

Risks and Liabilities

Environmental and Biological Risks

New Zealand is relying on forests planted after 1989 to offset the increase in our greenhouse gas emissions since 1990. Significant loss of these forests would present a major carbon cost to New Zealand.

The environmental and biological risks are the same as for any forest. Fire and wind can destroy all or part of a plantation. New Zealand's dispersed forestry estate spreads these risks from the point of view of the entire country but individual owners have less opportunity to do so.

The new role of these forests as carbon sinks increases the significance of the risk from a new pest or disease arriving from overseas and killing our trees. The fact that over 90% of our plantation forest estate is in one species (radiata pine) potentially increases this risk.

Forest insurance, which will cover the carbon aspect, is available in New Zealand. At present the premiums are based on the likely value of a forest at harvest. Carbon trading may provide additional income during the growth of a forest and as such is likely to increase overall forest value (given the time value of money).

Therefore insurance premiums are likely to increase accordingly. Rather than selling all carbon credits, it may be more prudent to sell only a portion and bank the rest as insurance against future losses. A range of forest carbon management strategies are possible, the most suitable of which will depend on the size, age and species mix of a particular forest (see info sheet 12 for more detail).

Economic risk

There is concern that cashing in carbon credits now will reduce the value of associated land and saddle a new owner, or the next generation, with unmanageable debt in the form of future carbon liabilities (most if not all carbon credits claimed for a growing forest have to be repaid at the time of harvest). Factoring in potential carbon returns and liabilities is likely to change the process of forest and farm valuation. These concerns can be minimised through the careful management of the carbon and timber resources relative to one-another (see Timber vs Carbon Revenue, below, as well as info sheet 12).

What's your risk profile?

The carbon price and carbon trading rules are very uncertain in NZ at present. However various carbon trading strategies, with varying levels of risk, are possible (see below). As for any business, higher risk is often associated with potentially higher returns. The options range from the no-risk strategy of not claiming any carbon credits (and therefore not risking carbon liabilities) through to actively trading carbon credits. The following table outlines the fundamentals of risk, assuming you have new forest planted after 1989, can enter the NZ Emissions Trading Scheme and will have carbon credits to trade.

Risk Profile	Action
1. Strongly risk averse	Do not enter the NZETS
2. Risk averse	Enter NZETS, claim and bank credits
3. Willing to take some risk	Enter NZETS, claim all credits, sell a portion of them, invest in forestry for carbon and wood production
4. Maximise returns and take all risk	Enter NZETS, actively sell and buy carbon credits, invest in forestry to maximise carbon accumulation

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Introduction

This info sheet describes the risks and liabilities associated with trading the carbon accumulated by a growing forest.

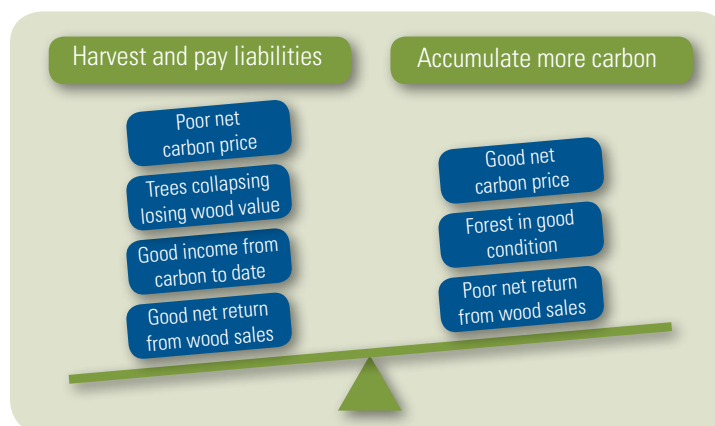
The risks include environmental, biological and economic. They are outlined in the context of managing forest income from carbon and timber.



Option 3 provides little risk and potentially the greatest benefit, especially in the case of forests planted from 2008 onwards. A quantity of credits could be “safe to trade” up to the amount permanently stored by the stumps, roots and litter of the forest (see info sheet 12 for details) without having to pay back credits at harvest. In the case of forests planted after 1989 and before 2008, less of the stored carbon could be classed as permanent so a lower proportion would be safe to trade.

Timber vs Carbon revenue

If the price of carbon is high relative to harvesting revenues, a forest owner could decide to delay harvesting or to reduce the harvest volume. On the other hand if prices are higher for timber than for carbon, the whole forest could be harvested and the revenue used to pay back carbon credits if necessary. A number of variables will affect these decisions but establishing a forest that has other non-carbon values (such as timber) should always be considered to provide a larger range of options. The diagram below outlines the factors to consider once a forest reaches harvest age.



HARVEST DECISION FACTORS

Important points to consider

The decision whether or not to harvest should be made by comparing the net returns from wood and carbon at the time, together with the income already received from carbon to that date. A forestry investment strategy should take account of both wood and carbon production. Some have likened claiming and selling carbon credits to taking out a mortgage against your forest, which is a useful analogy in that revenue from carbon should be invested wisely to produce further returns.

If you have a suitable forest (a new forest planted after 1989) you need to make at least one claim for each five year commitment period or you will lose the opportunity to claim that carbon (see info sheet 4 for important dates). Once claimed, credits can be banked and traded later for cash or to offset livestock liabilities.

Further Reading

Carbon Farming Information Report www.carbonfarming.org.nz
<http://www.maf.govt.nz/climatechange>