



Regulatory Impact Statement: ETS Forestry Regulations, post-1989 Forests

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Ministry of Agriculture and Forestry
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1. Executive Summary

By ratifying the Kyoto Protocol, New Zealand is liable for New Zealand's greenhouse gas emissions above 1990 levels over the period 2008 to 2012.

A suite of reports and Regulatory Impact Statements (RIS) have been prepared for various components of the New Zealand Emissions Trading Scheme (ETS) as proposed through the Climate Change (Emissions Trading and Renewable Preference) Bill (the Bill). This RIS is developed to support regulations for post-1989 forests in the ETS. This discusses how net changes in carbon stocks can be determined and administered for participants 'opting in' to the ETS who register post-1989 forest land (effectively forest land that was planted after 31 December 1989). Once forest landholdings have been registered, post-1989 forest participants take on the obligations of the scheme to either claim New Zealand units (NZUs) or surrender NZUs depending on their forestry activities in a commitment period (that result in removals or emissions).

The Bill provides for regulations to prescribe the collection of data required to be kept by participants in respect of activities, the methodology for calculating emissions and removals from an activity and the quantum of fees for cost recovery.

The long-term preferred option for carbon stock assessment will be a combination of the measurement/look-up tables/flat sequestration rate approach.

The preferred option for cost recovery is to require an application fee and filing fee for emissions returns based on a deposit with an hourly rate charged for additional work required to process an application or emissions return.

This RIS is supplied with the first batch of regulations related to post-1989 forests in the ETS. Two (or three) further batches will follow, with one in August 2008 and one in mid to late 2009, that will cover the measurement approach, its administrative provisions and other post-enactment enhancements.

2. Background

The Kyoto Protocol provides mechanisms for countries to account for carbon dioxide removals by forests established on land that was non-forest land at 1990. These removal units can be used to offset greenhouse gas emissions from other sectors. The Kyoto Protocol makes the distinction between pre-1990 and post-1989 forests. This has been reflected in the New Zealand ETS. To date the titles of 'non-Kyoto forest' (pre-1990) and 'Kyoto forest' (post-1990) have been used publicly. To simplify matters, only the terms 'pre-1990 forest' and 'post-1989 forest' are now used.

The forestry components of the ETS as proposed under the Bill have been designed to cover:

- emissions resulting from the deforestation of pre-1990 forests; and
- net changes (emissions and removals) in carbon stocks in post-1989 forests resulting from any activity or natural event.

The date of 1 January 1990 is the date selected because of the way New Zealand has to account for its liabilities under the Kyoto Protocol.

The forestry sector will be the first sector to enter the ETS. Obligations will arise through activities such as deforestation (defined under the Kyoto Protocol as conversion of forest land to non-forest land) as emissions, with afforestation activities eligible as removals (as NZUs).

Delaying the introduction of forestry into the ETS for just one year could result in 12 to 24 million tonnes of additional emissions if foresters decided to deforest early to 'beat' future controls, resulting in \$252–\$504 million in additional costs to the NZ taxpayer to meet the increased CO₂ liability (based on the current carbon price of \$21/tonne). It is therefore important that owners of forest lands factor the cost of carbon emissions into their decision-making as soon as possible.

Without policies to manage deforestation, it is predicted that about 50 000 hectares of forest would be deforested in New Zealand over the period 2008–12, resulting in about 40 million tonnes of carbon dioxide being emitted. Unless deforestation/land conversion is managed, the liability to the taxpayer from this land use change in the period 2008–12 could be more than \$840 million. Reduction of deforestation is likely to be one of the lower-cost options for reducing New Zealand's greenhouse gas emissions in the first commitment period (also first compliance period) of the Kyoto Protocol.

The government has decided in principle that landowners' liability for deforestation emissions, and the option for landowners to receive emission units (with liabilities) for eligible afforestation, commences on 1 January 2008. Because the ETS legislation will be enacted after this date, pre-1990 forest owners with emissions liabilities will not have to surrender emissions units until April 2010.

New Zealand's planted production forests covered an estimated 1.8 million hectares as at 1 April 2006. The ETS will affect at least 1000 owners of pre-1990 exotic forest who have indicated that they intend to deforest their land during the first commitment period (to end 2012) and therefore will have obligations to surrender units if they deforest their land. Owners of forest land planted pre-1990 who have not been granted an exemption will be subject to emission liabilities if they deforest their pre-1990 forest. This will not apply if forest owners harvest and replant their forests or allow them to regenerate. The Government will allocate free NZUs to owners of pre-1990 forest land in recognition of the economic impact the ETS will have on pre-1990 forest land due to deforestation liabilities.

Post-1989 forest owners may choose to take on credits and obligations as post-1989 forest participants, and to report carbon stock change on that post-1989 forest land. It is estimated that there are over 11 000 post-1989 forest landowners. MAF now estimates that over 3800 post-1989 participants may register for the scheme. Under the ETS as proposed in the Bill, most forestry participants will have infrequent reporting and compliance obligations.

3. Adequacy Statement

The Regulatory Impact Analysis Unit has reviewed the RIS and considers the RIS is **adequate** according to the adequacy criteria.

4. Status Quo and Problem

The RIS for the introduction of the Emissions Trading Scheme (ETS) through the Climate Change (Emissions Trading and Renewable Preference) Bill (the Bill) noted that *“the forestry sector is a priority for the government as the sector can be a significant driver behind NZ net total emissions (both in a positive and negative sense)”*.

Owners of forests established on eligible land post-1989 and those intending to establish new forests on eligible land can choose to participate in the ETS and take responsibility for carbon stock changes that occur from 2008. If participants then harvest or deforest, or if there is any decline in carbon stock (for instance, as a result of fire), the owner has to surrender emission units to cover the amount of carbon released (that is, the reduced carbon stock). The obligation to surrender will not exceed the number of emission units previously received by the forest owner under the ETS in relation to that forest. If carbon stocks increase, the owners will earn credits in the form of New Zealand Units (NZUs). Participation in the ETS is voluntary for post-1989 forest owners as participation may not be attractive to all forest owners due to forest size, compliance costs for monitoring, reporting and verification of carbon stocks and uncertainty surrounding the evolving carbon market.

In an emissions trading system, consistent methods are required to verify information and to calculate the value of products being traded. In terms of the forestry components of the ETS, this means that consistent information must be collected and reported by post-1989 forest participants to maintain the integrity of the scheme and the total allocation of NZUs.

The science of carbon assessment is at a formative stage for forestry. While there are several methods and approaches, at this stage, there is no single predominant method available to the forestry sector that could be standardised for use in the ETS that meets the objectives. This makes it especially difficult to describe the carbon assessment methodology in regulations.

Carbon stock assessment at the national level is mandatory at the end of each compliance period of the ETS and on any change of ownership, however, post-1989 participants may report and receive credits and/or incur liabilities more frequently, in intervals of not less than one year. The first ETS compliance period is aligned with the first Kyoto Protocol commitment period and runs from 2008 to 2012.

The total costs to the Ministry of Agriculture and Forestry (MAF) of providing the forestry specific elements of the ETS over the five year period to June 2013 are estimated to be \$21.3 million. On 12 November 2007, the Cabinet Business Committee agreed that [refer CBC Min (07) 24/1 and POL (07) 423]:

- direct costs associated with administering the participation of post-1989 forest land will be cost recovered; and
- costs of administering the pre-1990 forest related decisions not be cost recovered.

Fee revenue will be recovered from post-1989 forestry participants only as they are not obliged to join the scheme, but rather join for the benefit of the NZUs received.

MAF has reviewed its estimate of direct costs in light of feedback from the consultation process, proposed changes to MAF processes and a review of the interpretation of “direct costs” in line with Audit Office and Treasury guidelines. As a result, the direct cost estimate has decreased from \$6.782 million to \$3.442 million. The key reasons for this change include:

- a decision by MAF to outsource processing activities which consequently reduces associated support costs.

- exclusion of the costs of compliance and programme directorate activities which are not directly related to providing services to Post-1989 participants.
- exclusion of corporate support costs which are not directly related to providing services to post-1989 participants.

The revised direct cost estimates are shown in Table 1 below:

Table 1: Direct costs associated with administering the participation of post-1989 forest land in the ETS

Cost types	Forecast Expenditure (\$million) to June 2013
	Current
MAF Staff	1.118
Outsourced processing	1.414
Other operating costs	0.747
GIS operating costs	0.164
Corporate support costs	0
Total	3.442

These costs are to be recovered from the following assumed range of participants (based on modelling in the Karo Group's Report on the New Zealand Forest Emissions Trading Scheme Compliance Strategy (March 25, 2008)):

Table 2: ETS participation assumptions for post-1989 forestry

	Size of Forestry Holding (Ha)			
	1-99	100-499	500-4 999	5 000+
Estimated ETS Participation Rate	34%	58%	79%	95%
Estimated Number of Participants	3 605	215	34	19
Average size of forestry holding (ha)	41	481	3 203	5 150

The RIS accompanying the Climate Change (Emissions Trading and Renewable Preference) Bill considered alternatives to the ETS. This RIS considers the options over the detail of direct regulation for post-1989 forests. There are two core components of the scheme discussed in respect to post-1989 forestry regulations:

- carbon assessment (including information collection); and
- cost recovery.

All options for carbon assessment and cost recovery will impose incremental compliance costs of interacting with government, including:

- understanding the new rules;
- implementing internal practices;
- understanding new forms, reporting requirements and information formats; and
- ongoing staff time requirements for information collecting, reporting and compliance.

5. Objectives

The overarching objectives to guide policy development for the ETS are to reduce New Zealand's net emissions below business-as-usual levels and comply with international obligations, including our Kyoto Protocol obligations.

In terms of the components of the ETS the obligations in the Bill are designed to:

- keep compliance and administrative costs low;
- capture as many of the sectors' emissions as practicable;
- reflect the feasibility of monitoring and verifying emissions at each point; and
- create appropriate incentives to reduce emissions while not unduly deterring worthwhile economic activity and investment.

More specifically, the objectives to develop a scheme for post-1989 forests are that it should have the following attributes:

- be simple to apply;
- affordable to forest landowners;
- be achievable in timeframes;
- be scientifically defensible;
- be able to be applied retrospectively (need to calculate carbon stock change from 1 January 2008 for post-1989 forests);
- be accurate in assessing carbon stocks;
- link to New Zealand's international accounting under the Kyoto Protocol e.g. the Land Use and Carbon Analysis System (LUCAS) as administered by Ministry for the Environment;
- provide certainty for Government in terms of allocation of NZUs (and confidence in allocating NZUs); and
- regulatory requirements should not be a disincentive to participation in the ETS.

The specific objectives for a carbon assessment methodology that require a regulatory response include:

- the methodology has to be scientifically defensible;
- the estimates of carbon emissions and removals from forests is consistent with principles adopted by the Kyoto Protocol to which New Zealand is a signatory;
- that there is low risk that the removal units issued by the Government to individual participants do not exceed the number of units claimed under the Kyoto Protocol for the same total area of forest during the first commitment period;
- to provide a simple and cost effective methodology which is consistent for all participants; and
- to facilitate and reduce the costs of compliance auditing of emissions returns for participants.

6. Alternative options: Carbon assessment

The options outlined below were considered as independent options for carbon assessment and were not chosen as stand alone options for the reasons outlined below. The options considered include:

- **Measurement approach only** – This involves sampling a forest using standard forest inventory measurement procedures, where measurements of tree diameter and height are taken within sample plots randomly spread across the forest, and a methodology for calculating carbon from the site specific forest measurements to generate a figure for total biomass. Measurement and calculation would be undertaken by the applicant. This provides a precise and sophisticated but more expensive method (due mainly to the costs of intensive field work) to calculate carbon stock changes. The measurement approach is complex and is still under development and further research. Validation and technical peer review are required before it may reliably defined in regulations.
- One of the key issues with this approach is that the compliance costs are likely to be a significant imposition on small forest owners. For example, the compliance costs are likely to vary between \$190/hectare/event for 10 hectare forests down to \$15/ hectare/event for the largest forests (i.e. forests over 10 000 hectare). It is estimated that 91 percent of potential post-1989 participants fall below the proposed 50 hectare threshold and collectively own around 33 percent of the estimated total post-1989 forest estate. For indigenous forest the remoteness, rugged terrain and lack of homogeneity in a large part of eligible post-1989 indigenous forests also means that a measurement approach may be significantly more expensive compared to eligible exotic forests.
- A key advantage of the measurement approach that makes it desirable in the longer term is the robustness and credibility that it lends to New Zealand’s overall carbon stock assessment and that it meets good practice requirements promulgated by the Intergovernmental Panel on Climate Change.
- **Look-up table approach only** – This involves using aggregated national or regional average forest data applied by the participant to predict the carbon content of a typical tree of a particular species and age. The look-up tables will cover both growth prior to harvest and emissions from harvest and subsequent decay of the below ground biomass and the woody litter left on the forest floor after harvest. This is a low-cost approach because there are no field measurements required. However, look-up tables provide a less accurate estimate of total biomass than the measurement approach.
- If only a look-up table only approach is used there will be an under or over estimate of carbon stocks because the method is based on national or regional averages. There is also a risk of manipulation of the results and, therefore, a risk to the Government of over-allocating NZUs.
- **Flat sequestration rate approach only** – This involves adopting a single flat carbon sequestration rate for all forests. This approach is simple to apply, but it does not take account of variations in exotic forests and can result in significant carbon assessment anomalies that could under or over allocate NZUs to individual applicants. By generalising so widely, a flat sequestration rate could result in an inaccurate allocation of NZUs, causing Kyoto compliance issues. Landcare Research is developing a range of flat sequestration rates to be applied to the smaller indigenous forestry sector.

7. Preferred Option: Carbon assessment (combination)

The long-term preferred option for carbon stock assessment will be a combination of the measurement/look-up tables/flat sequestration rate approach. It is proposed to initially implement the look-up table approach for post-1989 exotic forest when the primary legislation is passed, with a measurement approach introduced by future regulations. A flat sequestration rate will initially apply to indigenous forests. This approach will be able to be specified in regulations, meet the minimum level of precision, be robust, not excessively expensive to administer and acceptable to participants and their stakeholders by being as simple and transparent as possible. It reflects the fact that information and methodologies will improve as time goes on, but necessitates further work and cost for government.

The look-up table approach is to be used initially. This approach will provide certainty for forest owners' decision-making at the commencement of the ETS based on a simple approach to calculation of changes in carbon stocks, will have low compliance cost, and gives post-1989 participants the opportunity to submit interim carbon assessments prior to 31 March 2013 to claim or surrender NZUs. It also provides the Crown with greater knowledge of the total number of units required to be issued and provides greater liquidity for the market in trading NZUs.

The look-up tables for post-1989 exotic forests will provide for growth prior to harvest, emissions from harvest and subsequent decay of the below ground biomass (the roots) and the woody litter left on the forest floor after harvest, and a change of species after harvest. Look-up tables are available for *Pinus radiata*, broken down by region and age and are available for all other exotic species broken down by age only. Look-up tables for exotic species with more comprehensive regional breakdowns will be developed in parallel with the measurement approach.

It is proposed that once a cost effective measurement approach is available, to provide exotic and indigenous forestry participants with the option of using either the existing look-up tables or the measurement approach. However, some constraints will be needed over which method can be used to prevent an over allocation of NZUs, such as the maximum forest area that can use the look-up method for the mandatory emissions return at the end of the compliance period. A 50 hectare threshold, under which measurement would not be compulsory, allows the large number of small forest holders to use the simpler and less expensive look-up table method for their mandatory emissions return. The introduction of a measurement approach will not preclude the use of the look-up table for voluntary interim emission returns at not less than yearly intervals, but reconciliation will be required when mandatory emission returns are submitted.

It is proposed that a flat sequestration rate of 3t/CO₂/ha will be used initially for indigenous forests. Indigenous forest research work indicates that carbon sequestration rates are low compared to exotic forests and do not vary significantly among a broad range of vegetation types, especially during the first 30 years of a forest. Landcare Research, as part of its EBEX21 programme, is already using a conservative single sequestration rate of 3t CO₂/ha for all indigenous forests, for calculating the number of voluntary market emissions units. Revised sequestration rates acknowledging different indigenous forest profiles, including the higher sequestration rates of manuka and kanuka, and a measurement approach will be introduced in future regulations.

Enforcement considerations were not among the objectives (refer to *Objectives* section above) in the design and choice of carbon assessment options. A risk based verification system is in development to ensure that the removal units issued by the Government to individual participants do not exceed the number of units claimed under the Kyoto Protocol for the same total area of forest during the first commitment period. Compliance monitoring will focus on

forest region, area and age data supplied by the applicant. Further details of enforcement strategy development are noted in the *Implementation and Review* section below.

8. Alternative options: Cost recovery

MAF investigated a number of approaches to setting fees that would fully recover the \$3.442 million administration costs attributable to post-1989 participants over a five year period. These included:

- annual fee;
- application fee and annual fee;
- application fee and filing fee for emissions returns;
- stepped application and filing fees for emissions returns;
- flat fees for application and filing with an hourly rate for work additional to standard processing times; and
- no fees.

Options with annual fees were not developed further because the annual fee is not related to filing emissions returns and does not vary with number of emissions returns or forest size, and therefore may not allocate scheme costs equitably across forest owners. The no fees options was rejected as it would be inconsistent with the Cabinet mandate of cost recovering direct costs associated with administration of the ETS.

MAF has fully developed two fee options that most closely reflect the work effort (and therefore cost) incurred in delivering services;

- stepped application and filing fees for emissions returns. This fee option was the preferred option from those considered by Cabinet on 17 April 2008. It was proposed in the exposure draft regulations.
- low flat fees for all participants presenting registration applications and emissions returns that fall within MAF's estimated standard processing times. In addition there is an opportunity to charge those participants with larger or more complex applications that exceed MAF's estimated standard processing times an additional hourly rate-based fee to recover additional verification costs. This fee option was developed subsequent to the exposure draft regulations in response to submissions.

Both options consist of a one-off application fee plus a fee each time an emissions return is filed (a minimum of one during the 5-year commitment period). The application fee would aim to recover the registration costs, while the filing fee would recover the costs of processing emissions returns. While the filing fee may discourage the filing of emissions returns, the impact is unlikely to be significant because the fee is low relative to the high estimated financial benefits of participation.

Previously, partial Crown funding for small-holdings (1–99 hectares) and indigenous forest participants have been indicated as suitable means to incentivise these groups' participation in the ETS. Officials now consider that these subsidies are not necessary as the flat fee quantum is now quite modest.

While cost recovery decisions are separate from any consideration of regulatory impact on scheme participants, it is important that compliance costs are affordable to foresters and do not act as a disincentive to participation. The perceived net benefits of joining the ETS will be important to forest owners when making participation decisions. Costs and benefits from the scheme are discussed in the *Costs and Benefits* section below.

9. Preferred option: Cost recovery (flat fee and hourly rate)

The preferred option for cost recovery is low flat fees for all participants presenting registration applications and emissions returns that fall within MAF's estimated standard processing times. In addition there is an opportunity to charge those participants with larger or more complex applications that exceed MAF's estimated standard processing times an additional hourly rate-based fee to recover additional verification costs. This approach, and the subsequent fee quantum, is broadly similar to the application fee approach used in the Permanent Forest Sink Initiative (PFSI), another climate change related forestry programme, which was supported by many submitters as being fair and equitable. However, it limits participants' certainty of the fee prior to application or return processing. Guidance material and other MAF documentation will assist applicants in meeting registration application and emissions return filing requirements cost effectively.

Fees were set to recover the cost of estimated participation by owners of post-1989 forests over a five year time horizon to June 2013. This period largely coincides with the first Kyoto commitment period. The proposed fees based on the flat fee and hourly rate approach are set out in table 3 below:

Table 3: Preferred fee schedule for post-1989 forest participants

Registration Application Fee (per participant) (based on approximately 4.25 hours)	
Total cost per participant	\$488.89
GST	\$61.11
Total	\$550.00
Emissions Return Filing Fee (per return) (based on approximately 45 minutes)	
Total cost per participant	\$88.89
GST	\$11.11
Total	\$100.00
Hourly Rate (over and above standard time)	
Cost per hour	\$115.55
GST	14.45
Total	\$130.00
Travel Costs	
Cost per hour for time spent travelling	\$115.55
GST	14.45
The cost of the travel	Actual and reasonable

Based on the revised fee structure and MAF's estimates of participation rates and modelling assumptions, the direct costs would be recovered over the five year period as in Table 4:

Table 4: Recovery of direct costs over five year period to June 2013

	\$000
Registration Application Fees	1 911
Emission Return Filing Fees	385
Hourly Rate charges	1 075
Travel Costs (actual and reasonable)	71
Total direct costs to be recovered	3 442

Sensitivities and risks

Cost recovery is sensitive to scheme participation rates and the number of emissions returns filed over the 5 year period. If actual volumes of registrations and emissions returns vary from forecasts, fees may under or over recover the service delivery related costs of the scheme.

Submissions noted that participation level assumptions, especially for small foresters, may be overestimated. This could lead to under-recovery. To mitigate this risk, it is proposed to track operating surplus/deficit and to review fees on an as-needed basis.

There is a risk that the assumed level of revenue from hourly rate charges is not achieved, due to registration applications and emissions returns falling within MAF's standard processing times (for which the base fee is charged). MAF would expect to closely monitor the direct costs associated with administering the participation of post-1989 forest land in the ETS.

MAF will follow operational best practice to ensure that participants are not subject to disproportionate fee liabilities, particularly during the early stages of ETS implementation as applications processing is refined.

10. Costs and benefits for post-1989 forestry ETS participants under the preferred carbon assessment and fee setting option

Consultation on the regulations has provided little detail of levels of potential compliance burdens on post-1989 forest owners who opt into the ETS. These costs are likely to vary widely across the range of potential post-1989 participants. It is probable that the incremental impact will be higher on small forest owners and potential participants with less sophisticated information about their forest holding.

Post-1989 forestry ETS participants' business compliance costs include application and emission returns filing fees, compliance costs related to supplying information about their forest holding in the required format to complete applications and returns. Participants may have to incur surveyor or forestry consultant costs and their own time complete application requirements in the proscribed format. The Karo Group, in their March 25, 2008 *Report on the New Zealand Forest Emissions Trading Scheme Compliance Strategy*, estimate the costs of supplying the GIS information in the correct format as between \$300–900 for applicants that do not have accurate area records). On-farm costs would need to be considered if land-use change to afforestation is required.

Benefits to post-1989 forestry participants are from NZUs. Participants have an array of options for managing receipt of NZUs (through voluntary emissions returns) and strategies for extracting value from them. Participants may trade NZUs or bank and surrender them at the time of deforestation. Myriad mixed or intermediate options are possible. Decisions on how to extract value from NZUs will be dependent on a number of factors including the forest age and management regime, participant business objectives, cashflow requirements, carbon price or market conditions and the availability of insurances, pooling, options or hedging to manage harvest and deforestation liabilities.

The Karo Group estimates a net present value of around \$2000 per hectare for Radiata pine based on annual measurement and receipt of credits with a conservative carbon price of \$15/tonne. This estimate is sensitive to compliance costs (which assumes in the modelling that these are carried by MAF) where emissions return filing costs may reduce the NPV to around half this figure for smaller foresters (under 40 hectares). The estimate does not explicitly consider the ETS fees as proposed in this batch of regulations.

The net present value of the fees liability for joining the scheme and a single mandatory emissions return at the end of the initial five year compliance period at standard processing times has a present value of approximately \$955 including GST (\$885 excluding GST) using a discount rate of 8 percent that is in the middle of the range of rates used in calculating benefit. Based on the Karo report, MAF have estimated the net present value of the ETS over the initial five year period to be in the range of \$932 to \$1028 per hectare. At this total fee liability, entering the ETS could be economic for even the smallest forestry holders if carbon prices remain at or above current expectations of around \$30/tonne. Larger forests will be subject to proportionally lower impact from fees and compliance costs in respect to the benefit.

The benefit and cost considerations for indigenous foresters to join the scheme are somewhat different due to the lower sequestration rates that are typical. It is likely that the majority of indigenous participants will be seeking to include their land for ETS scheme and conservation and biodiversity benefits on a longer term or permanent basis. MAF has committed to facilitating third party schemes that reward forest characteristics that can be linked to biodiversity benefits should these arise. Future regulations that provide flat sequestration rates that recognise the higher sequestration rates of manuka and kanuka, and provide a

measurement methodology for indigenous forests, will increase the ‘carbon farming’ incentive for potential indigenous participants to join the scheme.

Based on independent assessment, officials are confident that benefit accruing to post-1989 forestry ETS participants is commensurate with the costs and risks, including the future price path of carbon, uncertainties of participating in the international carbon market, and premature loss of forest due to fire, wind or other factors. It is expected that potential participants will consider costs and benefits taking into account their particular situation and objectives before deciding whether or not to enter the scheme.

It should be noted that regulations specify that measurement will be required for the 2013 mandatory return for forests greater than 50 hectares. Regulatory Impact Statements accompanying future regulations will address the costs and benefits related to the measurement approach.

11. Implementation and Review

Long term research programmes will be required to fill gaps in knowledge base for the implementation of the forestry components of the ETS. A science programme will aim to provide as much new data as possible before the end of the first commitment period of the Kyoto Protocol which will be incorporated into improved models and processes.

The process for development of the measurement approach will last into 2009 and includes:

- validation of measurement options (such as measuring timber density, sampling precision etc.) for the full range of likely forest types, ages and sites;
- development of a methodology that calculates carbon from field measurements;
- preparation of instruction manuals for forest inventory; and
- development of a comprehensive ETS Carbon Assessment Manual which will explain the process and how to undertake field measurements.

MAF has already embarked on a wide range of stakeholder awareness raising and consultation. Once the ETS legislation is enacted, MAF intends to mount a further range of initiatives to disseminate information about the ETS and in particular the compliance obligations of affected parties. A detailed Communications Plan has been developed for this including preparation of information collateral for distribution through a range of communications channels.

The enforcement strategy is still being developed jointly by MAF and MED. The enforcement strategy consists of:

- provision of ETS information to the forestry and agriculture sectors to encourage voluntary compliance (MAF responsible);
- risk-based compliance verification within MAF’s administrative processing operations using business rules to trigger closer scrutiny of certain applications and emissions returns (MAF responsible);
- an internal “spot check” of some applications and emissions returns (MAF responsible); and
- an enforcement and prosecutions function (MED responsible supported by MAF).

It is expected that ETG and the Ministry for the Environment will develop a monitoring and evaluation strategy across the whole ETS. In recognition that forestry will be the first sector into the ETS, MAF has initiated an initial scoping study to inform a monitoring and evaluation framework for the forestry elements of the ETS. The study will help form the requirements of the wider strategy.

Key dates for implementation of the post-1989 forestry ETS regulation are noted below:

- the Climate Change (Emissions Trading and Renewable Preference) Bill will be enacted (likely to be September 2008);
- the attached regulations will be enacted as soon as the Bill is passed;
- any date after 1 September 2008 (this date is subject to review) post-1989 registrations will be able to be submitted;
- first post-89 emissions returns can be submitted on 1 Jan 2009;
- landowners' liability for deforestation emissions, and the option for landowners to receive emission units (with liabilities) for eligible afforestation, commences on 1 January 2008;
- measurement regulations will be enacted in the first quarter 2009;
- indigenous forest measurement regulations will be enacted in late 2009;
- a fees review will be undertaken by the end of the compliance period (end 2012); and
- mandatory emissions returns for post-1989 forest land must be filed by March 2013.

12. Consultation

In May 2008 the Ministry of Agriculture and Forestry released for consultation an exposure draft of the regulations for the forestry components of the New Zealand Emissions Trading Scheme (ETS) as proposed by the Climate Change (Emissions Trading and Renewable Preference) Bill (the Bill). The exposure draft regulations (and accompanying commentary) released in May 2008 updated the first edition of exposure draft regulations for pre-1990 forest (released in mid February 2008) as part of the Select Committee process to inform submitters on the Bill.

A total of 238 submissions were received (as at 19 June 2008). Submissions came from forestry interests, ranging from large corporate forestry interests through to individuals with small landholdings wishing to enhance conservation/biodiversity values. A significant number of submissions (approximately 80 percent) were pro-forma 'campaign-type' submissions focused on modified approaches to fee setting and expedient introduction of measurement methodology. The range of submitters and the coordination of campaign submissions show that there is a high level of engagement from agriculture, forestry and conservation sectors about the ETS in general, and the specifics of regulations proposed.

On issues relevant to the proposed regulations (as opposed to general comments on the proposed ETS) the submissions show a level of discomfort with the proposed fees for registration of post-1989 forests and emissions return filing fees. Concerns were expressed that the total costs of participation (including the proposed fees) for post-1989 indigenous forests owners will exceed the benefits, due to the much lower carbon sequestration occurring in these forest landholdings. These concerns have been addressed by revisiting the interpretation of fee setting guidelines and revising down the total amount of costs that will be recovered. Submitters broadly supported the fee setting used for the PFSI. The PFSI regulations were the subject of formal and informal consultation, where it was noted that the sector is comfortable that the fee setting approach represents fair and equitable cost recovery.

In terms of carbon assessment, there was support for a future measurement option as an alternative to the proposed look-up tables. In contrast, there was a degree of discomfort with the regional generalisation of look-up tables and their 'averaging' under-recognising actual carbon sequestration on some sites, along with concerns with proposing a single flat sequestration rate for post-1989 indigenous forests. Submitters provided useful suggestions to enhance the look-up tables and noted strong support for a measurement methodology to be available as soon as possible.

There was limited response regarding business impacts arising specifically from the regulations. There are some positive impacts on business of the ETS and regulations in general, such as on investment forestry and farm forestry resulting from the ability to earn carbon credits. Comments on the negative impacts on business focused on fee levels and low sequestration rates for indigenous forests. These issues will be addressed in future regulations by indigenous sequestration rates that make distinctions between different forest profiles and the introduction of a measurement approach. There is a view that afforestation is on hold, as people adopt a wait-and-see approach.

The following departments were consulted in the preparation of the regulations. Ministry for the Environment, Department of Conservation, Ministry of Economic Development, Ministry of Agriculture and Forestry, Te Puni Kōkiri, Treasury, Department of Justice, Land Information New Zealand and Crown Law Office. The Department of Prime Minister and Cabinet has been informed.

Externally, forestry and Māori stakeholders have been involved on an informal basis to test particular aspects of the proposals. MAF consulted with a Carbon Measurement Technical Advisory Group, and held a first meeting of the Forestry Stakeholder Reference Group. Officials also met with representatives of the Māori Reference Group Executive. In October 2007 nine regional workshops were held for forestry sector participants, as were 13 regional hui with iwi on the forestry proposals. Also MAF held two national hui with Māori foresters in October and November 2007.