

LEGAL ISSUES IN BIOSEQUESTRATION: CARBON SINKS, CARBON RIGHTS AND CARBON TRADING

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The sequestration of carbon through the planting and preservation of forest and vegetation stocks, or biosequestration, is likely to play a significant role in national efforts to reduce Australia's net greenhouse gas emissions.¹ This may be achieved through a combination of prohibitions and incentives for the forestry and agricultural sectors under the future Federal Government Carbon Pollution Reduction Scheme ('CPRS').² In addition, the ratification of the *Kyoto Protocol to the United Nations Framework Convention on Climate Change*³ by Australia has created a number of opportunities for Australian entities to obtain benefits for biosequestration activities under the international climate change regime.⁴ The implementation of these biosequestration projects raises a number of legal questions regarding the processes for the generation of credits from such activities and the legal interactions between the varying forms of carbon rights and carbon permits.

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- 1 The agriculture sector is responsible for approximately 16.5 per cent of Australia's net emissions and a further 6.3 per cent of net emissions comes from the land use, land-use change and the forestry sector: Department of the Environment and Heritage, *Tracking to the Kyoto Target 2006: Australia's Greenhouse Emissions Trends 1990 to 2008–2012 and 2020* (2006) 28 <[http://www.garnautreview.org.au/CA25734E0016A131/WebObj/D0820837GeneralSubmission-DepartmentoftheEnvironmentandHeritage\(Fed\)-TrackingtotheKyotoTarget/\\$File/D08%2020837%20General%20Submission%20-%20Department%20of%20the%20Environment%20and%20Heritage%20\(Fed\)%20-%20Tracking%20to%20the%20Kyoto%20Target.pdf](http://www.garnautreview.org.au/CA25734E0016A131/WebObj/D0820837GeneralSubmission-DepartmentoftheEnvironmentandHeritage(Fed)-TrackingtotheKyotoTarget/$File/D08%2020837%20General%20Submission%20-%20Department%20of%20the%20Environment%20and%20Heritage%20(Fed)%20-%20Tracking%20to%20the%20Kyoto%20Target.pdf)> at 27 August 2008.
- 2 In the 1990s, land clearing was a major source of Australia's greenhouse gas emissions. Strict controls on widespread clearing have since been implemented; for example, in Queensland under the *Vegetation Management Act 1999* (Qld). Further initiatives to promote biosequestration may well eventuate as a result of the future regulation of emissions.
- 3 Opened for signature 16 March 1998, 37 ILM 22 (entered into force 16 February 2005) ('*Kyoto Protocol*').
- 4 These measures encompass international emissions trading, the Clean Development Mechanism ('CDM') and Joint Implementation ('JI') and are intended to assist those parties with emission reduction duties, such as Australia, to achieve emission reductions globally and at the least economic cost.

I GENERATION OF REMOVAL UNITS UNDER THE *KYOTO PROTOCOL*

Parties to the *Kyoto Protocol* have agreed that net emissions reductions or removals by sinks, resulting from human-induced land use, land-use change and forestry activities since 1990, will result in the creation of removal units ('RMUs') for nation States.⁵ Accordingly, the biosequestration activities of Australian landholders and project developers that meet the definitions of *afforestation*, *reforestation* or *deforestation*, and are undertaken between the beginning of 1990 and the first commitment period of the *Kyoto Protocol* (2008–12), may be used by the Federal Government to meet Australia's emission reduction target under the *Kyoto Protocol*.⁶

For land use, land-use change and forestry activities, the following definitions apply under the *Kyoto Protocol*:

- (a) "Forest" is a minimum area of land of 0.05–1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10–30 per cent with trees with the potential to reach a minimum height of 2–5 metres at maturity *in situ*.
- (b) "Afforestation" is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources;
- (c) "Reforestation" is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land. For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989;
- (d) "Deforestation" is the direct human-induced conversion of forested land to non-forested land.⁷

The *Kyoto Protocol* also enables nation states to elect to account for the changes in emissions and removals by sinks in the agricultural soils and the land-

5 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, arts 3.3–3.4 (entered into force 16 February 2005); *United Nations Framework Convention on Climate Change* ('UNFCCC') Secretariat, 'Modalities for the Accounting of Assigned Amounts under Article 7, paragraph 4, of the Kyoto Protocol' (Decision 13/CMP.1) in *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal from 28 November to 10 December 2005. Addendum. Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session*, 26–27, UN Doc FCCC/KP/CMP/2005/8/Add.2 (2006).

6 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 3.3 (entered into force 16 February 2005); UNFCCC Secretariat, 'Land Use, Land-Use Change and Forestry – Annex: Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol' (Decision 16/CMP.1) in *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal from 28 November to 10 December 2005. Addendum. Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session*, 6, UN Doc FCCC/KP/CMP/2005/8/Add.3 (2006).

7 *Ibid* 5.

use change and forestry categories.⁸ Eligible human-induced activities include 'revegetation, forest management, cropland management and grazing land management'.⁹

These activities are defined as follows:

- (e) "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;
- (f) "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;
- (g) "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;
- (h) "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.¹⁰

The *Kyoto Protocol* enables nations to *elect* to include these additional activities in their accounting of national emissions. Accordingly, the Australian Federal Government has a choice whether to include the anthropogenic greenhouse gas emissions by sources and removals by sinks from these 'additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks' during the first commitment period. Once the Federal Government has elected to opt in these activities it must continue to account for all reductions and emissions from these areas in the first, and possibly subsequent, commitment period(s). Consequently, the Federal Government has indicated that it does not intend to utilise article 3.4 of the *Kyoto Protocol* owing to concerns about unpredictable fluctuations in carbon stocks from droughts and bushfires in Australia.¹¹

If net reductions in emissions are achieved through all of Australia's emissions and removals via eligible and accountable activities under articles 3.3 and 3.4, then Australia will be eligible to obtain RMUs for those net reductions.¹² RMUs are issued to the national government to assist Australia in meeting its emission reduction target under the *Kyoto Protocol*. Consequently, despite the fact that it

8 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 3.4 (entered into force 16 February 2005).

9 UNFCCC Secretariat 'Land Use, Land-Use Change and Forestry – Annex: Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol', above n 6, 6–7.

10 Ibid 5.

11 See Australian Government Department of Climate Change, *Carbon Pollution Reduction Scheme Green Paper* (2008) 119–20 ('Green Paper') <<http://www.climatechange.gov.au/greenpaper/report/pubs/greenpaper.pdf>> at 30 August 2008.

12 UNFCCC Secretariat, 'Land Use, Land-Use Change and Forestry – Annex: Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol' above n 6, 6–7.

is the actions of the Australian landholders and project developers which have resulted in these credits, they will not be entitled to claim those credits.

The Australian Federal Government proposes to permit RMUs to be surrendered in compliance with obligations during the early years of the CPRS.¹³ There is only a short window of opportunity in which nations may trade in these credits. RMUs are temporary credits and are not able to be carried over and used in subsequent commitment periods of the *Kyoto Protocol*.¹⁴ Consequently, they will only attract value up until the end of the first commitment period to the *Kyoto Protocol*.¹⁵

II GENERATION OF CREDITS THROUGH CDM PROJECTS

The *Kyoto Protocol* also enables governments, individuals and companies from Annex 1 nations to generate Certified Emissions Reduction Units ('CERs') through the implementation and verification of projects under the CDM.¹⁶ In terms of biosequestration, only afforestation and reforestation activities may be implemented as CDM projects. Importantly, CDM projects must be implemented in non-Annex 1 nations, that is, in countries *outside of Australia* such as China and India.

There are important lessons to be learnt from the treatment of biosequestration projects under the CDM, particularly with respect to the requirements for additionality of emissions reductions. To be registered and approved for implementation under the CDM, it must be demonstrated that the project will result in reductions in greenhouse gas emissions that are *additional* to any that would otherwise occur in the absence of the project.¹⁷ Similar obligations arise in relation to Joint Implementation projects (discussed below). Projects implemented under the CDM must also obtain local approval in the country

13 *Green Paper*, above n 11, 237.

14 *UNFCCC Secretariat*, 'Modalities for the Accounting of Assigned Amounts under Article 7, paragraph 4, of the Kyoto Protocol: Annex: Modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol', above n 5, Section F.

15 In order to sell these credits to other Annex 1 parties internationally under the *Kyoto Protocol*, the Australian Government must first have satisfied all of the prerequisites for emissions trading as required under the *Kyoto Protocol*. Australia is not expected to become eligible to trade in these carbon credits under the flexibility mechanisms of the *Kyoto Protocol* before July 2009. If these credits are held by project developers, the Federal Government must also authorise those individuals to trade on its behalf under *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 37 ILM 22, art 17 (entered into force 16 February 2005). *UNFCCC Secretariat, Eligibility under Articles 6, 12 and 17* <http://unfccc.int/files/kyoto_protocol/compliance/enforcement_branch/application/pdf/eligibility_list_080511.pdf> at 27 August 2008.

16 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 12 (entered into force 16 February 2005). Annex 1 nations are those nations listed in Annex 1 to the *UNFCCC*. Australia is an Annex 1 nation.

17 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 12(5)(c) (entered into force 16 February 2005).

where the project is to be implemented.¹⁸ The host party must also confirm that the project assists it in achieving sustainable development.¹⁹

Additionality is not an easy element to satisfy. The project baseline against which additionality must be demonstrated will take into account *all realistic and credible land-use scenarios* that would have occurred on the land within the proposed project boundary in the absence of the registered afforestation and reforestation project under the CDM including:

- continuation of the pre-project land use;
- afforestation and reforestation of the land within the project boundary performed without being registered as the CDM project activity;
- forestation of part of the land within the project boundary of the proposed CDM project resulting from:
 - legal requirements (such as prohibitions on clearing); or
 - extrapolation of observed forestation activities in the geographical area with similar socioeconomic and ecological conditions (since 31 December 1989).²⁰

The project baseline must also demonstrate whether, without the revenue from the sale of carbon credits, the proposed project activity *is economically or financially less attractive* than at least one of the other land-use scenarios.²¹ The baseline must also take into account any barriers that would prevent the implementation of the project if the activity was not registered under the CDM. Barriers could include investment barriers within the country as well as barriers relating to a lack of suitable land tenure legislation or absence of clearly defined and regulated property rights in relation to natural resource products and services.²² The difficulties of demonstrating such additionality stem from the fact that there will be a *multitude* of reasons why particular land will be reforested including the presence of legal and economic drivers which influence the decision of the landholder not to clear the land and/or to permit the vegetation to flourish. Registration as a project under the *Kyoto Protocol* is seldom the core

18 UNFCCC Secretariat, 'Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol – Annex: Modalities and Procedures for a Clean Development Mechanism' (Decision 3/CMP.1) in *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal from 28 November to 10 December 2005. Addendum. Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session*, 12–14, UN Doc FCCC/KP/CMP/2005/8/Add.1 (2006).

19 Ibid 14–17.

20 UNFCCC Secretariat, *Report of the CDM Executive Board No 35, Annex 17: A/R Methodological Tool, Tool for the Demonstration and Assessment of Additionality in Afforestation/ Reforestation CDM Project Activities* (2005) <http://cdm.unfccc.int/methodologies/ARmethodologies/AdditionalityTools/Additionality_tool.pdf> at 27 August 2008.

21 Ibid.

22 Ibid.

reason behind such a decision to undertake a sequestration activity. However, without this factor, additionality is unlikely to be established.

Emissions reductions from biosequestration are not permanent. Sequestered carbon can be released to the atmosphere as a result of land clearing, timber harvesting, bushfires, disease and decay. Because of this, the *Kyoto Protocol* has created specific temporary credits for afforestation and reforestation projects known as temporary CERs and long-term CERs. A temporary CER expires at the end of the commitment period following the one during which it was issued.²³ A long-term CER expires at the end of the crediting period of the activity for which it was issued.²⁴ The crediting period can be for a maximum of 20 years, renewed twice, or a maximum of 30 years.²⁵ If the amount of sequestered carbon in the project has reduced during that period, the temporary CERs and long-term CERs must be replaced by the project developer.²⁶

Given the temporary nature of these credits, the Federal Government is not currently proposing to permit liable entities to surrender temporary CERs or long-term CERs in compliance with the CPRS.²⁷ However, CERs from other CDM projects may be permitted.

III GENERATION OF CREDITS THROUGH JOINT IMPLEMENTATION PROJECTS

The *Kyoto Protocol* allows JI projects to be undertaken using afforestation and reforestation activities. Under the *Kyoto Protocol*, investors in Annex 1 countries with emission limits are able to assist other Annex 1 parties, such as Australia, to implement projects in their jurisdiction aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases.²⁸

23 UNFCCC Secretariat, 'Modalities and Procedures for Afforestation and Deforestation Project Activities under the Clean Development Mechanism in the First Commitment Period of the Kyoto Protocol –Annex: Modalities and Procedures for a Clean Development Mechanism' (Decision 5/CMP.1) in *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal from 28 November to 10 December 2005. Addendum. Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session*, 62, UN Doc FCCC/KP/CMP/2005/8/Add.1 (2006).

24 Ibid.

25 Ibid 67, 79. At the time of each renewal, it must be demonstrated that the original project baseline is still valid. In addition, the quantity of removals of emissions must be verified, prior to certification, every five years for the duration of the crediting period.

26 See also, Benoit Bosquet, 'Specific Features of Land Use, Land-Use Change, and Forestry Transactions' in David Freestone and Charlotte Streck (eds), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work* (2005) 288; Sebastian Scholz and Ian Noble, 'Generation of Sequestration Credits under the CDM' in David Freestone and Charlotte Streck (eds), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work* (2005) 270.

27 *Green Paper*, above n 11, 238.

28 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 6.1 (entered into force 16 February 2005).

Prior to obtaining approval to implement a JI project, the project developer must demonstrate that the project will achieve a reduction in emissions by sources, or an enhancement of net removals by sinks, that is *additional* to any that would have occurred in the absence of the JI project.²⁹ In the case of afforestation and reforestation projects, the project document must demonstrate how the actual net greenhouse gas removals by sinks are increased *above* the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred *in the absence of* the registered JI project.³⁰ Consequently, the difficulties of demonstrating actual additionality, identified above, will be equally applicable to JI projects.³¹

Following implementation and verification of the net emissions reductions of the sequestration activity, Emission Reduction Units ('ERUs') will be issued.³² The method of creation of these ERUs depends upon whether the host nation, in this case Australia, meets the prerequisites to follow the simplified approval process. If these pre-requisites are met, then the government will approve the project, verify the emissions reductions and grant the appropriate number of ERUs.³³ If this is not the case, then the United Nations *Joint Implementation Supervisory Board* will perform this function with technical review of the project and verification of the emission reductions by an accredited independent entity.³⁴

The successful completion of a JI project does not result in the creation of additional credits under the *Kyoto Protocol*. As the host party, the Australian Government must cancel the requisite number of credits in its holding account and issue the same number of ERUs to the project developer.³⁵ Consequently, it is likely that most JI projects will take place in Russia, the Ukraine and other economies in transition where the government holds credits excess to its predicted greenhouse gas emissions for the commitment period. The Australian Federal Government is currently considering whether to permit JI projects to be implemented in Australia within those sectors that are not covered by the

29 Joint Implementation Supervisory Committee, *Guidance on Criteria for Baseline Setting and Monitoring Version 01 Annex 1: Additionality* (2006)

<http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf> at 27 August 2008.

30 UNFCCC Secretariat, 'Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol – Annex: Modalities and Procedures for a Clean Development Mechanism' above n 18, 64.

31 Ibid 66; Joint Implementation Supervisory Committee, above n 29, 11. Approved baseline methodologies for CDM projects, discussed above, are able to be applied to JI projects.

32 Joint Implementation Supervisory Committee, above n 29, 11. Projects starting as of 2000 may be eligible as JI projects if they meet the requirements of the JI guidelines, but ERUs will only be issued for a crediting period starting after the beginning of 2008.

33 Australia does not currently satisfy the prerequisites to act as the approval body for JI projects.

34 UNFCCC Secretariat, 'Guidelines for the Implementation of Article 6 of the Kyoto Protocol – Annex: Guidelines for the Implementation of Article 6 of the Kyoto Protocol' (Decision 9/CMP) in *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal from 28 November to 10 December 2005. Addendum. Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session*, 2, UN Doc FCCC/KP/CMP/2005/8/Add 2 (2006).

35 *Kyoto Protocol*, opened for signature 16 March 1998, 37 ILM 22, art 6.1(b) (entered into force 16 February 2005).

CPRS.³⁶ However, the Government is not proposing to approve JI projects for the agricultural sector prior to its inclusion in the CPRS.

IV BIOSEQUESTRATION UNDER THE CARBON TRADING SCHEME

The Federal Government is proposing to allow forest landholders to ‘opt in’ their reforestation activities to the future CPRS. Provided that the reforestation activity results in net sequestration, permits will be issued to the project developer.³⁷ Where emissions from the activity exceed the level of sequestered carbon, the project developer will be liable to surrender permits for those emissions. This unusual decision to include reforestation *as a liable entity* within the CPRS, rather than developing a separate tailored scheme for the generation and verification of abatement credits, appears to have been based on concerns regarding the administrative burden of developing new methodologies and regulating such a regime.

The rules and procedures for the regulation of these activities are still to be developed and these will play a significant role in the overall environmental credibility of including sequestration within the trading regime. Biosequestration raised significant issues regarding the demonstration of additionality and the permanence of emissions reductions. Critical legal issues to be addressed in the CPRS include: the nomination of a baseline for the calculation of net emissions or sequestrations; the time period during which the level of sequestered carbon must be maintained in the vegetation; and the legal requirements for ensuring ongoing rights to access, monitor and maintain those carbon stocks.

The Federal Government has indicated an intention to include the agriculture sector as a liable entity within the CPRS from 2015. In the meantime, the Government does not propose to permit the generation of offsets credits from sequestration within the agriculture sector, nor does it propose to reward early abatement prior to inclusion as a liable entity.³⁸ The Government *will* consider permitting the generation of offsets, or abatement credits, for those sectors not covered by the CPRS where it is not possible to cost effectively mitigate those emissions through alternative measures.³⁹ The creation of credits for reductions in emissions from savanna burning and forestry by Indigenous land managers is one such option.⁴⁰

If offsets were permitted from sequestration activities, then a number of significant legal issues must be addressed including setting thresholds for demonstrating that the emission reductions from the activity are real, additional to business-as-usual and permanent. The non-permanence of emissions reductions from biosequestration is a significant legal issue. Under the *Kyoto*

36 *Green Paper*, above n 11, 247.

37 *Ibid* 129–34.

38 *Ibid*.

39 *Ibid* 246–7.

40 *Ibid*.

Protocol, only temporary instruments are issued for such sequestration and the instrument will be cancelled following the loss of stocks. In contrast, under the Australian Greenhouse Friendly abatement program, permanent credits are issued for the emissions reductions provided that assurance is given that the carbon stocks will be maintained for at least seventy years.⁴¹ It appears that the Australian Government intends to issue permanent credits for reforestation activities subject to ongoing monitoring requirements and an obligation to surrender permits for any net emissions.⁴² However, the project developer must be able to guarantee to the regulator that there will be continued legal rights to access the land and monitor and maintain the carbon stocks associated with those permits. For an owner with freehold title to the land this is challenging enough. To an occupier in possession under a lease of Crown land it is highly problematic given that the Crown retains ownership and exercises significant control through the imposition of lease conditions.⁴³

V STATE-BASED RECOGNITION OF CARBON RIGHTS IN TREES

The legal uncertainties of biosequestration are compounded by the existing State-based approaches to the recognition of carbon rights. Australian States recognise the right to own carbon sequestered in the trees and vegetation on land *separate from* the rights relating to the land itself.⁴⁴ However, there is no unified approach to these rights and the legislative treatment of the sequestered carbon varies drastically across the various jurisdictions.

The New South Wales legislation, for example, provides for the creation and ownership of separate carbon sequestration rights in respect of the land.⁴⁵ A carbon sequestration right 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 after 1990'.⁴⁶ A *profit à prendre* is deemed to exist in relation to the carbon sequestration right.⁴⁷ Forest covenants are also able to be registered on title to address matters associated with the carbon rights such as the provision of access

41 Australian Government Department of Climate Change, *Greenhouse Friendly Guidelines* (2006) 19–21 <<http://www.climatechange.gov.au/greenhousefriendly/publications/pubs/gf-guidelines.pdf>> at 27 August 2008.

42 'Forest landholders would not be able to 'opt out' of the scheme without surrendering permits for all potential obligations': *Green Paper*, above n 11, 132.

43 There is also the vexing question of who owns the carbon sequestered in the trees and vegetation on the leased land. If it is the Crown then the relevant government would have to assign ownership of the carbon to the landholder as well as being a signatory to all contractual agreements between the landholder and purchasers of the credits.

44 *Conveyancing Act 1919* (NSW) s 87A; *Forestry Rights Registration Act 1990* (Tas) s 5; *Forestry Act 1959* (Qld) ss 5, 61J; *Carbon Rights Act 2003* (WA) s 5; *Forestry Rights Act 1996* (Vic) ss 5, 12; *Forest Property Act 2000* (SA) s 3A.

45 *Conveyancing Act 1919* (NSW) s 87A.

46 *Conveyancing Act 1919* (NSW) s 87A.

47 *Conveyancing Act 1919* (NSW) s 88AB(2).

to or the maintenance of trees or forests and the ownership of the trees on the land.⁴⁸

The Tasmanian legislation also provides for the registration of forestry rights, deemed to be *profit à prendre*.⁴⁹ Forestry covenants are able to be registered on title and are binding on the assignees and personal representatives of the covenantor, and on all successors in title of the covenantor to the land.⁵⁰

In contrast, Queensland permits the registration of agreements regarding Natural Resource Products provided that, where the land is held under the *Land Act 1994* (Qld), the owner owns the natural resource product as an improvement on the land as defined under that Act.⁵¹ 'Natural resource products may include all parts of a tree or vegetation, whether alive or dead, including parts below the ground; carbon stored in a tree or vegetation; and carbon sequestration by a tree or vegetation.'⁵² A natural resources product agreement may vest all or part of the natural resource product in another person; grant another person the right to enter the land to establish, maintain or harvest the natural resource product or to carry out works or activities for the natural resource product; or grant another person the right to deal with the natural resource product.⁵³ The benefited person's rights to the natural resource product, under the agreement, are deemed to be a *profit à prendre*.⁵⁴ However, the legislation states that the vesting of the natural resource product, under the agreement, '*does not create an interest in land*'.⁵⁵

In Victoria, a land owner may enter into a forest property agreement, which may grant a right to plant, maintain and harvest forest property on the land; grant a carbon sequestration right in relation to the forest property; and vest ownership of the forest property in a third party.⁵⁶ A forest property owner can also enter into a carbon rights agreement which transfers their carbon sequestration rights to a third party.⁵⁷ The forest property agreement is able to be registered on title.⁵⁸ A forest property right is deemed to not be an interest in land.⁵⁹ The right of entry or access provided in the agreement is not a right of way.⁶⁰ A carbon rights agreement is also deemed to not be an interest in land.⁶¹

48 *Conveyancing Act 1919* (NSW) ss 87A, 88F.

49 *Forestry Rights Registration Act 1990* (Tas) s 5.

50 *Forestry Rights Registration Act 1990* (Tas) s 6.

51 *Forestry Act 1959* (Qld) s 61J(1A); 'Improvement' under Schedule 6 of the *Land Act 1994* (Qld) is defined in relatively broad terms and includes 'cultivation, garden, orchard or plantation'.

52 *Forestry Act 1959* (Qld) s 5, pt 6B.

53 *Forestry Act 1959* (Qld) s 61J(3).

54 *Forestry Act 1959* (Qld) s 61J(5). *Land Act 1994* (Qld), ss 373E–373Q; *Land Title Act 1994* (Qld), ss 97E–97M.

55 *Forestry Act 1959* (Qld) s 61J(4) (emphasis added).

56 *Forestry Rights Act 1996* (Vic) s 5.

57 *Forestry Rights Act 1996* (Vic) s 12(1).

58 *Forestry Rights Act 1996* (Vic) s 8.

59 *Forestry Rights Act 1996* (Vic) s 11(b).

60 *Forestry Rights Act 1996* (Vic) s 11(c).

61 *Forestry Rights Act 1996* (Vic) s 14(2).

The South Australian legislation states that the capacity of forest vegetation to absorb carbon from the atmosphere is a form of property in the nature of a chose in action.⁶² Under the *Forest Property Act 2000 (SA)*, a carbon right attaches to the forest vegetation to which it relates, and ownership of the right passes with ownership of the forest vegetation.⁶³ Ownership of the carbon right can be separated from ownership of the forest vegetation under a forest property agreement.⁶⁴ Forest property agreements may be registered and are enforceable against successors in title.⁶⁵ If unregistered, the interest of the transferee is an equitable interest and liable to be defeated by purchasers in good faith, for value and without notice of the agreement.⁶⁶

In Western Australia, a carbon right can be created in perpetuity as a separate interest in the land.⁶⁷ The carbon right is both a hereditament and an encumbrance on the land.⁶⁸ The legislation permits the holder of a carbon right to register carbon covenants in relation to the land.⁶⁹ A carbon covenant becomes a separate interest in, and runs with, the relevant carbon right as well as attaching to, and running with, the burdened land.⁷⁰

This inconsistent State-based treatment of carbon sequestered within vegetation aggravates an already complex interaction between biosequestration activities and their associated carbon permits. As a result, there are a number of unresolved legal issues to be addressed by the Federal Government including: the interaction between the sequestration activities; tradeable carbon permits issued under the *Kyoto Protocol* or CPRS; contractual undertakings associated with the sale of those permits; and these State-based carbon rights legislation. In particular, the Government must consider the interactions between those instruments in circumstances in which the carbon stocks sequestered in the vegetation are lost or depleted following the sale of the associated carbon permits.

VI LEGAL ISSUES IN TRADING CARBON PERMITS

The primary purpose of carbon trading is to reduce emissions in a cost effective manner by creating permits to emit greenhouse gases and enabling trade in those permits. This is the overall objective of the international carbon trading market, established under the *Kyoto Protocol*, and all emerging domestic trading systems. However, for these carbon markets to be effective in achieving these

62 *Forest Property Act 2000 (SA)* s 3A(1).

63 *Forest Property Act 2000 (SA)* s 3A(2).

64 *Forest Property Act 2000 (SA)* s 3A(2).

65 *Forest Property Act 2000 (SA)* ss 7, 9.

66 *Forest Property Act 2000 (SA)* s 7.

67 But it cannot be varied, *Carbon Rights Act 2003 (WA)* ss 5, 6, 9.

68 *Carbon Rights Act 2003 (WA)* s 6(3).

69 *Carbon Rights Act 2003 (WA)* ss 10–11.

70 *Carbon Rights Act 2003 (WA)* s 12.

objectives they must be supported by appropriate and compatible legal frameworks.

The *Kyoto Protocol* has resulted in the creation of a range of transferable credits and many of these credits may be acquired by Australian entities and surrendered in compliance with the proposed CPRS. However, the nation states have never defined the actual legal characteristics and rights associated with these international instruments. In order to be of value to the holder, carbon permits must be recognised and protected as *property* by the legal system in which the permit is held. To be properly characterised as property, the permit must provide the owner with 'rights to possess the property, to use the property, to exclude others from the property, and to dispose of the property by sale or by gift'.⁷¹ It should also be capable of being made the subject of a mortgage or charge. Without the presence of these elements, the instrument will be more akin to regulatory property with only limited property protections. This, in turn, could have serious repercussions for the overall effectiveness of the international and domestic carbon market systems.

Given the silence of the *Kyoto Protocol* on this matter, recognition and protection of these global credits must be dealt with in an ad hoc fashion by the domestic civil law and common law systems in which the credits are created, traded or held. As a result, the treatment of these credits will vary across the globe depending on the origins of the instrument, that is, the applicable laws for how and where it was created; its contractual treatment; and its recognition and treatment in the jurisdiction in which the instrument is held. This situation is exacerbated in Australia with its federal system of governance and fragmented approach to property rights across the States and Territories.

The Australian CPRS is intended to establish carbon permits which are 'personal property'.⁷² The Federal Government has stated that it *will not be empowered* to extinguish these permits without compensation.⁷³ However, there is no new legal framework proposed in the CPRS to ensure that these permits possess the necessary characteristics to actually be 'personal property'. The CPRS Green Paper merely comments that 'the legislation would not prohibit commercial transactions such as the creation of equitable interests in permits or taking security over permits'.⁷⁴ No legislation to facilitate such transactions is proposed. This means that the legalities of owning these permits, and any international instruments, will be subject to the existing property law systems of the States and Territories, which vary greatly and were not created with these novel concepts of carbon trading in mind. Consequently, although the intention may be for these permits to be treated as property, they may not be treated as such within the relevant jurisdiction. Ultimately, this will affect the inherent financial value of these instruments within the market system. Given these

71 *Moore v Regents of the University of California* 51 Cal.3D 120, 165 (Cal 1990).

72 *Green Paper*, above n 11, 149–50.

73 *Ibid.*

74 *Ibid.*

concerns, it appears preferable for the Federal Government to create a nationally consistent legal framework for the recognition and treatment of carbon permits within Australia. Such legal reform is all the more critical given the intention to link the CPRS with other international and domestic carbon markets and permit international trade in Australian permits.