, agreed budget will be maintained.

NZ is too small a country for the village elders to admit their mistake in closing the Forest Service. It will take a new generation before they do. The best that is likely to be achieved is to create a model similar to that of the US Department of Agriculture, with a clear, distinct forestry organisation within MAF. It would require a manager reporting directly to the CEO of MAF and

responsible for all forestry matters, excluding managing the conservation estate. The functions that are common to agriculture and forest production, (e.g. biosecurity, tariff negotiations) could continue with sufficient critical mass within the larger organisation while having a well resourced and enthusiastic forestry organisation, capable of giving good policy advice based on technical expertise and practical experience. This way, an unwinnable battle with environmentalist could be avoided and “face” could be saved.

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(These comments are the writer’s own and do not necessarily represent those of his employer)