NEW ZEALAND CAN MEET ITS KYOTO OBLIGATIONS BY

UNLOCKING THE POTENTIAL OF FORESTRY

The world's climate is changing and may be approaching a 'tipping point'. Glaciers are melting, the sea level is rising and weather patterns are becoming more unstable.

There is now almost universal scientific agreement that this is being driven by human activities – in particular, the growing output of greenhouse gases from coal-, gas- and oil-fired power stations, motor vehicles and intensive agriculture.

To address this challenge, New Zealand in 2003 became one of more than 160 countries to sign and ratify the Kyoto Protocol on Climate Change. In so doing, the government committed New Zealand to transforming its economy to one based on renewable energy.

The protocol requires countries to 'wind back' their greenhouse gas emissions – in New Zealand's case to 1990 levels by 2012. Countries can do this by being more efficient in their use of fossil fuels and by switching to sustainable energy sources such as wind, solar and geothermal energy. Because growing trees remove carbon dioxide from the atmosphere, they can also increase their forest plantings.

Since ratifying the protocol, however, it has become clear that the climate change policies in New Zealand are not working. Our greenhouse gas emissions are increasing and the expected surplus in our carbon credits has been shown to be a mirage.

Fortunately, the government has acknowledged many of the flaws in its policies. There is also still time to make the changes needed for New Zealand to meet its Kyoto climate change obligations.

New Zealand Government and forest industry officials were instrumental in getting forest sinks recognised under the Kyoto Protocol. This document explains how, with prompt action, forestry sinks can help New Zealand meet its Kyoto obligations.

What's wrong with NZ's Kyoto policies?

New Zealand export industries cautioned the government not to ratify the Kyoto Protocol until:

- Our main Pacific trading partners did so.
- New Zealand had developed a coherent strategy to deal with the key impacts of the protocol.
- New Zealand's carbon balance sheet had been thoroughly examined.

The government ultimately decided that these concerns were outweighed by the need to provide leadership on climate change and build on New Zealand's strong environmental reputation. It ratified the protocol in 2003.

In so doing, it was confident the growing area of plantation forests in New Zealand would allow New Zealand to not only meet its Kyoto targets but also earn a windfall of carbon credits to fund the transition to a lower-carbon economy.

Flawed assumptions

Unfortunately, the assumptions upon which the decision to ratify was based were wrong. Since then energy and transport emissions have been significantly revised upwards and the eligible area of forest revised downwards.

The government's decision to ratify the Kyoto Protocol was based on seriously flawed assumptions. Among them, a failure to allow for a dramatic decline in forest planting and replanting rates

Also, the assumptions didn't allow for the steep fall in forest planting rates and increasing deforestation from 2000. In 2005, for the first time in more than a century, the area taken out of forestry was greater than the area of new plantings. This trend has been due in part to the growing relative profitability of competing land uses and, perversely, to some of the government's own climate change policies.

As a result of these market and policy factors, New Zealand's greenhouse gas (GHG) ledger for the first Kyoto commitment period (CP1) from January 2008 to December 2012 now shows a carbon deficit which will cost taxpayers at least $1 billion.

Killing the Golden Goose

The government decision to nationalise carbon credits while imposing a tax for not replanting older forest after harvest (the deforestation cap), has seriously eroded confidence among existing and potential forestry investors. Long investment horizons mean that policy stability and the protection of property rights are valued even more highly in forestry than other industries.

The very industry that can cushion the cost and ease the transition to a lower-carbon economy is being damaged.

In nationalising carbon credits, government treated private forest investments like public utilities – a long-standing attitude which is unfortunately reflected in some other central and regional government environmental policies.

The Resource Management Act requires all those having an effect on the environment to "avoid, remedy or mitigate" that effect. Yet forest owners are increasingly being compelled to mitigate the environmental effects of other industries – in particular, high-intensity agriculture – without compensation or reward.

This directly contradicts the polluter-pays principle and is unjust. Worse, it is resulting in fewer trees being planted and the conversion of existing forests to other land uses with consequent environmental and economic costs.

The deforestation cap

Privately-owned plantation forests established since 1989 will still absorb significant carbon (70 m tonnes CO_2) in Kyoto CP1. But if their carbon credits are nationalised, forest owners will not benefit from this.

Worse still, if following harvest they fail to replant forests planted in 1989 or earlier, they may be taxed heavily under the proposed deforestation cap. Retrospective taxes are unjust, but this one is doubly so – it levies forest owners for any carbon losses, when there is no way for them to benefit from carbon credits.

Maori are disproportionately affected by the deforestation cap, especially where they are the future owners of land currently in forest managed under Crown Forest Licences (CFLs).

These licences require this land to be handed back to Maori unplanted – a provision which incurs a Kyoto deforestation liability. Maori must retain the right to use CFL land for whatever purpose they choose. To limit their future land use options by legislation or carbon taxes is unfair and is a prima facie breach of the Treaty of Waitangi.

Officials have yet to work out how a deforestation tax would be implemented, but it is clear that it would be fraught with difficulty and cost. Enlightened government policy should provide an investment climate that encourages land owners to replant after harvest, making deforestation a non-issue.

Perverse signals

Government policies to date have provided no incentive for land owners or investors to increase tree planting in order to remove carbon from the atmosphere. Indeed, by nationalising carbon credits and by proposing the deforestation cap, a strong perverse incentive was created for them to convert land from forestry to other uses.

If the conversion is from forestry to dairying, there is a double-whammy effect – New Zealand loses a carbon sink and increases its emissions of greenhouse gases. Livestock farming accounts for nearly half of all New Zealand's GHG emissions.

In addition, with no carbon tax on fuels or agriculture, and with many industries shielded from the costs of their carbon emissions, consumers are not meeting the environmental costs of their purchasing decisions. Accordingly, forests and forest products are not being valued as they should be when compared with intensive agriculture, steel, cement, plastic and aluminium.

When forest is converted to dairying, there is a double-whammy effect – New Zealand loses a carbon sink and increases its emissions of greenhouse gases

A rational solution

New Zealand's unique emissions profile means it lacks the flexibility to effect quick-fix solutions.

To reduce the country's GHG emissions, the government needs to develop integrated policies and allow industries sufficient time to adapt to them. To do so by end of 2012 – the end of CP1 – is unrealistic. Therefore New Zealand will need to acquire sink credits to meet its obligations.

The official review recommends that the government should do this by starting to buy sink credits from other countries now. A much better solution, and one which will cost less, is to grow these credits at home.

For this potential to be realised, however, appropriate forest policy should be implemented immediately to allow plant nurseries to respond in time. Time is of the essence.

Positive signals

The best way to get forest owners to increase the storage of atmospheric carbon is for the government to create a market for this service and to offer individual forest owners the option to become involved. Many forest owners would participate in such a market if the government returned carbon credits, along with associated liabilities. Those who chose not to participate should not face any penalty, nor gain any benefit.

If the government cannot do this, then forest owners must at least be offered some of the value of the credits, net of liabilities.

Participating in the market for carbon and other values will mean inevitable changes in the way trees are grown and managed in New Zealand, with other species – including native trees – being more widely planted.

Forestry provides the public with wide-ranging environmental benefits. Forest owners need to be rewarded for providing these services, as is increasingly the case overseas.

Carbon emissions must have a price

If New Zealand is to reduce its GHG emissions and alter behaviour the government needs to show leadership. Putting a value on carbon storage is an essential first step, but ultimately the cost of the GHG emissions used to produce products must be reflected in their sale price.

This is particularly true of the construction industry, where forest products compete directly with products with high embodied energy levels like steel, cement and aluminium. Within CP1, the government must legislate to ensure that the GHG liability for all such products lies where it falls. This will create an incentive for architects to design in wood, and for engineers to specify wood products where substitution is possible. GHG tariffs will need to be imposed at the border on construction materials to minimise the risk of so-called 'carbon leakage' to non-Kyoto countries.

In the meantime, maximum GHG emissions and embodied energy levels must be mandated for all building materials used in the construction and renovation of government buildings.

Contracting for services provided

Forestry offers wide-ranging public benefits to society beyond climate change. These include soil conservation, erosion control, water quality improvement, biodiversity protection and recreational opportunities.

Forest owners worldwide are increasingly being contracted by governments and corporations to provide such services. If similar contracting is not established in New Zealand, the industry's competitive ability to supply them will continue to be eroded.

Also, if land owners and investors believe they may be compelled to provide these services without proper financial reward they are less likely to invest in forestry.

Kyoto negotiating position

The Kyoto Protocol includes a number of arbitrary rules which distort forest economics. New Zealand's domestic arrangements do not need to mirror these flaws – we should adopt policies that meet Kyoto obligations in ways that are equitable and enduring for New Zealand.

Looking beyond CP1, some of Kyoto rules should be revisited to make them more rational including recognising that much carbon continues to be retained in wood products and is not immediately lost to the atmosphere at harvest.

The solution

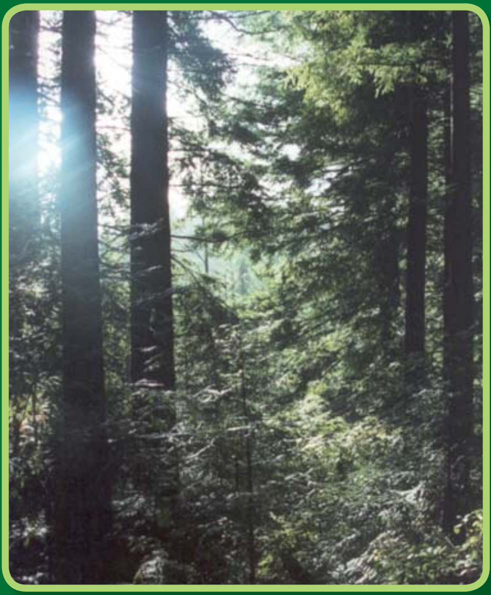
New Zealand can meet its climate change obligations without having to purchase carbon credits at substantial cost from other countries.

To do so, land owners must be provided with the incentive to increase the net area in planted forest by between 60,000 and 70,000 hectares a year. This figure was exceeded in the late 1990s and is achievable now.

To make this happen the government needs to:

- Remove the inequitable, retrospective 'deforestation cap'.
- Allow land owners with Kyoto-qualifying forests (forests planted from 1990) – as well as those replanting non-Kyoto forests after harvest – to financially benefit from the value of the carbon their forests remove from the atmosphere.
- Introduce broad-based carbon charges, ensuring that all emitters of greenhouse gases face the same opportunity costs.
- Ensure that New Zealand's Kyoto policies have the best long-term outcomes for New Zealand, even if they don't exactly mirror current Kyoto rules.
- Develop a regime which puts a value on the environmental attributes of forestry, thereby encouraging investment in the sector.
- Act immediately. Because forestry will inevitably be part of any rational climate change policy developed for New Zealand, forestry policies should be developed now to help the country meet its carbon emission obligations in the first Kyoto commitment period. Other policies may take longer to develop.

In the government's Kyoto policy review released in late 2005 officials scored the strengths and weaknesses of a range of forestry policy options by nine criteria. The above policies score highly using these criteria.



Where to from here?

In December 2005, the government issued a 470-page review of its Kyoto policies and said it would be formulating new climate change policies in early 2006. Forest owners welcomed this review which validates many of the concerns they have been voicing about existing policies.

Because the Kyoto Protocol now has the force of international law, withdrawing from it would badly damage the country's international reputation. The only option now is to develop credible new policies which enable New Zealand to meet its Kyoto climate change obligations.

To ensure the widest possible public buy-in for its new policies, the government should open up its preferred options for full public debate. But since forestry will play a major part in any rational climate change package, forestry policy options need to be debated and resolved now.

Plant nurseries need time to produce young trees for planting. These trees then need to grow for four or five years before they make significant contributions to New Zealand's carbon ledger. Each month of delay squanders the potential contribution they could be making in CP1 and beyond.

Forest owners are eager to play their part in policies tailored to our country's unique circumstances and which fairly reward them for growing the trees which must play a key role in reducing New Zealand's net greenhouse gas emissions.

Published for the Federation of Maori Authorities, Kyoto Forestry Association, NZ Farm Forestry Association and the NZ Forest Owners Association, by the NZFOA, PO Box 1208, Wellington. Tel 04 473 4769, email nzfoa@nzfoa.org.nz, website www.nzfoa.org.nz

More information: The NZ Government review paper Review of *New Zealand's Climate Change Policies* is available from www.climatechange.govt.nz/resources/reports/policy-review-05. The joint forest growers' submission to the government review is available from www.nzfoa.org.nz/file_libraries

Photos courtesy of Tenon Limited, WHAM Media Limited and Wingspan