



# AN OVERVIEW OF FORESTRY IN THE EMISSIONS TRADING SCHEME

## NEW ZEALAND'S EMISSIONS TRADING SCHEME

The New Zealand Emissions Trading Scheme (ETS) is a way of meeting our international obligations around climate change. It puts a price on greenhouse gases to provide an incentive to reduce emissions and encourage landowners to establish and manage forests in a way that increases carbon storage.

The main unit of trade in the ETS is the New Zealand Unit (NZU). One NZU represents one tonne of carbon dioxide. The Government issues NZUs for increases in carbon stock in some forests, and these may be held or bought and sold within New Zealand. NZUs are held in the New Zealand Emission Unit Register (NZEUR). ETS participants must have a holding account in the NZEUR for unit transfers.

Forest owners participate in the ETS in two ways:

- Voluntarily – owners can apply to register their post-1989 forest land into the ETS to earn NZUs.
- Mandatorily – owners become participants when non-exempt pre-1990 forest land is deforested.

Generally, where forest land is established after 31 December 1989 on previously non-forest land, it is post-1989 forest land. Where forest land was first established before 1 January 1990, it is pre-1990 forest land. (See *Forest land definitions and classification* below).

## POST-1989 FOREST LAND PARTICIPATION

Post-1989 forest land owners, or holders of a registered forestry right or lease, may voluntarily apply to register as an ETS participant at any time. They are entitled to receive NZUs for increases in carbon stocks and must pay units for decreases.

Participants can only claim units for the period in which they are registered, and can register part or all of their post-1989 forest land. They can also apply to add or remove forest land at any time.

Post-1989 forest land participants' legal obligations include:

- Account for the change in carbon stocks in the forest at least once every five years. See *How to complete and*

*submit an emissions return.*

- Pay units if there is a decrease in carbon stock, for example, due to harvesting or fire.
- Notify the Government if any part of their registered forest land is transferred to another party.
- Repay units that have been issued for that forest land if it is withdrawn from the ETS.<sup>1</sup>

## PRE-1990 FOREST LAND PARTICIPATION

If pre-1990 forest land that has not received an exemption is deforested, the landowner (or a third party who has deforestation rights over the forest, where the landowner has no control over the decision) automatically becomes an ETS participant. They must pay units for deforestation emissions if more than 2 hectares of non-exempt forest is deforested in any five-year period. They do not receive NZUs for increases in their forests carbon stock.

Pre-1990 forest land owners must notify MPI of deforestation, and either:

- submit an emissions return and pay units for emissions<sup>2</sup> (See *Deforestation: Definitions and obligation and How to complete and submit an emissions return*); or
- apply to offset their deforestation prior to deforesting, and establish a carbon and area equivalent forest elsewhere (See *Offsetting deforestation of pre-1990 forest land*).

## FOREST LAND DEFINITIONS AND CLASSIFICATION

### FOREST LAND

Forest land is at least one hectare of forest species. It has, or is likely to have:

- Tree crown cover of forest species of more than 30 percent in each hectare.
- An average width of tree crown cover of at least 30 metres<sup>3</sup>.

<sup>1</sup> See NZ's climate change website for a list of units that may be used to pay for emissions or repay units.

<sup>2</sup> See [www.climatechange.govt.nz](http://www.climatechange.govt.nz) for a list of units that may be used to pay for emissions.

<sup>3</sup> Forest land may also include areas with a width of less than 30 metres. This land must be adjoining forest land that meets the criteria given in the definition (see Glossary).

Forest land may be considered “temporarily unstocked” if it has been cleared but is likely to meet the requirements for forest land again. Timeframes before forest land is deemed deforested are covered in *Deforestation: Definition and obligations*.

Forest species are trees capable of reaching five metres in height in the place they are growing. This does not include trees grown primarily for the production of fruit or nut crops.

### POST-1989 FOREST LAND

Post-1989 forest land meets the forest land criteria (above), and:

- was not forest land on 31 December 1989; or
- was forest land on 31 December 1989 but was deforested between 1 January 1990 and 31 December 2007; or
- was pre-1990 forest land that was deforested on or after 1 January 2008, and any ETS liability has been paid.

### PRE-1990 FOREST LAND

Pre-1990 forest land:

- was forest land on 31 December 1989;
- remained as forest land on 31 December 2007; and
- contained predominantly exotic forest species on 31 December 2007.

Land that was indigenous forest land on 31 December 1989, and remained so on 31 December 2007, is not pre-1990 forest land and is not subject to ETS obligations.

### NATURAL REGENERATION

If the forest is naturally regenerating, the year forest regeneration first becomes obvious (following a change in management practice) can usually be taken as the year in which the area is considered forest land. If regeneration is patchy or slow, it may be some time after the land management practice has changed before the area can be considered forest land.

### NON-FOREST SPECIES

Where non-forest species such as gorse or broom act as nurse crops, these areas can be considered forest land provided a sufficient stock of forest species are also present that meet the forest land criteria. Where both forest and non-forest species were present at 1990, there may be a question about whether enough forest species existed on 31 December 1989 to meet the definition of forest land. As such, the age of the forest species currently on the site may need to be determined.

### WILDING FOREST

Wilding forest cannot be registered as post-1989 forest land unless the Ministry for Primary Industries is satisfied that the risk of spread is low.<sup>4</sup> Wilding trees are exotic forest species that have spread from an adjacent forest area and are naturally regenerating.

### EXAMPLES OF FOREST LAND

These examples demonstrate the main criteria used to classify forest land in the ETS.

#### EXOTIC FOREST ESTABLISHED IN PASTURE

*Pinus radiata* was planted in July 1990 at 800 stems per hectare onto an area that had also been pastorally farmed since the 1960s. Livestock numbers, before planting, were enough to stop regeneration of any forest species.

**The area is post-1989 forest land, established in July 1990.**



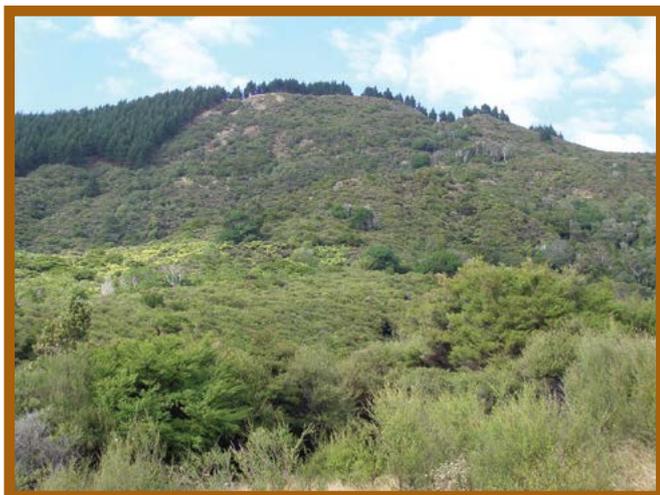
#### FARMLAND REVERTED TO INDIGENOUS FOREST AFTER 1989

The area had been pastorally farmed since the 1960s, with enough livestock to stop regeneration of woody species except in a few small, steep gullies.

However, in early 1994, it was decided to remove livestock from this remote part of the farm, stop fertiliser application and let the area regenerate naturally. Manuka and Kanuka took over the area rapidly from the seed sources in the gullies, with extensive seedling regeneration visible over the whole area by November, 1994.

Aerial photos held by the regional council show a good scattered cover in 1996. More recently, some tree ferns and patches of broadleaved tree species have appeared.

<sup>4</sup> If the land is subject to a Pest Management Plan under the Biosecurity Act 1993, participants must confirm that any requirements under this Act have been met before the land can be registered in the ETS.



The area is post-1989 forest land, established in 1994.

#### SECOND ROTATION EXOTIC FOREST

The area was first planted in *Pinus radiata* in the 1940s and has been in forest since. It was harvested in 2005, replanted in 2006 at 850 stems per hectare and remains in forest today.

The area is pre-1990 forest land.



#### WILLOWS AND POPLARS IN FARMLAND

The area has been farmed since the 1940s. Poplars were space- and close-planted in the 1960s on erosion-prone areas, and some of the planted areas are more than 1 hectare in size.

Willows have been present as gully plantings since the 1940s and have been spreading up the gully areas by natural regeneration. The stock levels of both the poplars and willows are unknown, and their coverage today remains as shown in the photo below.

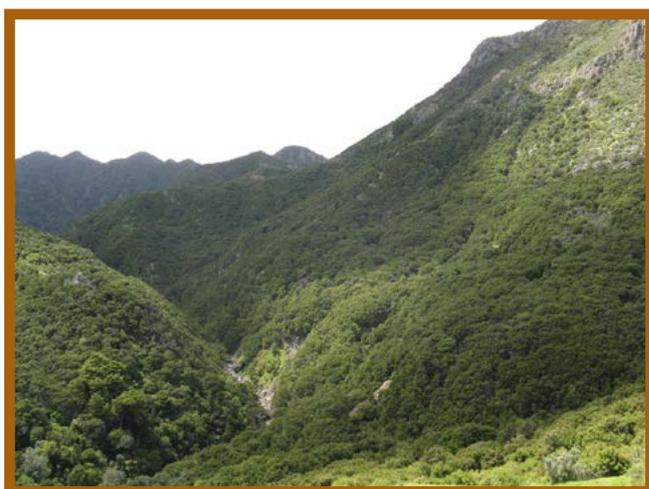
The areas of forest indicated in the photo are pre-1990 forest land together with some of the connected gully plantings. Refer to *How to map forest land for the Emissions Trading Scheme* for advice on how to map forest land in the circumstances described above.



#### FARMLAND REVERTED TO INDIGENOUS FOREST BEFORE 1990

The land was originally indigenous forest but was deforested and converted to farmland in the 1930s. It was farmed until the 1950s then abandoned and left to revert to indigenous forest, which has continued to the present day.

**This area is indigenous forest land established before 1990. It is not, however, pre-1990 forest land, because such land must be predominantly exotic forest species on at least 31 December 2007.**



## NON-FOREST LAND

Land that does **not** meet the criteria defined above is not forest land. Examples include:

- grassland;
- narrow shelterbelts;
- gorse or broom;
- scattered forest species that are unlikely to ever reach 30 percent crown cover under existing management.

For help, call us on  
**0800 CLIMATE (0800 25 46 28)**  
[www.mpi.govt.nz](http://www.mpi.govt.nz)

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