

A Guide to Forestry in the Emissions Trading Scheme

October 2009

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ALERT - Proposed Changes to ETS Legislation and Pre-1990 Forest Land Allocation

Climate Change Response (Moderated Emissions Trading) Amendment Bill

On 24 September 2009 the Government tabled legislation to amend the Emissions Trading Scheme (ETS). The Climate Change Response (Moderated Emissions Trading) Amendment Bill includes changes to general provisions, and forestry sector provisions including the pre-1990 forest land allocation. Further details on the proposed changes are available in Sustainable Forestry Bulletin, [Issue 8](#) at: www.maf.govt.nz/sustainable-forestry.

The Amendment Bill is currently being considered by the Finance and Expenditure Select Committee. It is planned that the Select Committee will report back on 16 November 2009, and that the legislation will be enacted in December 2009.

New consultation on the pre-1990 forest land allocation

As a result of the changes proposed by the Amendment Bill to the ETS, a new consultation document on details of the allocation of New Zealand Units (NZUs) to owners of pre-1990 forest land ([Pre-1990 Forest Land Allocation Plan \(Consultation Draft\)](#)) has been released. This Consultation Draft supersedes the *Draft Forestry Allocation Plan* released in October 2008. Where supported by the Government, options put forward in previous submissions have been included in the current proposed changes.

Further details on the aspects of the allocation plan being consulted on, and information on how to submit are available in Sustainable Forestry Bulletin, [Issue 9](#) at: www.maf.govt.nz/sustainable-forestry.

Content of this guide is subject to the proposed amendments and processes described above. However, current legislation and regulations continue to apply until proposed changes are passed into law by Parliament. Once this occurs, this guide will be updated.

1 Introduction and Key Concepts

About this Guide

This guide has been prepared to assist the forestry sector, other landowners and potential investors understand the operation of the Emissions Trading Scheme (ETS) for forestry.

The document provides a guide only and does not purport to give advice regarding specific circumstances in relation to the ETS, New Zealand's climate change legislation in general, or the particular circumstances of individual land and forest owners.

The guide is designed to provide an overview of the ETS (Forestry) as it will be implemented. It explains:

- the ETS in general and why forestry is the first sector to enter the scheme;
- the definition of forest land and the different forest classifications within the ETS;
- the entitlements and obligations of ETS Participants who own:
 - exotic or indigenous forests established after 31 December 1989 on non-forested land ("post-1989 forest land"); and/or
 - forests established before 1 January 1990 that are predominantly exotic species ("pre-1990 forest land");

- taxation implications for ETS Participants.

Additional Guides

MAF is progressively making available a series of guides that provide detailed information about the administration, rules and procedures that a Participant must follow in order to comply with the ETS and related legislation.

The following guides and standards are available at www.maf.govt.nz/sustainable-forestry:

1. [**A Guide to Mapping Forest Land for the Emissions Trading Scheme and the Geospatial Information Mapping Standard**](#): describe how to define an area of forest using either the online mapping tool or by submitting existing data in electronic form, for example, shape-files.
2. [**A Guide to Look-Up Tables for Forestry in the Emissions Trading Scheme**](#): describes how to use tables to determine the amount of carbon (the “carbon stocks”) within a Participant’s forests.

Future guides will cover:

3. **A Guide to Classifying Forest Land for the Emissions Trading Scheme**: gives practical guidance on how to determine whether an area of forest is pre-1990 or post-1989 forest land under the Act.
4. **A Guide to Field Measurement for Forestry in the Emissions Trading Scheme, and The Field Measurement Standard for Forestry**: describes how to carry out standard forest inventory field measurements to provide data that can be used to assess forest carbon stocks using an online carbon calculator supplied by MAF.
5. **A Guide to the Carbon Calculator for Forestry in the Emissions Trading Scheme**: describes how to calculate the carbon stocks and how these change over time within a Participant’s forests based on data obtained by field measurements.

The Legislation

The legal requirements relating to forestry in the ETS are set out in:

- The Climate Change Response Act 2002 (the Act), as amended by the Climate Change Response (Emissions Trading) Amendment Act 2008 and the Climate Change Response (Emissions Trading Forestry Sector) Amendment Act 2009;
- The Climate Change (Forestry Sector) Regulations 2008 (the Regulations).

These are available at: www.legislation.govt.nz.

Taxation Information

The taxation information included in this guide has been provided by Inland Revenue. Participants are advised to obtain specific advice in relation to their own tax circumstances.

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Overview of the ETS and the Role of Forests

The Emissions Trading Scheme (ETS) was created by the Climate Change Response Act 2002 (the Act). The ETS is designed to eventually cover all significant greenhouse gases (covered by the Kyoto Protocol) and involve all sectors in New Zealand.

The objective of the ETS is to support global efforts to reduce greenhouse gas emissions by helping New Zealand to:

- reduce net emissions below business-as-usual levels;
- comply with our international obligations, including our Kyoto Protocol obligations.

Emissions trading has been preferred because:

- there is broad consensus that it is an effective and economically efficient approach;
- it is the most flexible option;
- it provides an incentive for industry and private individuals to improve their resource use;
- it is consistent with the principles of the Kyoto Protocol.

Greenhouse Gases

The impetus behind the ETS is to reduce total greenhouse gas emissions. These are the gases in the earth's atmosphere that trap the sun's heat (hence the term, "greenhouse"). The main greenhouse gases, apart from water vapour, are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

The gases are emitted naturally but also occur as a result of human activity (for example, burning coal, deforestation, driving cars). The problem we are facing is rapidly growing levels of these gases in the earth's atmosphere. As these levels grow, they are expected to increase global temperatures and affect the climate system. With even quite modest temperature increases, changes in climate are expected to negatively impact on many of the world's inhabitants, and both natural and managed ecosystems.

Greenhouse gases can be removed from the atmosphere by "sinks". Forests and other woody vegetation can be "carbon sinks", as they remove atmospheric CO₂ through photosynthesis and store it as carbon in biomass (that is, in wood, leaves and woody litter). For more details about carbon sequestration, see [Carbon Sequestration and Determining Carbon Stocks](#) section of this guide.

Deforestation and harvesting, in effect, turns forests into sources of greenhouse gases, as most of the wood removed from a forest eventually breaks down and is returned to the atmosphere as CO₂.

Natural forests that are not actively managed, or are in a steady state of management, are generally considered neutral in terms of CO₂ since, over time and across the whole forest, the carbon lost from harvesting, decay or fire is generally equivalent to the carbon stored through photosynthesis.

The Kyoto Protocol

To reduce greenhouse gas emissions, the international community has signed two agreements: the United Nations Framework Convention on Climate Change (UNFCCC), adopted in 1992; and the more widely known Kyoto Protocol, ratified by New Zealand in December 2002. The UNFCCC is the overarching agreement, under which sits the Protocol.

For developed countries, the Kyoto Protocol sets target levels for reducing greenhouse gas emissions. Either the targets are achieved by 2012, or countries must take responsibility for emissions above their target. These obligations are binding and there are penalties if obligations are not met. Rules and commitments for further emissions reductions to apply in a second commitment period (expected to commence in 2013) are now being negotiated.

How the ETS Works

The ETS essentially puts a price on the emission of greenhouse gases and provides incentives that will encourage sectors to search for the most efficient paths to lower net emissions across the economy.

Participants in the ETS will have three core obligations:

- monitor the emissions they are responsible for;
- report these each year to the Government;
- surrender emissions units to cover their reported emissions.

The Government will issue a number of emissions units for forest carbon sinks (that meet the required criteria) and these may be held, or bought and sold (that is, traded), within New Zealand. The primary unit of trade in the ETS is the New Zealand Unit (NZU). One NZU represents one tonne of carbon dioxide (CO₂) either released to the atmosphere (emissions) or removed from the atmosphere (removals).

The ETS is linked to the international Kyoto Protocol market. NZUs will be generally interchangeable with New Zealand Assigned Amount Units (AAUs), held by New Zealand under the Kyoto Protocol. AAUs can be used by any country to meet any of their obligations under the Kyoto Protocol. They are not, however, automatically allowed into all countries' domestic emissions trading schemes. For example, the European Union (EU) currently does not allow New Zealand AAUs to be used by companies with obligations under the EU Emissions Trading Scheme.

Ownership of NZUs is recorded in a central registry (www.eur.govt.nz). NZUs are transferred between registry accounts when they are surrendered or sold. Participants wishing to sell NZUs can instruct the registry (the New Zealand Emissions Unit Registry, NZEUR) to transfer them from their account to another account.

Similarly, Participants who are required to surrender emissions units for compliance purposes can do so by instructing the NZEUR to transfer units from their account to a "surrender account" in the registry. If a Participant does not have sufficient units in their account, they will be required to buy sufficient units to cover the shortfall and then surrender them.

Emissions Trading Internationally

A similar scheme to the ETS has been underway in Europe for a number of years, beginning with the energy sector and bringing in other sectors on a phase-in basis. Many other countries are now also developing emissions trading schemes, tailored to their respective national emissions profiles. For example, EU countries have a large proportion of emissions from energy generation and industry, and thus they have opted to introduce these sectors first.

The New Zealand ETS covers all significant gases and all sectors but there will be a phase-in period with different sectors entering at different stages. New Zealand is the first country to begin its emissions trading with forestry. This is due to the fact that forestry plays a key role in national emissions reduction.

Forestry in the ETS

New Zealand's forests play a critical role in meeting the country's climate change objectives. The forest estate is already a significant store of carbon and there is potential for this to expand further with both farm and larger-scale plantings. For this reason, it was the first sector to enter the ETS – effective 1 January 2008.

The introduction of forestry to the ETS was also aimed at creating accurate price signals for deforestation – the conversion of forest land to other land uses. Deforestation is the second largest source of human-induced greenhouse gas emissions globally. Consequently, deforestation is included in the Kyoto Protocol. When deforestation occurs, it creates liabilities under the Protocol.

In the following sections, the obligations of, and opportunities for, pre-1990 and post-1989 forest landowners are explained.

Note that indigenous forests established before 1 January 1990 are not included in the ETS. Owners of these indigenous forests have no obligations under the ETS, even if they deforest. Equally, they do not have any entitlements under the ETS.

Participation in the ETS (Forestry)

Owners of forests become Participants in the ETS in two ways:

Compulsorily – when pre-1990 forest land is deforested (unless exempt).

Voluntarily – when owners of post-1989 forest land choose to bring it into the ETS.

Who is a Participant?

A Participant is a person who has obligations and/or obtains entitlements under the ETS. Various persons can be the Participant depending on whether the land involved is pre-1990 or post-1989 forest land. The Participant is not necessarily the owner of the forest land if another party has control over the forest (see the table below).

If pre-1990 forest land is deforested (compulsory inclusion in ETS), then the Participant is the:

landowner; or

if, in limited circumstances, where the right to decide to deforest has been vested in another person and is beyond the landowner's control, that other person party to a Crown conservation contract.

If post-1989 forest land is voluntarily brought into the ETS, then the Participant is the:

landowner; or

holder of a registered forestry right; or
leaseholder with a registered lease; or

Post-1989 Forest Land in Summary

Post-1989 forest land is exotic or indigenous forest that is established after 31 December 1989 on land that was not forest land on 31 December 1989 (that is, it was non-forest land on 31 December 1989):

- Owners of post-1989 forest land may voluntarily join the ETS, and in doing so become Participants who are entitled to receive NZUs for the increase in carbon stored in their forests as they grow. Those NZUs can be sold in New Zealand or converted and sold internationally.
- Participants also have the following legal obligations for the forest area registered under the ETS:
 - to report at least once every five years on the carbon stocks in their registered forest area using methods, and to a timeline, specified in the Climate Change (Forestry Sector) Regulations 2008 (the Regulations);
 - to surrender emissions units if the carbon stocks in their registered forest area fall below a previously reported level (for example, due to harvesting or fire). However, liabilities will not exceed the emissions units transferred for the area of forest;
 - to notify the Government if any part of the forest area registered in the ETS is sold or withdrawn, and, if required, to surrender any emissions units transferred for that area of forest.
- Participants in the ETS may choose to register part or all of their post-1989 forest land, at their discretion. Additional forest areas can be added at any time.
- Landowners have until the end of 2012 (the end of the First Commitment Period) to decide whether to register for that period. If they do, all carbon sequestered since 1 January 2008 would earn NZUs. After 2012, they can still register, but only carbon sequestered from 1 January 2013 will earn NZUs.

- No NZUs are earned for carbon sequestered before 2008.
- If landowners do not register, the gains or losses in carbon stocks in their forests are retained by the Crown.

Details of the process for registering post-1989 forest land, and information on obligations and entitlements can be found in the [Participant Obligations](#) section of this guide.

Many of the terms used later in the guide have defined meanings under the Act. Careful reading of the key concepts and the terminology section in this guide ([Key Concepts and Terminology](#)) is recommended.

Pre-1990 Forest Land in Summary

Pre-1990 forest land is an area that was forest land on 31 December 1989, and that on 31 December 2007 is still forest land and is covered by predominantly exotic forest species. For these forests:

- Forest landowners can:
 - harvest, and replant or regenerate their forests without joining the ETS or incurring liabilities (no reporting is required);
 - apply for an allocation of NZUs when a Forestry Allocation Plan is issued;
 - if the forest area is small, apply for an exemption from the ETS (as explained below).
- No NZUs are earned for forest growth.
- If an area of more than 2 hectares is deforested in any five year period from 1 January 2008, the forest landowner automatically becomes a Participant in the ETS unless the area deforested is exempt land. They must notify the deforestation activity, and then submit an emissions return.
- If a forest landowner becomes a Participant in the ETS as a result of deforestation, they must surrender emissions units equal to the amount of CO₂ emissions calculated as resulting from the deforestation.
- A pre-1990 forest landowner may apply for an exemption from ETS obligations in two situations:
 - the total area owned by the person who owned the land as at 1 September 2007 (with any associated persons) was less than 50 hectares; or
 - deforestation involves trees designated as weeds.

Note that until a final Forestry Allocation Plan has been issued, exemption under the 'less than 50 hectares' category is only available for areas of pre-1990 forest that have already been deforested.
- Pre-1990 forest landowners have no obligations under the ETS unless the land is deforested – that is, unless they clear non-exempt forest and convert the area to another land use (for example, to dairy farming) or it otherwise ceases to be forest land.

Further information on entitlements and obligations for landowners with pre-1990 forests and details about applying for an exemption from the ETS can be found in the [Pre-1990 Exemptions from the ETS](#) section of this guide.

Pre-1990 Forest Land and the Forestry Allocation Plan

Under the Act, where a Forestry Allocation Plan is issued owners of pre-1990 forest land that is not exempt land may be entitled to receive an allocation of NZUs. An allocation in this case would be made to recognise that the ETS imposes some constraints on land-use change that in some circumstances may affect land values.

Landowners are not required to join the ETS to participate in any allocation process: it is entirely separate. Nor would those receiving allocated NZUs through such a process have to join the ETS in order to trade their NZUs. However, they would have to make an application to obtain an allocation of NZUs, and supply verifiable information about the forest on their land as part of that application.

A special Select Committee of Parliament has been reviewing the ETS. The Minister for Climate Change Issues is not expected to recommend the issue of a Forestry Allocation Plan until after the ETS Review has been completed.

Further information about the forestry allocation plan process under the Act can be found at: <http://www.maf.govt.nz/sustainable-forestry/ets/allocation.htm>.

An overview of the proposed allocation process can be found in the [Allocation of NZUs Under the Forestry Allocation Plan](#) section of this guide.

Key Concepts and Terminology

Under the Act, forest is classified in a particular way, according to definitions aligned with the requirements of the Kyoto Protocol. Approaches to determining the amount of carbon stored in a forest (the forest carbon stocks) also follow international carbon accounting conventions. In this section we introduce key concepts and terminology to help potential Participants:

- determine whether their land and forest meets the criteria under the ETS;
- classify their forest area as pre-1990 or post-1989 forest land;
- describe the area of their forest land;
- determine the carbon stocks in their forest, and use the prescribed methods available to estimate these;
- decide whether an activity that has affected their forest's carbon stocks must be reported.

What are Forest Species?

Forest species are tree species capable of reaching at least 5 metres in height at maturity in the place they are growing.

How is Forest Land Defined?

Forest land is an area of land of at least 1 hectare with forest species that have, or are likely to have at maturity:

- a crown-cover of more than 30 percent on each hectare; and
- an average crown-cover width of at least 30 metres.

Note that:

- If an area of land of 1 hectare or more is not likely to have a crown cover of more than 30 percent from forest species at maturity it is not considered forest land under the ETS. For forest established after 31 December 1989 to be eligible as post-1989 forest land under the ETS, it must be established on land that was non-forest land at 31 December 1989. If pre-1990 forest land is deforested, it becomes non-forest land. Post-1989 forest land established on such land is eligible to enter the ETS once any deforestation liability for the pre-1990 forest land has been met.
- If an area of forest temporarily does not contain forest species capable of meeting the height and crown-cover thresholds because of human actions or natural events (for example, it may have just been harvested, thinned, or trees may have been blown over by strong winds), but it is likely to again meet the tests, then it is referred to as being "temporarily unstocked" but is still considered to be forest land.

How is Deforestation Defined?

Generally, deforestation is forest clearance, followed by a change to another land use (for example, to grazing). After deforestation, the deforested area is classified as non-forest land.

Note that:

- Deforestation of pre-1990 forest land always incurs a liability to surrender NZUs, unless the deforested area is either 2 hectares or less of pre-1990 forest (in any five year period from 1

January 2008) or occurs on exempt land. Deforestation of participating post-1989 forest land also incurs a liability to surrender any NZUs transferred in relation to the land.

- Deforestation may in some circumstances be deemed to have occurred after harvesting, if the re-planted or regenerated forest does not meet criteria for minimum stocking (stems per hectares) and/or crown cover – see the [Related Information](#) section of this guide for details.

Classifying Forest Land

An initial assessment is needed to establish whether an area of forest meets the definition of forest land, and if so, whether it is pre-1990 or post-1989 forest land. Evidence of the basis for this assessment will need to be provided with any relevant applications that confirms, for example, the year of the forest establishment.

If registration of a post-1989 forest is proposed, then information to demonstrate the forest was established on non-forest land is also required. If sufficient information is not provided to establish whether a proposed area of post-1989 forest land is established on non-forest land, it will be assumed that it was already forest land on 31 December 1989.

Information from aerial or oblique photographs (appropriately dated), planting records, or receipts for payments to forestry contractors may determine the date of establishment of planted forest. Age determined from tree-ring counts, or based on age/stem-diameter relationships, may also be required if other records are not available. For naturally regenerated forests, direct information about forest age eg from tree rings, or information that demonstrates forest establishment is related to a change in land management practice or land-use, will usually be required to confirm whether the forest land is pre-1990 or post-1989. Historical maps, photographs (aerial or oblique appropriately dated), or satellite imagery may be useful to demonstrate that land management/use has changed over time. Farm records, livestock sale receipts, invoices for payments to fencing or scrub-cutting contractors, or similar information, may also be helpful.

For post-1989 forest land information similar to that used to determine the age of establishment of naturally regenerating forests (for example, historical maps, photos etc) will be useful to demonstrate that the forest was established on non-forest land. This will usually only be required if there is any doubt the area was other than pasture land when the forest was first established.

Detailed information about determining the status of forest land will be available in: A Guide to Classifying Forest Land for the Emissions Trading Scheme at <http://www.maf.govt.nz/sustainable-forestry/>.

Determining the Year of Establishment of Planted Forest

Most owners of forests that were planted (as opposed to naturally regenerated) will know the year in which their forest was established. However, there may be some smaller forests where the planting date is not known with certainty. If this is the case, forest owners will need to gather evidence of when the forest was planted.

To confirm that any proposed forest is eligible to join the ETS as post-1989 forest land, Participants will also need to provide information to show that:

- the forested area was grassland without any woody species on 31 December 1989; or
- if woody species were present on 31 December 1989, they were not forest species; or
- if forest species were present on 31 December 1989, then under the management regime for the land at the time it was unlikely that sufficient numbers of trees (that are forest species) would establish such that a crown cover of more than 30 percent at maturity would be achieved (for example, because of regular clearance or grazing, or other forms of land management – see also the examples in the next section relating to naturally regenerated forest); or
- if the land was formerly pre-1990 or exempt forested land that had been deforested (and any liabilities from deforestation had been met).

Determining the Year of Establishment of Naturally Regenerated Forest

The year of establishment of naturally regenerated forest species may be difficult to determine exactly if the transition from grassland to forest land is progressive. If the forest land does not clearly fall into a pre-1990 or post-1989 category (see further examples below), it may be necessary to fell a small sample of trees so that the average age can be determined by ring-counting.

If the forest was established well before 31 December 1989 – and already clearly met the definition of forest land at that date – it is classified as either: pre-1990 forest land (if exotic species are predominant); or forest land established before 31 December 1989 if indigenous species are predominant. For example, pine forest planted in 1980 will be pre-1990 forest.

If there were no forest species present on an area of land at 31 December 1989 – and actions to promote natural regeneration of such species only took place after that date – the forest is clearly post-1989 forest. For example, if livestock numbers were maintained at sufficient levels to suppress naturally regenerating forest species from before 1 January 1990 until 1993, and a decision was then made to remove the livestock and let the land revert to forest to control erosion, the year of forest establishment is likely to be 1993 or later. The resultant forest would be a post-1989 forest.

The status of an area of land – which on 31 December 1989 included regenerating forest species that had not yet reached more than 30 percent crown cover – depends on the usual land management practices undertaken on the land at the time:

- If the practices would not normally have prevented the regenerating forest species from reaching more than 30 percent crown cover at maturity, the area would be considered to be forest land on that date.
- Conversely, if land management practices (for example, grazing) normally suppressed regeneration, so that the crown cover threshold was not normally reached by the time of maturity, the area would be considered to be non-forest land on that date. If a decision was made after 31 December 1989 to change the land management so that natural regeneration of the forest species was no longer suppressed, the year of forest establishment would be the year that land management change occurred (or a later date if adequate regeneration to meet the forest land definition did not occur that year). The forest would be a post-1989 forest.

Defining Forest Land Holdings

The area of forest land must be defined when the forest owner:

- registers with MAF that they wish to include post-1989 forest in the ETS; or
- files an emissions return to MAF on the forest landowner's liability after pre-1990 forest land is deforested; or
- applies to MAF for an exemption for their pre-1990 forest land under the ETS; or
- applies to MAF for an allocation of NZUs for their pre-1990 forest land (when a final Forestry Allocation Plan is issued under the Act).

It is important to record the accurate boundaries of the post-1989 forest land because:

- A person/persons cannot claim NZUs for forest areas that are not either owned by them, or to which they do not have rights, and therefore the proposed forest boundaries must be checked against the boundaries of the land title associated with registration or application.
- If the registrant/applicant over- or under-states the area of their forest land, the resulting carbon assessment could be incorrect.

The mechanism for defining the area of forest land involves the use of shapefiles – electronic files that contain data delineating the boundary of the forest land so that it can be related to cadastral information (such as title boundaries) and to satellite or aerial imagery. Shapefiles can be created online, or, if an owner already has their own shapefile, they may submit that file provided it complies with the content and format prescribed in the Geospatial Mapping Information Standard.

Further information about shapefile specifications is included in A Guide to Mapping Forest Land for the Emissions Trading Scheme, available at: <http://www.maf.govt.nz/sustainable-forestry/ets-mapping-guide.pdf>.

The mechanism for tracking NZUs issued and surrendered, and net emissions liabilities for an area of post-1989 forest land over time, is the Carbon Accounting Area (CAA). CAAs are defined by the Participant and are described more completely later in the [Participant Obligations](#) section.

Carbon Sequestration and Determining Carbon Stocks

Carbon Sequestration

Carbon sequestration is the process by which carbon dioxide is absorbed during photosynthesis, and stored as carbon in biomass (trunks, branches, foliage, and roots). To determine the total carbon sequestered in a forest at any given time (the forest carbon stocks) it is necessary to work out how much carbon is in:

- The above-ground live biomass, which includes the stem, branches, and leaves or needles.
- The below-ground live biomass, which is the root system of the tree. Once the tree is harvested this usually decays slowly over time.
- The coarse woody debris, which includes all larger woody material left on the forest floor after any pruning, thinning or harvesting operations, or due to natural mortality. This coarse woody debris decays slowly over time.
- The fine litter, which is composed of decaying leaves or needles, and small branches and twigs. This usually increases slowly over time, until a balance between average annual litter inputs and decay is reached.

Forest biomass consists of about 50 percent carbon and over time most of the change in forest carbon stocks comes from changes in the biomass of the four biomass “pools” listed above. Changes in the amount of carbon stored in forest soils also occur over time, but these are small and difficult to measure at reasonable cost. Participants will therefore not be required to measure changes in soil carbon under the ETS.

Gains in forest carbon stocks through growth and sequestration will reach a maximum level over time, and are eventually offset by carbon losses through harvesting, thinning, and natural decay. An emissions return filed with MAF is used to account for the change in forest carbon stocks (which may be positive or negative) over a predetermined period.

Determining Carbon Stocks

It is expected that under the ETS there will be two methods available for determining forest carbon stocks: the **Look-Up Table approach** and the **Field Measurement approach**.

The Look-Up Table approach is a simple tables-based approach that allows carbon stocks to be assessed from pre-calculated values by forest age, and allows emissions returns to be completed without the expense of acquiring field-measured data. Details of the Field Measurement approach have yet to be finalised. However, it is expected the approach will closely follow industry-standard approaches to forest inventory based on a network of sample plots.

At present, look-up tables provide the only way of calculating carbon stocks for an emissions return, whether the return is voluntary or mandatory. However, once a field measurement approach to inventory of carbon stocks is available, it is anticipated that look-up tables will only be able to be used for smaller post-1989 forests if making a mandatory emissions return.

Each approach is explained briefly below.

The Look-Up Table Approach

The Look-Up Table approach (for both pre-1990 and post-1989 forest land) uses well-established growth modelling techniques to predict the growth, and hence the increase in carbon stocks with age, of trees of a particular forest type. Tables are available for five forest types: pinus radiata,

Douglas fir, exotic hardwoods, exotic softwoods, and indigenous forests. Sufficient data were available to generate look-up tables for pinus radiata on a regionally-averaged basis, but only on a nationally-averaged basis for the other forest types.

The Look-Up Tables are accurate at a regional or national level, but do not reflect variations in growth rates due to variation in local site factors such as fertility or soil moisture. The main advantage of the Look-Up Table approach is that an assessment of carbon stocks, and change over time, can be made without the expense and complexity of having to perform field measurements. It is therefore much less costly, and substantially simpler, than a Field Measurement approach. The Look-Up Tables are included in the Regulations and provide total carbon stocks expressed in tonnes of carbon dioxide per hectare by forest age. More accurate Look-Up Tables for naturally regenerated indigenous forests are still under development and, until this work is completed, a uniform sequestration rate of three tonnes CO₂ per hectare per year is being used. When available, updated tables for indigenous forests will be introduced through an amendment to the Regulations.

The **Guide to Look-Up Tables for Forestry in the Emissions Trading Scheme** explains in detail how to use the Look-Up Tables for calculating carbon stocks in growing forests, and for determining emissions associated with harvesting and deforestation. The Guide also covers topics such as how to determine the age and predominant species of your forest, and includes the carbon stock look-up tables given in the Regulations. It is available at <http://www.maf.govt.nz/sustainable-forestry/ets/guide/lookup-table-guide.pdf>.

The Field Measurement Approach

Field measurement is a more complex but more accurate method than the Look-Up-Table approach. It is expected to involve measuring the height and diameter of a random sample of trees in the forest to calculate total stem volume, and from that total carbon stocks in above- and below-ground live biomass are estimated. The approach will be based on standard forest inventory procedures which have been used in New Zealand for many years to assess the expected volume of wood that can be extracted from a forest at harvest.

Once the overall design of the Field Measurement approach has been completed, and the principles of operation confirmed following public consultation, it is anticipated that the approach will be introduced through an amendment to the Regulations. It is expected that the simpler Look-Up Table approach will continue to be used for smaller forests, and for voluntary (for example, annual) reporting for larger forests. However, because larger forests involve larger changes in carbon stocks, and a more accurate assessment approach is needed for these to minimise under- or over-reporting, use of the Field Measurement approach is expected to be mandatory at least once every five years for larger forests. The size of forest at which field measurement should become mandatory will be one of the elements proposed as part of public consultation.

Keeping Proper Records of ETS Activities

Participants in the ETS are required to keep for 20 years records of transactions, measurements, calculations and other information sufficient to allow an auditor to establish the validity of any registration of post-1989 or notification of deforestation of pre-1990 forest land; any calculation of forest carbon stocks on that land; or any emissions return.

A person receiving an allocation of NZUs under a pre-1990 Forestry Allocation Plan is likely to have to keep records for at least seven years.

2 Post-1989 Forest Land

An owner of post-1989 forest land can choose to become a Participant in the ETS.

In general, being a Participant entitles the forest owner to receive NZUs for the increase in carbon stocks in their forest from 1 January 2008 onwards. However, it also requires that they repay emissions units whenever the carbon stocks in their forest falls below a previously reported level.

This section covers:

- who is eligible to participate in the ETS;

- your obligations as a Participant;
- dividing forest land into carbon accounting areas (CAAs);
- how the emissions return process will work;
- how to exit from the ETS;
- what fees you will have to pay if you join the ETS.

Voluntary participation in the ETS

The following persons are eligible to apply to be registered as post-1989 forest land Participants in the ETS:

- The owners of post-1989 forest land (that is, the owners of both the forest and the land on which the forest is located, or alternatively those who do not own the forest land but have legal rights to the forest on the land – specifically registered forestry right holders; registered lease-holders; or parties to a Crown conservation contract):
 - owners of land that was **not** forest land on 31 December 1989 and that has subsequently been established as exotic or indigenous forest land;
 - owners of land that **was** forest land on 31 December 1989 but deforested before 1 January 2008, and then later reforested (thus becoming eligible post-1989 forest land);
 - owners of pre-1990 forest land or exempt land that was deforested after 31 December 2007, and then later reforested and for which emissions units to match the deforestation liability have been surrendered, thus becoming eligible post-1989 forest land. For exempt land, the number of units that would have been required had it not been exempt must be surrendered.
- Participants in the Permanent Forests Sinks Initiative (PFSI) who terminate their forest sink covenants and join the ETS and who do so by 31 March 2010.

Interested Party Permission

In some cases written permission will be required from another interested party before a person can be registered as a Participant in the ETS:

- if the forest landowner (that is, the person or persons with legal title to the land) wishes to be registered as the Participant, but there is a registered forestry right or registered lease over the post-1989 forest land, then the written permission of the registered forestry right holder or registered leaseholder is required;
- if a registered forestry right holder or registered lease holder wishes to be registered as the Participant, the written permission of the forest landowner is required.

No Exemptions for Deforestation

No exemptions are available (or necessary) for the deforestation of post-1989 forests, as owners of such forests can deforest them without liability provided they have not previously chosen to bring these forests into the ETS.

Participant Obligations

The following section provides information of how post-1989 forest owners participate in the ETS.

Step 1: Obtain a Holding Account from the NZEUR

Participants must have a holding account for NZUs. The account receives any NZUs allocated for increases in the carbon stocks of their forest land. Any emissions units that must be surrendered for reductions in carbon stocks on their forest land will also usually be surrendered from this account.

Participants may apply online for a holding account at any time from the NZEUR at www.eur.govt.nz.

If you have questions about the holding account application process, please contact 0800 CLIMATE (254 628).

Step 2: Register as a Participant

A post-1989 forest landowner, a Permanent Forest Sink Initiative forest landowner or an interested party may apply online at any time to be registered as a Participant at <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>, or by downloading and completing a paper-based registration form from the same site.

The registration process will require the applicant to provide information such as:

- the name of the person who wishes to be registered as a Participant;
- the Participant's NZEUR holding account number;
- legal details of the post-1989 forest land they wish to bring into the ETS;
- an electronic shapefile delineating the post-1989 forest land in each Carbon Accounting Area (see below) to be registered;
- evidence that the land is eligible to enter the ETS as post-1989 forest land;
- contact details for any third parties who would meet the "interested party" criteria listed earlier;
- a declaration on the prescribed form that any actions by the applicant on the post-1989 land since 1 January 2008 (such as removing existing indigenous vegetation) complied with the Resource Management Act and the Forests Act at the time.

MAF provides an online tool for applicants to use to create a shapefile. Alternatively, applicants may upload their own shapefile generated from existing spatial data, as long as it complies with the content and format prescribed in the Geospatial Mapping Information Standard. The online tool, the Standard, and A Guide to Mapping Forest Land for the Emissions Trading Scheme are available at: www.maf.govt.nz/sustainable-forestry.

Step 3: Determine the Carbon Accounting Areas Relating to Post-1989 Forest Land

As part of the ETS registration process, Participants will be required to divide their forest landholdings into discrete Carbon Accounting Areas (CAAs). CAAs can include forest land areas of any size, and there are no limits on the number of CAAs a Participant may specify. CAAs also need not comprise contiguous forest areas. A permanent Carbon Accounting Record (CAR) is kept by MAF of the change in carbon stock over time, and of the NZUs issued or surrendered to match that change for each CAA.

The ETS caps a Participant's maximum emission liabilities (for example, from harvesting, deforestation or fire) for the forest land in a CAA at the total number of NZUs previously issued in respect of that CAA. That is, if the units that would otherwise be required to be surrendered for emissions exceed the NZUs that have been received for a particular CAA, the owner is not required to surrender more emissions units than the total received (by all Participants who have owned the land).

For example, the harvest of a 28-year-old post-1989 forest stand in 2020 would result in far more CO₂ being emitted than had been sequestered since 2008. In this case the cap would apply and the Participant would only have to surrender emissions units equivalent to NZUs transferred to any participant for that CAA for CO₂ sequestered since 2008.

It will be up to the Participant to decide how many CAAs they would like to specify for the post-1989 forest land they register with the ETS. For some Participants, one simple CAA may suffice for their total area of forest land. Other Participants may wish to specify multiple CAAs. The area covered by each CAA can be determined in such a way that the Participant gains the maximum benefit from the liability cap. Guidance on issues to consider when selecting a CAA layout is included in **A Guide to Mapping Forest Land for the Emissions Trading Scheme**, available at <http://www.maf.govt.nz/sustainable-forestry/ets-mapping-guide.pdf>.

In general terms, the CAA layout that maximises the potential benefit from the liability cap is one that:

- has similar age classes of the same species in each CAA; and
- reflects the likely harvest pattern of the forest, that is, the entire area within a CAA that would likely be harvested over a five-year compliance period, and not over a longer period.

The forest land comprising a CAA established on registration cannot be amended except when:

- The Participant has sold some registered land to a new owner, and the record of NZUs received and emissions units surrendered on the area of land that has been sold must be associated with the new owner.
- The Participant has decided to withdraw some of their land from the ETS.

If a Participant brings more post-1989 forest land into the ETS to join their existing registered area of forest land they will be required to specify additional CAA(s) to cover the additional forest land.

Step 4: Calculate Changes in the Carbon Stocks in the Forest

As described earlier (see the [Carbon Sequestration and Determining Carbon Stocks](#) section), the ETS is expected to provide for more than one method of determining changes in carbon stocks in a Participant's forests. However, only the Look-Up Table approach is currently available. Assessment of total forest carbon stocks is always completed at two points in time (at the beginning and end of the emissions return period) so the change in carbon stocks, that is the amount sequestered or emitted, can be determined.

The Regulations provide the detailed rules that govern how available methods for determining carbon stocks may be used. For a more detailed explanation on applying the Look-Up Table approach refer to **A Guide to Look-Up Tables for Forestry in the Emissions Trading Scheme** at <http://www.maf.govt.nz/sustainable-forestry/ets/guide/lookup-table-guide.pdf>.

Step 5: File an Emissions Return

Participants filing an interim emissions return must do so on or after 1 January and before 31 March in any year (in the period 2008–2012).

Forest owners that are members of the same corporate group may form a consolidated group in order to file a single emissions return for their post-1989 forestry interests. For the definition of a consolidated group see the [Glossary](#) at the end of this Guide.

Forest owners can file an emissions return online at <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>. The website also provides downloadable forms for making paper-based emissions returns, and instructions for submission of completed forms. An emissions return requires information such as:

- the Participant's name and NZEUR holding account number;
- details of the Participant's CAAs that are covered by the return;
- an assessment of the Participant's net carbon stock change at the time of the return for each CAA, on which is based their entitlement to receive NZUs (or liability to surrender units) during the calendar year(s) covered by the return.

Step 6: Surrender NZUs

Participants with a liability to surrender units must do so within 20 working days following the filing of the emissions return to which the liability relates.

Related Information

Register of Participants

Participants with post-1989 forest land will be entered into a publicly available Register of Participants. The Register shows:

- the Participant's name;

- the ETS-related activity they undertake (owning, holding a registered forestry right, being a registered leaseholder, or being a party to a Crown conservation contract with respect to post-1989 forest land).

A Participant's CAAs or specific details about their post-1989 forest land are not available to the public from the Register of Participants.

A Participant will be notified that they have been entered in, or removed from, the Register of Participants.

Receiving Units

Participants entitled to receive NZUs for a net increase in forest carbon stocks during a given period will receive these following the filing of the emissions return to which the entitlement relates.

Cease to be a Participant or Remove Land from the ETS

A Participant can cease to be registered in the ETS in respect of post-1989 forest land in the following ways:

- via land transfer (covered in the next section);
- if they decide at any time that they wish to cease being a Participant in the ETS;
- if they no longer meet the eligibility criteria to be a Participant in the ETS. An example would be deforesting and changing the land use to growing crops, so that the land is no longer forest land.

In the second and third cases above, the Participant has an obligation to surrender units equal to the outstanding net balance of units (that is, the number of NZUs issued over the life of the area minus the number of NZUs surrendered) for each CAA or part thereof that is no longer registered in the ETS.

A Participant may choose to remove all or part of their forest land from the ETS. As long as they still have some post-1989 forest land in the ETS they remain a Participant. If the forest land removed from the ETS represents part of a CAA, the outstanding net balance of NZUs previously allocated to that CAA are apportioned pro-rata between the land removed and that remaining in the ETS.

A Participant must notify MAF that they wish to remove an area of registered forest land from the ETS and supply details that fully define the area to be deregistered (in terms of existing boundaries within a CAA or CAAs). They then will be notified that the land will be removed from their Participant record with effect from a specified date.

When either ceasing to be a Participant or removing land from the ETS, the Participant is required to submit an emissions return within 20 working days of having ceased to be a Participant or removing land from the ETS. They must then surrender any outstanding net balance of emissions units previously allocated in respect of that forest land within the 20 working days in which they must submit their return.

Being removed from the Register of Participants does not alter any outstanding obligations a person has under the ETS (for example, filing emissions returns and surrendering emissions units).

Transfer of Land Already Registered in the ETS

Post-1989 forest land that is in the ETS may be transferred to another party if:

- the Participant transfers the forest land, registered lease or forestry right, or Crown conservation contract to another person;
- a forest landowner who is already a Participant, registers a forestry right, or lease, or enters into a Crown conservation contract over some of the land.

A person transferring forest land is required to notify MAF as soon as practicable. The notification may be submitted by using MAF's online deregistration application process available at

<http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>, or by downloading and completing a paper-based application form available from the same site.

Where an area of post-1989 forest land that is registered in the ETS is transferred, the transferee (buyer) automatically becomes the Participant with respect to that land from the date of transfer, and the transferor (seller) automatically ceases to be the Participant. A similar situation arises with transfer of a registered forestry right, registered lease or Crown conservation contract in respect of which a person is registered as a Participant.

In the case of this sort of transfer, there is no requirement to undertake a mandatory emissions return at the time of transfer, or to surrender units equal to the outstanding net balance of units in respect of each CAA (or part thereof) transferred. This is because the new owner automatically takes responsibility for any outstanding net balance of units for the area of forest land transferred to them. As usual, any liability the buyer may incur from carbon stock decreases is capped by the NZUs previously recorded as being issued for that CAA (or part thereof, on a pro-rata basis).

The transferor remains entitled to receive (and liable to repay) NZUs for carbon stock increases (or losses) covered by any emissions return submitted before the transfer.

A separate situation arises when the Participant is the holder of a registered forestry right, lease or Crown conservation contract, over some or all of the land, which expires or is terminated.

In this situation, transfer of registration as a Participant to the landowner of the land is automatic. However, a mandatory emissions return must be completed by the former participant within 20 working days of the expiry of the right, lease or contract and the previous Participant is entitled to NZUs for any net increase, or must surrender emissions units to meet any net decrease, in carbon stocks reported. The landowner, as the new participant, may face a liability related to the decay of post-harvest forest biomass.

Administration Fees

The following table sets out the fees to be recovered from Participants under the Regulations:

Fee Schedule for Post-1989 Forest Participants (incl. GST)

Registration Application Fee (per Participant) (based on a MAF involvement up to 4.25 hours)

Total cost per Participant \$550.00

Emissions Return Filing Fee (per return) (based on a MAF involvement up to 0.75 hours)

Total cost per Participant \$100.00

MAF Hourly Rate (over and above standard time)

Cost per hour \$130.00

MAF Travel Costs

Cost per hour for time spent travelling \$130.00

The cost of travel Actual & Reasonable

The registration application and emissions return filing fees are based on MAF's estimated standard processing time. In cases where ETS applications or emissions returns are particularly large (for example, involving large numbers of land titles, forestry rights or CAAs), or complex and involve additional processing time or travel costs, there may be additional charges as outlined above.

Note that fees and charges paid to MAF in respect of applications and emissions returns are not refundable.

Fees will be reviewed periodically to ensure they meet any relevant cost recovery policies. This could result in changes to the level of fees (up or down). Advance notice of any change will be given through the regulations consultation process.

Tax Treatment of Post-1989 Forestry

This section sets out the tax and GST treatment of units which relate to post-1989 forest land under the ETS.

This guide does not deal with tax treatment related to complex transactions such as contracts for forward sale or purchase of units, put and call options, or derivative financial instruments involving units etc.

The tax rules set out below apply in the same way to:

- New Zealand Units (NZUs);
- Kyoto units;
- approved overseas units.

Transactions in units which relate to post-1989 forest land are treated as being on revenue account for tax purposes, which generally means that income is assessable and expenditure is deductible. In common with the general tax treatment of forestry, income and expenditure relating to units is recognised on a cash basis.

The tax consequences of common transactions for post-1989 forest land Participants in the ETS are explained below.

Transfer of NZUs to Participants

A post-1989 forest land Participant is entitled to receive NZUs for the net increase in carbon stocks in their forest from 1 January 2008. No income tax is payable either on receipt of these NZUs or at the tax year end if they are still held.

Sale of NZUs

The proceeds from any sale of NZUs that were received in relation to a net increase in carbon stocks are subject to income tax in the year of sale. This will include any holding gains or losses.

It is intended that, except for the sale of NZUs allocated under a Forestry Allocation Plan for pre-1990 forests, sales of all emissions units (however acquired) are subject to income tax in the year of sale.

Surrender of emissions units in relation to post-1989 forest

A liability to surrender emissions units arises when there is a net decrease, below a previously reported level, in carbon stocks sequestered within a post-1989 Participant's forest land area. However, the liability is capped at the maximum NZUs previously received by the Participant (or any previous owner of the forest) for net increases in carbon stocks (if any).

If the Participant (and any previous owner) did not previously receive any NZUs for net increases in carbon stocks in a particular forest, the liability to surrender emissions units for a subsequent net decrease in carbon stocks is nil. Thus, there are no tax consequences.

If a Participant (or a previous owner of the forest) has previously received NZUs for net increases in carbon stocks, the liability to surrender emission units is capped at the number of emissions units previously received. If the Participant still holds the NZUs previously received for net increases in carbon stocks, the surrender of those emissions units has no tax consequences.

However, if the Participant is required to purchase additional units in order to satisfy their obligation to surrender the same number of emissions units previously issued for net increases in carbon stocks (but subsequently sold), the tax consequences are set out below under "Purchase of replacement units".

Purchase of replacement units

Where a post-1989 forest land Participant purchases emissions units to replace NZUs previously issued for net increases in carbon stocks that have been sold ("replacement units"), a tax deduction is available for the cost of those units on acquisition.

Purchase of additional emissions units

Purchases of emissions units that are not replacement emissions units will be treated in a similar fashion to trading stock, with any net deduction only being available on disposal.

GST

All transactions in emissions units (including surrender) are treated as being zero-rated for GST purposes. When supplies, such as the sale of units, are made, GST invoices should record GST at zero percent. This means that no GST will be charged.

A Participant with post-1989 forest land may also be treated as making a supply to Government of a service of carbon capture. This service is also zero-rated, so invoices should show GST at zero percent. The value of the supply is the market value of the emissions units received by the Participant from the Government.

There is no restriction on the ability to claim any GST incurred either in dealing with units or in relation to the supply of carbon capture to the Government.

3 Pre-1990 Forest Land

Owners of pre-1990 forest land will automatically become Participants in the ETS if they deforest more than 2 hectares of non-exempt forest land in any five year period, starting 1 January 2008. As Participants, they will have to calculate and report their deforestation emissions and surrender emissions units equal to those reported emissions.

It is generally the landowner who assumes a liability for deforesting. This is because, in the vast majority of cases, it is the forest landowner who will make the decision whether or not to deforest.

However, there may be some circumstances where the right to change land use has been formally vested in a third party, and the forest landowner does not have control over that decision. In such circumstances, the third party will be the person obliged to register as the ETS Participant.

There are no fees or charges payable for any transaction or reporting relating to pre-1990 forest land.

If pre-1990 forest landowners do not deforest any land covered by the ETS, they will not become a Participant in the ETS. In particular, normal harvesting followed by replanting (or regeneration) does not carry any requirement to join the ETS.

Note that the Act also makes provision for exemptions from deforestation liabilities in some circumstances; and for the allocation of NZUs under a Forestry Allocation Plan.

Deforestation of 2 hectares or less of a person's total pre-1990 landholding(s) in the five year period from 2008–2012, or in each subsequent five year period, is automatically excluded from the ETS.

- This section covers:
- your obligations when deforesting non-exempt pre-1990 forest land, and the processes you must follow;
- exemptions from deforestation liabilities
- entitlements to an allocation of NZUs under a Forestry Allocation Plan.

Participant Obligations

The following section outlines the steps a forest landowner needs to take if they deforest more than 2 hectares of non-exempt pre-1990 forest land.

Step 1: Notify MAF That You Have Become a Participant in the ETS

Pre-1990 forest landowners who deforested in 2008 and/or 2009 must notify MAF of this deforestation on or before 31 January 2010. Forest landowners who deforest after 31 December 2009 are required to notify MAF within 20 working days of commencing deforestation.

The notification form will require information, such as:

- your name;
- your holding account number;
- details of the pre-1990 forest land.

The notification can be made online at <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>, or by downloading and completing a paper-based notification form available at the same site.

Step 2: Obtain a Holding Account from the NZEUR

A Participant in the ETS must have a holding account from which to surrender emissions units to meet their deforestation liability. A holding account is obtained from the NZEUR (at www.eur.govt.nz).

If you have questions about the holding account application process, please contact 0800 CLIMATE (254 628).

Step 3: Calculate the Emissions Associated with Deforestation

The Regulations contain the Look-Up Tables for determining carbon stock decreases (emissions) from the deforestation of the pre-1990 forest land. ETS Participants are required to use these Look-Up Tables to assess any deforestation emissions liability to be included in an emissions return. There is no provision for calculating carbon stocks in pre-1990 forests using any other method.

Refer to **A Guide to Look-Up Tables for Forestry in the Emissions Trading Scheme** at <http://www.maf.govt.nz/sustainable-forestry/ets/guide/lookup-table-guide.pdf> for further information.

Step 4: File an Emissions Return

For deforestation of pre-1990 forest land, the emissions return comprises an assessment of the Participant's liability to surrender units equal to the calculated CO₂ emissions arising from the deforestation (1 unit for each tonne of emissions of CO₂). The return requires only a single value for forest carbon stocks: those in the year that the forest clearing, associated with the deforestation, occurred.

An emissions return must be filed by, or on behalf of, a person who has undertaken deforestation of pre-1990 forest land since 1 January 2008. Emissions returns relating to deforestation of pre-1990 forest land cannot be filed before 1 January 2010.

Note that:

- For deforestation undertaken in 2008 and/or 2009, a pre-1990 Participant **must** submit an emissions return after 1 January 2010 and no later than 30 March 2010.
- For deforestation undertaken during 2010, a pre-1990 Participant **must** submit an emissions return after 1 January 2011 and no later than 30 March 2011.

ETS Participants that are part of a corporate group may form a consolidated group in order to file a single emissions return covering all Participants in that group.

ETS Participants can file an emissions return online at <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>. The website also provides downloadable forms for making paper-based emissions returns, and instructions for submission of completed forms. An emissions return will require information such as:

- land ownership details of the deforested pre-1990 forest land;
- a shapefile delineating the area of deforested land;
- the emissions resulting from the deforestation during the calendar year(s) covered by the return, and hence the Participant's liability to surrender units.

Step 5: Surrender Units to Meet Emissions Liabilities

In general, ETS Participants who have submitted an emissions return before 31 March of a particular calendar year are required to surrender units by 30 April of the same year to meet any emissions liability reported in that return. However for deforestation in 2008 and 2009, pre-1990 participants must surrender units no later than 30 April 2011. Units will be surrendered by transfer to a surrender account in the NZEUR.

Step 6: Ceasing to be a Participant

Once a Participant has completed deforesting they must notify MAF as soon as practicable that they have ceased to be a Participant in the ETS. The notification may be submitted online at: <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>, or by downloading and completing a paper-based application form available at the same site.

If the same forest landowner subsequently decides to deforest another area of pre-1990 forest land, they will have to follow the same notification process again. Even without such notification, the owner of pre-1990 forest land is technically an ETS Participant from the moment they deforest until such time as they cease deforesting.

Pre-1990 Exemptions from the ETS

Exemptions from the ETS are not automatic and must be applied for by the forest landowner (or those with a liability for deforestation). The Act provides for two types of exemption for pre-1990 forest land:

- Less than 50 hectares exemption.

- Deforestation of tree weeds exemption.

When applying for less than 50 hectare exemption, the applicant will need to provide a statutory declaration from each person who owned the land on 1 September 2007 that they owned in total, on that date, less than 50 hectares of pre-1990 forest land.

Where pre-1990 forest land was jointly owned as at 1 September 2007, none of the joint owners (except for a professional trustee) at that time is permitted to own more than 50 hectares of pre-1990 forest land in association with any other person if the exemption is to apply. Similarly, if the land was owned by tenants in common, none of the tenants at that time is permitted to own more than 50 hectares of pre-1990 forest land in association with any other person if the exemption is to apply. Each tenant in common's interest in the land at that time is to be treated as a divided interest for the purpose of determining their total pre-1990 forest land ownership. These criteria are restricted to legal ownership and not beneficial interests.

Owners of exempt pre-1990 forest land are not eligible for an allocation of New Zealand Units (NZUs) in respect of the exempt land through a Forestry Allocation Plan. Before applying for an exemption, landowners should therefore carefully consider whether or not they wish to forgo any entitlement they may have to an allocation of NZUs.

Exemptions for Forest Land Less than 50 hectares

There are two circumstances that determine eligibility under the 'less than 50 hectares' category, depending on whether or not a final Forestry Allocation Plan has been issued.

When a final Forestry Allocation Plan HAS NOT been issued:

- If pre-1990 forest land has been deforested since 1 January 2008 the current landowner(s) may apply for a less than 50 hectare exemption if on 1 September 2007 the deforested land was owned by a person or persons that owned in total less than 50 hectares of pre-1990 forest land (together with any associated persons).
- The pre-1990 forest land **must have been deforested** to qualify for an exemption in this case.
- Applications for an exemption in this case may be made until such time as a Forestry Allocation Plan is issued.

When a final Forestry Allocation Plan HAS been issued:

- The landowner(s) of pre-1990 forest land as at the date the final Forestry Allocation Plan is issued may apply for an exemption if on 1 September 2007 the forest land was owned by a person or persons that owned in total less than 50 hectares of pre-1990 forest land (together with any associated persons).
- The pre-1990 forest land **must not have been deforested** to qualify for an exemption in this case, and it is irrelevant whether or not the current land owner(s) intends to deforest it in the future.
- Applications for an exemption in this case cannot be accepted until a final Forestry Allocation Plan has been issued. Applications for an exemption can be accepted from the date the final Forestry Allocation Plan is issued until a closing deadline which will be advised by public notice. The closing deadline will be no later than 1 July 2010.

In some instances, where a Forestry Allocation Plan has been issued, the owner of pre-1990 forest land will be able to apply for an exemption for parts of their land holdings and an allocation for other parts. For example:

- If land was bought on or after 1 September 2007 (and up until the date a final Forestry Allocation Plan is issued) that qualifies for the "less than 50 hectares" exemption; and other forest land is also owned (that may or may not qualify for an exemption) an application for exemption for the qualifying parts of the forest landholdings can be made, in addition to an application to receive an allocation for the remaining parts.

- If land is owned that qualifies for the “less than 50 hectares” exemption, applications can be made for part of it to be exempt and part of it to receive an allocation.

Where land is sold after the date of issue of a final Forestry Allocation Plan, it is possible that the person who has the right to apply for an exemption (or an allocation) will be different from the land-owner at the time the actual application is made. In such circumstances, buyers and sellers of land should address how to handle these issues within their sale and purchase agreements.

Exemptions for Deforestation of Tree Weeds

The Government does not wish the ETS to restrict the removal of tree weeds (that is, self-sown exotic forest species that can overtake land). Wilding pines are one class of tree weed of current concern.

Under certain circumstances it will therefore be possible to deforest areas of pre-1990 forest land comprising forest species designated as tree weeds without incurring a deforestation emissions liability. The emissions liability arising from deforestation of tree weeds will be met by the Government up to a certain limit, because the environmental benefit of high-priority weed control outweighs the economic cost of deforestation liabilities to the Crown.

Most control of tree weeds does not constitute deforestation because it is carried out on scattered trees in grassland that do not meet the definition of a forest. Similarly, removal of scattered wilding pines from indigenous forest established before 1 January 1990 would generally not require an exemption for a deforestation liability since, in most cases, the area would not be considered pre-1990 forest land (that is, would not comprise predominantly exotic forest species) and selective removal of trees would not constitute deforestation under the Act.

Definitions of what constitutes a tree weed and how the exemptions are to be applied have not yet been finalised. As soon as this has been finalised, MAF will give public notice of the availability of exemption(s) for tree weeds on pre-1990 forest land.

Criteria for tree weed exemptions may include priorities for exemptions to be given to particular species or locations.

Applying for a “Less than 50 hectares” Exemption

Applications for an exemption in the “less than 50 hectares” category may be submitted online at <http://www.maf.govt.nz/sustainable-forestry/ets/ets-transactions.htm>, or by downloading and completing a paper-based application form available at that site.

Information required to apply for an exemption includes:

- the name of the person who is applying for the exemption;
- evidence of ownership of the land on the date that the deforestation occurred, or date the final Forestry Allocation Plan was issued (as applicable), in the form of computer freehold registers (titles) from Land Information NZ (LINZ), or other relevant records (such as Māori Land Court records) that pertain to the application;
- the total area of pre-1990 forest land for which the exemption is sought and evidence the land is pre-1990 forest land and has been deforested (as applicable);
- a shapefile that includes all pre-1990 forest land for which the exemption is being applied. MAF provides an online tool for applicants to use to create a shapefile. Alternatively, applicants may upload their own shapefile from existing spatial data, so long as it complies with the format prescribed in the Geospatial Mapping Information Standard available. The online tool, the Standard and **A Guide to Mapping Forest Land for the Emissions Trading Scheme** are available at: <http://www.maf.govt.nz/sustainable-forestry/ets-mapping-guide.pdf>;
- a statutory declaration that each person that owned the land on 1 September 2007 (other than a joint tenant who is a professional trustee) owned (with any associated persons) less than 50 hectares of pre-1990 forest land on 1 September 2007.

If MAF is satisfied that:

- the land to which the exemption application relates is pre-1990 forest land;
- the land to which the application relates is eligible to qualify for an exemption ; and
- each of the requirements listed above has been met.

Then:

- the land will be declared exempt;
- the applicant will be notified that the land has been declared exempt;
- a notice will be sent to the Registrar of the Māori Land Court (in whose jurisdiction the land is located), the Registrar-General of Land, or the Registrar of Deeds (as applicable) that the land is exempt land under the Act;
- the relevant Registrar receiving the notice will record it in the appropriate record relating to the exempt land.

Exemptions remain with that land even if it is subsequently sold.

Allocation of NZUs Under the Forestry Allocation Plan

It is proposed that the Government will allocate NZUs to owners of lands covered by pre-1990 forests under a Forestry Allocation Plan. These forest landowners will be free to hold or sell the units. Landowners who receive an allocation of NZUs for a particular area of land will still be able to deforest up to 2 hectares (over their total forest landholdings) in any five year period without liability.

The Draft Forestry Allocation Plan (and Information Document) is available at <http://www.maf.govt.nz/sustainable-forestry/ets/allocation.htm>. It reflects the allocation requirements set out in the Act and the proposed process for making the allocation. Public consultation and submissions on the Draft Forestry Allocation Plan closed on 30 April 2009. Once a final Forestry Allocation Plan is issued, MAF will publicly advise the application process and timetable.

How Many NZUs will be Allocated in Total?

The Act specifies that a total of 55 million NZUs will be available to be allocated to pre-1990 forest landowners, less the number expected to be required to meet the cost of deforestation of land that has either been declared exempt or falls below the 2 hectares deforestation exclusion from the Act.

The 55 million units will be divided into:

21 million units: allocated to owners of lands covered by pre-1990 forests during the first commitment period (2008 to 2012), and able to be used immediately by any Participant in the ETS to meet emissions obligations, or to be converted into emissions units internationally-tradeable under the Kyoto Protocol and sold offshore.

34 million units: allocated at the same time, but post-dated so that they cannot be used to meet national emissions obligations, until a specified date after 2013. The proposed post-dating mechanism is described in detail in the Draft Forestry Allocation Plan.

How Many Units will be Allocated to Each Applicant?

The number of units provided per hectare will vary depending on the date that the land was purchased, and whether it is Crown forest licence (CFL) land that has yet to be transferred to Iwi under a Treaty settlement after 1 January 2008.

The approach to forestry allocation is set out in the Act, and will be:

- An allocation of an estimated 60 NZUs per hectare to owners of land covered by pre-1990 forests that was acquired by the landowner prior to 31 October 2002 (the date the Government confirmed its intention to introduce deforestation controls under certain circumstances). Different rules will apply when eligible forest land was acquired prior to 31 October 2002 by a body corporate. Details can be found in the draft Forestry Allocation Plan (available online at: www.maf.govt.nz/sustainable-forestry).
- An allocation of 39 NZUs per hectare to owners of land covered by pre-1990 forest that was transferred to the landowner after 31 October 2002.

- An allocation of 18 units per hectare for Crown forest licence land transferred on or after 1 January 2008.

The highest level of allocation of an estimated 60 units per hectare reflects the fact that when the owners acquired their forest land they would have been unaware of the Government's intention to introduce deforestation controls under certain circumstances.

How to Apply for an Allocation

Details of the application process, timelines, and information required to receive an allocation of NZUs under a Forestry Allocation Plan will be made available once public consultation is complete and a Plan is finalised. At that time, details will be made available online at: www.maf.govt.nz/sustainable-forestry.

Indigenous Forest Land

Indigenous forests established before 1 January 1990 are not included in the ETS and not eligible to receive an allocation.

Related Information

Register of ETS Participants

Participants who notify MAF that they have deforested will be entered into a publicly available Register of Participants. The Register will show:

- the Participant's name;
- the ETS-related activity they undertake (in this case deforesting pre-1990 forest land).

The Participant will be advised that they have been entered in the Register of Participants. Their name will be removed from the Register once they have advised MAF that they have ceased deforesting.

Details about a Participant's pre-1990 forest land are not available to the public from the Register of Participants.

Deforestation of Young Trees

Harvesting mature trees and replanting the land, or allowing it to regenerate, is not considered deforestation. However, to prevent landowners replanting and then deforesting young trees to reduce their liability, the ETS requires an owner to either:

- pay the full liability for the mature trees that were recently harvested; or
- allow the newly planted trees to grow for nine years before deforesting.

Thus, if pre-1990 forest land is deforested, and the trees on the land are less than nine years old, the emissions liability is calculated based on the age and species of the oldest trees cleared from the pre-1990 forest land during the previous nine years.

Replanted or Regenerated Forest That Does Not Survive

If a pre-1990 forest is harvested but for some reason the replanting or regeneration does not survive, then, in some circumstances, deforestation is considered to have occurred. The deforestation will be treated as having occurred either four, 10 or 20 years after the harvesting of the pre-1990 forest, depending on the following criteria:

- Four years after harvesting, if a given hectare has not:
 - been replanted with at least 500 stems of forest species; or
 - naturally regenerated to at least 500 stems of forest species.

- 10 years after harvesting, if predominantly exotic forest species are growing, but a given hectare does not have crown cover of at least 30 percent of trees that have reached 5 metres in height.
- 20 years after harvesting, if predominantly indigenous forest species are growing, but a given hectare does not have crown cover of at least 30 percent of trees that have reached 5 metres in height.

The liability for the deforestation will be calculated by reference to the age and forest species of the trees that were harvested four, 10 or 20 years earlier, as the case may be.

Compensation for Deforestation Required by Third Parties

If the owner of pre-1990 forest land becomes a Participant in the ETS because they are required to deforest to allow public works (such as construction of a road or transmission lines), the landowner is liable for the deforestation liability. However, the person who required the works must compensate the landowner if they are not compensated under any other Act – such as the Public Works Act 1981.

Rejoining the ETS as Post-1989 Forest Land

Exempt pre-1990 forest land that is deforested, and subsequently replanted or allowed to regenerate, can be brought into the ETS as post-1989 forest land, provided the emissions units that would have had to be surrendered if the deforested land had not been exempt, have been surrendered. Once this has occurred, the owner of the post-1989 forest may apply to become a Participant in the ETS. There are some special rules around filing an emissions return, and surrendering emissions units, before an application to join the ETS with this land may be approved (refer to the Act for such details).

Deforestation for Investment Projects

The obligation under the ETS to surrender units to meet emissions liabilities arising from any non-exempt deforestation of pre-1990 forest land applies regardless of the nature of the reasons for the deforestation. For example, deforesting as part of a renewable energy project still requires the emissions liability to be met, and there are no exemptions for “investment projects”. The project is thus required to take account of the full cost of the deforestation.

Tax Treatment of Pre-1990 Forestry

This section sets out the tax and GST treatment of units in relation to pre-1990 forest land under the ETS.

This guide does not deal with tax treatment related to complex transactions such as contracts for forward sale or purchase of units, put and call options, or derivative financial instruments involving units etc.

The tax rules set out below apply in the same way to:

- New Zealand Units (NZUs);
- Kyoto units;
- approved overseas units.

Most transactions in emissions units which relate to pre-1990 forest land are treated as being on capital account for tax purposes, and so are not subject to income tax.

A small number of forest landowners (such as land developers) may hold pre-1990 forest land on revenue account. Their income tax position is not considered in this guide.

Forestry Allocation NZUs

Owners of pre-1990 forest land may be allocated NZUs free of charge under a Forestry Allocation Plan. No income tax is payable either on receipt of these units, or at tax year end if they are still

held. No tax is payable on any increase in the market value of the NZUs during the time they are held.

Sale of Forestry Allocation NZUs

No tax is payable if NZUs, awarded under a Forestry Allocation Plan, are sold. Thus holding gains and losses are not in the tax net.

Surrender of emissions units when pre-1990 forest land is deforested

A liability to surrender emissions units arises when pre-1990 forest land is deforested – unless the deforestation occurs on exempt land, or if 2 hectares or less has been deforested in any five year period beginning 1 January 2008. The surrender of emissions units to meet this liability has no tax consequences that is, effectively, no deduction arises.

Purchase of additional emissions units

A forest owner who does not hold enough emissions units to meet the liability to surrender emissions units on deforestation will need to acquire more on the market. In keeping with the capital treatment of pre-1990 forest land, effectively no deduction is available for any purchased emissions units.

GST

All transactions in emissions units (including surrender) are treated as being zero-rated for GST purposes. When supplies (such as the sale of emissions units) are made, GST invoices should record GST at zero percent. This means that no GST will be charged. There is no restriction on the ability to claim GST on costs related to dealing with emissions units.

4 Additional Information

Key Dates

Date*	Action
1 September 2007	Date at which ownership for eligibility of land under the "less than 50 hectares" exemption is determined.
1 January 2008	Forestry sector enters the Emissions Trading Scheme. Post-1989 forest land starts earning NZUs for net increases in carbon stocks.
26 September 2008	Legislation commenced.
11 October 2008	<i>Draft Forestry Allocation Plan</i> released for consultation.
December 2008	Registration open: <ul style="list-style-type: none">• post-1989 forest landowners may register online to participate in the ETS• pre-1990 forest landowners who have deforested may start applying for exemptions (under the "less than 50 hectares" category).
2009	
2 January 2009	Registered post-1989 forest landowners commence voluntarily filing emissions returns for the 2008 calendar year (using the look-up table approach). Pre-1990 forest landowners commence notifying online that they have deforested and should be registered as a Participant in the ETS.

30 March 2009	Deadline for registered post-1989 forest landowners to voluntarily file an emissions return for the 2008 calendar year.
30 April 2009	Closing date for submissions on the <i>Draft Forestry Allocation Plan</i> .
1 July 2009	Climate Change (Emissions Trading) Amendment Act 2009 introduces changes to Pre-1990 provisions relating to: forestry allocation plans; deadline for less than 50 hectare exemption applications; deforestation notifications; and surrender of NZUs to meet deforestation liabilities.
31 December 2009	End of initial (two year) compliance period for pre-1990 forest landowners' entry into the ETS.
2010	
2 January 2010	Pre-1990 participants who deforested in 2008 and/or 2009 can commence filing emissions returns (using the look up table approach).
31 January 2010	Deadline for pre-1990 forest landowners to give notice to MAF that they have become mandatory ETS participants as a result of deforestation carried out in the period between 1 January 2008 and 31 December 2009.
30 March 2010	Final date for filing emissions returns in 2010. All pre-1990 participants who deforested in 2008 and 2009, and those post-1989 participants voluntarily choosing to, must file their emissions returns by this date.
1 July 2010	Latest date that can be set by regulations or public notice as a deadline for less than 50 hectare exemption applications.
2011	
1 January 2011	First date from which pre-1990 participants are required to surrender NZUs to meet deforestation liabilities quantified in an emissions return filed by them before 31 March 2010. Forestry participants who deforested in 2010 can commence filing emissions returns (using the look up table approach).
30 March 2011	Final date for filing emissions returns in 2011. All pre-1990 participants who deforested in 2010, and those post-1989 participants voluntarily choosing to, must file their emissions returns by this date.
30 April 2011	Final date for pre-1990 participants to surrender NZUs to meet deforestation liabilities detailed in an emissions return filed before 30 March 2010 and/or 30 March 2011.
2013	
30 March 2013	Final date for post-1989 participants to file a mandatory emissions return for the five-year period 1 January 2008 – 31 December 2012. This return will take account of any emissions returns voluntarily filed earlier during the five-year period, and any units credited/surrendered as a result of those returns.

Some dates are subject to change. See www.maf.govt.nz/sustainable-forestry for updates.

Other Sustainable Forestry Programmes

MAF offers a suite of sustainable forestry programmes in addition to the ETS, including:

- the Afforestation Grant Scheme (AGS);
- the East Coast Forestry Project (ECFP);

- the Permanent Forest Sink Initiative (PFSI).

Guides and further information on each of these schemes are available at www.maf.govt.nz/sustainable-forestry.

In some cases forests are able to participate in more than one forestry programme, as shown in the following table.

Compatibility of Sustainable Forestry Programmes

	AGS	PFSI	ECFP	ETS
AGS		No	No	No
PFSI	No		Yes	No
ECFP	No	Yes		Yes*
ETS	No	No	Yes*	

* ECFP grant rates are lower for forests also entering the ETS.

Compliance

MAF will encourage and monitor compliance with the provisions of the Climate Change Response Act 2002. This will be achieved through:

- a nationwide communications programme to promote understanding of entitlements and obligations;
- publishing guides, information and frequently asked questions;
- placing programmes advisers in regions to provide a face-to-face information and guidance service;
- reviewing registration applications and emissions returns to ensure they comply with the legislation. This may involve follow-up contact by MAF with the forest landowner or other parties;
- a programme of spot checks and detailed site audits.

Penalties

There are both civil penalties and criminal offences for non-compliance with obligations under the ETS (in the Act), as detailed below:

Civil Penalties

The civil penalties are aimed at supporting the obligations under the ETS of calculating emissions and surrendering units equal to emissions. Key points are:

- If a Participant fails to surrender units by the due date, is found to have submitted an incorrect emissions return or failed to submit a return at all they must surrender the outstanding units and will be subject to an excess emissions penalty of \$30 per outstanding unit (called the “excess emissions penalty”). This is designed to create an incentive for people to pay due caution. In certain circumstances the penalty may be reduced by up to 100 percent. This is a discretion that can be applied where the person voluntarily discloses their failure to comply, or MAF is satisfied the person formed a view on the information to be included in an emissions return which, while incorrect, was reasonable. Therefore, if a person is considered to have made a genuine mistake then there is the ability to reduce the penalty. This could also be used in circumstances where Participants cannot comply through no fault of their own, while still requiring them to ultimately surrender units.
- If a Participant knowingly fails to comply with their obligations or provides false information, they may be liable to surrender double the number of units they are assessed as owing and a further penalty of \$30 for each of those units.

- Interest accrues on the amount of a penalty until it has been paid in full, and any associated units required to be surrendered have been surrendered.

Criminal Offences

The criminal offences are for when people without good reason, knowingly or with intent to deceive, fail to collect information, register as a Participant, submit an emissions return or keep information in relation to an activity. The penalties increase in relation to the severity of the offence and comprise:

- A graduation of fines for failure to collect information, register as a Participant, submit an emissions return or keep information in relation to an activity, if there is no reasonable excuse. There are fines of \$8000 for a first offence, \$16 000 for a second offence and \$24 000 for each subsequent offence.
- Failure to provide information or documents, or failure to appear before the chief executive or an enforcement officer when required may incur a fine of up to \$12 000 for an individual and \$24 000 for a body corporate, if there is no reasonable excuse.
- Wilful failure to comply with parts of the Act, providing false information and obstruction of officers may lead to a fine of up to \$25 000 for an individual and \$50 000 for a body corporate.
- Similarly to the Tax Administration Act 1994 offence of evasion, a separate offence is provided for evasion – namely, failure to comply with the Act with intent to deceive and obtain a material benefit or avoid a material detriment. This offence has a fine of up to \$50 000 and/or a term of imprisonment of up to five years.

Where a body corporate is convicted of an offence under the Act, directors and others concerned in management of the body corporate may also be guilty of the offence and subject to a penalty.

Further Information and Contact Details

For information on forestry and agriculture in the Emissions Trading Scheme contact the Ministry of Agriculture and Forestry:

Website: www.maf.govt.nz/sustainable-forestry
 Email: climatechange@maf.govt.nz
 Telephone: 0800 CLIMATE (254 628)

For all other sectors in the Emissions Trading Scheme and climate change in general, contact the Ministry for the Environment:

Website: www.climatechange.govt.nz
 Email: info@climatechange.govt.nz
 Telephone: 0800 CLIMATE (254 628)

For holding accounts and matters relating to emissions units contact the New Zealand Emissions Unit Register:

Website: www.eur.govt.nz
 Telephone: 0800 CLIMATE (254 628)

Glossary

Assigned Amount Unit

The emissions units allocated to Annex 1 countries (see www.unfccc.int) under the Kyoto Protocol on the basis of their quantified emission target for the first commitment period, 2008–2012. One AAU is equal to one tonne of carbon dioxide.

Associated Person

A person is an associated person in relation to one or more other persons if:

- each person is a body corporate and each of the bodies corporate:
 - consist substantially of the same members or shareholders; or
 - are under the control of the same persons.
- any of the bodies corporate:
 - has the power, directly or indirectly, to exercise, or control the exercise of, 25 percent or more of the voting power at a meeting of the other; or
 - is able to appoint or control 25 percent or more of the governing body of the other.

Carbon Accounting Area (CAA)

An area of post-1989 forest land determined by the Participant during the ETS registration process that is the basic unit for which accounting of carbon gains and losses is performed. A CAA can be any size; there are no limits on the number of CAAs a Participant may specify; and they do not need to comprise contiguous forest areas.

Carbon Accounting Record (CAR)

A permanent record kept by MAF of the change in carbon stocks over time, and of the NZUs issued or surrendered to match that change, for a CAA.

Carbon Dioxide (CO₂)

A naturally occurring gas, which is also a by-product of burning and breakdown of fossil fuels and biomass, land-use changes and other industrial processes. It is the principal human-induced greenhouse gas that contributes to global warming.

Carbon Dioxide Equivalent (CO₂^e)

The quantity of a given greenhouse gas multiplied by its global warming potential, which equates to its global warming impact relative to carbon dioxide. This is the standard unit for comparing the degree of warming that can be caused by emissions of different greenhouse gases.

Carbon stocks

The total carbon in a forest, including that in stem wood, bark, branch, leaves, litter, woody debris, stumps and roots.

Chief Executive

Means the chief executive of the department that is, with the authority of the Prime Minister, responsible for administering a particular part of the Climate Change Response Act 2002.

In the case of the ETS (Forestry), the responsibilities regarding administering forestry and the ETS have been delegated to MAF so reference to the “chief executive” in this guide is simply referred to as “MAF”.

Clearing

Clearing means in relation to a tree and includes:

- the felling, harvesting, burning, removing by mechanical means, spraying with herbicide intended to kill the tree, or undertaking any other form of human activity that kills the tree; and
- the felling, burning, killing, uprooting, or destroying by a natural cause or event; but
- does not include pruning or thinning.

Consolidated Group

A group of entities may elect to form a consolidated group in relation to any pre-1990 deforestation or post-1989 forest land activity. In relation to this provision, an entity means a reporting entity or reporting entity's subsidiary, within the meaning of the Financial Reporting Act 1993 that is, a company or an issuer. The term "issuer" has a specific meaning in the Financial Reporting Act 1993.

Entities electing to form a group must notify the Ministry of Economic Development in a prescribed form and must nominate one of its entities as the agent of the group. The entities must agree to be jointly and severally liable for any obligations under the Act, and to the allocation to the nominated entity of any units to which any member of the group may become entitled.

Crown Conservation Contract

Crown conservation contract means a written agreement with the Crown (including a concession granted in accordance with Part 3B of the Conservation Act 1987) for the removal and storage of greenhouse gases on post-1989 forest land that is Crown land managed or administered under the Conservation Act 1987 or any of the Acts listed in Schedule 1 of that Act.

Deforestation

Deforest, in relation to forest land means:

- to convert forest land to land that is not forest land; and
- includes clearing land, where the following applies:
 - four years after clearing, a given hectare has not been replanted with at least 500 stems of forest species or has not naturally established a covering of at least 500 stems of forest species; or
 - 10 years after clearing, predominantly exotic forest species are growing, but a given hectare does not have tree crown cover of at least 30 percent from trees that have reached five metres in height; or
 - 20 years after clearing, predominantly indigenous forest species are growing, but a given hectare does not have tree crown cover of at least 30 percent from trees that have reached five metres in height.

Deforestation does not include forest land that is replanted or allowed to regenerate after harvesting has occurred. Deforestation is generally treated as occurring on the date the hectare is cleared as part of the deforestation process. The only exceptions are where deforestation is deemed to have occurred four, 10 or 20 years after clearance in the circumstances outlined above; however, in these circumstances any liabilities associated with deforestation are calculated as at four, 10 or 20 years earlier, respectively.

Exotic Forest

An exotic forest is a forest in which the predominant species does not occur naturally in New Zealand – that is, it is not an indigenous species.

Forest Land

- means an area of land of at least 1 hectare that has, or is likely when the forest species reach maturity to have, tree crown cover from forest species of more than 30 percent in each hectare; and
- 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);
- does not include –
 - a shelter belt of forest species, where the tree crown cover at maturity has, or is likely to have, an average width of less than 30 metres; or

- an area of land where the forest species have, or are likely to have, a tree crown cover at maturity 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).

If an area of land temporarily does not meet the forest species and crown cover requirements because of human action or natural events (it may have just been harvested, or trees may have been blown over by strong winds), but is likely to meet these requirements again in the future, it is still considered to be forest land as per paragraph (b) above. Such areas are termed “temporarily unstocked”.

Forest Species

Tree species capable of reaching at least five metres in height at maturity in the place that it is located.

For the purposes of the Forestry ETS, any woody vegetation (and including tree ferns) capable of reaching five metres in the place it is growing is considered to be a “tree”.

Harvesting

Harvesting is when the forest species are cleared from the land, and new forest species seedlings are either planted or naturally regenerate. In this case, there is no land use change involved when the trees are harvested. The harvested area remains forest land, and is referred to as being temporarily unstocked.

Indigenous Forest

A forest that comprises tree species that occur naturally in New Zealand or have arrived in New Zealand without human assistance. Strict definitions may relate to the original method of forest establishment (and the direct involvement of people in the process), the mixture of flora and fauna, and the conditions believed to have been present prior to human intervention.

Kyoto Protocol

A protocol to the United Nations Framework Convention on Climate Change that includes emissions limitation or reduction commitments for ratifying countries listed in its Annex B (developed countries and Economies in Transition) (see <http://unfccc.int/resource/docs/convkp/kpeng.html> for further information).

Landowner

The legal owner, or owners from time to time, of the freehold estate in the land. Note, a holder of a registered forestry right; leaseholder with a registered lease; or party to a Crown conservation contract are also eligible to participate in the ETS.

New Zealand Emissions Unit Register (NZEUR)

See www.eur.govt.nz.

New Zealand Unit (NZU)

A greenhouse gas emissions unit specific to the New Zealand Emissions Trading Scheme.

Orthographically Corrected Aerial Photograph

An aerial photograph that has had all the distortions due to camera tilt and surface relief removed. An orthophotograph has the advantages of a photograph in that all the visible features are displayed. It also has the constant scale and accuracy of a map.

Participant

A person becomes a mandatory Participant if they undertake certain activities covered by Schedule 3 of the ETS (for example, deforesting pre-1990 forest land). Other people may become participants by voluntarily registering in respect of activities listed in Schedule 4 (for example, post-1989 forest land).

Post-1989 Forest Land

Forest land that:

- was not in forest land on 31 December 1989; or
- was forest land on 31 December 1989 but was deforested (that is, converted to another land use) between 1 January 1990 and 31 December 2007; or
- was pre-1990 forest land, other than exempt land:
 - that was deforested on or after 1 January 2008; and
 - in respect of which any liability to surrender units arising in relation to deforestation has been satisfied; or
- was exempt land:
 - that has been deforested; and
 - in respect of which the number of units that would have been required to be surrendered in relation to deforestation, had the land not been exempt land, have been surrendered.

Both exotic and indigenous forest species are eligible to participate in the ETS as post-1989 forest land.

Pre-1990 Forest Land

Forest land that:

- was forest land on 31 December 1989;
- remained as forest land on 31 December 2007; and
- where the forest species on the forest land on 31 December 2007 consisted predominantly of exotic forest species.

But does not include any forest land that meets the definition above but also:

- has been deforested and any liability arising from that deforestation has been satisfied;
- was declared to be exempt land, has been deforested and the New Zealand Units that would have been required to be surrendered had the land not been exempt, have been surrendered.

Only forests comprising predominately exotic forest species are subject to the ETS as pre-1990 forest land (noting that the definition above prevents exotic forest from being converted to indigenous forest after 31 December 2007 then deforesting the indigenous forest without obligations).

Registered Forestry Right

Registered forestry right means a forestry right registered under the Forestry Rights Registration Act 1983.

Registered Lease

Registered lease:

- in relation to a lease in respect of land registered under the Land Transfer Act 1952:
 - means a lease registered under that Act; and
 - includes a lease registered under the Land Transfer (Computer Registers and Electronic Lodgement) Amendment Act 2002.

- in relation to a lease in respect of land that is not registered under the Land Transfer Act 1952, means a lease registered under the Deeds Registration Act 1908.

Removals

The amount of greenhouse gases removed from, or not released into, the atmosphere due to an activity (expressed in CO₂ equivalents, CO₂-e).

Shapefile

An electronic file that is used for digital mapping and is a standard mapping format used within the New Zealand forest industry. The Climate Change (Forestry Sector) Regulations 2008 use the term “geospatial mapping information” to refer to what is commonly known as a shapefile. Schedule 5 of the Regulations provides more detail on when a shapefile must be provided. For people who do not have access to the software necessary to create a shapefile, MAF provides an online mapping tool for landowners to meet this requirement.

Woody Species

Shrubs or trees that have woody stems, as opposed to grass, bracken or similar vegetation which do not have woody stems.