



Regulatory Impact and Business Compliance Cost Statement:

Permanent Forest Sink Initiative

January 2005



Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

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Background

On 10 December 2002, the Government ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC). In addition to taking on certain obligations, ratification of the Protocol opens commercial opportunities for New Zealand.

One such opportunity is the ability of the Government to claim forest sink credits generated from carbon sequestration following the establishment of new forests on previously unforested land ('carbon sequestration' refers to the process of removing CO₂ from the atmosphere through photosynthesis and storing increasing amounts of this CO₂ as carbon in biomass). The Government has decided that a voluntary mechanism should be put in place to allow individual landowners to take advantage of this opportunity under certain circumstances.

The mechanism proposed would essentially be a contract between the Crown and a landowner that would facilitate the new commercial activity of 'carbon sequestration'. Under these contracts the Crown would agree to provide an amount of tradable carbon emission units equal to the amount of carbon sequestered by new forests on a given block of land over certain time periods. In return landowners would contract with the Crown not to harvest trees from the newly established forests.

Statement of problem and need for action

The generation of sink credits through sequestering carbon is governed by the rules of the Kyoto Protocol, its Marrakech Accords and Good Practice Guidance (currently under development). These rules must be reflected in the implementation of the mechanism, and consequently provided for in an appropriate legal framework, in order to ensure that:

- activities carried out under it generate sink credits; and
- landowners are exposed to the true costs, risks and returns associated with sequestering carbon as a commercial activity.

Current legal frameworks do not allow contracts that adequately address the perpetual nature of the costs and contingent liabilities associated with carbon sequestration or the geographically-specific nature of these activities. Legislative backing is therefore required to ensure that:

- There are no inherent 'subsidies' to participating landowners, which may result in over participation in the mechanism and 'losses' elsewhere in the economy; and
- The Crown does not have to meet any ongoing costs and/or liabilities should they arise.

Government policy decisions requiring non-harvest covenants by landowners require additional legislative backing, particularly in relation to the registration of agreements (contracts) against land titles and an enforcement (search and seizure) and penalty regime.

Failure to adequately address these issues could result in forests planted for commercial timber production being included in the mechanism. This may create incentives for existing forest owners to deforest their current forested lands and replant elsewhere to earn sink credits. This in turn could have major negative implications for New Zealand's emission liabilities, as deforestation of land is considered a source of greenhouse gas emissions under the rules of the Kyoto Protocol.

Statement of public policy objective

A principal objective is to contribute to New Zealand's response to climate change by:

- encouraging additional sequestration of carbon by forests; and
- encouraging the development of a trading market for greenhouse gas emission units.

Statement of options for achieving desired policy objective

Status quo - implement agreements (contracts) under existing legal framework

Consideration was given as to whether the Government's policy could be implemented using existing legal frameworks to enter normal contractual arrangements with landowners and other legal entities. Under this option legal entities would contract with the Crown inter alia:

- not to harvest the trees;
- to meet any liabilities arising from losses of carbon; and
- to meet any ongoing monitoring costs.

The Crown for its part would contract to supply emissions units equal to the verified amount of carbon sequestered provided specified conditions were met.

However, as normal contractual arrangements can not bind and run with land, this option was rejected because it may not provide ongoing certainty with respect to assigning the contingent liabilities created whenever carbon is sequestered and sink credits are issued. There was concern that normal contracts would not sufficiently protect the Crown's interests in case of insolvency or winding up of a company. It may also create uncertainty if the legal entity with which the Crown had contracted sold the land.

As the activities upon the land determine the extent of any future liabilities, it was considered important that the liabilities and obligations imposed under the mechanism should apply to current landowner, who would presumably be in the best position to manage such liabilities. This outcome could not be assured under current legal frameworks.

Ordinary contractual arrangements would not allow the establishment of an enforcement and penalty regime that would adequately address the national level risks to the Crown that could occur if participants do not honour their non-harvest obligations. The absence of such provisions would jeopardise the establishment of the mechanism as, as discussed above, it could create incentives to deforest land and significantly increase New Zealand's liabilities under the Kyoto Protocol.

Preferred option – new legislation

New legislation would provide for the rights and obligations associated with the activity of commercial carbon sequestration to be registered as a covenant against land titles. This will ensure that the rights and obligations bind and run with the land upon which the activity is undertaken, which is considered the most appropriate way to provide a legal framework that properly reflects the ongoing nature of these rights and obligations.

In addition, new legislation would allow the establishment of a penalty and enforcement regime, including search and seizure provisions. This will help to ensure the Government is

not exposed to the potentially considerable fiscal costs that could result if landowners breach their obligations under the mechanism.

Without limiting the ability of the parties to agree whatever provisions they see fit, legislation could provide for some or all of the following:

- a framework for agreeing and registering against land title an obligation not to harvest timber from the land that can take effect in perpetuity or for a specified term;
- a framework for agreeing and registering against land title any other obligations the Crown may require as part of the agreement, for example implementing forest management plans and ongoing monitoring requirements;
- a framework for agreeing and registering against the land title the landowner's obligations in the event there is a loss of carbon from the forest resulting in a liability on the Crown for an emission;
- a framework for agreeing and registering against the land title the landowner's rights with regard to receiving future emission units;
- providing for any perpetual liabilities, obligations and rights associated with the permanent (non-harvest) forest to apply to the current landowner;
- an enforcement and penalty regime in the case of material breaches of the covenant not to harvest timber, including powers of search and seizure; and
- a framework to allow establishment of permanent non-harvest forests to be conducted as joint ventures under Forestry Rights legislation.

Statement of net benefit of this proposal

Government

The benefits to the Government of this proposal are largely environmental. The mechanism is likely to focus on highly marginal farmland, which may be unsustainable under agriculture and unsuitable for production forestry. Benefits in retiring marginal land include biodiversity enhancement, soil and water conservation, and improved flood protection.

Some reduction in emissions from agricultural sources might also be expected as new permanent forest displaces pastoral agriculture. Reducing emissions in this way might reduce the cost of New Zealand's emission obligations in the order of \$50 to \$100 per hectare per year of the commitment period.

The direct costs to the Government are likely to be minor as it is anticipated that, except during the first year of operation, all costs associated with administering and managing the mechanism will be recovered from landowners participating in it. The mechanism will be administered by the Indigenous Forest Unit of the Ministry of Agriculture and Forestry, which has existing skills and experience relevant to this proposal. This will minimise overhead costs and allow maximum flexibility to adjust government staffing levels to match demand for services from landowners. Ongoing government staffing estimates are based on two fulltime positions, the costs of which would be borne by the Crown in the first year only. These costs are estimated at \$0.24 million (incl. GST) per year, but will increase or decrease depending on demand for services.

A further potential cost to the Crown arises from the risk that over time the Crown may be left holding residual responsibilities for abandoned land that carries ongoing monitoring obligations and contingent carbon liabilities. These risks (and possible costs) are likely to be negligible relative to the overall responsibilities of the Crown for monitoring the carbon in all

of New Zealand's forests and its contingent liabilities for the deforestation of all indigenous forest on Crown land.

Landowners

The mechanism will allow landowners to consider alternative and potentially more profitable uses for marginal farmland. To provide an indication of possible returns, manuka-kanuka scrub on the East Coast might generate gross returns of \$120 to \$300 per hectare per year at \$10 to \$25 per tonne CO₂ respectively. The price of carbon is particularly important to estimating returns, but can not be estimated accurately until a number of international variables become clearer. Some landowners may also generate further returns from non-timber forest outputs such as hunting licenses, honey production, and tourism operations.

Because using the mechanism would often require little capital to initiate it may be of particular interest to Maori landowners. The mechanism incorporates the ability for Maori landowners to harvest some timber products for cultural uses under certain circumstances.

Costs to landowners will include cash and non-cash costs. At this stage it is not possible to accurately predict cash costs as the standards for forest management, measurement and verification will be designed to be consistent with international requirements, and these are still under development, however, an indication of cash costs might include:

- legal fees and costs of developing agreements and registering these against land titles (in the order of a few hundred to a few thousand dollars);
- development and implementation of forest management plans (these may be completed by landowners with little financial cost);
- carrying insurance to cover potential losses of carbon (insurance costs are typically \$10 to \$20 per hectare for normal forest investments);
- periodic forest measurement and verification (which may be around an average of \$25 per hectare per year of the first commitment period).

Non-cash costs would include loss of agricultural production from the land and reduced land value over time as some land use options are no longer available and the forest nears the end of its period of net carbon sequestration. These are also difficult to estimate, but are likely to be small given the low quality of land likely to be retired from production under the mechanism.

Wider economy

The mechanism will encourage:

- additional sequestration of carbon by forests; and
- the development of a trading market for greenhouse gas emission units.

Both these outcomes will provide additional flexibility to companies seeking to minimise their net emissions to the atmosphere. This may be particularly relevant for companies with Negotiated Greenhouse Agreements (NGA), as for these companies commercial carbon sequestration may provide a least-cost option to meet their obligations under their specific NGA. Similarly, if future Government's decide to move to an emissions trading regime (where large emitters take responsibility for meeting their own emission liabilities) this mechanism may well provide an efficient least-cost option for off-setting emission liabilities.

Developing a larger trading market for greenhouse gas emission units in New Zealand should have spin-off benefits in terms of increasing the marketability of such units and reducing the cost per unit of transactions.

Consultation Undertaken

Government agencies

The Treasury, Te Puni Kokiri, Ministry for Economic Development, Department of Prime Minister and Cabinet, Department of Conservation, Ministry for the Environment, Ministry of Agriculture and Forestry, Ministry of Justice, and Land Information New Zealand have been consulted. Departments will be further consulted as legislation and any associated regulations are drafted.

Te Puni Kokiri recommends that the policy should provide for future generations of Maori landowners to reconsider the agreement not to harvest trees. The Government decided against this advice, as such an arrangement may lead to a blurring of the line between forests established for timber production and those established as forest sinks. This in turn could create distortions in investment decisions throughout the forest industry, inequities between landowners, and increased liabilities for the Crown.

Public and sectoral consultation

The general principles underlying the proposed mechanism have been discussed with landowners and research providers working in this area. However, these stakeholders and other private interests, including Maori landowners, have not had the opportunity to comment on the proposed mechanism itself. It is proposed that private interests be invited to comment further on the proposed mechanism.

Business compliance cost statement

Sources of compliance costs

Compliance costs may arise in the following areas: • legal fees and costs of developing agreements and registering these against land titles; • development and implementation of forest management plans; and • periodic forest measurement and verification.

Parties likely to be affected

It is likely that the majority of participants in the mechanism will be landowners of hill country farming operations. There are some 6,800 such operations in New Zealand.

Estimated compliance costs of the proposal

Estimates of compliance costs are:

- legal and registering fees and any costs incurred in developing agreements are expected to be in the order of a few hundred to a few thousand dollars depending on the extent of independent legal advice landowners wish to seek;
- forest management plans, which may be able to developed by landowners themselves with little or no financial cost. Some modest charges may be imposed to recover the costs of officials reviewing and approving management plans;
- forest measurement and verification operations are expected to be conducted at the start and end of the commitment period (2008 to 2012). Typical pre-harvest forest mensuration operations cost around \$25 per hectare. Assuming:
 - similar levels of measurement are required;
 - the cost of measuring carbon is twice that of measuring timber; and

- 20% of the land area is independently verified (i.e. remeasured);
- then average costs of around \$25 per hectare per year of the first commitment period would be incurred. This cost would halve for further commitment periods as in future the measurements taken at the end of the last commitment period would provide the opening carbon balance for the new commitment period.

Longer term implications of the compliance costs

Forest measurement and verification costs are expected to be ongoing but periodic. The frequency of measurement and verification may reduce over time as the forest reaches a steady state of carbon. Other compliance costs are expected to be one-off.

Level of confidence of compliance cost estimates

At present it is only possible to provide indicative estimates of compliance costs. The actual level of compliance costs will be governed by the need to meet standards for measurement and reporting set internationally. These are still under development and will not be completed until the end of 2003.

Key compliance cost issues identified in consultation

Landowners consulted principally noted compliance costs arising from forest measurement and verification and the ongoing nature of these costs. While these activities are an essential component of the mechanism, the design of the mechanism has sought to minimise these costs by requiring measurements only at the start and end of a commitment period.

Overlapping compliance requirements

There are no overlapping compliance costs.

Steps taken to minimise compliance costs

It is expected that forest measurement and verification will be required only once at the start and end of each commitment period. In future it may be possible to reduce these costs still further by extending the period between measurements, particularly as the forest reaches maturity.

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