

Mechanisms for Recognising Rights to Carbon Sequestered by Land-based Activities in New Zealand

Prepared for the

NZ Ministry of Agriculture and Forestry

by Baker & McKenzie and Buddle Findlay

BAKER & MCKENZIE

BUDDLE FINDLAY
NEW ZEALAND LAWYERS

August 2008

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1. EXECUTIVE SUMMARY

- 1.1 Addressing climate change offers commercial opportunities for New Zealanders, with the primary sector particularly well placed to take advantage of the opportunities that exist. People undertaking land-based carbon sequestration activities in New Zealand, including those covered by Article 3.4 of the Kyoto Protocol,¹ have the opportunity to generate voluntary offsets, which represent the carbon sequestered through those activities.
- 1.2 The buying and selling of voluntary offsets² is dependent on the tradability of the carbon represented by those offsets. The seller must be able to demonstrate ownership of the carbon and their ability to transfer it, or the rights to it, to the purchaser.
- 1.3 Unlike several states in Australia, there is no such thing as a “carbon sequestration right” under New Zealand law that can be bought and sold as a discrete right. Nonetheless, the general law does contain mechanisms that can be used to recognise and define rights to sequestered carbon. Alternatively, new legislation could be passed to provide for a discrete right under New Zealand law.
- 1.4 This report identifies the following mechanisms that are capable of recognising and defining rights to the benefit of land-based sequestered carbon:
 - (a) existing legal instruments (contract, encumbrances, easements, profit a prendres, covenants, caveats, and/or forestry rights);
 - (b) a discrete carbon sequestration right created under new legislation; and
 - (c) including Article 3.4 and other carbon sequestration activities in the New Zealand Emissions Trading Scheme (**NZ ETS**) (but only eligible to earn voluntary units).
- 1.5 Having assessed the strengths and weaknesses of each mechanism against nine criteria (scope, legal certainty, enduring right, transferability, permanence, severability, simplicity, flexibility and applicability to Maori land), this report concludes that the best non-legislative mechanism to recognise rights to land-based carbon sequestration in New Zealand is an encumbrance instrument.
- 1.6 In terms of a legislative solution, including the activities in the NZ ETS with an ability to earn only voluntary units would provide a comprehensive and robust solution, but would be complex and time-consuming to implement. Accordingly, the report concludes that a legislative carbon sequestration right, designed appropriately, would be simpler, more transparent and more flexible than either an encumbrance instrument or including the activities in the NZ ETS.
- 1.7 The report also considers the implications for each option in paragraph 1.4 if Article 3.4 and other carbon sequestration activities were to generate compliance units under the NZ ETS in the future. While the implications will largely depend on the proposed design of the scheme, including the activities would not fundamentally alter the ability of each mechanism to confer the same legal rights and obligations as prior to the activities entering the scheme. It may, however, impact on whether the mechanisms continue to be used or not.

¹ The Article 3.4 activities are defined in para 3.6 below: forest management (on forests established prior to 1990), revegetation, cropland management, and grazing-land management.

² In 2007, the international voluntary carbon market was worth US\$331m, up 240% from 2006. This type of growth has continued into 2008 and is expected to continue to trend upwards: see Ecosystem Marketplace and New Carbon Finance, *State of the Voluntary Carbon Markets 2008: Forging a Frontier*, 8 May 2008.

2. INTRODUCTION

Purpose of report

- 2.1 This report was prepared for the New Zealand Ministry for Agriculture and Forestry (**MAF**). MAF wishes to assist the primary sector to take advantage of the economic opportunities arising from climate change. One such opportunity is to realise the value of carbon sequestered (i.e. stored) in forests, vegetation and soil as a result of carbon sequestration activities carried out on land in New Zealand.
- 2.2 Land-based carbon sequestration activities include the activities covered by Article 3.4 of the Kyoto Protocol (**Protocol**), namely forest management (for forests in existence prior to 1990), re-vegetation, cropland management and grazing-land management (**Article 3.4 activities**). The Article 3.4 activities are the main focus of this report, although there are other land-based activities not covered by the Protocol that sequester carbon, such as wetland restoration. In this report, carbon sequestered by both Article 3.4 and non-Protocol activities is called “**carbon sequestration**”.
- 2.3 A key building block to realising such value is an effective mechanism to recognise the legal right to carbon sequestration on a particular area of land so that the right can be sold.
- 2.4 Accordingly, the purpose of this report is to:
 - (a) Identify the main options for recognising rights to land-based carbon sequestration in New Zealand, and analyse the respective strengths and weaknesses of the options;
 - (b) Consider the implications for the options if Article 3.4 or other non-Protocol carbon sequestration activities were to be included under the proposed NZ ETS at some future point; and
 - (c) Recommend the most appropriate existing mechanism for recognising rights to land-based carbon sequestration in New Zealand, and assess whether this mechanism or a new mechanism (possibly created through legislation) would be the optimal mechanism for recognising such rights.

Outline of report

- 2.5 **Section 3 – Overview:** Section 3 provides an overview of Article 3.4 and other carbon sequestration activities, and the market for carbon sequestration in New Zealand. The section then outlines the options for recognising rights to carbon sequestration and describes the criteria that each option is analysed against in section 4.
- 2.6 **Section 4 – New Zealand options:** Section 4 analyses the existing New Zealand legal mechanisms that could potentially be used to recognise rights to carbon sequestration, namely contractual arrangements, property law mechanisms and forestry rights. This section also suggests two potential new legislative options for recognising rights to carbon sequestration.

- 2.7 **Section 5 – Overseas examples:** Section 5 analyses the various legislative regimes for recognising rights to carbon sequestration in Australia and the mechanisms for recognising rights to carbon sequestration accepted by the Chicago Climate Exchange.
- 2.8 **Section 6 – Implications of including Article 3.4 or other carbon sequestration activities in NZ ETS:** Section 6 discusses the implications for the mechanisms discussed in the previous sections if Article 3.4 or other carbon sequestration activities were to be included in the NZETS in the future.
- 2.9 **Section 7 – Conclusion:** Section 7 sets out the preferred existing mechanism for recognising rights to carbon sequestration in New Zealand. It then considers what would be the optimal mechanism for recognising rights to land-based carbon sequestration in New Zealand.
- 2.10 **Annexure 1:** In annexure 1 a detailed summary of Australian legislative mechanisms is provided.

3. OVERVIEW

This section provides an overview of the Protocol and land-based carbon sequestration activities and the market for carbon sequestration in New Zealand. The section then outlines the options for recognising rights to carbon sequestration and describes the criteria that each option is analysed against in section 4.

The Kyoto Protocol and LULUCF

- 3.1 The Protocol establishes an international framework under which the countries listed in Annex B of the Protocol, including New Zealand, (**Annex B Parties**) agree to reduce their combined greenhouse gas emissions to 5% below 1990 levels. Each Annex B Party has an individual mitigation target that it can meet by reducing emissions from sources, such as burning fossil fuels, by increasing the amount of carbon dioxide stored in eligible sinks (e.g. post-1989 forests), and/or by purchasing carbon credits to account for emissions.
- 3.2 The Protocol specifies the rights and obligations of Annex B Parties with respect to accounting for carbon stock change resulting from certain land use, land use change and forestry (**LULUCF**) activities. The relevant provisions of the Protocol are Articles 3.3 and 3.4:
 - (a) **Article 3.3** requires each Annex B Party to account for the net carbon stock change resulting from direct human-induced afforestation, reforestation and deforestation since 1990.
 - (b) **Article 3.4** enables each Annex B Party to elect to account for the net carbon stock change resulting since 1990 from Article 3.4 activities.
- 3.3 Under the Protocol, Annex B Parties can earn Kyoto compliant carbon credits (**compliance credits**) for net increases (or take responsibility for net decreases) in sinks for which the parties are either obliged, under Article 3.3, or choose, under Article 3.4, to account.
- 3.4 New Zealand did not elect to account for Article 3.4 activities during the first Kyoto commitment period (2008-2012). Accordingly, the only LULUCF activities carried out in New Zealand capable of generating compliance credits are afforestation and reforestation after 1989. Any increase in carbon sequestered through Article 3.4 or other land-based carbon sequestration activities in New Zealand cannot earn compliance credits during the first commitment period.

Article 3.4 activities

- 3.5 Plant biomass (i.e. forests and other vegetation) captures the greenhouse gas carbon dioxide from the atmosphere by the process of photosynthesis and stores it as carbon in the living plant material, dead plant material (e.g. dead wood and litter) and soil (these carbon stores are often called carbon "sinks" or "removal activities"). Carbon is stored in soil by the process of dead plant material decomposing and becoming soil organic matter. Soil organic matter contains a large amount of carbon, a portion of which can be retained in the soil for years to decades.

3.6 As noted above, Article 3.4 activities are forest management (for forests in existence prior to 1990), revegetation, cropland management and grazing-land management. The definitions and examples of these activities are:³

- (a) *“Forest management” is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner.*

Examples of such practices include improved forest fire management, extended rotation periods, improved pest-control and enhanced revegetation after harvest, all of which result in increased forest growth and therefore increased carbon stocks.

- (b) *“Revegetation” is a direct human induced activity to increase carbon stocks on sites through the establishment of vegetation that covers a minimum area of 0.05 hectares and does not meet the definitions of afforestation and reforestation.*⁴

An example of revegetation is the reversion of pasture to unmanaged woody vegetation (‘scrub’) on eligible land, resulting in increased above-ground carbon stocks.

- (c) *“Cropland management” is the system of practices on land on which agricultural crops are grown and on land that is set aside or temporarily not being used for crop production.*

‘Conservation tillage’ is an example of such a practice. This refers to techniques for establishing crops in the previous crop’s residues, including strip-tillage (where small strips are ploughed to allow space for seed planting – also known as low-till) and no-till (a technique that involves planting directly into the residue from the previous crop). Tilling can cause the release of carbon. Over time therefore, conservation tillage results in an increase in carbon stocks in the soil.

- (d) *“Grazing land management” is the system of practices on land used for livestock production aimed at manipulating the amount and type of vegetation and livestock produced.*

Grazing land management includes regulation of animal stocking rates, intensity and duration of grazing, forage species selection, fertilization and irrigation to increase vegetation, all of which can increase carbon stocks in the soil.

Other land-based carbon sequestration activities

3.7 There are also other land-based activities with the potential to increase carbon sequestration levels, such as wetland restoration, that are not currently included under the Protocol. Such activities could, like Article 3.4 activities, be used to realise commercial opportunities.

³ See COP Decision 11/CP.1.

⁴ See COP Decision 11/CP.1 (definitions of “afforestation”, “reforestation” and “forest”). For example, reforestation involves establishing a forest (being trees covering a specified minimum area with the potential to reach a specified minimum crown cover and height) on land not forested on 31 December 1989.

NZ ETS and LULUCF

3.8 New Zealand proposes to establish an emissions trading scheme (NZ ETS) that devolves the ability to earn compliance credits from afforestation and reforestation after 1989 to the owners or right holders over such forests.⁵ It does not allow for any type of credits to be earned in respect of Article 3.4 or other land-based carbon sequestration activities.⁶

The voluntary market and voluntary offsets

3.9 Although New Zealand's implementation of the Protocol and NZ ETS prevents landowners from earning compliance credits for any carbon sequestered on their land through Article 3.4 or other land-based carbon sequestration activities, an opportunity exists for landowners to create and sell the rights to that carbon on the voluntary market.

3.10 The voluntary carbon market is where individuals or institutions choose to offset their greenhouse gas emissions without any legal obligation to do so. A participant may be motivated by branding benefits, such as to market its business as 'carbon neutral', and/or corporate social responsibility. They can offset their emissions by using either compliance credits or 'voluntary offsets'.

3.11 Voluntary offsets are created outside the compliance market but, like compliance credits, are meant to represent an amount of either carbon dioxide removed from the atmosphere or avoided greenhouse gas emissions. Such offsets are generated from sink projects or emission reduction projects voluntarily undertaken by 'project owners' to increase sinks above, or reduce greenhouse gas emissions below, business-as-usual levels.

3.12 Projects are verified by independent verifiers who assess each project against a defined set of criteria. To be credible, projects must represent additional, real, quantifiable and permanent carbon sequestration or emission reductions.

3.13 Usually following such verification, the independent verifier will either itself, or certify that an issuing agency may, issue project owners with Voluntary Emission Reductions (**VERs**), the voluntary market form of carbon credit, for the increased sequestration or reduced emissions as a result of the project. Credible issuers will then track the holding and transfer of those VERs, and the use of those VERs to offset emissions, via a registry.

3.14 As there is no legislation or international agreement that creates or defines voluntary offsets, their nature varies. There are now various standards available that have attempted to standardise the VER market and credible standards, such as the Voluntary Carbon Standard (**VCS**),⁷ exist. Nonetheless, the variation and lack of a central verification mechanism mean that VERs typically sell for less in the market than compliance credits.⁸

Commercial opportunities: voluntary offsets from carbon sequestration activities in New Zealand

⁵ "Participants" in the NZ ETS will earn New Zealand Units for any afforestation and reforestation activities, which can be converted into Assigned Amount Units and traded internationally.

⁶ Refer to section 6 of this report for a fuller description of the NZ ETS.

⁷ See www.v-c-s.org.

⁸ The average price for over-the-counter trades of voluntary offsets in 2007 was US\$6.10 per tonne of CO₂ equivalent: see Ecosystem Marketplace and New Carbon Finance, above note 2.

- 3.15 In the absence of legislation or private arrangements to the contrary, the owner of the land will own carbon sequestered on that land, as such carbon forms part of the land. In particular, the general rule at common law is that the owner of land is presumed to be “the owner of everything up to the sky and down to the centre of the earth”.⁹ While there are numerous exceptions to this rule, including with respect to airspace, minerals, geothermal energy and water, none of these exceptions detract from the landowner’s ownership of carbon on the land.
- 3.16 Landowners in New Zealand may wish to undertake carbon sequestration activities in order to generate and sell voluntary offsets. Trade in voluntary offsets relies on the landowner being able to transfer the benefit of the carbon sequestration to another party in a legally effective manner. This requirement has now been formalised in a number of the voluntary carbon standards and mandatory greenhouse gas reduction schemes. For example, the Voluntary Carbon Standard will only issue VERs once, among other things, the proponent has proved that it has title to the project, being any one of the following:¹⁰
- (a) A legislative right;
 - (b) A right under local common law;
 - (c) Ownership of the plant, equipment and/or process generating the reductions/removals; or
 - (d) A contractual arrangement with the owner of the plant, equipment or process that grants all reductions/removals to the proponent.
- 3.17 New Zealand law does not provide a specific framework for recognising and transferring rights to carbon sequestration.¹¹ The ability does not exist, for example, to turn this into a specific “carbon sequestration right” that can be transferred by the landowner to another party.
- 3.18 Nonetheless, the general law of contract and property does provide landowners with an avenue to recognise and sell the rights to carbon sequestration.

Potential mechanisms for recognising rights to carbon sequestration

- 3.19 The main options for recognising rights to carbon sequestration are:
- (a) Existing legal instruments, namely contract, property law mechanisms and/or a forestry right;
 - (b) A discrete carbon sequestration right created under new legislation; and
 - (c) Including Article 3.4 and other additional land-based carbon sequestration activities in the NZ ETS.

Criteria for assessing potential mechanisms for recognising rights to carbon sequestered on land

⁹ *Corbett v Hill* (1870) LR 9 Eq at 673 per James V-C

¹⁰ Voluntary Carbon Standard 2007: Specification for the project level quantification, monitoring and reporting: www.v-c-s.org.

¹¹ The Forestry Rights Registration Act 1983 enables Forestry Rights granted under that Act to recognise the right of the Forestry Right Holder to the commercial benefit of carbon stored in a crop of trees, however, the right is not distinguishable from the right granted in that Forestry Right to harvest and maintain those trees.

3.20 Section 4 assesses the effectiveness of these potential mechanisms against the following criteria (the **assessment criteria**):

- (a) **Scope:** Is the mechanism capable of recognising rights to carbon from all land-based carbon sequestration activities (i.e. carbon in forests, vegetation and soil)?
- (b) **Legal certainty:** Is the mechanism legally certain (i.e. no material risk that the right could be defeated by legal challenge to the ability of the mechanism to confer those rights)?
- (c) **Enduring right:** Does the mechanism bind all subsequent owners of the relevant land thereby providing an enduring right to the carbon?
- (d) **Transferability:** Is the right to the carbon sequestration created by the mechanism transferable?
- (e) **Permanence:** Does the right support permanence of the carbon sequestration (e.g. by giving the right holder the ability to go on to the land and take action to restore carbon sequestration which is lost by, in the case of a forest sink for example, replanting trees which have been destroyed by fire or wrongful harvesting)?
- (f) **Severability:** Is the mechanism capable of recognising a right to carbon separate from ownership of the relevant trees or vegetation?

This criterion arises out of a submission on the Climate Change (Emissions Trading and Renewable Preference) Bill by SFM New Zealand Pty Limited and SFM Australasia Limited.¹² The submission criticises the use of a forestry right under the Forestry Rights Registration Act 1983 as a mechanism for recognising rights to carbon.

Under a forestry right, in order to grant rights to the carbon in a forest, the landowner must grant a forestry right to establish, maintain and harvest (or maintain and harvest) the trees. The carbon rights can then be granted as part of the forestry right. The submission says that carbon investors may wish to obtain rights to the carbon in a forest without obtaining any other interest in the forest. This would allow the landowner to retain all other rights over the forest or to grant a forestry right in the forest to a third party, subject to the carbon investor's rights to the carbon.

- (g) **Simplicity and transparency:** Is the mechanism reasonably straightforward for users and other interested parties to understand, implement and operate? Interested parties potentially include landowners, investors (including overseas investors), general practice lawyers, and issuers of VERs such as the VCS and the Chicago Climate Exchange (**CCX**).
- (h) **Applicability to Maori land:** Is the mechanism capable of recognising rights to carbon on Maori land under the Te Ture Whenua Maori Act 1993?
- (i) **Flexibility:** Does the mechanism provide flexibility in its implementation, whilst continuing to meet all other aspects of the assessment criteria?

¹² See pages 5-7 of the submission (<http://www.parliament.nz/NR/rdonlyres/41F03A98-E3E3-496A-9BF1-B7D11A8E768F/81143/SFMNewZealandPTYLimitedandSFMAustralasiaPYTLimited.pdf>).

4. MECHANISMS FOR RECOGNISING RIGHTS TO CARBON SEQUESTRATION: OPTIONS IN NEW ZEALAND

4.1 This section:

- (a) Analyses existing mechanisms in New Zealand law that could potentially be used to recognise rights to carbon sequestration, namely contractual arrangements, property law mechanisms and forestry rights.
- (b) Suggests two potential new legislative options for recognising rights to carbon sequestration.

Contractual right to carbon sequestration

4.2 A landowner could enter into a contract to transfer the benefit of carbon sequestration on the land to another person (the **buyer**). However, such a contract would only create a personal right for the buyer and not an interest in the land capable of being registered on the title under the Land Transfer Act 1952 (**Act**). Accordingly, the buyer's right to the sequestered carbon would not "run with the land" and any subsequent owners of the land (or subsequent holders of interests in the land such as mortgagees) would not be bound to recognise the buyer's entitlement to any sequestered carbon.

4.3 An approach to overcome this problem would be to include in the contract obligations on the landowner requirements to firstly notify the buyer if the landowner intends to sell the land (or to grant an interest in the land such as a mortgage), and secondly to procure the purchaser of the land (or interest holder) to enter into a deed in favour of the buyer agreeing to be bound by the original contract.

4.4 Such an approach has several drawbacks:

- (a) There is no certainty that subsequent purchasers of a registrable interest in the land will be willing to enter into such a deed;
- (b) A deed would not be registrable on title;
- (c) The repeated negotiation, preparation, and execution of deeds may prove costly and time consuming, and may sometimes be forgotten entirely; and
- (d) If the original landowner (or any subsequent purchaser of, or holder of an interest in, the land) breached the obligation to procure a deed the buyer would lose the right to the sequestered carbon and would only have a right to monetary compensation and not in specific enforcement of the right.

4.5 Accordingly, a straight contractual right to carbon sequestration does not meet the criterion of creating an enduring right to the carbon, i.e. a right that binds all subsequent owners of the land.

4.6 Despite this, leading voluntary market initiatives recognise contractual arrangements that establish secure ownership to carbon sequestration as a basis for issuing VERs. In particular:

- (a) The VCS will issue VERs if the project proponent has proved it has title to the project as a result of, amongst other options, a contractual arrangement with the owner of the plant, equipment or process that grants all reductions/removals to the proponent.
- (b) The CCX is prepared to recognise contractual legal arrangements that establish secure ownership to carbon sequestration.
- (c) In New Zealand, it appears that under Landcare Research's EBEX21 scheme,¹³ prior to 2008 the rights to carbon sequestered from forest regeneration projects were transferred by a contract for the sale of VERs between the landowner and the buyer.¹⁴

4.7 Nonetheless, the drawbacks of the contract approach under New Zealand law mean that it would be preferable to identify an option without such drawbacks.

Property law mechanisms

Introduction

4.8 This section analyses the main existing property law mechanisms that could potentially be used to recognise rights to carbon sequestration in New Zealand (except forestry rights which are covered below), namely a/an:

- (a) Encumbrance instrument;
- (b) Easement;
- (c) Covenant;
- (d) Profit à prendre; or
- (e) Caveat.

4.9 The conclusion is that an encumbrance instrument is effective, and the best mechanism, for recognising rights to carbon sequestration. Its main drawback is that it is not a simple mechanism to design and operate under.

Encumbrance

4.10 An encumbrance instrument (**encumbrance**) is technically classed as a form of mortgage.¹⁵ It secures a landowner's obligation to pay to the grantee (i.e. the beneficiary of the encumbrance) an "annuity, rentcharge or sum of money other than a debt".¹⁶ It may be registered against land title thus giving the grantee an interest in the land that runs with the land and binds subsequent purchasers of the land to the obligations in the

¹³ See www.ebex21.co.nz.

¹⁴ From 2008, EBEX21 forest regeneration projects are expected to be entered into the Permanent Forest Sink Initiative under which the landowner will receive Assigned Amount Units. Accordingly, buyers will be buying Kyoto Protocol compliance credits, which are a commodity independent of the sequestered carbon, rather than a right to carbon sequestration.

¹⁵ See Land Transfer Act 1952, s 101, Sch 2(Form D).

¹⁶ Land Transfer Act 1952, s 2 (see paragraph (d) of the definition of "mortgage"). An annuity is a certain sum of money payable yearly either as a personal obligation of the grantor or out of property not consisting exclusively of land. A rentcharge is an annual sum of money issuing and payable out of land, but not as an incident of tenure: see Hinde McMorland & Sim, *Land Law in New Zealand*, para 15.163.

encumbrance.¹⁷ The benefit of the encumbrance can be freely transferred by the grantee by way of contract with a third party.¹⁸

4.11 Although encumbrances are technically intended to secure certain payment obligations as mentioned above, they are commonly used as a device to impose other obligations on the landowner and all subsequent owners of the land. This is done by the encumbrance providing for a peppercorn rentcharge payable by the landowner on demand (thus meeting an essential requirement for a valid encumbrance) then providing for the additional desired obligations. The encumbrance can be perpetual provided it can be discharged in some way, such as if the obligations have become obsolete.

4.12 Before discussing the use of an encumbrance in the context of carbon sequestration, two other points should be noted:

(a) Questions have been raised about the validity of this device. Nonetheless, it has been widely and effectively used (including by many local authorities) since the 1970s and the risk of a successful challenge appears remote. Further, using an encumbrance to secure rights to carbon sequestration as discussed below does not raise any new issues regarding the potential validity of an encumbrance.¹⁹

(b) Typically, an encumbrance will not contain a power to sell or take possession of the land. As a result, a mortgagee will usually consent to such an encumbrance being registered in priority to the mortgage. Without such priority, the benefit of the encumbrance could be lost because in the event of a mortgagee sale the land would transfer to the purchaser free of the encumbrance.

4.13 An encumbrance could be used in the manner outlined above to create obligations that transfer to the grantee the benefit of carbon sequestered on the land. For example, an encumbrance could:

(a) Provide for the transfer of the right to the benefit of carbon sequestration on the land to the grantee (subject to the comments in paragraph 4.14 below);

(b) Prohibit the landowner from using the benefit him or herself (i.e. as an emissions offset) or transferring the right to the benefit to any third party;

(c) Oblige the landowner to use the land in a manner that maintains or increases carbon sequestration on the land (e.g. plant or maintain trees, or adopt conservation tillage); and

(d) Give the grantee the right to go on to the land and take action (such as replanting trees) to restore carbon sequestration if the landowner is in breach.

4.14 It is arguable that the transfer under paragraph (a) above is invalid because it is not legally possible to separate ownership of carbon sequestration from ownership of the land, which is in effect what paragraph (a) purports to do. This argument would be on the basis that, under common law, where something is so fixed or annexed to the land that it essentially adds to the land, it will be treated as real property and part of the land itself.

¹⁷ Property Law Act 2007, s 203.

¹⁸ Any contract between the grantee and a third party in this context would not have the problems outlined above in paragraphs 4.1 to 4.6 as the grantee simply has a right to transfer the benefit of the encumbrance, which cannot be separated from the land.

¹⁹ For a discussion of these issues, see Hinde McMorland & Sim, above note 16, para 17.041 (including the articles and cases cited therein).

- 4.15 Even if this argument were correct, however, the other rights and obligations in the encumbrance outlined in paragraphs 4.13(b) to (d) above should be sufficient to secure for the grantee the benefit of carbon sequestration on the land.
- 4.16 Analysing this mechanism against the assessment criteria, the main drawback is that encumbrances are not as simple and transparent as (say) a legislative carbon sequestration right could be designed to be (see the next section of this report for a discussion of legislative carbon sequestration rights in Australia). In particular:
- (a) Given the somewhat artificial nature of the device and (in the case of its use to transfer the benefit of carbon sequestration) the novel nature of the rights and obligations being created, the encumbrance would need to be carefully drafted in order to achieve the desired effect. There would be a learning curve for the legal profession and carbon investors. This could potentially be a barrier to the use of this mechanism and delay uptake.
 - (b) The land register would only show the existence of an encumbrance on the land title and not give any indication that it related to carbon sequestration rights. An intending purchaser of the land would need to obtain a copy of, and understand, the encumbrance.
- 4.17 An encumbrance meets the other assessment criteria. It is capable of covering all forms of land-based carbon sequestration activities, is legally robust, creates an enduring and transferable right independent of ownership of trees or vegetation, and can include rights to support permanence of carbon sequestration.

Easement

- 4.18 Broadly speaking, an easement is a grant of rights over land short of exclusive occupation.
- 4.19 Easements may be positive or negative. A positive easement is essentially the right to use the land of another person in a particular way without occupation (a right of way being a common example). A negative easement is a right which prevents a landowner from using the land in a particular way (such as the landowner agreeing not to build on part of the land so as to preserve access to light to the adjoining land). An easement can also contain rights of abatement that allow the grantee to enter on to the land to remedy any breaches of the easement.
- 4.20 Once registered against land title, the grantee obtains an interest in the land that runs with the land and binds subsequent purchasers of the land to the obligations in the easement.
- 4.21 An easement may be for the benefit of a particular parcel of land (known as the dominant tenement) or may be for the benefit of a person or persons (known as an easement in gross). Easements in gross are freely transferable by the grantee(s).
- 4.22 An easement in gross could not directly transfer the right to the benefit of carbon sequestered on the land to the grantee, but it could do so in effect by:
- (a) Acknowledging that the parties' intent is that the grantee will have the benefit of carbon sequestration on the land;
 - (b) Prohibiting the landowner from using such benefit him or herself (i.e. as an emissions offset) or transferring the right to the benefit to any third party;

- (c) Obliging the landowner to use the land in a manner that maintains or increases carbon sequestered on the land (e.g. plant or maintain trees, or adopt conservation tillage); and/or
- (d) Gives the grantee the right to go on to the land and take action (such as replanting trees) to restore carbon sequestration if the landowner is in breach.

4.23 On the face of it, this would achieve the outcome sought. The downside when compared to an encumbrance is that an easements cannot directly transfer the right to the benefit of the carbon sequestered itself. An encumbrance is therefore more flexible, and with no restriction on the obligations that an encumbrance may contain, it is, in this novel context, less open to the risk of a successful challenge. Using an encumbrance also has the advantage of, potentially, validly transferring the right to the benefit of carbon sequestration directly (as in paragraph 4.13 above).

Covenant

4.24 A covenant is a promise contained in a deed and (like an easement) can be both positive and negative. A covenant that is granted for the benefit of adjoining land or other land (known as the dominant tenement) will run with the land, and bind subsequent purchasers of the land over which the covenant is granted. A covenant that is granted for the benefit of a person rather than land (known as a covenant in gross), however, will not run with the covenanted land and will not bind a subsequent purchaser of the land.

4.25 Normally a right to carbon sequestration on land would be for the benefit of a person rather than a dominant tenement. Accordingly, a covenant would normally not meet the criteria of creating an enduring right because it would not run with the land. It would be enforceable only against the person who originally granted the covenant (or any person to whom the covenant is transferred). More generally, covenants have no advantage over easements.

Profit à prendre

4.26 A common law profit à prendre confers a right to take from the subject land something that had been part of the land or landholding which is capable of ownership such as minerals, timber or game. It is not useful to recognise rights to carbon sequestration because the objective of such a right is to keep the carbon on the land rather than to take it off.

4.27 Statutory profits are dealt with below in the sections dealing with New Zealand's Forestry Rights Registration Act 1983 and the various examples of Australian legislation.

Caveat

4.28 A caveat is a notice on land title registered by a person with an interest in the land that prevents any dealings with the land. In particular:

- (a) A caveat prevents the land registrar making any entry on the register that affects the interest protected by the caveat.
- (b) Generally a caveat is lodged by a person who wishes to protect his/her interest in land by preventing the landowner from selling the land or dealing with the land in a manner inconsistent with that person's rights.

4.29 Examples of caveatable interests include a contract to grant an easement, a profit à prendre, a positive or restrictive covenant, or a right to lodge a caveat granted by contract.

- 4.30 A caveat could potentially be used to protect an interest in land under a contract which granted rights to carbon sequestration on the land. The caveat would in effect, for example, prevent the landowner selling the land without ensuring that the purchaser agreed to be bound by the contract in place of the landowner.
- 4.31 However, such a caveat could be open to challenge on the basis that a contractual right to the benefit of carbon sequestration is not an interest in land. Further, the contract and caveat arrangement would be administratively onerous because each time the land was sold the purchaser would need to agree to be bound by the contract in place of the landowner and the rights holder would need to register a new caveat.
- 4.32 Accordingly, the encumbrance is a superior mechanism.

Maori land

- 4.33 In the case of Maori land, an encumbrance (the preferred mechanism) would amount to an “alienation” as defined in the Te Ture Whenua Maori Act 1993. It would therefore require agreement of the owners of the land in accordance with that Act and confirmation by the Maori Land Court.²⁰
- 4.34 However the same would be required for any grant of a right to the benefit of carbon sequestration that amounted to an interest in Maori land, so this issue does not distinguish between potential mechanisms.

Forestry Rights Registration Act 1983

- 4.35 In New Zealand, a right to certain compliance credits arising from the carbon sequestered in certain forests can be created under the Forestry Rights Registration Act 1983 (**FRRRA**).
- 4.36 The FRRRA establishes a mechanism whereby the proprietor of the freehold or leasehold land may grant a forestry right with respect to that land, either to him/herself, or a third party. Under the FRRRA, the proprietor and the grantee (or holder) of the forestry right enter into a forestry covenant detailing the rights and obligations of each party under that forestry right. Under section 4, every forestry covenant shall be binding on assignees. So long as the forestry covenant meets the requirements set out in the FRRRA, that forestry right can be registered against the title to that land under the Land Transfer Act 1952.
- 4.37 Under section 3, a ‘forestry right’ is deemed to be a profit-a-prendre. It is a non-possessory interest in land which gives the holder the right to establish, maintain and harvest a crop of trees on the relevant land.
- 4.38 Under section 2A(2)(b), the forestry right may also provide for “charges, payments, royalties, or division of the crop or the proceeds of the crop including units based on carbon sequestration that are received in accordance with a forest sink covenant”. The terms ‘units’ and ‘forest sink covenant’ referred to in this section are Assigned Amount Units (**AAUs**) derived from forest sink covenants created under the Crown’s Permanent Forests Sink Initiative (**PFSI**).²¹
- 4.39 As currently worded, the FRRRA expressly provides for a narrow form of carbon right, namely the right for landowners to earn AAUs from the carbon sequestered in forests

²⁰ The Te Ture Whenua Maori Act sets out the consent requirements relating to alienation of Maori freehold land. These differ depending on the type of land ownership (ie joint or tenants in common).

²¹ See www.maf.govt.nz/forestry/pfsi/.

entered into the PFSI. The PFSI, created under Part 3B of the Forests Act 1949, allows proprietors of certain forests planted after 1989 to receive AAUs for carbon sequestration. Owners of forests planted prior to 1990 cannot earn AAUs or any other type of credit under the PFSI for Article 3.4 or other carbon sequestration activities that sequester carbon in their forests.

- 4.40 The Climate Change (Emissions Trading and Renewable Preference) Bill (the **Bill**) proposes to amend the FRRA so that section 2A provides more broadly for the “right to receive and the obligation to surrender units”. Again, however, insofar as these rights and obligations relate to carbon sequestration, they only arise under the PFSI or the NZ ETS, and so the amendment still only relates only narrowly to post-1989 forests entered into either scheme.
- 4.41 Nonetheless, a wide interpretation of section 2A(2)(b) of the FRRA (whether amended by the Bill or not) suggests that it may be used to establish a right to carbon sequestered in pre-1990 forests. Under such an interpretation, it is possible to draft the forestry covenant to account for the sharing of any payments, royalties or profits that may be derived from a forest. Such an interpretation would allow the owners of pre-1990 forests to create rights to carbon sequestered in their forest. There is at least one forestry right registered by Land Information New Zealand that has accounted for the sharing of the commercial benefits of carbon sequestered in a pre-1990 forest.²²

Strengths and weaknesses of the FRRA to facilitate trade

- 4.42 Prima facie, the owner of the land has the right to grant a forestry right to a holder accounts for the sharing of profits in the crop. The forestry covenant would simply need to grant a right to the holder to share in any value derived from carbon sequestration, as those proceeds could be considered either ‘payments, royalties or proceeds of the crop’ in accordance with section 2A(2)(b). There is nothing in the FRRA which prevents such provision from being included in any forestry covenant. Furthermore, there is nothing in the FRRA which prevents a forestry right from setting out the details as to how the forest is to be best managed to ensure that the greatest amount of carbon is possibly sequestered over the term of the agreement.
- 4.43 The forestry right would also need to account for the maintenance of the relevant crop to ensure permanence of the sequestration activity, namely the forest would need to remain standing in perpetuity. That forestry right could then be registered against the title on the computer freehold registry and would therefore put any third party dealing in the relevant land on notice that the land is subject to a restrictive forestry right. Once registered, the forestry right would bind any new owner of the relevant land as forestry rights run with the land.
- 4.44 However, such an interpretation of the FRRA is, to our knowledge, untested and the interpretation is open to challenge. As discussed above, a forestry right is a profit a prendre, giving the holder a right to “sever and take” something from the land (i.e. timber). By its nature, a carbon sequestration activity is more akin to granting a right to “keep” something on the land. Accordingly, it is arguable this option does not meet the legal certainty criterion of the assessment criteria.
- 4.45 This option also does not meet:

²² See forestry right between Tarawera Forests Limited and Tiaki Plantations Company, dated 4 June 2004 (Memorandum of Transfer: 6038771.1).

- (a) The scope criterion, because it does not cover soil carbon, which is independent of forestry;
- (b) The severability criterion, because it does not allow the creation of a carbon right separate from a forestry right.

Legislative options

Option 1: A legislated carbon sequestration right

- 4.46 One option would be to create by legislation a mechanism for recognising rights to carbon sequestration. All Australian states have taken this approach (in varying forms) for forest sinks, and in one case for all types of carbon sequestration. The legislation generally recognises a property right to carbon sequestration that can be bought and sold, and protected through registration on land title. These Australian mechanisms are discussed in section 5 below.
- 4.47 As the discussion in section 5 indicates, a legislated carbon sequestration right could be designed in a manner which meets all of the assessment criteria.

Option 2: New Zealand Emissions Trading Scheme

- 4.48 Legislation is currently before the New Zealand Parliament to implement a greenhouse gas emissions trading scheme in New Zealand (NZ ETS).²³ While the NZ ETS does not currently cover Article 3.4 activities, it would be possible to include those activities and other land-based carbon sequestration activities in the scheme in the future.
- 4.49 This mechanism is a stand-alone alternative to the foregoing options. As noted below, however, it could be combined with one or more of the other options.

Background

- 4.50 The NZ ETS is a compliance regime designed to be consistent with New Zealand's international climate change obligations, particularly New Zealand's obligations under the Protocol.²⁴ Carbon sequestration through afforestation and reforestation (of 'post-1989' land) is therefore eligible to earn New Zealand units (**NZUs**), which may be used by NZ ETS participants to meet their obligations to surrender units to the Crown to cover their emissions. NZUs cannot be earned for carbon stored through Article 3.4 activities and other land-based carbon sequestration activities.
- 4.51 It is doubtful that carbon sequestration through Article 3.4 and other land-based carbon sequestration activities will become eligible to earn NZUs in the short-term.²⁵ Nonetheless, the NZ ETS does contain a mechanism – "removal activities" – that could be adapted to recognise rights to carbon stored by Article 3.4 and other activities.

Including new sequestration activities as "removal activities" under the NZ ETS

- 4.52 "Removal activities" are defined as activities that remove carbon dioxide from the atmosphere (and include, for example, afforestation).²⁶ People carrying-out removal

²³ Climate Change (Emissions Trading and Renewable Preference) Bill 2007.

²⁴ New Zealand Government, *The Framework for a New Zealand Emissions Trading Scheme* (September 2007), page 5 (the objective of the NZ ETS is to support and encourage global efforts to reduce greenhouse gas emissions by, amongst other things, complying with New Zealand's international obligations, including under the Kyoto Protocol).

²⁵ Article 3.4 activities may become eligible to receive NZUs if New Zealand were to account for Article 3.4 under future international agreements in a way that allowed recognition for carbon stored through those activities.

²⁶ Climate Change (Emissions Trading and Renewable Preference) Bill 2007, cl 6 (see the definitions of "removal activity" and "removals").

activities are entitled to register as participants in the NZ ETS and earn 1 NZU for each tonne of carbon removed from the atmosphere (i.e. stored) by the removal activity. Participants must use government determined methodologies – prescribed in regulations – to monitor, measure and calculate the carbon stored through their activities. Participants are also liable for any release of that carbon.

- 4.53 It would be possible to include Article 3.4 and other carbon sequestration activities in the NZ ETS as “removal activities”. Legislative amendment would be required to define the activities, and possibly to specify who may register as a participant in respect of each activity. Methodologies for measuring and calculating the carbon stored would also be required. There may also need to be a requirement that any carbon stored is “additional” to business-as-usual levels in order to earn credit.²⁷
- 4.54 Although it would be possible to issue compliance units to participants for these activities, doing so would involve a fiscal cost to the Crown since New Zealand would not receive the equivalent credit for the activities under the Kyoto Protocol. In other words, issuing compliance credits would enable participants to meet their NZ ETS obligations in a manner that would not assist the Crown to meet its own international obligations.
- 4.55 The alternative is to create a new class of unit – a “New Zealand Voluntary Unit” –to represent the carbon stored by Article 3.4 and other sequestration activities. This unit could not be used by participants to meet their NZ ETS compliance obligations, although it could be used by Article 3.4 and other sequestration activity participants to meet their obligations for any carbon released. The unit could be held and traded through the New Zealand Emissions Unit Register (**NZEUR**).²⁸
- 4.56 Including Article 3.4 and other sequestration activities as removal activities in the NZ ETS would enable people doing the activities to enter the scheme and gain recognition for the carbon stored through the activities. In essence, Article 3.4 and other sequestration activity participants would have a statutory right to earn units that represent the carbon stored through their activities, so long as they met the requirements of the scheme and the relevant regulations.

Assessment of the mechanism against the criteria

- 4.57 Assessing this mechanism against the criteria specified in section 3:
- (a) **Scope:** each of the Article 3.4 and other sequestration activities could be included in the NZ ETS as a removal activity, and therefore the mechanism is capable of recognising rights to carbon from all land-based carbon sequestration activities.
 - (b) **Legal certainty:** The mechanism offers a high degree of legal certainty. The NZ ETS provisions would constitute a specific statutory regime that enabled people doing the relevant activities to gain recognition, in the form of units, for the carbon stored through those activities. There is no material risk of challenge to the mechanism’s ability to confer those rights.
 - (c) **Enduring right:** Under this option, a participant would receive units representing a specific amount of carbon stored by the activity. The units would then remain the

²⁷ “Additionality” refers to offsets that are beyond, or additional to, business-as-usual levels. Credible voluntary standards require that offsets represent additional abatement, and so a similar requirement may be needed as part of this option.

²⁸ The NZEUR is a statutory register established by Part 2 of the Climate Change Response Act 2002 (**CCRA**) through which Kyoto Protocol units are held and traded. The Climate Change (Emissions Trading and Renewable Preference) Bill amends the CCRA to provide for the creation, holding and trading of New Zealand units and for other NZ ETS related matters.

participant's property, regardless of any subsequent land sales, until the participant chose to sell or otherwise dispose of them. In this sense, the right to the carbon – realised by ownership of the units – is enduring.

- (d) **Transferability:** Units would be fully transferable through the NZEUR.
- (e) **Permanence:** This option would support permanence, since in the event that any carbon sequestered is later released, a participant would be required to either take steps to ensure the carbon was replaced, or more likely, surrender units to cover the carbon released. The regulator (i.e. the Crown) would have enforcement powers to ensure this occurred.
- (f) **Severability:** Severability is fully achieved under this option, since the right to carbon (i.e. ownership of units) is not dependent on ownership of the land or any trees or vegetation on the land. It exists as a separate legal right, namely the right to own and deal with the units.
- (g) **Simplicity and transparency:** Once the mechanism is established, it would be relatively straightforward for users and other interested parties to understand, implement and operate. The main benefit is that the rights and obligations would be contained in the statute and regulations, and the processes for receiving and transferring units clearly established.

On the other hand, establishing the mechanism is likely to be more complex. It would require a period of policy development to determine the precise nature of the mechanism, followed by the passage of new legislation to implement it.

- (h) **Flexibility:** there are currently different standards and methodologies for measuring land-based carbon sequestration, although this option would require the government, as regulator, to adopt and place in regulations a specific methodology. This would limit the flexibility of landowners to choose the standard most appropriate to their situation. The scheme could, in theory, allow the use of a number of standards in order to preserve flexibility, but this could come at the cost of simplicity.
- (i) **Applicability to Maori land:** subject to any applicable requirements in the Te Ture Whenua Maori Act 1993, Maori land could be entered into the NZ ETS the same as any other land.

4.58 In summary, adapting the “removal activities” mechanism in the NZ ETS to include Article 3.4 and other carbon sequestration activities would provide an effective means of recognising the right to the benefit of the carbon sequestered. All the Article 3.4 activities could be included, the mechanism provides legal certainty, and the rights created are enduring, transferable and severable from land or tree ownership. Although relatively simple once in place, the downside of this mechanism is that it would be complex and time-consuming to establish, and would require new legislation.

Relationship of mechanism to other options

4.59 While this mechanism has been analysed independently from the other options identified in this section, it could be used in combination with those other options. For example, the right to carbon stored in an area of pre-1990 forest could be held either by the owner of that forest, or by the holder of a forestry right in respect of that forest. The NZ ETS could be designed to allow either the owner of the forest, or the forestry right holder, to become the participant and to receive the commercial benefit of the carbon (i.e. the units).

- 4.60 Similarly, if a carbon sequestration right were to be created that allowed the owner of cropland or grazing-land to convey the right to the benefit of the carbon to another person, then either the landowner or the right holder could be the participant in the NZ ETS and receive the benefit – the units – directly.
- 4.61 These are among the options that could be considered if the NZ ETS were to include Article 3.4 and other carbon sequestration activities as described above.

Comparison of mechanisms

- 4.62 The table at paragraph 5.37 contains a comparison of the above mechanisms against the nine criteria listed on page 8. The comparison indicates that an **encumbrance instrument** is the most suitable non-legislative mechanism for recognising rights to carbon sequestration.

5. MECHANISMS FOR RECOGNISING RIGHTS TO CARBON: OVERSEAS PRECEDENTS

AUSTRALIA

5.1 In recent years, all Australian states have adopted legislation to define carbon sequestration rights (**CSRs**). The legislation generally recognises sequestered carbon as a property right that can be bought and sold, and protected through registration on land title. However, the approach taken by each state has not been consistent, meaning there is no uniform definition of CSR and they are afforded different proprietary status in different states.²⁹

5.2 In this section, the different regimes for recognition of CSRs in Australia are set out in the table below together with a brief discussion on the objectives of the Australian states in introducing each regime, and why Australia has taken a legislative, rather than contractual, approach to meet these objectives.³⁰

State	New South Wales	Queensland	South Australia	Tasmania	Victoria	Western Australia
Legislation	<i>Conveyancing Act 1919</i> (NSW)	<i>Forestry Act 1959</i> (QLD)	<i>Forest Property Act 2000</i> (SA)	<i>Forestry Rights Registration Act 1990</i> (Tas)	<i>Forestry Rights Act 1996</i> (Vic)	<i>Carbon Rights Act 2003</i> (WA)
Legal mechanism	Forestry Right (deemed profit à prendre)	Natural Resource Product Agreement (deemed profit à prendre)	Forest Property Agreement (deemed chose in action) ³¹	Forestry Right (deemed profit à prendre)	Forestry Property Agreement (personal right)	Carbon Right (proprietary interest)
Scope of CSR	Carbon sequestered by trees only	Carbon sequestered by trees and vegetation	Carbon sequestered by trees and vegetation	Carbon sequestered by trees only	Carbon sequestered by trees only	All carbon sequestered, including by trees, vegetation and soil

Each regime is set out in detail in Annexure 1.

Why did the Australian states introduce CSR regimes?

New South Wales

5.3 The motivations behind the NSW regime, which was the first of its kind in Australia, were as follows:

- (a) To underpin the emerging carbon market in NSW;
- (b) To reduce the amount of carbon dioxide in the atmosphere by encouraging carbon sinks;

²⁹ The Australian Capital Territory and the Northern Territory do not have CSR specific legislation.

³⁰ This discussion is largely based on a review of the Second Reading Speeches and Explanatory Memoranda associated with the relevant legislation.

³¹ A "chose in action" is a personal right that can be enforced by legal action. Note that the South Australian Act ensures that a Forest Property Agreement, if registered on title, is enforceable against the world at large.

- (c) To facilitate the ability of the Sydney Futures Exchange to position itself as the hub for emission trading in the Australasian region;
- (d) To attract external investment in carbon sink plantations; and
- (e) To provide the opportunity for plantations to be grown in rural areas not previously considered viable from a wood production perspective alone.

Western Australia

5.4 The Western Australian government enacted the WA regime in recognition of the significant economic and environmental benefits for the state in facilitating the establishment of tree plantations and other environmental plantings. In particular, it viewed these benefits as the potential for trading in carbon rights, the production derived from the plantings, and the environmental improvements they provide. The primary purpose of the Western Australian legislation was to encourage plantings by reducing some of the commercial and legal risks.

Victoria

5.5 The overriding purpose of the Victorian regime was to encourage investment in carbon sink establishment in Victoria and, in turn, to generate additional investment in forestry and wood-based industries into the future.

South Australia

- 5.6 The rationale behind the South Australian regime included:
- (a) To increase investment and expansion opportunities by addressing known impediments to plantation forestry development and investment security;
 - (b) To establish a sound legal basis for separating the forest asset component from the land asset for the purposes of selling timber;
 - (c) To provide certainty for plantation owners and potential investors by securing the rights to harvest plantations established for wood production; and
 - (d) To establish a sound legal basis for clarifying ownership rights.

Queensland

5.7 The legislative intent surrounding the Queensland regime was primarily to clarify legal ownership of CSRs to encourage investment and to allow Queensland landholders to make the best of whatever opportunities present themselves under the Kyoto Protocol or domestic emissions trading schemes. At the time, several potential investors were apparently awaiting passage of legislation to recognise CSRs before they would invest.

Tasmania

- 5.8 The purpose of the Tasmanian regime was to:
- (a) Confirm that any rights associated with carbon sequestered by trees is separate from the right to the timber or the land itself;
 - (b) Facilitate future participation in any emissions trading market (whether national or international) by establishing the sequestration right, as well as providing security of ownership; and

- (c) Provide a minimum framework from which to create, establish and track ownership of carbon sequestration rights with a view to allowing them to be traded.

Why did the Australian states take a legislative approach?

- 5.9 The recurring theme in the Australian states' justification for introducing CSR regimes is to allow the commercial exploitation of carbon sequestration under greenhouse gas reduction schemes which impose long-term permanence obligations. For example, under the Commonwealth Government's Greenhouse Friendly Scheme (under this scheme projects are approved as abatement projects that generate additional, permanent and verifiable greenhouse gas emissions reductions which can be sold/used to voluntarily offset emissions), the NSW Greenhouse Gas Abatement Scheme and the Australian Soil Carbon Accreditation Scheme operating in Western Australia.
- 5.10 To encourage private sector investment in forestry sink projects, it is vital that CSR sellers can unequivocally demonstrate to buyers that they have ownership of the rights being transferred.
- 5.11 Furthermore, to meet permanence obligations, a CSR must "run with the land" rather than being enforceable only against the original grantor of the right.
- 5.12 In Australia, these objectives are best met via legislation. Under the Torrens title system in place in Australia, the register of land holdings maintained by each state is conclusive as to ownership. The general rule is that, where dealings in land conflict, priority is determined according to the date of registration. Accordingly, the ability to register a CSR on land title has a number of benefits:
 - (a) It puts anyone who wishes to deal in an interest in the land (purchasers, mortgagees, and so forth) on notice that the CSR exists;
 - (b) It runs with the land – that is, unless the holder of the CSR terminates the CSR, future owners of the land are bound to recognise the holder's entitlement to sequestered carbon; and
 - (c) It provides assurance to purchasers and government regulators that they are dealing with the entity that is properly entitled to create and sell carbon arising from a plantation activity on a particular piece of land.
- 5.13 This last point is particularly important in commercial forestry projects and community forestry projects in which a number of diverse entities may have some entitlement to the land and the trees.

Lessons from Australia

- 5.14 The NSW legislation represents the most comprehensive and effective CSR regime in Australia (which Tasmania has largely mirrored). The NSW regime has seen a greater number of CSRs created than the other Australian states' regimes. This is largely due to the commencement on 1 January 2003 of the NSW Greenhouse Gas Reduction Scheme, which allows the creation of abatement certificates from carbon sequestration activities.
- 5.15 The NSW regime defines the legal title to carbon sequestered by a forest on a piece of land as a profit à prendre and a type of forestry right. A profit à prendre is an historical property law concept used to grant harvesters or hunters the right to enter land and take

certain benefits from that land (note, however, that the analogy is not perfect because a CSR is a right to keep something on the land rather than to take it off).

- 5.16 Under the NSW legislation, the owner of the land has the prima facie right to register and assign a CSR. If no CSR is registered in respect of a particular piece of privately owned land, then the landowner is vested with the legal title to carbon sequestered on that land. A CSR can be registered separately from the ownership of the land and also from the ownership of the trees on the land.
- 5.17 The NSW legislation also allows the registration of a forestry covenant to enable, for example, the provision of access to or the maintenance of trees or forests on land that is the subject of a CSR. A forestry covenant may also require the ownership of any tree or trees on land that is the subject of a forestry right to be vested in the person who owns the forestry right. The usual practice is to register both a forestry right and a forestry covenant simultaneously. Another benefit of the NSW regime is that it has been utilised significantly more than the regimes in other states and, therefore, many of the problems with implementing a new kind of proprietary right have already been clarified and resolved.
- 5.18 One drawback of the NSW approach is that a CSR does not include carbon sequestered by soil or vegetation other than trees. Western Australia, on the other hand, extends CSRs to carbon sequestered by the soil on the land as well as any vegetation on the land, which affords the regime greater flexibility in the future.
- 5.19 The Western Australian approach is otherwise quite similar to that taken in NSW. However, a major shortcoming of Western Australia's scheme is that the CSR and the covenant that sets out the terms of the CSR must be registered separately.
- 5.20 In South Australia, Victoria and Queensland, a CSR does not constitute an interest in land. However, some protection is provided by allowing registration of a CSR (to varying degrees and in varying forms) on the title to the relevant land. There is some uncertainty in relation to these states' regimes about the actual nature of a CSR and the extent to which indefeasibility of title (i.e. title which cannot be lost) exists. Greater certainty is provided by the regimes which recognise a CSR as an interest in land.

Why was a contractual approach not taken?

- 5.21 A contractual approach was not taken because it does not provide the benefits in paragraph 5.12 above. This is also why a contract approach is not the preferred mechanism in section 3 (see paragraphs 4.3-4.5 above).

Suitability for use in New Zealand

- 5.22 The various Australian state mechanisms establish statutory regimes involving the recognition of an explicit right to carbon sequestered on land. In most cases, the regimes also provide for the ability to enter the land to undertake any activities necessary to sequester the carbon, such as establish a forest, and to maintain the carbon stock. These "other rights" are contained in a variety of mechanisms, such as forestry rights, caveats and covenants.
- 5.23 As discussed above, the Forestry Rights Registration Act (New Zealand) already provides for the possibility of a right to access the benefit to carbon sequestered in forests but

does not exist separately from a forestry right itself. It would be open for the New Zealand government to establish a statutory regime similar to those in Australia for creating a separate right to the carbon sequestered in land through Article 3.4 and other land-based carbon sequestration activities.

CHICAGO CLIMATE EXCHANGE

- 5.24 The CCX is a self-regulatory exchange that administers a voluntary greenhouse gas emission reduction and trading program for North America and other approved countries and regions. The CCX is governed by the Chicago Climate Exchange Rulebook (**Rulebook**). Members of the CCX voluntarily make a commitment to meet annual greenhouse gas emission reduction targets. CCX members may meet this commitment by reducing emissions and/or purchasing CCX exchange offsets.
- 5.25 CCX recognises the following categories of offsets:
- (a) Exchange methane offsets;
 - (b) Exchange soil offsets;
 - (c) Exchange forestry offsets;
 - (d) Exchange early action credits;
 - (e) Exchange offsets for electricity produced from renewable energy;
 - (f) Exchange emission reductions;
 - (g) Exchange fuel conversion offsets; and
 - (h) Exchange fluorocarbon destruction offsets.
- 5.26 An offset project is registered with the CCX by submitting a project registration filing. Registration of certain CCX offset projects must also be accompanied by a project eligibility statement prepared by a CCX-approved verifier. The offsets are traded as Carbon Financial Instruments (**CFIs**), with one CFI representing one hundred metric tons of carbon dioxide.
- 5.27 It is important to note that the CCX does not create CSRs, nor does it provide a system for recognition of CSRs. Rather, the CCX provides an alternative system for dealing with the issues of legal title and permanence in relation to LULUCF VERs. The CCX example demonstrates that, while legislative recognition of CSRs is important for encouraging the trade of LULUCF VERs, it is not necessary, and other mechanisms are available that attempt to address the market's concern with ownership and maintenance of the sequestered carbon.

Recognition of carbon sequestration rights

- 5.28 On the issue of legal title, the Rulebook states that the project registration filing must contain a signed attestation that the entity registering as the CCX project owner holds full legal title to the greenhouse gas mitigation rights registered as CCX offsets that are associated with the facilities and sites included in the registered project. To that end, the forest project registration filings must include legal evidence that the project land is owned by the project owner, or, in instances where the project owner is not the

landowner, evidence that the CCX forestry offsets to be generated by the project are legally owned by the project owner. The Rulebook does not explicitly state how a project owner that does not own the land can prove that the forestry offsets are legally owned by that project owner. Presumably the project owner could provide evidence of:

- (a) Ownership of the relevant carbon sequestration property right; or
- (b) In the absence of (a), some other contractual legal arrangement that establishes secure ownership.

5.29 This other type of "contractual legal arrangement" therefore represents an alternative means by which the legal ownership criteria could be satisfied.

Demonstrating permanence of carbon sequestration

5.30 The Rulebook also contains requirements in relation to demonstrating permanence of carbon sequestration in respect of which CFIs are issued. A different approach is used for forestry and soil offsets.

5.31 With respect to exchange forestry offsets, project owners are required to provide documentary evidence of the legal protection status of forest parcels included in a CCX-registered project. Projects in the US and Canada can qualify if undertaken on privately-owned land and placed in protective status via:

- (a) Establishment of a long-term conservation easement providing that the project land is to be maintained as a forest for the duration of the easement;
- (b) Transfer of ownership of land parcels to a land trust, qualifying non-governmental organisation or governmental body, provide such transfer establishes legal protection that the project land is to be maintained as forest; or
- (c) Other means that the CCX Forestry Committee may determine to be acceptable.

5.32 In addition to the other rules, projects in Brazil are eligible if they are undertaken on privately owned land that is placed in protective status by:

- (a) Placing the land in Private Natural Heritage Reserve status;
- (b) Transferring ownership of the land to a qualifying non-governmental organisation;
- (c) Placing the land into another protected status approved by the CCX; or
- (d) Other means deemed acceptable by the CCX Forestry Committee.

5.33 In relation to exchange soil offsets, permanence is dealt with by establishment of a carbon buffer pool. Each project is required to place 20% of the offsets it earns into a CCX soil carbon reserve pool. Title to the soil offsets remains with the project owners and the soil offsets are released to the project owner at the end of a phase.

5.34 These requirements to demonstrate permanence of the carbon sequestration illustrate two things:

- (a) Legal recognition of CSRs is not enough on its own to underpin the trade of LULUCF VERs. Mechanisms to ensure that the sequestered carbon is not released back into the atmosphere are also necessary so that the emissions that the sequestered carbon is used to offset remain offset.

- (b) Permanence may be achieved by a variety of means. The approach adopted in the NSW forestry rights legislation discussed above (enabling the CSR holder to register a forestry covenant to vest ownership of the trees in the CSR holder and give the CSR holder the right to maintain the trees) is not the only approach. A buffer pool like that used by the CCX is another approach.
- (c) A buffer approach is more appropriate for soil carbon in crop and grazing land given that maintaining sequestration from such activities generally involves land management practices. Intervention by the CSR holder to restore released carbon is likely to be impracticable in this context because it could require taking over ongoing farming operations. In the case of forestry, however, replanting trees which have (for example) been cut down without authorisation is more likely to be feasible.

Suitability for use in New Zealand

5.35 As described, the CCX is a voluntary mechanism that enables the transfer of rights to carbon sequestered on land via contract, and in the case of forestry offsets, supported by general law mechanisms. New Zealand's law of contract and available property law mechanisms would support the establishment of a regime such as the CCX in New Zealand.

Comparison of mechanisms: summary table

- 5.36 A comparison of the mechanisms outlined in sections 4 and 5 against the criteria listed on page 8 is contained in the following table.
- 5.37 The comparison indicates that while an encumbrance instrument is the best existing mechanism for recognising rights to carbon sequestration through land-based activities, a new carbon sequestration right created by legislation would be the simplest and most flexible mechanism, while also applying to all possible activities and providing maximum legal certainty.

Summary table: comparison of mechanisms

CRITERIA	MECHANISMS							
	Contractual right to carbon	Encumbrance Instrument	Easement	Covenant	Profit à prendre	Caveat	NZ ETS	CSR
Scope	3	3	3	3	1	3	3	3
Legal certainty	3	2	2	3	1	1	3	3
Enduring right	1	2	2	1	1	1	3	3
Transferability	2	3	3	3	1	2	3	3
Permanence	1	2	2	1	1	1	3	2
Severability	3	3	1	1	1	1	3	3
Simplicity & transparency	2	2	1	1	1	1	1	3
Applicability to Maori land	2	2	2	2	2	2	2	2
Flexibility	3	3	1	1	1	1	1	3
	20	22	17	16	10	13	22	25

3 – Highest level of compliance with the relevant criteria
 2 – Medium level of compliance with the relevant criteria
 1 – Lowest level of compliance with the relevant criteria

6. THE IMPLICATIONS OF INCLUDING ARTICLE 3.4 AND OTHER CARBON SEQUESTRATION ACTIVITIES IN THE NZ ETS IN THE FUTURE

- 6.1 The previous sections identify and analyse a number of options for recognising rights to carbon sequestration in New Zealand:
- (a) Existing legal instruments (contract, encumbrances and other property law mechanisms, and/or a forestry right);
 - (b) A discrete carbon sequestration right created under new legislation;
 - (c) Including Article 3.4 and other carbon sequestration activities in the NZ ETS (but only eligible to earn voluntary units).
- 6.2 MAF wish to understand, in respect to each option identified, the implications if Article 3.4 and other sequestration activities were to be included in the NZ ETS in the future. For the purposes of this analysis, the activities are assumed to be included in the NZ ETS as compliance activities akin to deforestation and afforestation, rather than voluntary activities as described in section 4 (option 6.1(c) above).
- 6.3 The implications of including additional carbon sequestration activities in the NZ ETS in the future will depend largely on how the scheme is designed. Scheme design in turn depends on a wide range of policy considerations, not least the shape of any future international agreements under which New Zealand may elect, or be required, to account for activities such as those currently covered by Article 3.4.
- 6.4 Without knowing the likely design of an NZ ETS that includes the additional carbon sequestration activities, it is difficult to state with any certainty what the implications for each option would be. At a fundamental level, however, including the Article 3.4 activities in the NZ ETS would not alter the ability of each mechanism to confer the same legal rights and obligations as prior to the activities entering the scheme. For the reasons outlined below, however, it may effect whether the mechanisms continue to be used or not.

Who has the rights and obligations under the NZ ETS?

- 6.5 The NZ ETS places a series of rights and obligations on particular individuals or firms (**participants**) with respect to the CO₂-equivalent emitted or stored through their activities. If additional carbon sequestration activities were to be included in the NZ ETS, a decision would be required about the parties eligible to be the participants in respect of those activities.
- 6.6 All the options identified in the previous sections involve a conferral of the right to the carbon stored through carbon sequestration activities to a person other than the landowner. This, in theory, would allow the NZ ETS to contain flexibility about who is the participant – it could be the landowner with the ability to earn NZ ETS units for the carbon stored, or it could be the carbon right holder with that ability.
- 6.7 Even if the NZ ETS were to provide for either the landowner or the carbon right holder to participate in the NZ ETS, participation would in reality be determined by who has the

ability to realise the benefits, and manage the risks, associated with NZ ETS participation. Given that carbon sequestration activities are land-based, this question would ultimately turn on who has control over the land or trees/vegetation/etc to ensure it is managed in a way to realise the benefits and manage the risks.

- 6.8 Landowners will generally have the necessary control over the land, unless they have assigned the necessary control to another party. The options identified above do not, on their own, assign the carbon right holder the necessary control over the land to enter the NZ ETS as a participant. For this to occur, the contract, encumbrance (or other property mechanism), or carbon sequestration right would have to be accompanied by a set of management rights giving the carbon right holder control over how the land or trees/vegetation/etc is managed.
- 6.9 These issues are reflected in current NZ ETS design with respect to post-1989 forests. The owner of post-1989 forest land, or a registered forestry right or registered lease holder over the forest land, may become the NZ ETS participant in respect of the land. In this instance, forestry rights or leases give the holders sufficient control over the management of the trees and/or land, and therefore the carbon stored, to realise the benefit of becoming NZ ETS participants, and to manage the associated liabilities.
- 6.10 Similarly, all of the Australian statutory rights to carbon are coupled with management rights secured through forestry rights, covenants or other forms of enforceable instruments. So long as carbon right holders could secure similar rights along with the right to the carbon, then their participation in the NZ ETS is a possibility.

The implication of early action on people's rights and obligations under the NZ ETS

- 6.11 Another important legal issue is the nature of people's rights and obligations under an NZ ETS that includes Article 3.4 and other carbon sequestration activities. Early action by people to store carbon through these activities, regardless of the mechanism they use to realise the commercial benefit of doing so, has implications for future NZ ETS design.
- 6.12 If a person has used any of the identified options to recognise the right to carbon stored through additional sequestration activities, it follows that there has been an increase in the amount of carbon stored in the land or in any trees or vegetation on the land. If the NZ ETS then imposes a liability for carbon loss from that land, the early increase in stored carbon may represent an increased liability. On the flipside, if the NZ ETS creates a right to earn units for carbon stored in or on the land, then the early increase in stored carbon may limit a person's ability to access the units after the activities enter the NZ ETS.
- 6.13 The question that therefore arises is whether early action to store carbon through sequestration activities should be recognised in the NZ ETS if these activities are included at some future point.
- 6.14 It is common for issues concerning the recognition of early action to arise prior to the commencement of an emissions trading scheme, or prior to new activities entering an established emissions trading scheme. Both the New Zealand and Australian governments have had to consider these issues when developing their respective emissions trading scheme policies.³² The general policy point is that a failure to

³² New Zealand Government, *The Framework for a New Zealand Emissions Trading Scheme* (September 2007), 48-49; Australian Government, *Abatement Incentives prior to the Commencement of the Australian Emissions Trading Scheme* (September 2007).

recognise early action may discourage such action prior to commencement, even though early action is desirable. Where Article 3.4 and other sequestration activities are concerned, the possibility of either an increased liability or a decreased access to units may act to discourage early action prior to those activities entering the NZ ETS.

- 6.15 These issues arise in respect of land-based carbon sequestration activities regardless of any particular mechanism that may have been used to recognise the commercial benefit of the stored carbon. The main point, however, is that the mechanisms may not be used at all if people consider that doing so will lead to them being penalised under the NZ ETS in the future.
- 6.16 Furthermore, government encouragement of early action to store carbon through Article 3.4 and other carbon sequestration activities may create an expectation that any early action will be recognised once the activities are included in the NZ ETS. While such expectations are probably not legally enforceable, they may come to have a heavy bearing on policy design.
- 6.17 If New Zealand were to legislate for the creation and registration of a discrete carbon sequestration right prior to the activities entering the NZ ETS, for instance, then it may well be argued that any NZ ETS design should take account of early action that utilises this government-created mechanism.

What type of credit - compliance or voluntary?

- 6.18 A further issue that arises is what the inclusion of Article 3.4 and other carbon sequestration activities in the NZ ETS would mean for people's ability to continue undertaking action in the voluntary market. Again, this will depend heavily on how the NZ ETS is designed and the nature of the voluntary carbon market standards.
- 6.19 If Article 3.4 and other sequestration activities were included in the NZ ETS with only a liability for carbon loss, and no ability to earn credits for ongoing carbon sequestration, then participants could continue to use the identified mechanisms to generate voluntary market credits. This is akin to the existing ability of landowners of pre-1990 forest to generate voluntary credits from increases in carbon stock even though they will be liable under the NZ ETS for any deforestation that occurs on their land.
- 6.20 On the other hand, if Article 3.4 and other sequestration activities are included in the NZ ETS with the ability to generate units for carbon sequestration, then voluntary market activities are likely to cease all together. This is partly due to the operation of the market, since compliance credits are more likely to have a higher value than voluntary credits. At the same time, the risk of double-counting means that most voluntary carbon standards refuse to recognise offsets from activities covered by an emissions trading scheme. In that situation, offsets will typically only be recognised where an equivalent compliance credit is "cancelled".

7. CONCLUSIONS

- 7.1 The summary table on page 27 presents a comparison of the different mechanisms for recognising rights to carbon sequestration against the nine criteria listed on page 8. This comparison indicates that the best existing mechanism to recognise rights to carbon sequestered on land in New Zealand is an **encumbrance instrument**.
- 7.2 In terms of a legislative solution, including the activities in the NZ ETS with an ability to earn voluntary units would provide a comprehensive and robust solution, but would be complex and time-consuming and relatively inflexible. This contrasts to a legislative **carbon sequestration right**, which if designed properly could be the simplest and most flexible mechanism, while also applying to all possible activities and providing maximum legal certainty.
- 7.3 It is important to note, however, that an effective mechanism to recognise rights to carbon sequestration (whether an encumbrance instrument or a carbon sequestration right) is unlikely to be enough **on its own** to stimulate trade in voluntary offsets based on carbon sequestration. As the CCX example shows, a key issue that a carbon sequestration right does not address on its own is ensuring the permanence of the sequestration.
- 7.4 A carbon sequestration right can support permanence by including a right for the holder to go on to the land to restore carbon sequestration which is released (e.g. in the case of a forest sink, replanting trees which have been destroyed by fire or wrongful harvesting). As discussed below, however, this only partially addresses the permanence issue.
- 7.5 In respect of soil carbon from crop and grazing land, intervening to restore released carbon sequestration is likely to be impracticable so some other mechanism to ensure permanence is required, such as the 'carbon buffer' approach taken by the CCX (the VCS also takes a buffer approach).
- 7.6 More generally, although the mechanism may contain rights to restore released carbon, a purchaser of a voluntary offset is unlikely to want to be responsible for managing the impermanence risk. Schemes like the CCX address this by the scheme provider managing that risk.
- 7.7 Broadly, the holder of the carbon sequestration right enters the right into the scheme and undertakes to the scheme provider to ensure the permanence of the sequestration (e.g. by physical replacement of released carbon, a buffer approach or surrendering other carbon credits to offset the released carbon). In return for this commitment, the scheme issues carbon credits in respect of the carbon sequestration. The carbon credits can then be traded as a commodity independent of the land.
- 7.8 This facilitates trade because the purchaser of the carbon credits is not responsible for ensuring permanence – the scheme provider or landowner takes care of that.
- 7.9 If the Crown wanted to facilitate trade in this way, the option outlined above of including Article 3.4 and other land-based carbon sequestration activities in the NZ ETS would be the most comprehensive method, but would also require a lot of further policy analysis and legal work and may not be as flexible as a carbon sequestration right. An alternative approach would be to establish a scheme similar to Australia's Greenhouse Friendly scheme (see paragraph 5.9 above).

ANNEXURE 1: SUMMARY OF AUSTRALIAN REGIMES

1. Overview

- 1.1 In Australia, ownership of CSRs was previously determined in accordance with state based principles of property law. In recent years, however, all Australian states have adopted legislation that allows for the recognition of CSRs. The NSW Government was the first State to create a statutory CSR, which could be registered against land title as a separate and distinguishable interest from the trees and land to which it relates. Other Australian states followed suit by amending various state-based property legislation in varying forms to create a property right, generally registrable on land title.
- 1.2 Although all states have adopted legislation recognising CSRs, the approach taken has not been consistent. This means that there is no consistent definition of CSR in Australia, and CSRs are afforded different proprietary status in different states. The different regimes for recognition of CSRs is set out below. It should be noted that the Australian Capital Territory and the Northern Territory do not have CSR specific legislation.

2. New South Wales

- 2.1 In New South Wales (NSW), a CSR over freehold Torrens title land is created under the *Conveyancing Act 1919 (NSW)* (**NSW Act**), as a form of "forestry right".
- 2.2 A CSR is defined as, in relation to land, a right conferred on a person by agreement or otherwise, to the legal, commercial or other benefit (whether present or future) of carbon sequestration by any existing or future tree or forest on the land after 1990. Carbon sequestration is defined as the process by which the tree or forest absorbs carbon dioxide from the atmosphere.³³ Significantly therefore, the CSR in NSW does not recognise carbon sequestered by soil or other vegetation.
- 2.3 A "forestry right" is a deemed profit à prendre under the NSW Act and is defined by section 87A as:
- (a) An interest in the land pursuant to which a person having the benefit of the interest is entitled:
 - (i) to enter the land and establish, maintain and harvest (or to maintain and harvest) a crop of trees on the land; or
 - (ii) to enter the land and establish, maintain and harvest (or to maintain and harvest) a crop of trees on the land and to construct and use such buildings, works and facilities as may be necessary or convenient to enable the person to establish, maintain and harvest the crop; or
 - (b) A carbon sequestration right in respect of the land; or
 - (c) A combination of the interest and right referred to in paragraphs (i) and (ii).

³³ Conveyancing Act 1919 (NSW), s 87A.

- 2.4 A forestry right under paragraph (i) of the definition is referred to as a "forestry right (timber)". A forestry right under paragraph (ii) of the definition is referred to as a "forestry right (carbon sequestration)".
- 2.5 While it is possible to register the forestry right (carbon sequestration) alone, good practice dictates that, if possible, the forestry right (timber) be registered at the same time.
- 2.6 It is preferable to register the two types of forestry right together because there is an argument that without the forestry right (timber), the forestry right (carbon sequestration) does not give sufficient ancillary rights for the owner of the CSR to enter onto the land and plant trees that may be required to sequester carbon. Although such ancillary rights may be given in a carbon covenant, set out in an annexure to the agreement granting the forestry right (carbon sequestration), there is a possibility that these rights may merely be contractual and will not run with the land. However, to our knowledge, this argument has never been tested.
- 2.7 As the CSR is deemed a profit a prendre, at common law the CSR is an interest in land and, once registered on title, will run with the land. The ownership of the CSR can be coupled with or separated from the ownership of the underlying vegetation.
- 2.8 The NSW Act also allows for the registration of "forestry covenants". A forestry covenant is defined under section 87A as a covenant that is incidental to a forestry right and includes any such covenant that imposes obligations requiring:
- (a) The construction and maintenance of access roads within the land;
 - (b) The erection and maintenance of fencing on the land;
 - (c) The provision and maintenance of water supplies within the land;
 - (d) The provision of access to or the maintenance of trees or forests on land that is the subject of any carbon sequestration right;
 - (e) The ownership of any tree or trees on land that is the subject of a forestry right to be vested in the person who owns the forestry right; or
 - (f) Imposes any term or condition with respect to the performance of or failure to perform any such obligation.
- 2.9 A forestry covenant has effect only while the forestry right to which it relate, continues.³⁴
- 2.10 The usual practice is to register both a forestry right and a forestry covenant to enable, for example, the provision of access to or the maintenance of trees or forests on land that is the subject of any CSR. The forestry covenant also enables the ownership of any trees on the land that is the subject of a forestry right to be vested in the person who owns the forestry right. So although not owning the land, the holder of a forestry right and forestry covenants may own both the CSR as well as the trees themselves.

3. Queensland

- 3.1 CSRs in Queensland are a form of "Natural Resource Product" (NRP) under Part 6B, section 61J of the *Forestry Act 1959* (QLD) (**Queensland Act**).

³⁴ Conveyancing Act 1919 (NSW), s 88EA(8).

- 3.2 A NRP is defined in section 5 of the Queensland Act as including:
- (a) all parts of a tree or vegetation, including those parts below ground;
 - (b) carbon stored in a tree or vegetation; and
 - (c) carbon sequestration by a tree or vegetation.

This definition is wider than the definition of CSR under the NSW Act as it covers carbon sequestered by vegetation. Section 5 of the Queensland Act further defines carbon sequestration as including the process by which the tree or vegetation absorbs carbon dioxide from the atmosphere.

- 3.3 Under section 61J(1) of the Queensland Act, the owner of land may enter into an agreement with a third party (**CR Owner**) about a NRP on the land. These agreements are called Natural Resource Product Agreements (**NRPA**).
- 3.4 Under section 61J(3) of the Queensland Act, a NRPA may do one or all of the following:
- (a) Vest all or part of the NRP in the CR Owner;
 - (b) Grant the CR Owner the right to enter the land to:
 - (i) establish, maintain or harvest the NRP; and
 - (ii) carry out works or activities for the NRP; and
 - (c) Grant the CR Owner the right to deal with the NRP.
- 3.5 Similar to NSW, an NRPA is a deemed profit à prendre on both freehold and leasehold land.³⁵ Despite an NRPA being a profit à prendre (which is deemed a proprietary interest in land at common law), the Queensland Act states that an NRPA does not create a proprietary interest in land, and thus appears to override the common law.³⁶ An NRPA is a mere licence between the parties which is noted on title, similar to a caveat. It is not enforceable against a third party purchaser of the land.
- 3.6 The owner of the land must have the consent of any mortgagee of the land before it enters into a NRPA with a third party.³⁷

4. South Australia

- 4.1 In South Australia CSR are recognised under the *Forest Property Act 2000 (SA)* (as amended by the *Forest Property (Carbon Rights) Amendment Act 2006 (SA)*, which commenced on 1 July 2007), which allows for the creation of Forest Property Agreements (FPA).
- 4.2 Under the South Australian Act, two types of FPA may be created:
- (a) Forest property (vegetation) agreement (**FPVA**); and
 - (b) Forest property (carbon rights) agreement (**FPCA**).³⁸
- 4.3 A FPVA gives the owner of the agreement rights to the "forest vegetation" on the land. Section 3 of the South Australian Act defines "forest vegetation" as "trees and other forms

³⁵ Forestry Act 1959 (QLD), s 61J(5).

³⁶ Forestry Act 1959 (QLD), s 61J(4).

³⁷ Forestry Act 1959 (QLD), s 61J(2).

³⁸ Forest Property Act 2000 (SA), s 5(1).

of forest vegetation including roots or other parts of the trees or other forest vegetation that lie beneath the soil and leaves, branches or other parts or products of trees or other forest vegetation". A FPCA, on the other hand, gives the owner of the agreement rights to the carbon sequestered by the forest vegetation on the land.

- 4.4 Therefore, similarly to the Queensland Act, the South Australian Act recognises carbon sequestered by vegetation. The South Australian Act also makes mention of the "soil and leaves" but only in the context of "trees and other forms of forest vegetation", so that any carbon sequestered by the soil itself would not be recognised.
- 4.5 By operation of section 3A(2) of the South Australian Act, ownership of the sequestered carbon attaches to the forest vegetation sequestering such carbon. Therefore entry into an FPVA will give the owner of the forest vegetation ownership of the carbon as well, without the necessity for a separate grant of an FPCA. The FPCA therefore seems to be a mechanism allowing the separation of ownership of the carbon sequestered by the forest vegetation from the forest vegetation itself.
- 4.6 The South Australian Act applies to carbon rights in respect of carbon sequestered in the past as well as present and future sequestration during the term of the FPCA.³⁹
- 4.7 A FPCA (and FPVA) may, under section 6(2) of the South Australian Act, contain the following provisions:
 - (a) Requirements or restraints in relation to the establishment, maintenance and harvest or other removal of forest vegetation;
 - (b) Access to the land;
 - (c) The duties of care of both the land owner and the owner of the FPCA; and
 - (d) Any other incidental matters.
- 4.8 Under the South Australian Act, a FPCA (and FPVA) is deemed to be a chose in action, which is a personal right only.⁴⁰ While this would normally mean that the FPCA (although registered on title to the land) would be defeated by subsequent owners of the land, sections 7(3) and 9 of the South Australian Act ensure that the FPCA, if registered on title, is enforceable against the world at large and thus gives the owner of the CSR protection against subsequent owners of the land or subsequent owners of an encumbrance in the land. Although this affords a CSR owner some comfort, as the CSR is a mere chose in action, an order for specific performance of the CSR will not be granted by the courts.

5. Tasmania

- 5.1 In Tasmania, CSRs are recognised under the *Forestry Rights Registration Act 1990* (Tas) (**Tasmanian Act**), as a form of "forestry right".
- 5.2 A CSR is defined as a right conferred on a person (by agreement or otherwise) to the legal, commercial or other benefit (whether present or future) of carbon sequestration by any existing or future tree or forest on the land.⁴¹

³⁹ Forest Property Act 2000 (SA), s 3A(3).

⁴⁰ Forest Property Act 2000 (SA), s 3A(1).

⁴¹ Forestry Rights Registration Act 1990 (Tas), s 3.

- 5.3 Further, a "forestry right" is defined as any of the following interests in the land (or combination of such interests) granted by the land owner:
- (a) Ownership of trees;
 - (b) A carbon sequestration right;
 - (c) A right to establish, maintain or harvest, or maintain and harvest, trees –
- together with:
- (d) Any ancillary rights of access or of constructing or using tracks, culverts, bridges, buildings or other works or facilities in connection with the enjoyment of the interest, whether or not those ancillary rights are coupled with obligations; and
 - (e) Any provisions for charges, payments or royalties or for the division of trees or the proceeds of trees, whether or not those provisions are coupled with obligations.⁴²
- 5.4 A "forestry right" is also deemed to be profit à prendre under section 5 of the Tasmanian Act. This is similar to the NSW regime, in that a CSR is a deemed profit à prendre, which grants an interest in the land the subject of the CSR. The legislation in NSW and Tasmania also allows for the separation or coupling of the ownership of the carbon and the vegetation.
- 5.5 As in New South Wales, good practice dictates that a forestry right over land should include all rights available under sub-sections (a), (b) and (c) of the definition of "forestry right".
- 5.6 The Tasmanian Act also allows for the registration of forestry covenants. Again, similar to New South Wales, a forestry covenant is a covenant (whether positive or restrictive) that is incidental to a forestry right.

6. Victoria

- 6.1 In Victoria CSRs are a sub-set of a Forestry Property Right (**FPR**) under the *Forestry Rights Act 1996* (Vic) (**Victorian Act**), and are created under a Forest Property Agreement (**FPA**).
- 6.2 As with other States, in Victoria the ownership of a carbon sequestration right can be separated from the ownership of the forest itself.
- 6.3 Under section 5 of the Victorian Act, a landowner may enter into a FPA with another person to:
- (a) Grant the other person the right to plant, maintain and harvest forest property on the land;
 - (b) Grant that person a carbon sequestration right in relation to the forest property on the land;
 - (c) Grant access to the land;
 - (d) Carry out works necessary for the planting, maintaining and harvesting of the forest property on the land;
 - (e) Monitor and measure the carbon sequestered by the trees on that land.

⁴² Forestry Rights Registration Act 1990 (Tas), s 3.

6.4 Under section 3 of the Victorian Act:

- (a) 'Forest property' means:
 - (i) all parts of trees including any parts below the ground;
 - (ii) the products of trees whether or not those products have become separated from those trees prior to being harvested; and
 - (iii) carbon sequestered by trees;
 - (iv) 'carbon sequestration right' means a right to commercially exploit carbon sequestered by trees; and
 - (v) 'forest property right' means a right granted by a FPA.

6.5 The Victorian Act also allows for an owner of forest property (being the grantee under the FPA), to grant a third party a carbon sequestration right under a carbon rights agreement.

6.6 The Victorian Act states that a FPA is not an interest in the land.⁴³ CSRs are therefore merely a form of agreement that can be registered on title to the land affected by the agreement. These means that CSRs are merely personal interests that do not run with the land and are not protected against subsequently created interests in the land.

6.7 Under section 5(2) of the Victorian Act, where the land the subject of the FPA is mortgaged or charged, the landowner must notify the mortgagee or chargee of the grant of the FPR at least 14 days before the agreement is entered into. Section 7A of the Victorian Act sets out the formal requirements for this notice, being:

- (a) Requirements as to service of the notice;
- (b) The notice must state that it is a notice as required under the Victorian Act; and
- (c) The notice must attach a copy of the FPA.

6.8 The Victorian Act applies only to freehold land, whether it be Torrens land or general law land. We note that although the Victorian Act applies to general law land, Victoria is currently in the process of converting all general law land into Torrens land (*Transfer of Land (Single Register) Act 1998 (Vic)*). As a result, where an FPA is to be registered over general law land, it will be accompanied by an application to bring the land under the *Transfer of Land Act 1958 (Vic)*, and convert the land to Torrens land. The FPA will be registered once the land has been converted.

7. Western Australia

7.1 In Western Australia CSRs are recognised as a statutory right under the *Carbon Rights Act 2003 (WA)* (**WA Act**).

7.2 The WA Act deals with CSRs in two ways:

- (a) It allows for the registration of a "carbon right" which is a registrable entitlement to the legal and commercial ownership in relation to changes to the atmosphere arising as a result of carbon sequestered or released by the land that is the subject of the carbon right (**Carbon Right**); and

⁴³ Forestry Rights Act 1996 (Vic), s 11(b).

(b) An owner of a Carbon Right may also register a "carbon covenant" over the area of land affected by the Carbon Right. A carbon covenant may be in relation to any matter that affects or might affect carbon sequestration or release in relation to the land affected by the Carbon Right, and include rights, obligations and restrictions in relation to the land (**Carbon Covenant**).⁴⁴

- 7.3 A Carbon Covenant must always be owned by the person who owns the related Carbon Right over the land.⁴⁵
- 7.4 Although a Carbon Right and Carbon Covenant are registered separately, a Carbon Right relates primarily to the ownership of sequestration, while the Carbon Covenant sets out the agreement between the land owner and the owner of the Carbon Right in relation to various ancillary rights. For example, a Carbon Covenant will deal with access to the land, the establishment and ownership of vegetation, maintenance of vegetation, etc. As such, in most circumstances, it would be advisable for a person acquiring a Carbon Right to acquire and register a Carbon Covenant at the same time.
- 7.5 The WA Act states that on registration of a CSR in Western Australia, an interest in land is created. This means that CSRs are proprietary rights that run with the land.
- 7.6 The WA Act differs from other states in that it is not solely related to carbon sequestered by vegetation on the land. Rather, it applies to any sequestration occurring on the land, whether by vegetation or some other means, such as soil sequestration. A Carbon Right does not give ownership of the trees - only the carbon in them. If property in the trees is required, a separate forestry right should be entered into.
- 7.7 Carbon Rights and Carbon Covenants are created on registration of the interests on title to the relevant land.⁴⁶
- 7.8 No more than one Carbon Right may be created at any particular time in respect of the same area of land, however, the land owner can also be the owner of a Carbon Right and a Carbon Covenant under the WA Act.

⁴⁴ Carbon Rights Act 2003 (WA), ss 8, 10.

⁴⁵ Carbon Rights Act 2003 (WA), s 14(2).

⁴⁶ Carbon Rights Act 2003 (WA), ss 6, 12.

GLOSSARY

AAU	Assigned Amount Unit
Annex B Parties	Countries listed in Annex B of the Kyoto Protocol, including New Zealand, with quantified emission limitation or reduction commitments
Article 3.4 activities	Forest management (for forests in existence prior to 1990), re-vegetation, cropland management and grazing-land management
Assessment Criteria	Criteria identified in paragraph 3.20
Carbon sequestration	Carbon sequestered by Article 3.4 and non-Protocol land-based activities
CCX	Chicago Climate Exchange
CFIs	Carbon Financial Instruments
Compliance Credits	Kyoto Protocol emission units or New Zealand units
LULUCF	Land Use, Land Use Change and Forestry
MAF	New Zealand Ministry for Agriculture and Forestry
NZ ETS	New Zealand Emissions Trading Scheme
NZEUR	New Zealand Emissions Unit Register
NZU	New Zealand Units
PFSI	Permanent Forests Sink Initiative
Protocol	Kyoto Protocol
Removal Activities	Activities that remove carbon dioxide from the atmosphere
Rule Book	Chicago Climate Exchange Rule Book
VCS	Voluntary Carbon Standard
VERs	Voluntary (or Verified) Emission Reductions

