



Climate Change Response Act 2002: Forestry Sector Operational Improvements (Part 2)

Regulatory Impact Analysis

Prepared by Te Uru Rākau – Forestry New Zealand

March 2019

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Coversheet: New Zealand Emissions Trading Scheme: Forestry Sector Operational Improvements

Advising agencies	Te Uru Rākau, Ministry for the Environment
Decision sought	Approval of operational changes to the forestry sector provisions of the Climate Change Response Act 2002.
Proposing Ministers	Hon James Shaw; Hon Shane Jones

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Summary: Problem and Proposed Approach

Problem Definition

What problem or opportunity does this proposal seek to address? Why is Government intervention required?

The New Zealand Emissions Trading Scheme (hereafter ETS, or 'the scheme') is the Government's key tool for reducing greenhouse gas emissions. It does this by incentivising reductions in emissions and investment in forests as carbon sinks. We have identified a raft of changes to the ETS aimed at improving the scheme specifically for forestry participants, and also towards supporting the delivery of its objectives.

To optimise its performance, we want to introduce operational improvements to the ETS. The 2017 ETS review found potential for improving the way the scheme operates for forestry. There are numerous operational and technical issues with the forestry provisions of the scheme that need to be improved, clarified or corrected. Operational complexity deters some people from joining the ETS and receiving financial benefit for the carbon stored in their forests. These problems have reduced the potential of the ETS to incentivise new forest planting particularly by small forest owners.

In 2018 the Government consulted on a range of changes to the ETS to enable it to better support New Zealand's transition to a low emissions economy. For forestry, this work has been focused on simplifying the scheme for participants and on increasing their likely financial returns.

In December 2018 Cabinet agreed to a package of improvements to the way forestry is implemented in the ETS. It also agreed to the creation of a new 'permanent' post-1989 forest activity that henceforth recognises a commitment to permanent, i.e. not-for-harvest, forests.

The proposals in this paper are the last tranche of the proposed operational improvements and addresses a range of issues with the ETS, specifically:

- i) Difficulty in assessing land eligibility for the ETS and status prior to investment in forest establishment or conversion;
- ii) The ability for grant funded forests to receive a grant and NZUs which runs counter to the policy decisions for grant funded forests;
- iii) A mis-alignment between the mandatory emission return periods in the ETS with international reporting periods (affecting post-1989 forestry participants);
- iv) A lack of effective enforcement tools to deal with persistently non-compliant voluntary post-1989 participants to be deregistered;
- v) A lack of effective enforcement tools to deal non-compliant transmissions of interest process; and
- vi) The need to have enforcement tools to address the breaching of permanence conditions for permanent post-1989 forest.

Proposed Approach

How will Government intervention work to bring about the desired change? How is this the best option?

This Regulatory Impact Statement addresses a second batch of improvements beyond those in the December 2018 paper. Here, we have analysed the impacts of six 'significant' operational changes to the forestry sections of the ETS. An additional six minor or technical changes are also proposed, but have been exempted from the impact analysis process.

By improving, modifying or correcting processes not delivering as effectively as possible, the changes outlined in the statement are expected to further strengthen and improve the operation of the forestry sector in the ETS

Section B: Summary Impacts: Benefits and costs

Who are the main expected beneficiaries and what is the nature of the expected benefit?

Based on the analysis in this statement, our proposals are expected to overcome a set of problems affecting existing and potential forestry participants. Implementing them will make it easier to participate in the ETS, reduce some unnecessary administration and streamline the system. This will improve the ability of the scheme to incentivise afforestation and replanting.

Where do the costs fall?

We anticipate that most of the suggested improvements will result in reduced compliance costs for participants. This is due to simpler registration, reduced complexity in the returns required to receive emissions units, and reduced need to use the services of consultants. While there will still be some cost in participation, we expect this to be less than the status quo.

The greatest cost that results from these proposals will be the cost on the Crown to develop the mapping instrument proposal (estimated between \$3m to \$25m).

What are the likely risks and unintended impacts, how significant are they and how will they be minimised or mitigated?

The changes proposed in this statement focus on either:

- i) enabling Te Uru Rākau to make future changes through regulation to achieve the objectives of the ETS and provide increased operational flexibility; or
- ii) providing new compliance tools to address situations unique to forestry.

There is risk that future regulations required to implement some changes will take time to deliver, and may not meet the expectations of all stakeholders.

The proposed tools aim to address the most common issues identified for forestry, and to improve levels of compliance. There is some risk, however, that we will still face challenges with the least compliant participants. The new tools will provide opportunity to manage their non-compliance and maintain the integrity of the ETS.

To maximise the benefit of the proposed changes, other scheme changes are required, e.g. the introduction of averaging for post-1989 forestry and wider improvements to the ETS and the carbon market.

To better manage forestry in the ETS, and participants' forest registrations, Te Uru Rākau needs to redesign and rebuild the existing ETS forestry software system (the Climate Change Information System). This is a lynchpin for the continuing operation of the ETS into the 2020s, actively helping streamline business processes. This is managed through a separate workstream (from the ETS changes being proposed) within Te Uru Rākau and the estimated cost of this between \$10 million and \$20 million.

Identify any significant incompatibility with the Government's 'Expectations for the design of regulatory systems'.

There are no incompatibilities with the Government's expectations for the design of regulatory systems.

Section C: Evidence certainty and quality assurance

Agency rating of evidence certainty?

We have high confidence in the evidence base underpinning these proposals. They are based on case history of problem areas in the ETS gathered since 2008, and on submissions from the review of the ETS which began in 2015/16. They also draw on extensive public consultation on the options (and adapting the proposals to incorporate their feedback), together with subsequent interviews with ETS participants, forest and landowners. This has helped to refine a package of proposals both fit for purpose *and* deliverable.

The use of regulations to implement these proposals allows the adaptation of solutions to different situations that may arise in future.

To be completed by quality assurers:

Quality Assurance Reviewing Agency:

A Quality Assurance Panel with representatives from the Regulatory Quality Team at the Treasury, Ministry for the Environment, and the Ministry for Primary Industries has reviewed the Regulatory Impact Assessment "Climate Change Response Act 2002: Forest Sector Operational Improvements (Part 2)" produced by Te Uru Rākau and dated 8 March 2019.

Quality Assurance Assessment:

The Quality Assurance panel considers that this partially meets the Quality Assurance criteria.

The problem definition and opportunity are clear and the proposals reflect public consultation and the Ministry for Primary Industries' operational experience in implementing the ETS.

The RIA is technically detailed and the presentation could have been tightened to make the content clearer and concise. Although two proposals have not been formally consulted on because the issues were identified during and after the consultation period, they have been adapted based on submissions and informal industry feedback.

The RIA provides a good rationale for the ability to enable a mapping tool and further work is required to decide on the appropriate mapping detail and to quantify the costs more accurately. The analysis indicates that the extent to which the potential benefits are realised is dependent on the uptake of the activity, which is uncertain.

Reviewer Comments and Recommendations:

None.

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Section 1: General information

Purpose

Te Uru Rākau is the agency solely responsible for the analysis and advice set out in this statement, except as otherwise explicitly indicated.

This analysis and advice aims to inform policy decisions to be made by Cabinet on a package of improvements to the forestry sector provisions of the Climate Change Response Act 2002 (the Act). The Act governs the ETS.

Key Limitations or Constraints on Analysis

This statement is restricted to a set of six significant changes in the way sector participation is implemented in the ETS. Six additional minor changes - or technical corrections - exempted from impact analysis are appended.

This set of changes to forestry sector provisions are part of a wider series of changes to the ETS, a range of proposals are progressing in parallel and covered in separate statements.

The changes proposed here have been identified through:

- an established case history of problem areas gathered since 2008:
- submissions from the ETS review which began in 2015/16:
- extensive public consultation on the options (and adapting the proposals to incorporate their feedback): and
- subsequent interviews with participants, forest and landowners.

However, there is significant diversity in the sector, so it can be difficult to anticipate behaviour change.

Options have been identified for each issue. These are assessed against a set of criteria developed to apply to the overall package being proposed.

We propose an enabling change to the CCRA to allow the use of a mapping instrument to determine the eligibility of land to register into the ETS. However the detail of what this mapping instrument will contain, and the cost of this, is not considered in this paper. Work done to date has highlighted the trade-offs which Cabinet will need to consider when the mapping instrument is set in regulation, but additional research is needed to enable informed decisions around these trade-offs, and to quantify the costs and benefits more accurately.

Some proposals were not consulted on. The need for these changes has arisen during the review process as solutions were developed for other issues (which were consulted on) and tested, or decisions were made on other policy areas. Feedback was received for those other issues, and officials have tested it with relevant Government agencies.

Officials' ability to evaluate the impact of the proposals tends to be difficult. The majority of the impact of these changes is dependent on participant behaviour. We are confident that the changes we propose will result in improvements to the ETS. However, the size of

the benefit is dependent on how participants respond and how many new participants will join the ETS as a result of the overall changes to the ETS (both for forestry and wider changes to the Market). We will continue to monitor evaluate the performance of the ETS, and participant's behaviour, and undertake continual improvement to the ETS. This will include ongoing regulatory improvements and public outreach.

Responsible Manager (signature and date):

Oliver Hendrickson
Director, Forestry and Land Management, Te Uru Rākau

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Section 2: Objectives and criteria for this package

Proposed improvements

1. This statement covers a package of operational improvements to the forestry sector provisions of the Act. Cabinet approved a first round of improvements in December 2018, along with a proposal to introduce a new permanent post-1989 forest activity. The changes proposed below represent a second round of improvements flowing from analysis and consultation from 2015-18, and from new issues arising from submissions to the 2018 consultation. They are designed to:

1	Enable an easier ETS land classification process;
2	Limit the ability for grant-aided forests to access the ETS;
3	Re-align mandatory emission return periods;
4	Deregister persistent non-compliant participants;
5	Prevent non-compliance with transmission of interest obligations;
6	Create penalties for breaching permanence conditions.

We also propose six minor or technical issues exempted from the statement requirements. They are set out in Appendix 2.

Objectives and criteria

2. Objectives and criteria identified for this package are listed below.

ETS forestry package objectives	Criteria – How objectives are judged
Increase ability of the ETS for forestry to help New Zealand cost-effectively meet its climate change targets	<ul style="list-style-type: none"> - Increases incentives to store carbon in forests and harvested wood products - Allocates obligations and entitlements to support alignment with climate change targets
Improve ETS forestry operations	<ul style="list-style-type: none"> - Improves ease of compliance for participants - Administrative efficiency and effectiveness for regulators
Support New Zealand's broader climate change programme	<ul style="list-style-type: none"> -Consistent with wider climate change and wellbeing priorities -Provides durable regulatory certainty and predictability -Avoids unintended consequences

3. The improvements outlined in this statement are focused on improving the ETS. Criteria are therefore grouped as follows; “incentives to store carbon”, “administrative efficiency and effectiveness” and “ease of compliance” are primary criteria, and everything remaining will be classified as secondary criteria. All policy and options analysis, following consultation, draws on this set of criteria.

Primary Criteria (that address the problem definition)	How it will bring about outcomes
Increases incentives to store carbon in forests and harvested wood products	<ul style="list-style-type: none"> -Reduce ETS forestry financial risk and therefore increase the potential financial benefit from carbon when establishing new forests (both rotational and permanent) in New Zealand. -Retain the ETS disincentive to deforest (i.e. from the requirement to surrender NZUs) and maintain or enhance ETS incentives to store extra forest carbon (i.e. from forest management and storing carbon in harvested wood).
Administrative efficiency and effectiveness for regulators	<ul style="list-style-type: none"> Reduce or minimise administrative cost to the Crown. -Ensure participant reporting is accurate and the Government can identify and manage non-compliance so scheme integrity is enhanced.
Improves ease of compliance for participants	<ul style="list-style-type: none"> -Reduce compliance costs for participants and ensure the system and rules are easy to understand. Doing so could encourage more people (particularly smaller foresters) to enter and remain in the ETS. Changes to the rules should not result in unjustifiably high transition costs for participants.
Secondary Criteria (that identify indirect costs and benefits)	How it will bring about outcomes
Allocates obligations and entitlements to support alignment with climate change targets	<ul style="list-style-type: none"> -Increase alignment of entitlements and obligations (i.e. allocation of emissions units) with climate change target accounting for carbon storage and emissions from forestry. This will help to ensure the mitigation effort the ETS drives reflects the level of difficulty New Zealand has to meet its climate change targets. Risk and burden sharing between the Crown (fiscal risk), participants, sectors and groups reflects level of contribution to climate change and mitigation ability.
Provides durable regulatory certainty and predictability	<ul style="list-style-type: none"> -Ensures businesses, forest owners and participants have certainty and predictability about the rules and market conditions. This will prevent unnecessary disruption to business plans, and improve investor and participant confidence in the ETS for forestry.
Avoids unintended consequences	<p>Avoiding unintended consequences includes:</p> <ul style="list-style-type: none"> -preventing the creation of perverse incentives; -minimising and appropriately managing any potential inequity between participants, sectors and groups. <p>This will help to maintain the integrity and positive perceptions of the ETS for Forestry, particularly when eligibility decisions for new rules are being made.</p>

<p>Consistent with wider climate change and wellbeing priorities</p>	<p>Consistency with the Government’s wider climate change and wellbeing priorities includes:</p> <ul style="list-style-type: none"> -Reflecting the Crown’s responsibilities as a Treaty partner; -Encouraging economic growth and employment; -Supporting social and environmental resilience; -Supporting New Zealand’s international reputation; -Maintaining integrity of wider ETS settings.
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Are there any constraints on the scope for decision making?

4. This statement only considers problems with ETS settings that can be addressed by changes to the Act. Other forestry improvements can be made, but these require amendments to the regulations associated with the Act. Consequently they are being deferred until the Act is amended.
5. Improvements to incentives for new forests to be established are also beyond the scope of this statement. These relate to:
 - a) The decision to introduce a new permanent post-1989 forestry activity into the ETS, made in December 2018. These changes support that decision; and
 - b) Upcoming decisions on how rotational forests are treated including the potential introduction of average accounting, and recognition for the carbon stored in harvested wood products.
6. These changes assume that we achieve a movement to a ‘facilitated compliance’ model for forestry in the ETS. This approach is designed to make it easier for participants to get it right and harder to get it wrong. By necessity this includes a range of interventions, e.g.:
 - a) changes to the legislation and regulations to simplify the ETS and make it easier to understand, including the potential introduction of averaging and regulation changes underway;
 - b) improved communications and information provided by government;
 - c) a more customer focused interaction with the ETS and simpler registration and submission of returns; and
 - d) better governance around the wider carbon market and advice.
7. Decisions proposed here will improve ETS operations across all forests, regardless of whether average accounting is introduced.

Section 3: Issues, options and impact analysis

8. Cabinet’s decisions will mean that the Parliamentary Counsel Office can begin drafting these amendment bill from April 2019, for an expected introduction into the House in the second half of 2019. These changes will positively impact investment decisions and

improve the ETS for many forest owners. Some of these changes will require subsequent regulations once the package is delivered.

9. The statement sets out options to address each underlying problem. A preferred option is proposed and evaluated against the criteria listed above.

1 Enabling an easier ETS land classification process

The policy problem or opportunity

The timing of the determining land eligibility happens after the investment has happened

10. In order to make good investment decisions, landowners and forest owners need to know how their land already is, or *would* be classified. This determination will affect the scale of any financial incentive (from the sales of New Zealand Units, hereafter NZUs) and financial viability of establishing areas of other land use into forest land (impacting return on investment. Other classification may impact a forest owner's decisions about what they do with their land and the options to maximise land value (e.g. use pre-1990 offsetting, rather than surrender NZUs, if they wish to convert pre-1990 forests).
11. Official determination of land takes place after the ETS activity has occurred (i.e. following deforestation¹ or forest establishment²). This means an investment must have been made prior to confirming the ETS status of the forest or land in question.
12. Between 2013 and 2018, an average of 20% of the area applied to register as post-1989 forest land was rejected as Te Uru Rākau was not satisfied of its eligibility. This rejected land is unable to earn NZUs, and an owner will have incurred costs to establish the forest (e.g. planting costs).

Land classification is complex

13. Determining land eligibility requires expert interpretation of historical aerial and satellite imagery (with a much lower resolution than current satellite imagery). Classification is based on the best available information held by Te Uru Rākau, some of which may not be available to the land owner (e.g. aerial imagery we licence from the provider but costly for the land owner to access).
14. Te Uru Rākau also carries out field visits and undertake destructive sampling to assess eligibility, but this assessment is not always required or useful. Due to this process being resource intensive and taken a long time, the agency also cannot routinely carry out that level of assessment for large numbers of applicants.
15. Registration also poses a challenge. ETS registration staff in Te Uru Rākau are only able to assess around 750 hectares per staff member per month. Expected increases in afforestation from an increased carbon price, permanent post-1989 forest activity and the introduction of averaging, mean demand for registration could increase. At \$25

¹ Deforestation of pre-1990 forest land is a Schedule 3 (mandatory) ETS activity in the CCRA.

² Owning post-1989 forest land, or holding a registered forestry right or lease on post-1989 forest land is a Schedule 4 (voluntary) activity in the CCRA.

per NZU, the introduction of averaging would be expected to drive an additional 20,000 hectares per year being registered into the ETS.

16. Even if all relevant information were available, participants are unlikely to possess the technical competencies to correctly determine the status of the land. The result is that decisions on eligibility often appear to be non-transparent to participants, causing frustration and leading to high cost reviews (there have been 50 to date, at a cost around \$20,000 each³) and potential appeals (via court action).

Land eligibility is stringent as the decisions carry a cost to the Crown.

17. This process is due to the CCRA's definition of 'forest land' being taken from the rules in our international agreements. This is important as it allows New Zealand to count the carbon sequestered in post-1989 forests towards our emissions reduction target (which is a purpose of the CCRA).
18. NZUs issued to participants in the ETS come at a fiscal cost to the Crown, and any significant departure from the international rules would carry a reputational risk when it comes time to reconcile our domestic actions and emissions with our emissions reduction target⁴.
19. This means the ETS is set up to be conservative around assessing eligibility. Areas of land are typically rejected as post-1989 forest land due to a lack of detailed mapping data and evidence. Currently, there is no national map with the detail in high enough resolution, to be consistent with the Act.

Options to increase certainty prior to investment are not effective

20. The ETS also includes the ability for a person to seek an emissions ruling from the EPA. The ruling determines if they are i) *currently* undertaking an activity covered by ETS; or ii) if their *proposed* action means they will be undertaking an activity in the future.
21. Attempts to use this process for forestry, however, has shown it not to be fit for purpose and unhelpful in making determinations of future forest status. Key complexities with using the emissions ruling process for forests are:
 - i) The ruling must be made on the whole area applied for, rather than a consideration of the eligible/impacted areas. A single hectare of ineligible land would disqualify the rest of the application.
 - ii) Forestry in the ETS includes a number of land classifications that are not activities. For example, offsetting forest land⁵);
 - iii) The applicant must provide 'all information that is relevant to the proper consideration of the application'. But without enough information from (or available to) the applicant to determine post-1989 land status, the EPA would be unable to issue a ruling. The EPA (or MPI) may have access to alternative

³ This is the estimated cost of undertaking an on-site review for a decision.

⁴ Under the Kyoto Protocol, the international target also carried fiscal risk for the Crown as we were expected to purchase international units for this deficit. This was recorded as part of the Crown Accounts

⁵ This offsetting forest land is the 'new' forest established as part of using pre-1990 forest offsetting and its eligibility is unique in the ETS. Using pre-1990 forest offsetting is not a Schedule 3 activity, and as a result is not currently eligible for an emissions ruling.

information to help make the ruling (e.g. satellite imagery), but this may be unavailable to the participant, expensive to acquire, or applicants may not know it exists. If an applicant fails to provide this additional information, an application cannot be considered.

What is proposed?

22. We propose a two part solution to the problem of determining land status and informing decision making:
 - (i) Creating the ability to establish a national mapping instrument which identifies land of different types (e.g. post-1989 eligible) and use this for determinations.
 - (ii) Improve the process surrounding emissions rulings so it works for forest and other land owners.
23. We have considered these proposals individually (either the mapping instrument or the improved emissions ruling process), and jointly.
24. Implementing either the mapping instrument or the improved emissions ruling process would offer benefits relative to the status quo. However making both changes represents the best outcomes and offers the greatest improvements. Development of the mapping instrument may take several years, while the emissions ruling process would be available immediately the Bill enters into force.
25. We therefore believe that a combined package of the mapping instrument and emissions ruling improvements provides the maximum benefits for forestry in the ETS.

Mapping instrument (Map)

26. We propose to reduce regulatory uncertainty by developing a mapping instrument for making determinations of forest land status. This would provide landowners with definitive information regarding their land's status in the ETS. Fewer manual assessments would be needed and/or the process for making manual assessments would be streamlined, reducing the operational burden on Te Uru Rākau and participants. It is too early to determine exactly what form the mapping instrument would take. But a mapping instrument of this kind will go a long way in helping provide certainty to landowners considering participation in the ETS.
27. The first step towards developing such a mapping instrument is changing the Act to permit its use to help determine land status in the ETS. We propose to do this by creating the ability to publish land status information as a map (i.e. related to the land) under the Act and use this in land determinations.
28. We intend that use of the mapping instrument would work alongside the Act's other provisions for determining land eligibility. When applying to join the ETS, a participant references either the mapping instrument for the status of the land or elects to use

the current application process, the improved emissions rulings process (below), and the review and appeal mechanisms. This means that should a participant disagree with the map, or new information become available, these remain options for land owners.

29. While the legislative process is underway officials will move to begin developing the mapping instrument. This will involve research into detailed options, classification of lands, the scale land is classified at, and the time and costs of delivery. It is crucial that the mapping instrument be fit for purpose.
30. Te Uru Rākau has undertaken initial work on options for delivery and the approximate time and costs. The more comprehensive options, like a full map of New Zealand for ETS status, will be cost more and be more time consuming than first thought. This is because of historic issues associated with mapping land status at 1989/1990, and slower scientific progress in this than anticipated.
31. Ministers will be updated on progress to clarify the options for the map. Once we have assembled sufficient information to outline a way forward, they will be briefed appropriately.

Improving the emissions rulings process for land and forests

32. Improving the emissions rulings process will help land and forest owners make better ETS decisions (e.g. whether a forest can be registered and earn NZUs). An improved emissions ruling process will help obtain clarity of ETS land status, and offer options for investors before delivery of a mapping instrument.
33. We view the ideal outcome as allowing land owners to (effectively) undertake an assessment process in advance of the investment/action. Once the ruling is done, they will be able to use it to speed up registration because land status is known.
34. We propose to amend the ruling process (for forestry) to enable more effective determination of ETS status. These changes overcome key barriers to the EPA providing effective (definitive) rulings to applicants, regardless of whether the land is eligible.
35. We consider three changes are needed:
 - (i) Allowing the assessment of eligibility on any part of an area being applied for. This is consistent with how land is registered (for example: allow hectare by hectare assessment of the area being applied for and provide the ruling for only those areas which are eligible).

- (ii) Extending the coverage of the emissions rulings process to forest land-related administrative status under the scheme beyond the forestry activities, e.g. get a ruling land can be used to establish an offsetting forest⁶;
 - (iii) Clarifying that the EPA may use information not submitted with an application (e.g. satellite imagery we hold a licence to)
36. Once the mapping instrument is developed, the way the emissions ruling process used by participants will change. The emissions ruling process will become an option for a land owner-initiated review of how the mapping instrument classifies land.
37. For example, should a participant have information indicating land has a different status than that set out on the map, they can use the process to seek a reassessment and reclassification. Having had the status confirmed by the emission ruling, will enable greater investment confidence.

Discarded option

38. One option to improve clarity on eligibility would be to redefine how land is classified (e.g. change the definition of post-1989 forest land). This option was rejected early in the process because of:
- (i) Uncertainty as to how the international land classification would work post-2020 and how forests (and other lands) will be defined as eligible for recognition against international targets. While there is a good chance we will continue to be able to use the status quo land classification post-2020, this is unlikely to be confirmed until later in 2020.
 - (ii) Potentially big impacts on existing scheme participants and those yet to register. The analysis of these impacts, and the options to mitigate them are directly impacted by the international treatment of forest and other land.
 - (iii) Work to investigate changing land status was not commissioned by Cabinet in the decisions taken in mid-2017.

Costs and benefits.

Costs and benefits to the Crown

39. The cost to the Crown of developing the mapping instrument and its public facing interface, is expected to be between \$3m and \$25m⁷. A higher cost will be incurred if a map of more detailed resolution is required More detailed research on options for

⁶ This offsetting forest land is the 'new' forest established as part of using pre-1990 forest offsetting and its eligibility is unique in the ETS. Using pre-1990 forest offsetting is not a Schedule 3 activity, and as a result is not currently eligible for an emissions ruling.

⁷ Generally the cost of mapping scales based on the resolution of the final map: doubling the resolution will increase the cost of the map by 4 times (2*2).

development and the trade-offs involved⁸ will allow this sum to be finalised as the development of the mapping instrument progresses through the regulation setting process. .

40. The Crown is likely to directly benefit from the mapping instrument in two significant ways:
 - (i) Time spent processing individual applications will be reduced. The mapping instrument will provide a clear and definitive classification for large areas of land. The likely results include greater processing of applications within current staffing levels, and the increased rates of registration which result from any introduction of averaging
 - (ii) Staff time can therefore be better spent on more complex applications and delivering a customer focused approach to ETS registration and emissions returns processing.
41. The Crown will also benefit from New Zealanders gaining greater confidence in the workings of the ETS, and the predictability of registration. This is expected to drive higher rates of afforestation on land eligible to count against our international climate change targets. If 1,000 hectares of pine⁹ was planted per year on land eligible for our international target, we would recognise an additional 0.6 million tonnes of forest sink in 2030. This would be expected to have a benefit to the New Zealand economy of \$33.75m¹⁰ between 2021 and 2030.

Costs and benefits to land and forest owners.

42. The greatest benefit derived from a mapping instrument will be better understanding by forest and land owners of the expected acceptance of their forests into the ETS, and therefore the economics surrounding 'carbon forests'.
43. For potential participants, being able to target new forest establishment to land which is eligible for the ETS reduces the costs associated with carbon forests, i.e. participants

⁸ The indicative trade-offs are between:

- a) Timeliness of delivery: a more detailed map will take longer to develop
- b) Cost of developing the map

The likelihood of the map 'mis-classifying' land and who carries the risk (the Crown, the participant or both). A more detailed map will reduce the risk for all parties, while a courser map will share the risk depending on what happens with 'uncertain' land: letting it into the ETS means the Crown carries the risk of mis-classification while not including land means the ETS applicant does not have the certainty of registration/pre-1990 forest liability.

⁹ This is 5% of the baseline afforestation during this time

¹⁰ Estimates are based on a carbon price of \$37.50 (in 2012 NZD) which was used by Treasury to cost the 2030 target. The same carbon price is used here for consistency. It was assumed that any carbon shortfall would need to be met by purchasing offshore units. Further, Treasury used a factor of 1.5 – 1.8 when considering the cost of purchasing units from offshore. We have used a factor of 1.5 in this calculation. This factor represents the increase in New Zealand production required to raise the revenue to purchase the offshore units.

can avoid investing in new forests which would receive a lower rate of return because they are not eligible to register in the ETS and earn carbon income

44. In the case of marginal production forests (those where carbon incomes is key to economic viability) and permanent forests (those where carbon is the primary source of income) such savings will be critical to incentivising forest establishment. This, however, cannot be reliably quantified at the national level as it is uncertain how this will impact capital flows and which forests are dependent on carbon income for viability.
45. Participants who elect to use the emissions ruling process will face some cost as emissions rulings can be cost recovered. As an emissions ruling evaluation is similar to a registration we would expect the cost for these to be similar e.g. a charge of \$150 per hour of staff time¹¹. However, it is likely that paying this cost will still be attractive to those seeking a ruling as the benefits exceed the costs, for example avoiding planting one hectare of pine on ineligible land would save \$1,500.
46. Greater transparency surrounding ETS status (through the mapping instrument) is expected to have other benefits. They include:
 - (i) Improving understanding of ETS status of land when brought and sold means it can be priced more accurately;
 - (ii) Providing clarity on the status of land, particularly pre-1990 forest land, means it will be easier to manage problems with deforestation liabilities. For example, cases where a person purchases buys recently harvested forest, then converts it (or does not re-establish a forest), the purchaser is liable for deforestation emissions, more than \$16,000 per hectare, despite not knowing it was pre-1990 forest land.

¹¹ Based on the current rate MPI cost recovers for ETS registrations at a rate of \$132.88 per hour of staff time. An analyst can access around 4 hectares of land per hour

Evaluation against criteria

Relevant Criteria	Options			
Primary Criteria	Status quo	Mapping instrument	Improved rulings	Mapping instrument plus improved rulings (preferred)
Increases incentive to store forest carbon	0	+ Would increase the afforestation incentive due to more certainty about the eligibility of land to be post-1989 forest land if afforested.	+ Would have a marginal increase on afforestation as there may be more eligibility of land, but only after the ruling process is completed.	++ Would increase the afforestation incentive because there would be more certainty about the eligibility of land to be post-1989 forest land if afforested.
Administrative efficiency and effectiveness	0	+ When the mapping instrument is available, Te Uru Rākau's processing would be simpler and more efficient. However, no improvement until the mapping instrument is delivered.	+ No significant improvement vs. SQ, as evidence requirements are the same, but some improvement through improved process	++ When the mapping instrument is available, Te Uru Rākau's processing would be simpler and more efficient.
Improves ease of compliance	0	+ Forest landowners would have more certainty about the classification of their land, or land they are considering acquiring, so compliance obligations	0	++ Forest landowners would have more certainty about the classification of their land, or land they are considering acquiring, so compliance obligations with would also be clearer.

		with would also be clearer.		
Secondary Criteria				
Increases ability to meet climate change targets	0	+ A greater afforestation incentive would assist in meeting climate change targets.	+ A greater afforestation incentive would assist in meeting climate change targets.	+ A greater afforestation incentive would assist in meeting climate change targets.
Provides durable regulatory certainty and predictability	0	+ Provides certainty of eligibility for classified land.	0	+
Avoids unintended consequences	0	0	0	0
Consistent with wider climate change and wellbeing priorities	0	+ Allows more informed decisions, and possible integration of the ETS mapping instrument with other tools	0	+
Overall	0	+	+	++
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; - - much worse than				

What do stakeholders think?

47. A mapping instrument for determining land status under the ETS was supported by 85% of submissions¹², 6% were unsure and 10% opposed during the ETS review consultation. Those not in favour:
- (i) Sought assurance there would be adequate appeal provision (this is resolved through the emission ruling improvements, above),
 - (ii) Voiced concern the map would include commercially sensitive information (e.g. the unit balance). The mapping instrument is not expected to have this level of commercially sensitive information about registered land¹³; or
 - (iii) Raised concerns about the timeliness of a mapping instrument as a way to provide land status clarity in the short term (the improved emissions ruling process addresses this).

2 Limiting the ability for grant-aided forests to earn NZUs

What is the policy problem or opportunity?

48. Under the grant contracts issued under the One Billion Trees Fund, grantees can not register *Pinus radiata* forests in the ETS for six years from 30 June in the year of planting (this restriction doesn't apply if other species are planted). Nor is any forest funded under an earlier Afforestation Grant Scheme contract eligible to be registered until 10 years from 30 June in the year the forest was established.
49. In cases where a grant-aided forest is registered immediately after the six or ten year period, (the stand down period) has expired, a forest owner must submit an emission return at the end of the current MERP and receive units for forest carbon growth since its commencement. This means that the forest owner may receive units for part of the period in which the grant contract was in force.
50. This is contrary to the policy intent, and results in the Crown incurring a higher cost than anticipated for the funded planting. That's because the transfer of NZUs come at a fiscal cost, as does the grant. Table one shows three potential scenarios illustrates how the policy intent behind grant funding can be undermined by the requirement to claim NZUs to the start of the MERP.

Table one: Example Scenarios of forests being issued NZUs within their grant contract term

Scenario	1	2	3
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¹² Percentages do not add to 100% due to rounding.

¹³ Some information on ETS status is already publicly available as a notice on the title, e.g. registered post-1989 forest land

Planting year (10 year period ends)	2008 (2017)	2012 (2021)	2015 (2024)
ETS registration allowed from	2018	2022	2025
MERP period ¹⁴ in which the forest registers in ETS	2018-2022	2018-2022	2023-2027
Number of years where the sink is double claimed (Age range where this occurs).	0 (NA)	5 (Age 5 to 10)	2 (Age 9 to 10)
Number (and value) of additional NZUs per hectare ¹⁵ .	0 (0)	142 (\$3,550)	18 (\$450)

What are the options?

51. Funding for the One Billion Trees programme has been confirmed to the end of 2021/22. It is therefore vital to develop a flexible solution that can apply the exclusion to a range of species and over different periods should subsequent funding programmes be agreed.
52. Two options are proposed to prevent the transfer of units to ETS participants for growth that occurred during a grant stand down period:
 - (i) amending the Act; or
 - (ii) amending the grant contracts.

(i) Amending the Act
53. Under this approach we would create the ability to:
 - Define grant funded forests in the scheme; and
 - Exclude these from receiving NZUs for the stand down period.
54. This approach would allow grant funded forests to be registered at any stage (e.g. following planting or once the period expires). But they would not receive units for the stand down period outlined in the funding policy decision. We believe the simplest way to do this is to:
55. Amend the relevant section of the Act (s189) to start the commencement date of the emissions returns to be the later of the existing clauses¹⁶ or the date prescribed in regulation for grant funded forest within the carbon accounting area.

¹⁴ Note the proposal to adjust the MERP period to better align to international timeframes. Adjusting the MERP would change who may be impacted, but not the fundamental issue.

¹⁵ Assumes a *Pinus radiata* forest in the Gisborne region., and a NZU price of \$25 per NZU.

¹⁶ For example in s189(3)(c)(i) these are described as:

(A) the first day of the mandatory emissions return period in which the return is submitted; or
(B) the date on which the land in the carbon accounting area became post-1989 forest land; or

56. Create regulations to define how grant funded forests can receive NZUs. This would likely specify:
- The funding programme and appropriation paying for the grant;
 - Forest type (i.e. a generic grouping of similar species) in a way relevant both to the ETS and the grant funding programme¹⁷; and
 - Detail on how the start of the stand down period is defined (e.g. planting year), its length, and the first year units can be claimed.
57. Make changes to the registration and emissions return forms to make clear that the information submitted can be compared to the records of grant funded land.
58. The commencement date would, for operational simplicity, be applied at the whole Carbon Accounting Area (hereafter CAA18) level. This means that if there is any grant funded forest in the CAA, the earliest crediting date would be the last year the 'grant exclusion' found in the regulations (in para 48(ii) above). From the participant's perspective this involves registering a succession of multiple CAAs for each year's grant funding.

(ii) Amending the contracts

59. Any contractual solution must be consistent with the law (in this case the CCRA). This means that any contractual solution must work in tandem with the participant claiming units for the full area of the CAA and for the period of the MERP. Three sub-options have been identified for implementing the stand-down period using a contract alone. None are the preferred approach.
- 1a Extend contracts until the end of the next MERP, so there is no possibility of double claiming.
- 1b Require unit repayment: allow grant-aided forests to be registered, but require the surrender of any NZUs received for the stand-down period when the MERP in which the forest was registered concludes. This is complex to administer, difficult for applicants to understand, and potentially creates a barrier to grant application.

(BA) the date of constitution of the carbon accounting area (as specified in section 190(5)), if the carbon accounting area was constituted following removal of land from a carbon accounting area under section 188(7)(b)(ii)(B) or transmission of an interest under section 192(3)(b); or

(C) the day after the end of the period covered by the last emissions return submitted for the carbon accounting area.

¹⁷ Forest type is determined by the 'intended predominant forest species' which may be different from how grant funded forest are classified, for example the One Billion Trees funding differentiates indigenous forests into three different grant rates, whereas the ETS would consider these are one intended predominant forest type. Note: all indigenous forests funded under One Billion Trees can register in the ETS from planting.

¹⁸ This is in contrast to the December 2018 decision to ensure that all the forest in the CCA is accounted for, where the carbon stock changes would be applied for all areas of forest, rather than only the youngest trees.

- 1c Require grant repayment: create a provision in the contract requiring all or part of the grant to be repaid (potentially with some penalty) if the grant funded forest is registered during the stand-down period.
- 60. All sub- options contain challenges which expose both the Crown and the landowner to risk. These are discussed in Appendix one.

What is proposed?

- 61. The proposal is to amend the Act so that grant funded forests can be precluded from receiving NZUs for part of a mandatory emissions return period. The grants that this rule applies to, and the length of the period, will be defined through regulation. These regulations will be updated as new proposals are decided.
- 62. Risks to the One Billion Trees Fund and the ETS are expected to be managed through the grant contracts as well as through amendments to the Act. The contract under the fund will:
 - i) Clearly articulate the constraints on ETS participation;
 - ii) Ensure the restriction on participation applies to both landowner and forest owner where these are not the same;
 - iii) Ensure information is provided to enable the exclusion to be applied (i.e. the grant funded land is mapped);
 - iv) Include enabling clauses to simplify the use of the Act to limit unit payments, e.g. allow sharing of information on the grant funded area with the registration process and vice versa, and;
 - v) Articulate any penalties for early registration.
- 63. This approach is superior to either contractual approach for the following reasons:
 - (i) The participant receives their full allocation of units after the stand down period and does not need to repay units.
 - (ii) Manages the use of both VER and MER by the participant as there is a common start period defined for each. This allows sections 190 and 191 to apply in an unmodified way.
 - (iii) Because this applies universally to returns for post-1989 forest land, this approach is not impacted by changes of ownership and/or where the forest owner and the fund recipient are different. This will require those buying land or forests to do due diligence around grant funded forests, but this is no more than the contracting approach or the status quo of the AGS. It is possible that the operational improvement in publishing a definitive mapping instrument (discussed above) would be used to publicize stand-down periods and when they expire.
 - (iv) Provides an inbuilt ability to penalise post-1989 forest participants who over-claim units (i.e. claim for the grant funded period) and/or incorrectly declare the

land has not received a grant. We would use the existing penalty and compliance regime in the Act.

- (v) The regulations could be developed in a way that provides transparency for the grant scheme, the planting year and which year the forest can first become eligible to earn units (e.g. via a schedule).
64. We noted above that the Afforestation Grant Scheme (hereafter AGS) has a ten year stand-down period for all forests receiving a grant. Registering these forests could create a similar situation: the AGS-funded forests receive units for part of the ten year period and the grant recipient is breaching the intent of the funding received.
65. Current indications (based on conversations with stakeholders and grant recipients) are that there is unlikely to be significant registration of AGS forest into the ETS.
66. Until the Act changes enter into force (likely 1 January 2020) the one billion trees funding contracts will need to provide an interim solution. This is expected to be grant repayment (possibly with interest) if a grant-aided forest is registered within the ten year period.

Costs and benefits

67. The preferred approach is not expected to result in significant costs or benefits to either pine forest owners or the Crown. It has been designed to use the existing ETS process so that operational implications for the Crown and the participant will be minor.
68. The application of this rule at the CAA level may slightly increase mapping effort at the time of registration as each 'parcel' of grant funded forest will need to be registered as an individual CAA to maximise the returns. The transaction cost of registration will be the same regardless of the number of CAA being registered.
69. Ongoing reporting effort is expected to be broadly similar to the status quo as individual CAAs must be subdivided into 'sub areas' (areas of forest with identical characteristics) which are individually calculated and summed for the CAA total. Having multiple CAAs, with single aged forest in each, is the same amount of effort.
70. Should no action be taken to manage the ability of participants to claim units back to the start of the MERP of registration the additional cost of the Crown would average around 92.5 NZUs per hectare¹⁹ of pine forest which is registered, \$2312.5 at \$25 per NZU.

¹⁹ Based on the carbon stock of the average hectare of pine in the ETS claiming NZUs between age 3 and 6.

Evaluation against criteria

Criteria	Options		
	Status quo	Manage through contracts	Manage through the CCRA (preferred)
Increases incentive to store forest carbon	0	0	0
Administrative efficiency and effectiveness	0	- Long tail of administration burden for participation.	+ A simple change to the ETS reporting cycle.
Improves ease of compliance	0	-- Compliance will require civil action and may not meet the test of 'public interest' for action	+ Integrated into BAU returns for participants
Secondary Criteria			
Increases ability to meet climate change targets	0	0	0
Provides durable regulatory certainty and predictability	0	0	0
Avoids unintended consequences	0	+ Would ensure that policy intent is met.	+ Would ensure that policy intent is met.
Consistent with wider climate change and wellbeing priorities	0	0	0
Overall	0	-	+
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; - - much worse than			

What do stakeholders think?

71. We did not consult on this issue. The exclusion of grant funded forests under One Billion Trees from the ETS is a policy decision in relation to that programme, and was made after the consultation period on proposed changes to the ETS.^s
72. The 1BT programme held a number of workshops with different groups and interests throughout mid-2018, during the development of the 1BT fund design. Feedback on the stand-down period varied, depending on the stakeholder and their planting objectives.
73. It was widely felt that indigenous species, due to the more limited economic incentives to plant and their low short-term sequestration rate (and, accordingly,

carbon income), could be justified to enter the ETS immediately if eligible. This informed the Ministers' decisions to allow these forests to register in the ETS and claim NZUs from forest establishment.

74. For *pinus radiata*, there were mixed views depending on the stakeholder's interests. These ranged from a desire to keep ETS participation completely independent of grant criteria to views that there are considerable existing market incentives to plant pine and that a grant is not required. It was felt that if there was a stand-down period for radiata pine in particular then the value of the units foregone under current market conditions should not exceed the value of the grant (i.e. so the Crown is not seen to 'profit' out of the grant). This logic closely informed the length of stand-down period (6 years) that was agreed by Ministers.
75. With the uptake of One Billion trees funding being voluntary, only those who are willing to accept the stand-down period from the ETS will apply for funding and be impacted.

3 RE-ALIGNING MANDATORY EMISSIONS RETURN PERIODS

What is the policy problem or opportunity?

76. All post-1989 forestry participants must submit a MER at the end of each five-year Mandatory Emissions Return Period (MERP). A MER determines the number of NZUs a participant should receive or surrender. This number of NZUs is then reconciled against the net units issued over the MER through voluntary emission returns that may have been submitted for the first four years of the MERP. The difference is issued to, or is required to be surrendered by, the participant.
77. The first MERP was aligned to the Kyoto Protocol's First Commitment Period (2008-2012) and then to five yearly periods after that (i.e. 2013-2017, 2018-2022). However the Kyoto Protocol has been overtaken by the Paris Agreement, and countries have set new targets for the 2020-2030 period. This means MERPs are misaligned with:
 - (i) Our international targets (the Kyoto, 2020 and 2030 targets), and
 - (ii) The introduction of changes in the way New Zealand accounts for forestry internationally under the Paris Agreement (which starts in 2021).
78. Cabinet has taken a series of decisions on how to better ensure that the supply of NZUs into the market match the likely demand from emitters (the 'unit supply' work). Aligning the forestry MERPs to the international targets will facilitate this, as:

- (i) Around half of the NZUs earned by post-1989 forest is allocated in the final of returns²⁰;
- (ii) The MERs use the most up to date, including from the most recent Field Measurement Approach (hereafter FMA) data; and
- (iii) Any harvest emissions are accounted for, and participants become liable to surrender units

These three impacts in combination mean the MERP acts as a 'true-up' for forestry and ensures that the ETS unit flows closely match the international flows.

What options are proposed to address the problem?

- 79. The proposal is that a shorter MERP is offered (three years) to align with international targets and the introduction of averaging accounting. In a 'mini-MERP' forestry participants subject to the FMA²¹ would not be required to remeasure their forest and update their lookup tables for this period, but could use the tables from the prior MERP. This is managed through regulations.
- 80. Two Mini-MERPs could be applied across the following timeframes:
 - (i) 2018-2020; or
 - (ii) 2023-2025.
- 81. In the 2018 discussion document we consulted on both. We stated that the timing of the mini-MERP would be linked to the introduction of averaging through a one-off opportunity to transition existing ETS-registered forests from stock change to average accounting and the need to expedite this. However, subsequent to the consultation, the preferred approach is to allow more flexibility in timing.

What is proposed?

- 82. We propose adopting a mini-MERP of 2023-2025. The current MERP of 2018-2022 would remain in place.
- 83. The proposal would mean that the units issued under the ETS would be aligned with accounting for our emissions target under the Paris Agreement. It would also reduce an unnecessary cost and complexity for participants subject to the FMA.

²⁰ The other 50% of the allocation is claimed during the 4 years of the MERP, through the submission of Voluntary Emission Returns.

²¹ This is a method whereby carbon lookup tables that participants use for emission returns are based on field measurements of their forests. It is mandatory for land with 100 hectares or more registered in the ETS during a MERP, and must be completed in each MERP.

84. The proposal would resolve the unintended consequence (that could not have been envisaged earlier) of the ETS five-year periods becoming misaligned with international accounting periods.

Costs and benefits

Cost and benefit to the Crown

85. Processing the mandatory emissions returns means the mini-MERP may create additional operational cost to the Crown. However, we do not expect these to be significant in the context of the wider forestry package, e.g. the introduction of averaging. The cost can also be reduced with the Climate Change Information System (CCIS) rebuild²² changes.
86. Holding the mini-MERP between 2023 and 2025 will also allow the CCIS rebuild project to be completed, an initiative intended to simplify reporting. This provides another opportunity to reduce cost.

Cost and benefit to participants.

87. We expect the mini-MERP to be designed and implemented in a way that results in the least cost to the participants (e.g. there will be no requirement for FMA participants to undertake a FMA data collection in the mini-MERP (they may elect to use previous data).
88. There is a cost of filing an emissions return for the participant (for the majority of participants fee is \$102.22²³). Introducing the mini-MERP will therefore bring this cost forward for all participants meaning a total cost of around \$215,000 happening two years earlier (2026 rather than 2028) than is currently the case (NPV \$16,300 at 6% discount, NPV \$18,400 at 8%). However, we expect this to be an overestimate of the impact for three reasons:
- Around 600 participants per year (for around 60% of the registered area) submit 'Voluntary Emissions Returns' (VERs) to claim units during MERP. With higher carbon prices we expect the number of participants submitting VERs to increase. As VERs are charged at the same rate as a MER, these participants will face no marginal cost for submitting a MER at the end of the Mini-MERP;
 - The 'Mini-MERP' will be after the first opportunity to move to averaging, and we are looking at options for simplifying emissions returns for forests under averaging; and
 - The fee for submitting an emissions return is set in regulation, and we are exploring options to offer a reduced fee for the Mini-MERP to recognised there are few years covered by the return (e.g. pro-rated to ~\$62). This will be confirmed in the regulation setting process.

²² The CCIS is the tool which manages the registrations of all forests in the ETS. The current software is at 'end of life' and planning a new system is underway. Early estimates of the cost of replacement is between \$10m and \$20m. Cabinet will be informed separately of the options to improve the CCIS once all ETS policy decisions have been made.

²³ \$102.22 for the first 45 minutes, and then at the hourly rate of \$132.88, GST inclusive

89. Some participants may incur the cost of the using consultants to prepare the return (estimated \$500). The NPV of this cost arising two years earlier is between \$60,400 (6% discount) and \$68,500 (8% discount)²⁴ However, we believe participants reliance on consultants will become less as this legislative package progresses. Averaging is expected to offer opportunities to simplify reporting and we are considering options to simplify reporting for the participant (e.g. minor and technical change 5).
90. Under the mini-MERP proposal, a participant will receive the same net number of NZUs as the current MERP regime. However, their timing may be different. This will be particularly important for participants who must account for harvest emissions two years 'earlier' than under the current timing. A mini-MERP in 2023-2025 is expected to minimise the impact on participants from unanticipated unit surrenders. That's because participants have six years to plan for surrenders or modify their harvesting timing.

Evaluation against criteria

Relevant Criteria	Options		
	Status quo	2018-2020 Mini- MERP	2023-2025 Mini-MERP Preferred
Increases incentive to store forest carbon	0	0	0
Administrative efficiency and effectiveness	0	0	0
Improves ease of compliance	0	- Earlier MER would pose a significant cost on participants to comply and meet their unit obligations	0
Secondary Criteria			
Increases ability to meet climate change targets	0	++ Would ensure perfect alignment with the Paris Agreement	+ Units issued under the ETS would be aligned with NZ's accounting for our emissions reduction target under the Paris Agreement
Provides durable regulatory certainty and predictability	0	-- Delivery of the revised regulations would only occur with the minimum 'warning' time allowed by	0 While changing the MERP timing reduces certainty, it can be done in a way that the impact if as low as possible.

²⁴ Based on 1,600 returns, the balance of participants who are expected to undertake a VER.

		legislation (3 months before implementation)	Aligning the MERP to the Paris targets improves long term certainty as it reduces the need for a change in future
Avoids unintended consequences	0	-- Would undermine confidence in the ETS, and likely place some participants under financial stress (from early unit surrender for harvest or forgone harvest income)	+ Would resolve the unintended consequence of the ETS five-year periods becoming misaligned with international accounting periods.
Consistent with wider climate change and wellbeing priorities	0	++ Align perfectly with international targets so will ensure consistency with NZ's wider climate change programme.	+ Better aligning with international targets will ensure consistency with NZ's wider climate change programme.
Overall	0	0 Any benefits from increased alignment to the international target are balanced by negative impacts on participants	+
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; - - much worse than			

What do stakeholders think?

91. There was strong support for this proposal. Of the 47 submissions that addressed this question, 75% were in support, six per cent were opposed, and 19 per cent were unsure. There was some concern that compared with the status quo, the introduction of a mini-MERP would bring forward harvest surrender obligations.
92. This could unfairly prejudice forest owners who made arrangements and plans based on the current MER period. The recommendation that the Mini-MERP be applied at 2023-2025 should address these concerns, or allow at least six years lead in time to allow participants to manage these risks (e.g. sell fewer units, or acquire the units to surrender at the time of harvest).
93. There were also concerns about measurement. In previous MERPs, FMA participants delayed their measurements until late in the period. The FMA process is complex and skills may be lost by Te Uru Rākau and the industry providers if re-measurement is

delayed until the end of the proposed 2018-2022 period. However, we consider this to be a relatively minor risk.

4 DEREGISTERING NON-COMPLIANT VOLUNTARY FORESTRY PARTICIPANTS

What is the policy problem or opportunity?

94. The current compliance tools have little impact on those who are persistently non-compliant. There are escalating penalties for participants who are not compliant, but these are not effective for the sector due to the time between actions that trigger the escalation (e.g. it may take ten years or more to fail to submit three returns). Non-compliant participants also receive units while not compliant (the returns are done on their behalf), creating a cost to the Crown.
95. Non-compliant participants place a burden on the EPA and participants are treated unequally. For example:
- Of the minority of participants who did not complete their surrender on time, 83 per cent completed them within 60 days, 11 per cent completed them within 60 – 100 days, and six per cent remain outstanding. The legal requirement is within 20 working days or 60 working days²⁵.
 - The EPA also has a number of outstanding excess emissions penalties (in some cases participants have surrendered or repaid the units but not paid the penalty; in other cases both the penalty and units remain outstanding).
 - 227 post-1989 participants have failed to submit a mandatory emissions return (MER).
96. The EPA lacks powers to deregister non-compliant voluntary post-1989 forestry participants where they may be undermining the integrity of the ETS

What is proposed?

97. The proposal is to allow the EPA to deregister post-1989 forestry participants who are persistently non-compliant or to deregister the land in respect of which these participants are registered.
98. Each of these scenarios represents a situation where the burden of ensuring full compliance is placed on the EPA, which currently cannot de-register them. The EPA should be granted this power to improve the efficiency of ETS operations.

²⁵ Currently the CCRA includes different timelines for surrendering units in different clauses. The December 2018 decisions included that the timeline is standardised to 60 working days.

99. We propose that the test for persistent non-compliance be the latter i.e.:
- 365 days after an action was due; or
 - 90 days after the last date a participant was liable for a payment under the penalty and compliance regime, and the obligation was not met.
100. The inability of the EPA to deregister non-complying participants is a gap in the current scheme that should be addressed to improve integrity. Equity is relevant, as allowing non-compliant participants to remain in the scheme alongside compliant participants is unfair.

Costs and benefits.

101. It is not expected that this approach will result in significant costs to participants if they become complaint with their ETS obligations. Participants who remain non-compliant will face increased costs as a result of their land being deregistered.. For 15 year old pine the unit liability could be 440 units per ha, or a potential increase in cost of \$11,000 per ha²⁶ deregistered. This proposal is designed to allow non-compliant participants to avoid costs by becoming compliant.
102. It is likely that this change will lower the cost for the regulators as there will be fewer non-compliant participants in the registry. Any savings are likely to be relatively minor and will enable staff time to be better spent assisting other ETS participants to remain compliant.

Evaluation against criteria

Relevant Criteria	Options	
Primary Criteria	Status quo	Deregistration of persistent non-compliant participants (preferred)
Increases incentive to store forest carbon	0	0
Administrative efficiency and effectiveness	0 Is ineffective in managing persistent non-compliance	++ Would allow the EPA to operate more efficiently
Improves ease of compliance	0	++ Would allow effective management of persistent non-compliance
Secondary Criteria		

²⁶. If it was registered at establishment, and \$25 per NZU. 15years old is a mid-aged rotational pine forest. If the forest was registered into the ETS later, the cost will be less.

Allocates obligations and entitlements to support alignment with climate change targets	0	+ Helps ensure participants are receiving/surrendering units in a timely manner
Provides durable regulatory certainty and predictability	0 Has no certainty or predictability in managing persistent non-compliance	++ The proposal would provide clear rules for managing persistent non-compliance
Avoids unintended consequences	0 Does not provide a means for managing persistent non-compliance	++ Would avoid the consequences of retaining participants who are non-compliant
Consistent with wider climate change and wellbeing priorities	0	0
Overall	0	++
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; - - much worse than		

What do stakeholders think?

103. Most submitters who responded on this issue (71%) supported the proposal with 22 percent unsure and seven per cent opposed. The latter were concerned about their ability to 'put it right' and become compliant. There would be ample opportunity for them to do this in advance of the proposal coming into force.

5 Non-compliance with transmission of interest requirements

What is the policy problem or opportunity?

Background

104. When registered post-1989 forest land participants (transferors) sell or transfer their registered land (or a forestry right), they cease to be participants in relation to the land, and the transferees become the participants from the date of the transmission. Both parties have obligations under s 192 of the Act:

- (i) They must both notify Te Uru Rākau of the transmission of interest;
- (ii) The transferor must submit an emissions return in relation to the affected CAAs;
- (iii) The transferee must open a holding account (if not already a participant).

Problem

105. Many transmissions of interest are not currently notified by either party. Forest land may on occasion be transmitted several times before Te Uru Rākau becomes aware of this activity. This poses a particular problem where land is held in a trust and the trustees change. Where more than 40 per cent of trustees are changed, this is treated as a transmission of interest under s157A(4) of the Act.
106. Failure to notify a transmission of interest is an offence under s129(1)(v) of the Act. Where Te Uru Rākau detects non-notified transmissions, it prefers to work with the parties to remedy the situation, ensuring the correct person is recorded as the participant and that unit balances of the affected CAAs are correct.
107. Te Uru Rākau is aware of 106 current incomplete transmissions of interest (and has resolved 274 transmissions where obligations were not met). It often takes several months, or years, for non-notified transmission of interests to be detected and resolved.

What is proposed?

108. The overall problem of failure to notify transmissions is being addressed by amending the regulations²⁷ to add more precise information to the notices registered on the land titles of land containing post-1989 forest land. It is expected that this will alert conveyancing practitioners to the party's obligations under the Act when land is transmitted.
109. In addition to this regulatory change, we propose to improve the transmission of interest process for participants, and enable enforcement, by:
 - (i) Enabling the EPA to submit the required emissions return and transfer documents on behalf of the transferor should one not be submitted when a transmission occurs²⁸;
 - (ii) Ensuring transferred land does not receive any NZUs until the transferee becomes fully compliant e.g. submit the notification and open a holding account;
 - (iii) Once transferees become compliant, allowing them to claim units from the time of the transmission of interest;
 - (iv) Enabling the EPA to deem transferees who are not compliant at the time they must submit a MER to be 'persistently non-complaint' and to deregister the transferred land. Transferees would then become liable for the unit balance of the transferred land;

²⁷ Climate Change (Forestry Sector) Regulations 2008.

²⁸ Not filing a return is particularly common where the membership of unincorporated body changes, but the unincorporated body still sees itself as the same 'entity' e.g. a family trust owning a farm.

- (v) Allowing a participant 90 working days to become compliant should a transmission only be discovered after the periods described in subparagraph iv above; and
- (vi) Providing for the late discovery of a transmission by giving the transferee 90 working days to become compliant if it is discovered after the period in paragraph 94 (iv).

110. This approach is the least costly for participants as:

- (i) Transferors are no worse off than if they had filed the required return at the time of transfer;
- (ii) Transferees are no worse off than if they deregistered the land at the time of transfer; and
- (iii) Transferors and transferees still have a reasonable timeframe to avoid being deemed persistently non-compliant.

Costs and benefits.

111. This approach is not expected to result in significant costs if participants become compliant with their obligations as a result of buying the registered post-1989 forest land. Under averaging, the ongoing compliance cost of owning a forest under averaging is expected to be very low. This option is designed to enable non-compliant participants to avoid increased costs.

112. Participants who are not compliant will face increased costs, as a result of deregistration of the land. For 15 year old pine the unit liability could be 440 units per ha, or a potential increase in cost of \$11,000 per ha²⁹ deregistered. However this will be equal to the number of units needed to surrender to deregister the land at the time of the transmission of interest.

113. It remains unclear how much costs to regulators will change:

- (i) There is likely to be lower cost per non-compliant transmission of interest, as compliance rates increase, and there will be reduced need to reconstruct multiple emissions returns based on incomplete information; and
- (ii) There may be higher costs from enforcing the penalties and unit recovery from the deregistration.

114. Any savings are likely to be relatively minor and will enable existing staff time to be better spent other instances of non-compliance, and assisting participants with resolving outstanding cases.

²⁹ If it was registered at establishment, and \$25 per NZU. 15years old is a mid-aged rotational pine forest. If the forest was registered into the ETS later, the cost will be less.

Evaluation against criteria

Criteria	Options	
Primary Criteria	Status quo	Allow deregistration of post-1989 forest land where the participant is not meeting their obligations. (preferred)
Increases incentive to store forest carbon	0	0
Administrative efficiency and effectiveness	0	+ Provides a pathway for the administration of land in these cases.
Improves ease of compliance	0	+ Simplifies the steps needed once a non-compliant transmission is discovered.
Secondary Criteria		
Increases ability to meet climate change targets	0	0
Provides durable regulatory certainty and predictability	0	0
Avoids unintended consequences	0	0
Consistent with wider climate change and wellbeing priorities	0	0
Overall	0	+
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; -- much worse than		

What do stakeholders think?

115. The issue in this statement has arisen after analysis of the submissions on the 2018 consultation as a consequence of testing the 'non-compliant participants' (issue 4) proposals.
116. We did not have the opportunity to formally consult on this issue with stakeholders. We have informally tested this proposal with key industry contacts and they see this proposal being the least impactful option. Concern was expressed around the need to 'nip the problem in the bud' (i.e. work to ensure transmissions of interest are compliant earlier so the problem does not arise). We believe that changes being made

to the notices on land titles³⁰ will work to achieve this, as will improved understanding in the ETS by professional service providers (e.g. lawyers).

117. One aspect of simplifying transmissions of interest was included in the 2018 consultation and was well supported i.e. the proposal to treat executors of will as if they were the registered participants of the land subject to the will. This removes the unnecessary step of executors having to be registered as participants and to open holding accounts

6 Penalty for breaching permanence conditions

What is the policy problem or opportunity?

118. Registering forest into the permanent post-1989 forest activity places a restriction on clear-felling³¹ the forest, or parts of it for 50 years (or 25 years following the initial 50 year period). This condition is unique within the ETS.
119. Clear fell for permanent post-1989 forest is defined to include harvesting, burning, or removing of trees by mechanical means or other human activity, so that more than one hectare of forest land is cleared.
120. To maintain the integrity of the permanent post-1989 forest activity there needs to be a disincentive on the clear-felling of registered permanent post-1989 forest. Because the existing penalty and compliance framework fails to provide for this, a new penalty is required.
121. Consequences for the participant need to weigh up i) a strong disincentive and discourages clear-fell harvest, while ii) encouraging the reporting of the emissions from the inappropriate harvest³² and the surrender of units for these emissions.

Clear-fell outside the control of the participant

122. There are situations where clearing of a permanent post-1989 forest may be outside the control of the participant (such as a fire). This requires consideration for the penalty framework.

³⁰ As part of the Regulations update 2018, we proposed to include more of this 'process' information on the notice in a way that is more understandable, e.g. the notice becomes 'this property has an ETS registered post-1989 forest on it. If the land is sold, or a lease granted over the forest, your obligations are... {information on the Transmission of Interest process}'. This was consulted on in July 2018 and it was well supported by submissions. We are currently drafting the proposed changes.

³¹ Clear-fell will be defined in the Act.

³² This may be accidental, for example where a logging contractor strays over the boundary into permanent post-1989 forest land.

123. By definition, where the forest clearance is due to a natural forest disturbance (e.g. a storm) it will not be considered a clear fell event. The participant will have no need to surrender NZUs where:
- (i) Loss of forest carbon is short term (e.g. as a result of a fire), and the forest carbon stock will recover to its former level (this decision has been made separately by Cabinet); or
 - (ii) Where the forest cannot be re-established (e.g. a river moves into an area of registered land), due to the existing section 189(8A).
124. Where the clear fell is due to human activity, but outside the control of the participant the ability to apply discretion around the penalty is appropriate. For example a permanent post-1989 forest may be on the boundary of a property, and a logging contractor working within an adjacent forest accidentally strays over the boundary, and undertakes clear fell of sufficient scale. The participant for the permanent post-1989 forest should not be liable for this clear fell if they had no control over the logging contractor's action.

What are the options?

125. In this section we consider four different approaches to penalising clear-fell of permanent post-1989 forests:
- i. Deemed value of the wood (preferred); or
 - ii. No penalty; or
 - iii. Based on the emissions from the clear fell forest; or
 - iv. A compounding unit penalty.
- i. Deemed value of wood removed (preferred)**
126. Under this approach we would base a civil penalty on the deemed value of the wood (or biomass³³) removed from the permanent post-1989 forest. This will act as a disincentive to undertake the action (as there is no profit from it). This penalty would be levied following determination by a Court an offense has occurred.
127. Under this approach the EPA would publish a schedule of 'deemed values' for different forest species. These values would relate to the value of the wood that could be produced from the forest species. An arbitrary value could be used where the forest species cleared does not contain any merchantable timber, and/or where there is no detailed species. The schedule would be updated regularly. We are proposing to use regulations to set this.

³³ Biomass is a term used in the carbon calculations and includes all wood in a forest and other parts of the tree for example branches and leaves.

128. This value would then be multiplied by the biomass³⁴ removed, as assessed by the EPA, to determine the maximum value of the penalty.
129. Value based penalties of this kind are common within the other resource management activities that MPI administers, including:
- (i) Seizure of indigenous timber harvested without meeting the conditions of the Forests Act 1949 (meaning there is no profit from harvest); and
 - (ii) Under the Fisheries Act 1996, commercial fishers who exceed their Annual Catch Entitlement (ACE) must either pay a 'deemed value' for the excess or acquire more ACE. This allows the charge to be known, and species with very different values to be managed within one regime.

Deforestation following clear-fell

130. Cabinet agreed to a process where the Minister for Climate Change may approve the removal of permanent post-1989 forest from the ETS prior to end of the 50 year non-clear fell period.

131. However, there remains the opportunity to game the rules around clear-fell and deregistration by :

- ii. Clear-felling a small area of forest (e.g. 1.5 hectares);
- iii. Meeting the relatively small penalty for breaching the clear-fell condition; and
- iv. Then having the whole CAA removed from the ETS.

While this would require the surrender of the unit balance for the CAA (all units received) this is the same number of units as if the participant went through the Ministerial approval process.

132. Because of this, an additional disincentive against using a breach of the clear-fell condition to deregister (without Ministerial approval) is required. Therefore we propose that if the participant fails to re-establish the clear-felled land within the timeframes specified in s179 of the Act, the entire CAA must be removed, and twice its unit balance surrendered.

133. Natural events which prevent the re-establishment of forest are already addressed by the Act, and would not result in the CAA being deregistered.

ii. **No penalty for breaching the clear-fell provision.**

134. One option is to have no penalty for breaching the clear-fell provisions of the permanent post-1989 provision. This would make permanent post-1989 forest activity

³⁴ This can be derived either from the carbon stock per hectare or observational data.

indistinguishable from post-1989 forest. This would undermine both the benefits offered by permanent post-1989 forest, and the ability for units from permanent post-1989 forests to command the market premium, a core part of their value proposition.

135. In the December decisions to establish the permanent post-1989 forest land, Cabinet determined that 'if forest land registered in the ETS Permanent Post-1989 Forest activity is subject to 'clear fell' within a 50-year timeframe that area of forest land will be considered non-compliant'³⁵.
136. This indicates the expectation of some penalty or disincentive for breaching the non-clear fell provisions of the permanent post-1989 forests. We did not propose a penalty in the December paper as the wider work on changes to the penalty and compliance

iii. **Emissions associated with clear fell**

137. The penalty would be linked to the quantity of the resultant emissions (e.g. surrender one extra NZU for each tonne of emissions). It is not preferred as:
- (i) It disconnects the penalty (carbon price) from the behaviour we are trying to discourage (wood removal). At higher carbon prices there would be a greater disincentive.
 - (ii) We would need to consider how to account for uncredited carbon storage (before the forest was registered) and carbon storage when the forest was registered as a post-1989 forest. The introduction of averaging would make this calculation more complex.
 - (iii) It may be more complex to derive the emissions, as we would need to consider methodological changes, for example if updated field measurement approach data changed the carbon stock in the hectare.

iv. **A compounding unit penalty**

138. The Permanent Forest Sink Initiative discouraged un-authorised clear fell by a provision for an escalating penalty for inappropriate harvest based on:
- (i) Surrendering the number of units received for that area of forest; and
 - (ii) A ten per cent compounding penalty based on the number of units received and the time since registration.
139. This option is not preferred as:
- (i) it disconnects the penalty (NZUs received) from the behaviour we are trying to discourage (wood removal); and

³⁵ Para 16 ENV-18-Min-0047

- (ii) the harvest of slower growing forests would face a higher penalty than the harvesting of younger forests (as they would be closer to registration).

Cost and benefit.

140. The costs of implementing this compliance penalty are likely to be minor. Monitoring for clear fell harvest will be part of BAU ETS operations, and cost will only arise when there is a breach of the clear fell condition. There may be costs in collecting the penalty payment, but this cannot be quantified at this stage.
141. The Participant will face a cost to meet the penalty payment. This is intended to be equal to the value of the income from the harvest. The participant will likely have incurred some cost from extracting the timber, so they are possibly out of pocket once the penalty is applied.
142. However, the sunk cost of harvest should not be factored into the penalty calculation. Harvesting costs will also be incurred if wood is removed from a forest being managed consistent with the requirements of the permanent post-1989 forest activity³⁶ and limited harvest is being undertaken. Examples of the cost of different harvest models are:
- ii) A recent article in the NZ Journal of Forestry³⁷ places the average direct cost of harvesting a continuous canopy pine forest at \$33.33 per m³ of recovered timber, and a historical range of \$28.45 to \$49.30.
 - iii) A recent compliance case for post-1989 forest estimated the cost of clear-felling a pine forest at around \$25,000 to \$35,000 per hectare (roughly \$35.71 to \$50 per m³ of recovered timber).

This means that cost of clear-felling the forest is not, necessarily, an additional cost relative managing the permanent forest and extracting wood.

Evaluation against criteria

Criteria	Options			
	No penalty for clear fell harvest	Deemed value of wood (preferred)	Additional unit penalty	Unit multiplier
Increases incentive to store forest carbon	-- Would result in no difference between the two post-1989 activities	+ Penalty is directly linked to reduction in stored carbon	0	0

³⁶ For example tree crown cover above 30%.

³⁷ Wardle, J. 2019, *Management of radiata pine using selective harvesting and natural regeneration*, NZ Journal of Forestry February 2019, Vol 63 No 4.

Administrative efficiency and effectiveness	0 No compliance means administration	+ Can be simplified to a look up table model	- Additional effort needed to determine penalties.	- Additional effort needed to determine penalties.
Improves ease of compliance	0 No compliance tools means no compliance	+ Can be simplified to a look up table model	- Penalty level and value is uncertain	-- Penalty level and value is uncertain, and highly specific to previous actions
Relevant Secondary Criteria				
Increases ability to meet climate change targets	-- Does not provide any incentive to establish permanent forest	+ Penalty does not impact unit supply	- Penalty reduces unit supply	- Penalty reduces unit supply
Provides durable regulatory certainty and predictability	0	0	0	0
Avoids unintended consequences	0	0	0	0
Consistent with wider climate change and wellbeing priorities	- No incentive to establish permanent forests undermines the co-benefits	0	0	0
Overall	--	+	-	-
Table key: Variations from the status quo: ++ much better; + better than; 0 about the same; - worse than; -- much worse than				

What is proposed?

143. We propose to:

- (i) base the penalty for the 'clear fell' of permanent forest on the deemed value of the all wood being cleared³⁸ in the permanent forest as part of the clear-fell process; and

³⁸ The term 'cleared' here is used to align with the definition of 'no clear-fell' in the Permanent activity. It includes harvesting, burning, or removing of trees by mechanical means or other human activity,

- (ii) if permanent forest land is deforested, that the unit balance of the deforested land multiplied by a factor of two be surrendered.

MINOR OR TECHNICAL ISSUES

- 144. Six issues, either relatively minor or technical in nature, are also proposed, but have been exempted from the statement process. They are described in Appendix 2.

Section 5: Conclusions

What option - or combination of options - is likely best to address the problem, meet the policy objectives and deliver the highest net benefits?

- 145. Ministry for the Environment (MfE) and Te Uru Rākau both recommend that the proposed changes set out in this statement are implemented to address the issues identified with the current legislative framework. All proposals require amendment to the Climate Change Response Act.
- 146. Many of the changes proposed here are expressly intended to be enabling and to support the wider package of changes for forestry accounting and permanent forests. This will be complemented by proposed improvements to the penalty and compliance, and market governance regimes.
- 147. While some proposals will provide benefits for specific landowners (e.g. multiple-owned land), most the benefit will derive from changes supporting the wider ETS (and forestry programmes) to deliver improved investment confidence. This skews the benefit analysis below: individually the benefits are relatively small, but in aggregate are significant.
- 148. Much of the benefit from the minor and technical changes will be to reduce the likelihood of a participant making an error. While improved compliance rates will be beneficial from the Crown perspective (e.g. it will improve the integrity of the ETS, and reduces operational costs), the key benefit for the participant will be to reduce the risk of exposure to the (often significant) penalties that result from non-compliance.
- 149. As the current law is often complex and prone to misinterpretation. Use of professional service providers (consultants) is not a guarantee that participants will be compliant. As part of the wider package of improvements to the ETS, Cabinet is

considering changes to make the law clearer, a move expected to reduce inadvertent errors.

Proactively Released

Summary table of costs and benefits of the preferred approach

Affected parties <i>(identify)</i>	Comment: <i>nature of cost or benefit (e.g. ongoing, one-off), evidence and assumption (e.g. compliance rates), risks</i>	Impact <i>\$m present value, for monetised impacts; high, medium or low for non-monetised impacts</i>	Evidence certainty <i>(High, medium or low)</i>
--	--	---	--

Additional costs of proposed approach, compared to taking no action			
Regulated parties (ETS participants)	Many of these proposals may impose a cost on non-compliant participants, but participants will have generous timeframes to become compliant. There is expected to be some cost from the Mini-MERP proposal, but this will be reduced as much as possible and the later timing of this works to allow participants to manage this. The emissions ruling process can be cost recovered, so those participants electing to take this up will incur a cost.	Low <\$0.1m	Medium
Regulators (Te Uru Rākau/MPI, EPA)	Development of the mapping instrument will be a significant cost on the Crown (between \$3m and \$25m), however this will be subject to separate consideration and more detailed quantification later. Costs of implementing the other changes are expected to be included into BAU budgets, BAU processes and/or already planned improvements (for example the CCIS rebuild ³⁹). Without these programmes, the ETS for forestry will not function.	Low-Medium between \$3m and \$25m	Medium
Wider government		NA	NA
Other parties			

³⁹ This is a separate project to replace the system for recording forestry information in the ETS. The current system is at 'end of life' and requires replacement. We expect that the replacement will cost between \$10m and \$20m.

Total Monetised Cost	n/a	Low to medium Between \$3m and \$25m	Medium
Non-monetised costs	n/a	NA	NA

Expected benefits of proposed approach, compared to taking no action			
Regulated parties (forest participants)	The most significant benefits will be through the improved land information, which could significantly improve investments in carbon forests. However, this is difficult to quantify at the national level.	Medium to high	Medium
Regulators	Long term, the cost of ETS maintenance is expected to reduce as participant compliance is expected to increase. However the benefit of this will be accrued by using staff time more effectively, and focusing the effort on more complex cases of non-compliance.	Low-Medium	Medium
Wider government	Based on 1,000ha of forest per year ⁴⁰ being sited on land which is eligible for international reporting (rather than ineligible land)	\$33.75m ⁴¹	medium
Other parties			
Total Monetised Benefit	n/a	\$33.75m	medium
Non-monetised benefits	n/a	Medium to High	Medium

⁴⁰ From 2021 to 2030.

⁴¹ In 2012 NZD. This is based on the approach used to evaluate the cost of New Zealand's Nationally Determined Contribution under the Paris Agreement (the Paris target). It uses international yield tables to model carbon sequestration.

Is the preferred option compatible with the Government's 'Expectations for the design of regulatory systems'?

150. The preferred option is compatible with the Government's 'Expectations for the design of regulatory systems'.

Section 6: Implementation and operation

How will the new arrangements work in practice?

Operational changes

151. Improvements will be implemented through streamlined policies shaped by Te Uru Rākau and the EPA. These will be incorporated into the day-to-day operation of Te Uru Rākau with little impact. In advance of the legislative changes, operational policy will be developed as part of the usual review cycles.
152. The three 'compliance' proposals⁴² will be included in our BAU forest monitoring and compliance outreach programmes. It is expected that having the additional tools in our toolbox will encourage better resolution of these issues.
153. The mini-MERP, emissions ruling process, and the grant funding stand down period will be communicated to participants (and those with forests) as part of the collateral for ETS registration and grant funding applications. We are intending to update these, and will include these changes both 'before' they register and when we remind them of their obligations prior to the MERP end.
154. The delivery of the mapping instrument will take time (as we research, develop proposals and consult on the regulations). However, we will develop it in parallel to the legislative process.

Outreach around the changes

155. Following final decisions on forestry, and law changes being implemented, the changes to the ETS will be communicated to stakeholders through existing channels (website, email distribution lists, forestry periodicals), workshops as required and updating of existing guides. This will be part of a wider publicity programme surrounding introduction of the changes to post-1989 forests.
156. Through Te Uru Rākau's work, other programmes from government and work with stakeholder groups we intend to communicate the range of options surrounding the

⁴² i) The deregistration of non-compliant participants; ii) options for transmissions of interest; and iii) permanent forests.

ETS and carbon forestry. Communication of this kind is becoming increasingly commonplace, as we work to promote informed decisions by land and forest owners. When the legislation passes (late 2019) and the regulations are in place, we will be better placed to determine our implementation programme.

157. The operational improvements will require new 'public facing' information, for which work will be scheduled as part of our business as usual communications refresh.

What are the implementation risks?

If regulations are not expedited, there are risks the necessary changes won't be delivered.

158. Regulations for the changes in this statement, and the rest of the forestry package, will need to be developed. With the changes being proposed, drafting the regulations in a way that provides certainty for the participant and the Crown will be a challenging exercise. We have allowed a six month period, following consultation on the regulations, to draft and test them. If this process is delayed, there's a risk the implementation date for these changes also will need to be held back.

Wider changes made to the ETS create a perception of uncertainty.

159. There are a large number of changes being proposed for the ETS, including for forestry. This will create the appearance of uncertainty in the future direction of the ETS, despite the long term positive outcomes we expect. This could mean those interested in establishing a forest are reluctant to join the ETS for a few years, preferring to wait until the 'uncertainty' has been resolved.
160. We believe this is manageable through both design of the options (e.g. to simplify transition from the status quo to the new approach at least complexity) and a clear signal around the Government's response to climate change and how the ETS plays a part.

The Climate Change Information System requires a rebuild

161. To ensure it ETS for forestry will continue to function, the CCIS used by all ETS forestry participants needs a rebuild. This will take several years (at least till 2022). While the changes in this statement don't directly affect the rebuild, they influence what the system will need to deliver. Should the CCIS rebuild not occur, the ETS for the forestry sector, including all changes proposed by the Forestry Package, will be unimplementable.

Section 7: Monitoring, evaluation and review

How will the impact of the new arrangements be monitored?

162. The impacts of the changes will be monitored through current reporting lines and processes. In other words, through analysing the reaction of stakeholders, rates of

non-compliance, new registrations, and withdrawal rates, uptake of applications for transfer to permanent post-1989 and through forestry stakeholder reference groups.

163. Monitoring and evaluation of the specific provisions in place will continue. In the case of a significant shift in the data gathered through the BAU monitoring (above) Te Uru Rākau will determine if it is linked to change in the wider ETS⁴³, our primary sectors⁴⁴, an issue with how the forestry parts of the ETS are perceived (a communication issue), or an issue with the legislation/regulation.

When and how will the new arrangements be reviewed?

164. Information on the success of the changes, and fresh issues with ETS implementation will continue to be collected. While no formal review is planned, we would expect changes when the next opportunity to amend the Act arises. Should the Minister of Climate Change initiate a review under s160 of the Act we would include the permanent forest option in that review.

⁴³ For example, a decline in the carbon price would result in reduced registration rates.

⁴⁴ For example, if the dairy pay out increases we would expect lower rates of new forest establishment on dairy support land.

Appendix One: analysis of contractual options to manage grant funded forests.

- 1) In the body of the statement we conclude that using a contractual arrangement to manage the double claim of units in grant funded forests is not the preferred approach. This appendix outlines the three options we considered on how to do this:
 - a) Extend the Contract
 - b) Require unit repayment
 - c) Require grant repayment

a Extend the contract

- (i) This extends the stand-down period for registration by between one and four years, reducing the attractiveness of grant assisted afforestation. This would mean that the restriction on access to units would vary by grant recipient/ETS participant (inequitable outcome) depending on the year they planted, and some would face a restriction longer than that specified in the contract. Under averaging, this would have an enduring impact on the number of units the post-1989 forest participant can claim.
- (ii) The result would be an uneven number of applications to register in the ETS are made. Participants will aim to apply in years where there is no need for an extended contract or when the de facto longer stand down period is the least. Likely follow-on impacts include:
 - Decreased ability for grants to deliver required afforestation (as each grant has a maximum area on what can be applied for in a single year); and
 - Undermining support for the One Billion Trees programme. The planting profile needed to optimise registration into the ETS means there will be no consistent demand for seedlings for grant funding programmes, reducing co-benefits from the One Billion Trees funding
- (iii) An extended period of enforcement will be necessary, with land owners and grant recipients to ensure they do not attempt to register grant funded lands. This would require penalties to be built into the contracts to address both breaching the conditions, and any NZU received in the ETS.
- (iv) The longer contract increases the likelihood of a land transaction and the need to ensure that the new owners are similarly bound by it.
- (v) It may be difficult for landowners to understand the rationale for variable length contracts, depending on the year of afforestation, which may impact on demand for grants.

b Require unit repayment

- (vi) The need to enforce the repayment requirement, and significant risk of non-repayment remains an issue. As unit repayment is part of the contract, only civil action can help recover the debt.
- (vii) In cases where the land and/or forest changes hands, enforcement becomes more challenging. The new owner needs to be aware of the conditions, and

commit to repaying the units. Depending on when the forest is registered, new owners may not have received NZUs for the quantity being repaid⁴⁵.

- (viii) The need to accommodate both Voluntary Emissions Returns (hereafter VERs⁴⁶) and Mandatory Emissions Returns (hereafter MERs) and the use of the MER at the end of the MERP to net off the VERs⁴⁷. FMA participants would find it particularly challenging, as they are only obliged to measure forests once a MERP, so there are slight differences between their existing (used for the VER) and updated (used for the MER) yield tables.
- (ix) Would require the 'unit balance' rules in sections 190 and 191 of the Act to be amended. Under these sections, the maximum number of units a participant must surrender is restricted to the difference between NZUs received for that area of forest and those surrendered for emissions (e.g. harvest). As the unit surrender approach does not relate to 'emissions' an amendment is necessary.

c Require grant repayment

- (x) Under this sub-option, grant contracts would require grantees to repay all or part of their grants if they registered their grant-aided forests in the ETS during the term of the contracts. It would be relatively simple to include this provision in future contracts, but existing ones would have to be amended by agreement.
- (xi) Disadvantages of this sub-option are that:
 - a) The risk of non-repayment of the grant, as with sub-option 1b, remains;
 - b) If the grant-aided forest changes hands during the term of the contract, it would be difficult to recover the grant from the former owner if a new owner joins the ETS; and
 - c) It does not cover cases where a forest owner joins the scheme after the grant contract has expired.
- (xii) However, the grant repayment approach could be developed as an interim measure until the preferred option of amending the Act (below) is implemented.

⁴⁵ If the land is registered and then sold, the original owner would undertake a mandatory emissions return and receive NZUs up to that point. The new owner would be required to surrender units for this sequestration.

⁴⁶ Post-1989 forest owners can submit an emissions return for some or all of their forest within a MERP. This process is called a Voluntary Emissions Return and provides an option for the ETS participant to receive NZUs (which can be sold for cash flow).

⁴⁷ If a forest owner submits VERs and received units, these units are considered when the MER calculation is done (e.g. if a participant receives 1000 NZU after a VER, and their MER concludes they are owed 4000 NZUs they would only receive 3000NZUs following the MER (4000-1000 already received)).

Appendix 2: Climate Change Response Act 2002 - Minor or Technical Issues

	<u>Title</u>	<u>Issue</u>	<u>Proposal</u>
1	Clarification of the treatment of post-1989 forest land deforested on boundaries of a forest	<p>The ETS allows for minor reductions in the area around the margin of an established forest at no cost to the participant. This is done to ensure that there is not a material impact from, e.g., slight differences in measurement of a forest boundary or forest establishment location.</p> <p>The current wording fails to align with the treatment of post-1989 forest. If the post-1989 forest land is deforested it must be deregistered from the ETS. The current drafting does not work as intended, as this land is 'not deforested', but could still stay in the ETS, complicating emissions returns.</p> <p>The intent is that post-1989 forestry participants should not have any <u>unit surrender obligation</u> if they deforest boundary strips of forest land.</p>	<p>Amend the CCRA to make it transparent that post-1989 forest land around the boundary, which is cleared and not maintained as a forest:</p> <ul style="list-style-type: none"> (i) must be deregistered from the ETS; and (ii) there is no requirement to submit an emission return for this change in area.
2	Inability to reference 'forestry' regulations and standards in a section 60 exemption	<p>There is no provision requiring exemption orders made under section 60 to reference the relevant regulations and standards that exist, or the requirement to use these regulations and standards. For example if an exemption is provided for, but the area the exemption relates to must be mapped.</p> <p>While it is possible to incorporate by reference these regulations and standards (via the [Legislation Act 2012]) this means the resulting exemption order in</p>	<p>Amend section 60 to allow exemption orders to make reference to the regulations and standards, and if appropriate, require their use.</p>

		Council does not stand alone, and adds complexity should regulations and standards change.	
3	Clarification of a provision relating to Unincorporated Bodies.	<p>Unincorporated bodies are mandatory participants if they undertake pre-1990 deforestation. They are voluntary participants if they undertake a post-1989 activity.</p> <p>However, the section which requires the EPA to be advised of the name to be entered into the registry is confusing. It appears voluntary, when it should be mandatory.</p>	Clarify that, should an unincorporated body be a participant they <i>must</i> advise the EPA of the name to be in registry.
4	Remove the ability for forestry participants to form consolidated groups	<p>ETS participants may form 'consolidated groups' where one member acts on behalf of the others members (e.g. to submit a return or transfer units). When first designed, it was hoped that this would lead to efficiencies.</p> <p>However, for forestry, these operational efficiencies are not achieved as each area of forest must still have its emissions and/or removals calculated individually.</p> <p>There is only one consolidated group for forests, but only one member of the group has forest registered after 2012.</p> <p>If consolidated groups were retained as an option, there are three significant issues:</p> <p>i) It makes the introduction of permanent post-1989 forests and averaging more complex;</p>	Remove consolidated groups from forestry participation options.

		<ul style="list-style-type: none"> ii) It adds significant complexity to future IT redevelopment, and increases the costs; and iii) It requires unique treatment of these groups in the regulations, and any subsequent changes to regulations. 	
5	<p>Simplify emissions returns for participants by providing 'raw' information to Te Uru Rākau</p>	<p>Participants make many minor (and some major) errors in their returns. This results in effort by Te Uru Rākau to correct the returns, compliance penalties, delays, and frustration for the participant.</p> <p>If participants were provided with the ability to submit 'raw' forestry information (e.g. the year a forest was harvested) Te Uru Rākau could pre-calculate the emissions returns for those forests.</p> <p>This proposal has three parts:</p> <ul style="list-style-type: none"> i) Enable Te Uru Rākau to proscribe what 'raw' information is required; ii) Enable Te Uru Rākau to define which forests are able to use this option; and iii) Enable Te Uru Rākau to provide the participant with a completed return for 'endorsement' (acceptance as correct). <p>This will offer significant savings to the participant for two reasons:</p> <ul style="list-style-type: none"> i) it will reduce the compliance burden as they will no longer need to undertake the calculations for the returns; and 	<p>Create the necessary provisions so</p> <ul style="list-style-type: none"> i) regulations can be made to enable participants to submit 'raw' information to Te Uru Rākau as part of the emissions returns process; and ii) Te Uru Rākau can prepare an emissions return on behalf of the participant. <p>Te Uru Rākau would then be able to issue pre-calculated emissions returns to the participant.</p> <p>The return may then be declared by a participant as a valid emissions return.</p>

		<p>ii) it will reduce the exposure to compliance and penalty orders from an incorrect calculation (rather than gross error, e.g. not reporting the forest has been harvest).</p> <p>From Te Uru Rākau’s perspective these changes will have a marginal reduction in our workload. We calculate the emissions and removals for the majority of participants as part of the compliance process. This proposal will simply move these calculations ‘earlier’ in the return cycle allowing more timely issuance of units to participants.</p>	
6	<p>Provide clarity on what ‘best practice forest management’ means</p>	<p>The Act makes reference to best practice forest management in a number of places (particularly where the removal of forest is required). This, however, is not defined and creates uncertainty for forest owners if the removal of forest is due to ‘best practice forest management’, and will qualify for an exemption.</p>	<p>Provide the ability to define “best practice forest management” by reference to relevant codes, regulations, legislation or actions.</p>

Appendix 3: Glossary

NOTE

This glossary is intended to assist readers of this statement.

While the definitions follow those in the Act (and elsewhere) they should not be treated as having any legal standing.

Term	Definition
50 year permanence period	The time when a registered Permanent Post-1989 forest activity must remain in the ETS for this period and is subject to the restrictions on harvest.
Accounting	In the ETS this refers to the counting of carbon stored in registered forests from their forest growth, and the amount emitted upon harvest or deforestation. This is equated into emissions units allocated to participants for forest growth, and required to be surrendered when emitting.
Accounting approach	In the ETS this refers to the method used to count greenhouse gas emissions and sinks.
Activity/Activities	When an emitter (or a forest owner) undertakes an action which means they become a participant they are deemed to be undertaking an 'activity'. Activities are divided into two types: <ul style="list-style-type: none"> i. Mandatory activities in Schedule 3 of the Act where anyone undertaking this activity must become a participant (e.g. deforesting or offsetting pre-1990 forest) ii. Voluntary activities in Schedule 4 of the Act where anyone undertaking this activity may elect to become a participant (e.g. owning, holding a registered forestry right, or being the leaseholder of post-1989 forest land)
Adverse events	A natural event that either temporarily or permanently disrupts the growth of a forest by removing all or part of the trees in an area. Examples include wind throw, earthquakes, floods and landslides. This edition is subject to further work and will be developed in the March paper.
Afforestation	The establishment (either by planting or natural regeneration) of forest on land that did not previously have tree cover.
Allocation	The Crown gives emissions units to participants eligible to receive units for their activities. For example an eligible forest owner who is registered in the ETS will be allocated emissions units in accordance with their forest growth.
Averaging	The averaging accounting method allocates emissions units to participants that reflect the amount of carbon stored in their forest over the long term. The details of this approach are the majority of the decisions in the March paper
Backdate	The ability to retrospectively count the eligibility of a forest (i.e. in terms of units owed or date of planting) when entering a scheme or transitioning schemes.
Basal area	The cross-sectional area of the stem of a tree measured over bark at a point 1.4 metres from ground level on the uphill side of the tree and expressed in square metres (Regulation 4 of the Climate Change (Forestry Sector) Regulations).
Biomass	'Below ground biomass' refers to the root systems of the tree that remains in the ground after harvest. These roots will contain and store carbon long term.
Carbon accounting area / CAA	Carbon accounting area means an area of post-1989 forest land that— (a) is defined by a person who is registered or has applied to register as a participant under section 57 in relation to an activity listed in Part 1 of Schedule 4; and

	(b) meets any relevant criteria specified in regulations made under this Act; or (c) is constituted as a carbon accounting area by operation of section 188(7)(b) or 192(3)(b)
Carbon equivalence	When land is the subject of an offsetting land application under 186A, Carbon Equivalence means the offsetting forest land will contain the same carbon stock as the pre-1990 land at the time of clearing within the usual rotation period for forest species on the pre-1990 land
Carbon price	The cost of one emissions unit (NZU). One emissions unit represents one tonne of carbon dioxide equivalent.
Carbon sink	Natural and artificial processes which take carbon dioxide from the atmosphere and store it are known as 'carbon sinks'. Forests are a good example of a carbon sink, as they take in and store carbon dioxide through the process of photosynthesis.
Carbon Stock	The amount of carbon contained within a forest.
Carbon stock change	Addition or removal of carbon stock contained in a forest.
Clear fell harvest	A harvesting system in which all merchantable trees within a specified physical area of land are felled and no significant tree cover remains. This is the approach most commonly used in New Zealand's production forests. This will be subject to further refinement in the drafting of the bill
Climate Change Response Act (Act) 2002	A legal framework to enable New Zealand to meet its international obligations under the United Nations Framework Convention on Climate Change and the Kyoto Protocol.
Commercial forest	A forest grown primarily for the purpose of earning an income from harvested timber.
Crediting	Refers to how much forest growth (carbon storage) a participant can receive emissions units for. If a participant is 'allocated' emissions units they are being 'credited' for that carbon stored.
Crown	The New Zealand Government
Cutting right	A cutting right in this example would refer 'the right to maintain and harvest' the forest as created by the proprietor of the forest land under section 2A of the Forestry Rights Registration Act 1983.
Deforestation	(a) Means to convert forest land to land that is not forest land; and (b) Includes clearing forest land, where s applies.
Deforestation liability	A participant must pay back any NZUs owed when deforesting in the ETS.
De-registration	Post-1989 forest land participants may cease to be a participant in the ETS at any time by applying to be removed from the register of participants. A participant can cease to be registered voluntarily, or because the land is no longer eligible (for example, following deforestation).
Emissions Mitigation	The reduction or removal of emissions. In Forestry, this specifically regards carbon sequestration, as forests act as a carbon sink.
Emissions trading scheme/ ETS	The New Zealand Emissions Trading Scheme (ETS) was created through the Climate Change Response Act 2002 (the Act), which was passed in recognition of New Zealand's obligations under the Kyoto Protocol. It is the primary method for the Government to achieve its long-term commitment to reduce greenhouse gas emissions.
Environmental Protection Authority/ EPA	The EPA runs the register for participation under the ETS and has delegated authority under the Act, however a range of functions relating to forestry activity are sub delegated to MPI.
Equivalent forest	Would be on forest land that satisfies the definition of post-1989 forest land in section 4 of the Act, and would be land: i. that has a total area (whether or not adjoining) that is equal to or greater than the total area of the post-1989 forest land to be offset by that land (whether or not adjoining); and

	ii. in which each individual parcel that makes up the total area of the offsetting forest land is at least one hectare with an average width of at least 30 metres;
Exemption	Where a person or class of persons carrying out an activity listed is exempt from being a participant under the Act.
Field Measurement Approach	A method used to calculate how much carbon is in post-1989 forest land (the 'carbon stock') from information participants collected about their forest. Participants must use the FMA if they: <ul style="list-style-type: none"> i. Have 100 hectares or more of post-1989 forest land registered in the ETS at any time during a mandatory emissions return period, or ii. Hold a covenant in the Permanent Forest Sink Initiative (PFSI) subject to the FMA, and have a forest sink area of 100 hectares or more at any time during a mandatory emissions return period.
Forest Allocation Plan	The Climate Change (Pre-1990 Forest Land Allocation Plan) Order 2010. Up to November 2011, owners of pre-1990 forest land were given the option to apply for a one-off allocation of New Zealand Units, in recognition of the impact of the ETS deforestation rules. They do not receive further NZUs if their forest's carbon stock increases.
Forest estate	All of New Zealand's forest, both commercial and permanent.
Forest land	(a) means an area of land of at least 1 hectare that has, or is likely to have, tree crown cover from forest species of more than 30% in each hectare; and (b) includes an area of land that temporarily does not meet the requirements specified in paragraph (a) because of human intervention or natural causes but that is likely to revert to land that meets the requirements specified in paragraph (a); but (c) does not include— (i) a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30 metres; or (ii) an area of land where the forest species have, or are likely to have, a tree crown cover of an average width of less than 30 metres, unless the area is contiguous with land that meets the requirements specified in paragraph (a) or (b)
Forest recovery	In this context, refers to the re-establishment of forest after an adverse event.
Forestry right	Means a forestry right registered under the Forestry Rights Registration Act 1983. This can involve granting a right to establish, maintain or harvest a crop of trees on the land.
Forestry sector	Those who work directly in forestry, including industry bodies, forest growers, wood processors, manufacturers and exporters.
Forests Act 1949	The harvesting, milling and exporting of indigenous timber is managed under the Forests Act 1949. Under the Act, native timber can only be taken from forests in a way that maintains forest cover and ecological balance.
Harvesting restrictions	A participant is restricted from harvesting their forest within specified legal parameters.
Holding account	An account to facilitate the buying, selling, acquiring or disposing of units. Holding accounts can be opened by private persons, either ETS participants or otherwise, to receive, surrender or sell NZUs.
Interested party	If a landowner is a post-1989 forestry participant, the holder of a forestry right, or a lease holder over the land is considered to be an interested party under the Act. Similarly, if a forestry right or lease holder is the participant, the landowner is an interested party.
International emission reduction targets	New Zealand is committed to international climate change targets. As a party to the United Nations Framework Convention on Climate Change and the Kyoto Protocol (MfE Website).
International Reporting	We report our actions in New Zealand's National Communication and Biennial Reports (MfE website).

Land titles	A Certificate of Title (or “land title”) states who owns a property. It also lists: i. any rights and restrictions relating to the title, such as an easement or covenant ii. who the previous owners of the property were who else has an interest in the property (e.g. a mortgage)
Land use flexibility	Increasing options for retaining NZUs while allowing participants to alter their forest location, harvest and replant.
Lease	Forestry land registered as leased under the Land Transfer Act 1952 (Part 7).
Legal covenant	Any covenant established under regulations made under section 67Y of the Forests Act, or any variation of that covenant, for the purpose of establishing and maintaining a forest sink; including, but not limited to, controlling the harvesting of timber from the forest sink.
Liability	In this context, liability means the requirement to surrender or repay NZUs under the ETS.
Mandatory Emissions Return	All ETS participants are required to calculate carbon stock change for the Mandatory Emissions Return Period (MERP) Completed return forms must be submitted to MPI within 6 months of the end of a mandatory return period. Other actions (e.g. undertake a Transmission of Interest) may require the submission of a Mandatory Emissions Return, and these are defined in the Act.
Mandatory Emissions Return Period (MERP)	The five yearly period which each post-1989 forest land participant is required to report for. The current MERP is 2018-2022.
Nationally Determined Contribution (NDC)	How a country states its target under the Paris Agreement on Climate Change. The individually determined contributions that each specific country should make in order to reduce national greenhouse gas emissions and adapt to the impacts of climate change
Natural Regeneration	The commencement of growth of seedlings present as a result of a process other than planting.
New Zealand Unit (NZUs)	A unit issued by the Registrar and designated as a New Zealand unit
Pre-1990 forest Offsetting	The option for owners of pre-1990 forest land to remove an area of forest, and not surrender units for the emissions provided a forest of at least equivalent area and carbon stock is established on eligible land.
Paris Agreement	It is an international treaty within the United Nations Framework Convention on Climate Change (UNFCCC), dealing with greenhouse-gas-emissions mitigation, adaptation and finance, starting in the year 2020.
Participant	In this context, it refers to a person, persons or entity that: <ul style="list-style-type: none"> • participates in a forestry activity; or • carries out an activity covered by the ETS/PFSI. A Participant must report on emissions (or on carbon captured) and may need to surrender units to cover their emissions or may receive an entitlement of units for carbon capture.
Permanent forest	A forest which will not be clear-fell harvested.
Permanent Forest Sink Initiative (PFSI)	A forest in the PFSI enters into a covenant with the Crown, which is registered against their land title(s). The covenant is in perpetuity, with the right to terminate after a minimum term of 50 years. Landowners are responsible for establishing and maintaining the forest. Limited harvesting is allowed on a continuous cover forestry basis. Currently administered under the Forest Act 1949.
Permanent post-1989 forest	A proposed new activity in the Climate Change Response Act 2002 (Act).
Post-1989 forest land	Post-1989 forest land is land which meets the forest land criteria, and includes: <ul style="list-style-type: none"> • was not forest land on 31 December 1989; or • was forest land on 31 December 1989 but was deforested between 1 January 1990 and 31 December 2007; or

	<ul style="list-style-type: none"> was pre-1990 forest land that was deforested on or after 1 January 2008, and any ETS liability has been paid. <p>This is not a complete definition</p>
Pre-1990 forest land	<p>Pre-1990 forest land:</p> <ul style="list-style-type: none"> was forest land on 31 December 1989; remained as forest land on 31 December 2007; and Contained predominantly exotic forest species on 31 December 2007. <p>Land that was indigenous forest land on 31 December 1989, and remained so on 31 December 2007, is not pre-1990 forest land and is not subject to ETS obligations.</p> <p>This is not a complete definition</p>
Production forest	A forest where the primary product will be timber. Used synonymously with Commercial forest
Reconfigure carbon accounting areas	Subdivide or merge carbon accounting area(s).
Re-establish	An area of land once forest land is restored in forest.
Register	In this context; enter an area of eligible forest land into the ETS.
Retrospective application	An application that concerns an activity undertaken in the past.
Risk	A probability or threat of damage, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities
Rotation	The cycle of growth and felling or cutting of trees.
Rotational forest	Forest which is managed using successive rotations to provide timber.
Saw tooth accounting	When a rotational forest accounts using the stock change approach the sequential period of sequestration followed by a sharp decline in carbon stock (after harvest) results in a pattern that resembles a saw teeth.
Sequester/ Sequestration	The uptake of carbon containing substances, in particular carbon dioxide (CO ₂), in terrestrial or marine reservoirs. Biological sequestration includes direct removal of CO ₂ from the atmosphere through afforestation.
Spot market/ spot price	The price of an NZU on the 'open' market which units can be purchased for at short notice.
Stock change approach	Where the participant accounts for the net carbon stock change in the forest
Surrender	The transfer of one or more units to the Crown surrender account in the Register to meet an emissions obligation.
Sustainable harvest	The harvesting of a certain quantity of that resource (timber) each year (or other time interval) over a specific period of time to maintain a sustainable supply.
Temporarily un-stocked forest land	In this context, this refers to forest land that has been cleared (e.g. harvest) but is expected to revert (e.g. be replanted or regenerate) to forest within the timelines of the Act.
Temporary adverse event	Adverse events which do not directly result in long term or permanent deforestation
Transmission of interest	A participant either transfers land to a new participant, enters into a contract where the contract holder is the new participant, or a contract is terminated and the landowner or new contract holder is the participant.
Tree weed	A tree that is defined or designated as— (a) a pest in a pest management strategy under the Biosecurity Act 1993; or (b) a tree weed in regulations made under this Act.
Trustee	Member of a trust.
Units	This means a Kyoto unit, a New Zealand Unit (NZU) or an approved overseas unit. Currently the ETS only transacts NZUs.

Unit Balance	The current balance of units received for a Carbon Accounting Area since its first registration. The participant may or may not still hold these units.
Voluntary	This means that an option is available to be chosen but not obligatory. Post-1989 forest participation is voluntary.

Proactively Released