

# Your Forestry Investment and the Emissions Trading Scheme

## Introduction

In September 2008 the legislation enacting the Emissions Trading Scheme (ETS) was passed into New Zealand Law by the Labour led government. This legislation is embodied in the Climate Change Response Act. Substantial amendments to the legislation were enacted in December 2009 by the National led government. The major changes were –

- revised entry dates of 1 July 2010 for transport, energy and industrial sectors and 1 January 2015 for agriculture, and
- a transitional phase until 1 January 2013 with a 50% obligation and \$25 capped price per tonne of carbon.

The forestry sector has been the sole participant in the ETS since 1 January 2008. All planted (exotic) forests are affected. Native (indigenous) forests are not affected. Forest Enterprises forestry Investors' own shares in planted forests, therefore their forest investment is affected by the operation of the ETS.

## What is the Emissions Trading Scheme?

The ETS is a cap and trade mechanism that has the effect of putting a price on carbon (and other greenhouse gases). The theory is that the resulting higher price for products with carbon consequences will discourage their purchase. This price mechanism will also encourage the use of products with low carbon consequences (therefore lower prices), plus stimulate the development of new technologies to produce low carbon products. The ETS also includes a mechanism to reward the sequestration (removal and storage) of carbon from the atmosphere by trees.

Embodied within the ETS concept are a number of factors relevant to a clear understanding of the consequences for the forest growing sector –

- The ETS is a product of an international agreement (the Kyoto Protocol) and New Zealand legislation (the Climate Change Response Act). Carbon only has a value for so long as these artificial constructs remain. There is no underlying intrinsic cost/value for carbon pollution or carbon sequestration by forests as there is for say iron ore or food or computers and other goods and services for which there are natural markets. This means that if internationally and domestically there is deemed to no longer be a need to restrict carbon emissions, the market will no longer exist, and carbon sequestration by forests will no longer have a value to the forest owner.
- If over time the ETS, and the associated international measures, successfully reduce carbon emissions to a level deemed acceptable, carbon will at this future date have a zero value.
- The world does not embrace carbon sequestration in trees as enthusiastically as New Zealand as it is not a permanent solution to carbon pollution. This view maintains that carbon pollution itself must be reduced and removing carbon via trees is a short term mitigation option only. As a result, some international markets (including the European market) do not accept carbon credits arising from sequestration.

In our opinion, understanding these factors should lead to a healthy degree of caution about the long term viability of carbon farming as a stand alone financial undertaking. Our view is that the underlying plantation forestry investment must itself be financially viable, and the carbon opportunity considered a potential added bonus, for so long as there is a market for carbon. No Forest Enterprises co-ordinated and managed forestry investment was established for carbon farming purposes.

## Overview of the ETS and the Forest Growing Sector

The ETS creates two types of plantation forests – Pre-1990 forests and Post-1989 forests. The separate buff sheet enclosed sets out the ETS status of each Forest Enterprises forest.

A Pre-1990 forest is one first planted before 1 January 1990. A Post-1989 forest is one first planted in non forest land after 31 December 1989. These dates are derived from the Kyoto Protocol. This Protocol sets 1 January 1990 as the date for establishing a participant country's base carbon emission levels. Participant countries have



agreed to be accountable for emissions relative to this base. New Zealand's obligation in the first commitment period under the Kyoto Protocol ending 31 December 2012 is to restrict its emissions to no more than the 1990 base.

Planted forests are included in the Protocol because of their ability to sequester (extract and store) carbon in the tree and subsequently in wood products (although carbon stored in wood products is not counted at present). A planted forest existing at 1 January 1990 is deemed to be part of the existing forest base and only new forests planted from that date are considered to be part of a country's response to meeting their carbon emission obligations.

The ETS largely passes through to a New Zealand forest owner the consequences of the Kyoto Protocol as it applies to planted forests. Like many agreements, the Protocol is a negotiated compromise that creates outcomes that are not necessarily entirely logical. A country does not have to implement the Protocol in its domestic economy warts and all, however successive New Zealand governments have chosen to do so for forestry.

## Post-1989 Forests

The majority (but not all) of Forest Enterprises Investments subscribed to since 1990 comprise Post-1989 forests. Some are a combination of both Post-1989 and Pre-1990.

To recap, a Post-1989 forest is a forest that was planted in non forest land after 31 December 1989. The ETS defines what comprises a forest, and therefore what is non forest land, however we are still awaiting publication of the Ministry of Agriculture and Forestry (MAF) 'Land Eligibility Guide'. Until we have this guide, it is not possible to be certain we are correctly identifying (in the manner that MAF will assess it) what was non forest land at the time of planting.

We have to be able to prove to MAF that each forest planted in Radiata pine post 1989 was planted in non forest land. We have sourced aerial photography taken around 1990 over which we have overlaid the boundaries of the forest stands and from this identified areas where the ground cover before planting was not pasture. For each of these areas we have to be able to prove that the ground cover is not caught by the definition of a forest. To do so we will have to have regard to any land preparation undertaken before planting, photographs of the ground cover at the time of purchase and during land preparation operations, the vegetation in the reserve areas not cleared, and any other evidence we can assemble. For most forests this is a relatively straight forward exercise, for others it is more complicated. In all cases materiality of the areas involved will be an important factor taken into consideration.

This forest type (Post-1989 or Pre-1990) identification exercise must be undertaken in all the forests planted after 31 December 1989, because if an existing plantation forest area is not Post-1989 forest, it is automatically deemed to be Pre-1990 forest. A predominantly Post-1989 forest may therefore end up with islands of Pre-1990 forest scattered within it. These islands look no different to the rest of the forest, however are treated quite differently under the ETS.

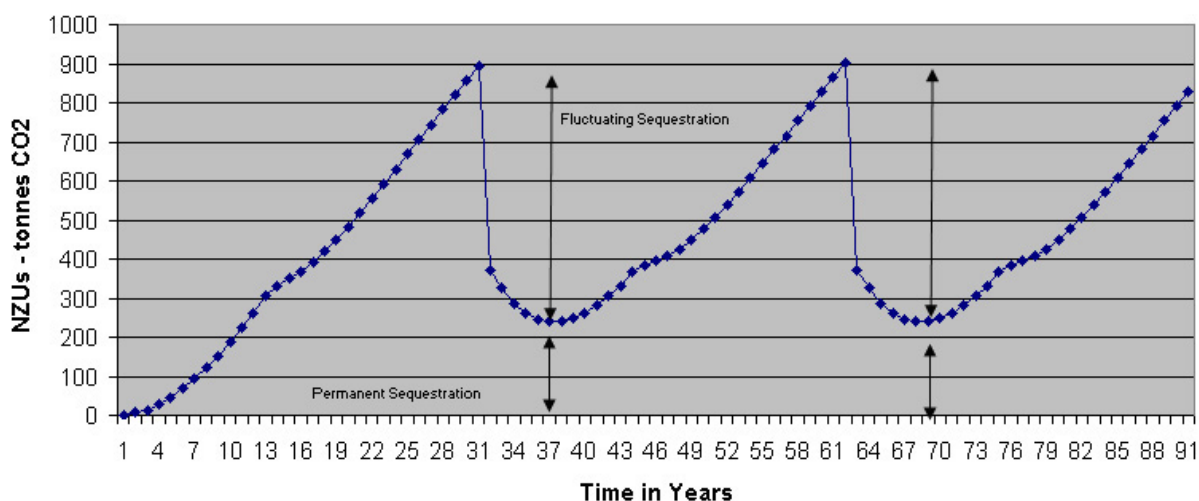
Under the ETS, a Post-1989 forest may choose to join the scheme or not. If a forest does not join, the law currently says that the forest owner will never face any financial liability, or land use constraint, as a consequence of the operation of the ETS. The question is whether a Post-1989 forest owner can trust up to 10 Governments from planting until harvest to keep this promise. By joining and receiving New Zealand Units (NZU's) for each tonne of carbon sequestered, the forest owner will be in control of the asset, and also the associated liability.

Forest owners have until 31 December 2012 to join the ETS and then until 31 March 2013 to submit an emissions return to request an allocation of NZU's each of which represent 1 tonne of carbon stored in their forest for the period from 1 January 2008 until 31 December 2012. Once a forest has joined, returns can be submitted annually by 31 March each year in respect of the 12 months to the 31 December of the previous year. The earlier a forest joins, the earlier they may submit an emissions return.

Under the ETS, a Post-1989 forest that chooses to join is entitled to the carbon stored any point in time. It is therefore important to understand the carbon storage profile of a forest. The graph shows the profile for a single age class forest harvested when the trees are about 28 years old and replanted post harvest.



## NZU Flow from Sequestration per Hectare



At year zero, before the trees are planted, there is no carbon stored. During the 28 years from planting until harvest, the quantum of carbon stored increases to around 900 tonnes per hectare. At harvest this carbon store plunges, reflecting the removal from the forest of the harvested logs containing about 70% of the stored carbon. The carbon stored in the stump, roots and trimmings on the ground, progressively returns to the atmosphere as this material rots. As the forest has been replanted, the next rotation is storing carbon. Although the total carbon store continues to decline post harvest as the rotting process emits more carbon than the next rotation is storing, eventually (about 6 years after harvest in the graph) the equilibrium shifts, so that the next rotation is storing carbon at a greater rate than the rotting process is causing emissions. The carbon store therefore never reaches zero, it bottoms out at approximately 250 tonnes per hectare before climbing away again towards the peak preceding the next harvest.

A forest that is planted, harvested then replanted repeats this carbon cycle. Within the cycle are two types of carbon store, the approximately 250 tonnes that is of an enduring nature (permanent), and the majority of approximately 650 tonnes which is fluctuating, depending upon the age of the forest in relation to the carbon cycle.

Under the ETS, a Post-1989 forest owner is entitled to the quantum of NZU's representing the current carbon store at any point in time. In the graph, this is an increasing quantum of NZU's until harvest (a total of approximately 900 NZU's), but at harvest the quantum reduces. At harvest, the forest owner must progressively surrender NZU's as the store declines, down to the minimum of approximately 250 NZU's. Surrendering 650 NZU's is not a problem unless in the interim years they have been sold. If sold, the forest owner has to buy back this number of NZU's in order to meet their surrender obligation (as they are no longer storing this carbon).

1 January 2008 was the ETS commencement date for forestry. As all Forest Enterprises Post-1989 forests were planted before 1 January 2008, should they choose to join the ETS their carbon profile this rotation will commence part way up the carbon store graph (depending upon the forest's age at 1 January 2008). The carbon stored prior to 1 January 2008 is not available to these forests this rotation. With the exception of the Baywood, Rata Hills and Standford forests, the point of joining is above the 250 NZU's per hectare permanent store, therefore all the NZU's received by these forests will have to be surrendered (repaid) at harvest. Baywood, Rata Hills and Standford are younger forests and if they join, will do so at a point within the 250 NZU per hectare permanent store. These forests will therefore receive some NZU's that they can sell once and never have to buy back for surrender at harvest.

The carbon profile discussed above assumes no force majeure events, such as the destruction of the forest by fire, wind, disease or land slippage. Such events result in a reduction in the carbon store in the forest, and as a consequence, NZU's received in excess of the reduced carbon store have to be surrendered following a force majeure event. This liability should be able to be insured, although one prominent forest insurer has already announced it will not provide force majeure cover for ETS liabilities.

### Should a Post-1989 Forest Join the ETS?

In Forest Enterprises opinion, the decision to join the ETS is not conditional upon an expectation that the forest owner will subsequently decide to sell some or all the NZU's received, and consequentially be committed to

repurchasing NZU's for surrender at harvest. We believe there is logic to consider joining the ETS by 31 December 2012, collect the NZU entitlement for the 5 years from 1 January 2008 (which can only be claimed through joining by 31 December 2012) and then reviewing the options as they evolve.

The options will be (1) to continue participation and collecting the NZU's without sale, (2) continue participation and sell some or all of the NZU's, or (3) exit the ETS. A Post-1989 forest owner can exit the ETS at any time, subject only to surrendering all the NZU's received in respect of the carbon store at the time of exit.

The reason for considering joining, without first reaching a view on selling, is to preserve all options. As noted, one long term option would be to continue to collect NZU's so that at harvest the forest owner is able to surrender these NZU's to meet the deemed emissions liability. This option means that the forest owner would not be reliant on future governments keeping the promise currently in the ETS that a Post-1989 forest which does not join will never face any ETS liabilities. Forest owners only have to look at the treatment of Pre-1990 forest owners under the ETS to conclude that reliance on government decision making over the life of a forest is not without risk.

Another important reason to consider preserving all options is that it is currently too early to take a view on the carbon market that will arise under the ETS. The first of the polluting sectors do not join until 1 July 2010 and the largest polluting sector, agriculture, not until 2015. In addition, the liabilities of the sectors joining on 1 July have been reduced by 50% and the carbon price capped at \$25 per NZU. Also, if the carbon market flourishes, it is likely that hedges and other options will be developed to mitigate the future price risk arising from selling NZU's that must be bought back for surrender at harvest. The Government has also not ruled out the prospect of offering an averaging option, under which a forest owner could receive NZU's up to this agreed average carbon store, and provided the forest is replanted at harvest, would not be required to surrender any NZU's at harvest. This is what was proposed under the recently withdrawn Australian equivalent scheme.

The counterbalancing factor that must be considered is the cost of joining the ETS, especially if this is initially only to preserve all options. The costs fall into two categories, the initial one off joining costs and the ongoing compliance costs which continue for so long as the forest is a participant in the ETS. The compliance regime has still to be decided by government, therefore the costs are currently unknown. A discussion paper on the compliance regime is to be released for consultation in June and the regime set by Regulation towards the end of this year. Of added concern is the fact that when the compliance regime is set, it will not be fixed forever, it will be subject to review by future governments and these reviews may result in cost increases.

MAF has indicated that there will probably only be one mandatory compliance reporting round in any 5 year period and for larger forests this will require field measurements (a larger forest is likely to be one of more than 50 hectares). The field measurements will involve sampling using 20 or more plots per forest. We think the cost per plot is likely to be \$100, based upon the current cost for field inventory work. It is possible that the plotting component of the compliance regime may be able to be structured to produce forest information of more general use to the forest owner, and value of this information will need to be considered.

For completeness it is also important to mention another on-going annual cost that only arises if NZU's are sold. This cost is the annual premium to insure the cost of buying back NZU's in the event of a force majeure event.

The cost to join and see what develops with the intention of making a decision to continue or withdraw before the next round of compliance costs (assumed to be 5 years from joining) could be a total of \$6,000 per investment, made up of joining costs of say \$2,500 and compliance costs of say \$3,500. This total represents around \$48 per investment unit for our qualifying company investments, and \$240 per Partner for our partnership investments. Please refer to the details beside your investment's name on the enclosed buff sheet to identify whether your investment is a qualifying company or partnership investment.

**Forest Enterprises current recommendation is that with the exception of the Baywood, Rata Hills and Standford forests, the decision to join the ETS can be left until 2012. In 2012, should Post-1989 forest investments vote in favour of joining, there will be time to do so before 31 December 2012, the last date to secure NZU's for the five years from 1 January 2008.**

**It is our intention in respect of the Baywood, Rata Hills and Standford forests, investments which can join the ETS and receive some NZU's which never have to be repurchased (as documented earlier), to have these Investors formally consider joining the ETS before the end of this year. In the event they vote to join, the investment will be able to do so by 31 December 2010 and receive NZU's in 2011. These investments will then be in a position to sell the NZU's that never have to be repurchased, whenever they choose to do so. When details of the compliance cost regime are announced, we will circulate further information to these Investors.**



Any future decision to join the ETS may be complicated by a structural matter. If your investment is structured with a custodial trustee (Trustees Executors or Perpetual Trust) as the land owner, this will have to be changed. Please refer to the details beside your investment's name on the enclosed buff sheet to identify whether your investment is structured with a custodial trustee. This was the serious issue of concern identified in our email to Investors just before the Christmas break.

The problem is that the ETS only recognises the party named on the title. If that party is a custodial trustee, then ONLY the custodial trustee can join the ETS, not the underlying investment and investors. Understandably, no custodial trustee company is prepared to join the ETS because of the resulting obligations over which they have no direct control. The solution we have devised depends upon whether the investment is a qualifying company investment, or partnership investment.

If a qualifying company investment, the custodianship can be brought to an end and the ownership of the land revert to the beneficial owners who are the multiple qualifying companies (of which investors are the shareholders). The early qualifying company investments already have the multiple companies as the owners on the title. We changed for the later investments in order to save the then substantial registration cost, now materially reduced. Once the land ownership is in the name of the multiple companies, these companies can then join the ETS, and as the companies are the participants, the intrinsic limited liability of a company ensures that Investors are not be exposed to any direct personal liability.

If a partnership investment, the option of bringing the custodianship to an end is not available. This is because each Partner would then be named on the title, creating procedural complications and cost every time there was a change of Partner, or a dealing with the land (avoiding this is the very reason for having the custodial trustee arrangement). The problem does not arise with the qualifying company investments because the names on the title are (or will be) the multiple companies, not the Investors. Similarly, when there are dealings with the land, the signatories for the land owner (the multiple companies) are not the Investors, instead they are the Trustee's Executor executives who act as the directors for the companies.

The solution we have devised is that if a Post-1989 partnership wishes to join the ETS, there would have to be a change in custodial trustee from the present corporate trustee, to a new company set up for each partnership. This company would have no assets and therefore would have no risk of loss resulting from the ETS liability. Our legal advice is that provided the director(s) of this company act prudently with respect to the ETS liability, they will not be exposed to any personal liability. Further details of this much more complicated solution will be provided in 2012, when the partnerships concerned formally consider joining the ETS.

## **Islands of Pre-1990 Forest in a predominantly Post-1989 Forest**

As noted earlier, some predominantly Post-1989 forests will include islands of Pre-1990 forest. As set out next under the heading 'Pre-1990 Forests', the ETS treats these areas quite differently. The owner of an area of Pre-1990 forest, including forests that are predominantly Post-1989, is entitled to apply for compensation (an allocation of 60 NZU's), or if the total area of Pre-1990 forest is less than 50 hectares, for exemption from the ETS.

The ETS implementation timetable anticipates a closing date for Pre-1990 claims for compensation or exemption of 30 June 2011, a date 18 months in advance of the closing date for a Post-1989 forest to join the ETS. The compensation (or exemption) opportunity is only available up to this date. Forest Enterprises will address this matter for the predominantly Post-1989 forests within the deadline.

If the islands of Pre-1990 forest total 50 hectares or more, no decision is required and the compensation will be applied for. If the islands of Pre-1990 forest total less than 50 hectares, a decision whether to take the compensation or the exemption is required. It is our recommendation that the compensation should be taken. We have reached this recommendation believing that the argument allowing offsetting (set out under the next heading 'Pre-1990 Forests') is compelling and will eventually be provided for within the ETS. The offsetting mechanism would provide the opportunity to cost effectively change land use within these small areas, should a change of land use be contemplated at a future date for the entire forest.

## **Pre-1990 Forests**

To recap, a Pre-1990 forest is one first planted in forest before 1 January 1990. By definition, such forests include those that have been harvested and replanted since 1 January 1990 (our second rotation forest investments). The ETS prescribes that all Pre-1990 forests are automatically in the ETS, but provides that a forest of less than 50 hectares may apply to be exempt. Given the size of the Pre-1990 forests named in the separate sheet enclosed, exemption is not an option.



A Pre-1990 forest does not receive NZU's for the carbon sequestered, but is 100% liable for the deemed emission in the event that the land use is changed from forestry (the deforestation liability). A Pre-1990 forest may harvest without any ETS liability provided it replants post harvest. The deforestation liability will be of the order of 800 to 900 NZU's per hectare. The Pre-1990 forest owner will have to buy these NZU's from the market. If the price is \$20, the cost will be \$16,000 to \$18,000 per hectare. At a price of \$30, the cost will be \$24,000 to \$27,000 per hectare. The purchase cost of these NZU's has been defined as a capital transaction for tax purposes (no tax deduction available). The consequence of the cost of this liability (in the foreseeable future) is that only in exceptional circumstances would change of land use from forestry be financially viable.

Pre-1990 forest owners may apply for a 'free' allocation of NZU's by the closing date expected to be 30 June 2011. Only those owners who apply will receive an allocation. The 'free' allocation is a form of compensation for the loss of land use flexibility and its associated ramifications. A Pre-1990 forest owner will receive either 39 or 60 NZU's per hectare. Under the wording in the last draft Allocation Plan, all the Forest Enterprises managed Pre-1990 forests listed in the sheet enclosed should receive the maximum allocation of 60 NZU's. Should the wording change from the last draft, or should the wording be interpreted differently by MAF, our Waterfalls and Kowhai investments may only receive 39 NZU's. Investors in these two investments have received details of this possibility in earlier mailings.

Of the 60 NZU allocation, only 23 NZU's will be distributed by 31 December 2012 and the balance of 37 NZU's some time after 31 December 2012. The ETS contains provision for the reduction, possibly to zero, of the post 31 December 2012 allocation in event that offsetting discussed below is introduced. Currently therefore the only assured compensation is 23 NZU's, and this assumes that the Government will not amend or suspend the ETS before payment by 31 December 2012.

Offsetting is the opportunity to substitute a comparable forest for the current forest and thereby not give rise to a deforestation liability. The forest industry has campaigned vigorously for this opportunity and the Government has included the addition of offsetting as one of its prime Kyoto Protocol changes in the on-going international negotiations on the Protocol post 2012 (the end of the first commitment period). Offsetting is not without cost to the forest owner (the cost of setting up a substitute comparable forest), however this cost is significantly less than the deforestation liability.

The NZU's allocated to Pre-1990 forests will be able to be sold by the forest owners without any future liability other than replanting after harvest (not changing land use). A sale of these NZU's has been defined as a capital transaction for tax purposes (no tax payable). Once the Allocation Plan and distribution details are finalised, Forest Enterprises will provide further advice to the applicable Investors on sale options. 60 NZU's sold at \$20 would generate \$1,200 per hectare for the forest owner (or \$1,800 if the price is \$30 per NZU). The potential financial benefit to Investors of this allocation is material. Our present estimate of the cost to apply for the 'free' allocation is \$1,000 to \$1,500 per investment.

The serious issue of concern to Pre-1990 forest owners identified in our email to Investors just before the Christmas break has been addressed. Under the then wording, the change of ownership of Trustees Executors in 2003 triggered the reduced allocation of NZU's (39 NZU's rather than 60 NZU's).

**Forest Enterprises will apply for the 'free' allocation of NZU's for all Pre-1990 forest areas. Given that these forests areas are automatically in the ETS, and that the 'free' allocation is compensation, we do not believe that a formal decision on this step is necessary. A formal decision will however be required on the timing of the sale of the NZU's once received. We will keep Investors informed on all factors relevant to sale, and at the appropriate time implement the formal decision making process.**

**S A R Wilton,  
Managing Director  
Forest Enterprises Ltd  
3 May 2010**

