

A PROPERTY LAW PERSPECTIVE ON THE CURRENT AUSTRALIAN CARBON SEQUESTRATION LAWS, AND THE GREEN PAPER MODEL

MARIANNA PARRY*

Current Australian carbon sequestration laws have been passed by State Parliaments in anticipation of the overarching national scheme. The Carbon Pollution Reduction Scheme, although not yet implemented, is a good indicator of future national policies. This paper analyses the current carbon sequestration laws which employ traditional property categories such as restrictive covenant, profit à prendre, chose in action and sui generis rights for forest property rights and carbon sequestration rights. Multiple problems and potential adverse effects of the current arrangement emerge from this analysis. None of the categories appear to be suitable to operate in the novel climate change scenarios. The other traditional property candidates such as easements in gross and long-term leases seem no better suited. After consideration of overseas experiences — that of the European Union and the United States — the solution to the current problems is found to reside in the Green Paper model proposed by the Australian Government in July 2008. However, the proposal has recurred neither in the White Paper nor in the Carbon Pollution Reduction Scheme Bill 2009 (Cth) introduced on 14 May 2009. The main features of the model are: creation of regulatory property rights; use of the National Carbon Accounting System and satellite monitoring; temporary carbon permits issued directly to landowners. The political, constitutional, economic and legal aspects of this model are discussed. It is argued that regulatory property achieves the market-based regulatory goals without any of the adverse effects of the current arrangement.

I INTRODUCTION

There is widespread political agreement on the need to act on climate change and widespread political disagreement on what has to be done. Although in 2008 the Rudd Government has announced its ambition to lead the world in reduction of environmental pollution,¹ domestically its policies have suffered

* B Biomed Sc, Masters Qual Critical Studies, LLB student, Monash University. This paper was submitted for assessment for the Honours Research Project at Monash University. The author is grateful to Associate Professor Pamela O'Connor, Associate Professor Matthew Groves and the anonymous referee for their comments on drafts of this paper.

1 Australian Government, 'Why Don't We Wait for Other Large Countries to Act?' in Australian Government, *The Benefits of Early Action: Fact Sheet* (December 2008). See also Kevin Rudd, 'Renewable Energy Targets & Australia's Climate Change Plan' (2009) <<http://www.youtube.com/watch?v=F01MU72eQtM>> at 18 August 2010: 'Australia must act again to introduce the Carbon Pollution Reduction Scheme and show international leadership on Climate Change'.

defeat.² While the current proposals are contentious and may change, there appears to be bipartisan support for a market-based regulatory mechanism in some form. Thus, the Carbon Pollution Reduction Scheme ('CPRS') is a good indicator of the type of regulatory response likely to be included in future climate change policies, as it has been designed with a view to fulfilling Australia's international obligations³ under the *United Nations Framework Convention on Climate Change* ('UNFCCC'),⁴ the *Kyoto Protocol to the United Nations Framework Convention on Climate Change* ('Kyoto Protocol')⁵ and related instruments. These international instruments favour market-based mechanisms of environmental regulation predicated upon the creation of new property rights (as opposed to carbon tax), with the 'cap and trade' approach coming out as the preferred one. The *Garnaut Review on Climate Change*⁶ has advised that the national commitments should take the form of a 'cap and trade' scheme.⁷ This recommendation has been adopted by the government in the domestic Carbon Pollution Reduction Scheme Bill 2009 (Cth) ('CPRS Bill').⁸ The Carbon Pollution Reduction Scheme ('CPRS') creates a commodity — the transferable carbon permit — to be traded nationally and eventually internationally through domestic and *Kyoto Protocol* flexibility mechanisms,⁹ such as an Emissions Trading Scheme ('ETS'). The CPRS proposal was first presented by the federal government in the *Green Paper*¹⁰ in July 2008. An amended version was issued in the *White Paper* in December 2008.¹¹ Finally, the CPRS Bill and the Australian Climate Change Regulatory Authority Bill 2009 (Cth) were released, provoking strong political controversy.¹²

This article is concerned with one particular aspect of the CPRS in the forestry and land-use sector — the inclusion of carbon sequestration credits — which are currently governed by the carbon sequestration laws passed by the States. Internationally, land use, land-use change, and forestry activities ('LULUCF') have merited a separate report by the Intergovernmental Panel on Climate

2 Phillip Coorey, 'Senate Kills Emissions Trading Scheme Bills', *Herald Sun* (Online), 13 August 2009, <<http://www.smh.com.au/environment/climate-change/senate-kills-emissions-trading-scheme-bills-20090813-eiyc.html>> at 18 August 2010.

3 See Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 3(1)–(2).

4 *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994). The text is set out in the *Australian Treaty Series 1994 No 2* [1994] ATS 2 ('UNFCCC').

5 *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force on 16 February 2005) ('Kyoto Protocol').

6 Ross Garnaut, *The Garnaut Climate Change Review* (2008) ('Garnaut Review').

7 Ibid 195–8. See also Rick Baker et al, 'The Stern Review: An Assessment of Its Methodology' (Staff Working Paper, Productivity Commission, 2008) 77.

8 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 4, pt 2 ss 13–15.

9 'Clean Development Mechanisms' are often discussed with regard to carbon sinks, but they are intended to operate only in developing countries, so Australia, an Annex I country, might not be eligible.

10 Australian Government, *Carbon Pollution Reduction Scheme: Green Paper – July 2008* (2008) ('Green Paper').

11 Australian Government, *Carbon Pollution Reduction Scheme: White Paper – December 2008* (2008) ('White Paper').

12 'If the bills are rejected a second time, Labor will have a trigger to dissolve both houses of Parliament and call an early election': Coorey, above n 2.

Change ('IPCC')¹³ and have received significant attention during the Kyoto and post-Kyoto negotiations.¹⁴ The IPCC states that the *Kyoto Protocol* 'makes provision for Annex I parties to take into account afforestation, reforestation, and deforestation and other agreed [LULUCF] in meeting their commitments under Article 3'.¹⁵ Australia's proposed CPRS only takes into account reforestation.¹⁶

Prior to the CPRS, all Australian States enacted laws creating property rights in carbon sequestered in trees and other vegetation on land ('forestry carbon rights').¹⁷ These laws have been introduced by States in anticipation of the transition to a low carbon economy pursuant to the UNFCCC. These laws were intended to be an important part of Australia's legislative framework to deal with climate change issues but they have received far less scrutiny than federal legislative proposals. The relative lack of attention given to State legislation and the haste with which the legislation was passed has enabled several significant flaws to go unnoticed. One obvious shortcoming in the legislative scheme of the States is that there is no national coordination or attempt at uniformity of definitions.¹⁸ The laws have been passed without fully conceptualising the relationship between the rights created and the operation of the CPRS. The State legislation is fundamentally flawed on multiple levels of analysis and, even more fundamentally, it is based on reifying intangible carbon rights as tangible real property. This approach is at odds with accepted principles of property law and requires reconsideration.

The *Green Paper*, issued in July 2008, has suggested another model of property right that is more suitable to be the subject matter of the trade.¹⁹ The *Green Paper Model's* property right is firmly of the regulatory property variety, which combines the elements of a personal, transferable property right and of a regulatory scheme.²⁰ It obviates many of the conceptual and operational difficulties associated with the current legislative definitions. Despite this obvious advantage, the Model has not been adopted in later CPRS proposals. This article sets out a case for revoking the current State legislation and replacing it with the *Green Paper Model* of the carbon permit as regulatory property.

The second chapter of this article discusses the context of the current legislative arrangement and outlines the climate change politics, economics and jurisprudence behind environmental law and property law. The next chapter analyses the nature

13 Intergovernmental Panel on Climate Change ('IPCC'), *Land Use, Land-Use Change and Forestry: Special Report* (2000).

14 Eveline Trines, 'History and Context of LULUCF in the Climate Regime' in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 33.

15 IPCC, above n 13, 3.

16 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10.

17 *Conveyancing Act 1919* (NSW) s 87A; *Forestry Act 1959* (Qld) sch 3; *Forest Property Act 2000* (SA) s 7(1)(b); *Forestry Rights Registration Act 1990* (Tas) s 3; *Forestry Rights Act 1996* (Vic) s 3; *Carbon Rights Act 2003* (WA) s 3.

18 See Samantha Hepburn, 'Carbon Rights as New Property: Towards a Uniform Framework' (2008) Australian National University <<http://www.law.anu.edu.au/News/Hepburnseminarpaper.doc>> at 18 January 2009.

19 Australian Government, *Green Paper*, above n 10, 127–34.

20 Carol Rose, 'The Several Futures of Property: Of Cyberspace and Folk Tales, Emissions Trades and Ecosystems' (1998–99) 83 *Minnesota Law Review* 129, 163 et seq.

and purpose of current carbon sequestration laws. It also provides a property law analysis of the suitability of the categories of property rights chosen as vehicles for carbon sequestration rights ('CSR') and possible adverse effects of trying to adapt traditional categories of property rights to the completely novel scenarios. It will be argued that none of the established categories of property rights is a suitable vehicle for the carbon right. The fourth chapter will consider whether easements and long-term leases might be more suitable. An overview of overseas experiences of the European Union and the United States will also be given. The final chapter of this article will propose the *Green Paper* Model of regulatory property as a more suitable model for Australia. It will describe the framework and political developments associated with the *Green Paper* Model; explore relevant constitutional issues and provide a critique and comparison of the *Green Paper* Model with Part 10 of the CPRS Bill.²¹ It will be contended that there are many advantages in constructing carbon rights as regulatory property rights rather than conventional real or personal property rights.

II CONTEXT OF THE CURRENT ARRANGEMENT: THE CLIMATE CHANGE POLITICS, ECONOMICS AND JURISPRUDENCE

This chapter outlines the context of the current arrangement including the climate change politics, economics, and jurisprudence. It is designed to give a background to understanding the pressures and challenges which legislators are facing in designing climate change policies.

A *The Climate Change Politics: The UNFCCC, the Kyoto Protocol and Related Instruments*

The IPCC confirmation of climate change highly politicised the issue and prompted an international debate on the allocation of responsibility and the processes for reducing global greenhouse gas ('GHG') emissions.²² The ensuing difficult 'process of negotiation'²³ resulted in the UNFCCC, ratified by Australia at the United Nations Conference on Environment and Development

21 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10.

22 Ros Taplin, 'Climate Science and Politics: The Road to Rio and Beyond' in Thomas Giambelluca and Ann Henderson-Sellers (eds), *Climate Change – Developing Southern Hemisphere Perspectives* (1996) 377, 380, 393, refers to the tensions 'between developed and developing nations and between the US and the Western Europeans'. See also Oran Young, 'Global Environmental Change and International Governance' (1990) 19 *Millennium: Journal of International Studies* 337, 343.

23 Taplin, above n 22, 387; Daniel Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' (1993) 18 *Yale Journal of International Law* 451; Philip Drost (ed), *Multilateral Environmental Agreements: State of Affairs and Developments 2008* (2008) 243.

(‘UNCED’) held in Rio de Janeiro in 1992.²⁴ Then, the ‘Berlin Mandate’²⁵ at the first Conference of the Parties in 1995 led to the establishment of ‘a timetable for developed countries to negotiate a protocol with clear quantifiable emissions limitation and reduction objectives’.²⁶ In 1997, the *Kyoto Protocol* was adopted, becoming the first additional agreement, the major feature of which was the setting of binding targets for 37 industrialised countries and the European community for reducing GHG emissions.²⁷ Its major achievement was the establishment of the binding ‘targets and timetables’²⁸ approach at least for the Annex I (developed) countries, with respect to reducing GHG emissions.²⁹ As a supplement, three flexibility mechanisms³⁰ were established: international ETS; joint implementation; and the Clean Development Mechanism.³¹ Australia signed the instrument of ratification of the *Kyoto Protocol* on 3 December 2007, which came into effect on 11 March 2008.³²

B The Climate Change Economics

1 The ‘Cap and Trade’ Approach

Leaving aside the initial unpopularity³³ of the *Kyoto Protocol*, even among supporters of the environmental movement, there is a deep divide between those who prefer ‘command-and-control’ regulation in the form of a carbon

24 David Victor and Julian Salt, ‘From Rio to Berlin: Managing Climate Change’ in Thomas Giambelluca and Ann Henderson-Sellers (eds), *Climate Change – Developing Southern Hemisphere Perspectives* (1996) 397, 398; Taplin, above n 22, 391: ‘Australia developed in 1992 a first-phase *National Greenhouse Response Strategy* and an addendum to the Strategy was released in 1995, *Greenhouse 21C: A Plan of Action for a Sustainable Future*’. The proposals by Federal Senator John Faulkner in 1994 to introduce a carbon tax and an effective reduction of Australian GHG emissions have been rejected ‘due to industry interest group pressure... in particular... the coal producers’: at 392.

25 UNFCCC, ‘Conclusion of Outstanding Issues and Adoption of Decisions’ (Conference of the Parties, Berlin, 28 March – 7 April 1995). See also David Hunter, James Salzman and Durwood Zaelke, *International Environmental Law and Policy* (2nd ed, 2002) 625; Victor and Salt, above n 24, 397.

26 Hunter, Salzman and Zaelke, above n 25, 625.

27 *Kyoto Protocol*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force on 16 February 2005).

28 Hunter, Salzman and Zaelke, above n 25, 625; Victor and Salt, above n 24, 399–401.

29 *Kyoto Protocol*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force on 16 February 2005).

30 Farhana Yamin (ed), *Climate Change and Carbon Markets: A Handbook of Emissions Reduction Mechanisms* (2005) xxix; Drost, above n 23, 276–7. See also Hunter, Salzman and Zaelke, above n 25, 630, who also count the European Union’s ‘bubble concept’, or its United States’ equivalent ‘the Umbrella Group’ as a flexibility mechanism.

31 *Kyoto Protocol*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force on 16 February 2005) art 12.

32 Australian Government, *An Overview of the Kyoto Protocol* (2008) Department of Climate Change <<http://www.climatechange.gov.au/international/kyoto/index.html>> at 25 September 2009.

33 Cass Sunstein, ‘Of Montreal and Kyoto: a Tale of Two Protocols’ (2007) 31 *Harvard Environmental Law Review* 1, 4–5.

tax³⁴ and those who actively oppose any statutory involvement, instead promoting ‘common law protection of property rights and pollution control’.³⁵ The carbon tax proponents argue that taxes can be better adapted to changing market conditions,³⁶ allow the least expensive reduction options to be undertaken first,³⁷ avoid often dangerous market deregulation,³⁸ and, generally, are preferable to a carbon trading system because they are ‘more efficient, effective, simple, flexible, and transparent... [having] the added benefit of providing revenue which can be used to cut other taxes’.³⁹ Their opponents argue that the carbon market ensures that both property rights and governmental regulation will play a role in our environmental future. Hourcade et al comment that:

Since 1992 the unpopularity of carbon taxes had left the cap and trade system as the sole contender for this purpose ... as best meeting the criteria of cost-effectiveness, environmental integrity, universal participation, and flexibility vis-à-vis national sovereignty.⁴⁰

Garnaut gives five reasons ‘why a quantity-based international agreement ... is more likely to succeed’,⁴¹ even though he also agrees with the advantages of a tax-based approach.⁴² The reasons were that the quantity-based Agreement:

- builds on the current international architecture and national practice rather than overturns it;⁴³

34 Robert Shapiro, ‘The Carbon Tax – An Alternative to Carbon Trading’ in Committee for Economic Development of Australia, *Climate Change – Getting It Right* (2007) ch 7; Letter from Jim Hansen to Michelle and Barack Obama, 29 December 2008; Roger Dower and Mary Zimmerman, *The Right Climate for Carbon Taxes: Creating Economic Incentives to Protect the Atmosphere* (1992); Robert Repetto, *The Costs of Climate Protection: A Guide for the Perplexed* (1997); Roger Guesnerie, ‘The Design of Post-Kyoto Climate Schemes: Selected Questions in Analytical Perspective’ in Roger Guesnerie and Henry Tulkens (eds), *The Design of Climate Change* (2008) 37, 45. Cf Jean-Charles Hourcade, P R Shukla and Sandrine Mathy, ‘Untying the Climate Development Gordian Knot: Economic Options in a Politically Constrained World’ in Roger Guesnerie and Henry Tulkens (eds), *The Design of Climate Change* (2008) 75, 76.

35 Jonathan Adler, ‘Conservation without Regulation: Property-based Environmental Protection’ (2009) *University of Cincinnati* 21, 24. See also Hourcade, Shukla and Mathy, above n 34, 76; David Brand, ‘Attracting Institutional Investment into the Australian Forestry Sector’ in Peter Fusaro and Marion Yuen (eds), *Green Trading Markets: Developing the Second Wave* (2005) 151, 154; William Cline, *The Economics of Global Warming* (1992) 7; David Bradford, ‘Improving on Kyoto: Greenhouse Gas Control As the Purchase of a Global Public Good’ in Roger Guesnerie and Henry Tulkens (eds), *The Design of Climate Change* (2008) 1, 15; William Pizer, ‘Economics versus Climate Change’ in Roger Guesnerie and Henry Tulkens (eds), *The Design of Climate Change* (2008) 201, 207.

36 Dower and Zimmerman, above n 34, 7.

37 Ibid.

38 See especially Joseph Stiglitz, ‘Overselling Globalization’ in Michael Weinstein (ed), *Globalization: What’s New* (2005) 228.

39 John Humphreys, *Exploring a Carbon Tax for Australia* (2007) ix <http://www.cis.org.au/policy_monographs/pm80.pdf> at 20 October 2009.

40 Hourcade, Shukla and Mathy, above n 34, 76.

41 Garnaut, above n 6, 196. See also John Byrne et al, ‘Reclaiming the Atmospheric Commons: Beyond Kyoto’ in Velma Grover (ed), *Climate Change Five Years after Kyoto* (2004) 429, 436: ‘[t]his policy appears to be driven less by accurate knowledge than confident expectations of profit’.

42 Garnaut, above n 6, 40, 195–6.

43 Ibid.

- provides more incentives for developing countries to participate;⁴⁴
- gives more direct control of emissions levels through quantitative targets;
- prevents cost blow-outs through intertemporal flexibility; and
- allows the countries to adopt their own mix of policies, thus avoiding ‘more intrusive international oversight’.⁴⁵

While the rhetoric on both sides is similar, the cap and trade approach has prevailed.

The essence of the ‘cap and trade system’ is simple. Each country is assigned a ‘cap’ for its total emissions of GHGs. (The current consensus, welcomed by the Australian government, is that only anthropogenic emissions be counted under the cap.)⁴⁶ If, at the end of the accounting period, the country’s emissions are below the cap, the difference can be traded as ‘hot air’⁴⁷ to countries that exceed their assigned emissions targets. The details of this system, however, are already complicated,⁴⁸ and in need of further development.⁴⁹

The environmental effect of the ‘cap and trade’ system is not immediate: the rise or fall in emissions would depend on the cap value.⁵⁰ There is a controversy surrounding the issue of how to determine the level at which to set the cap — expressed in terms of the necessary emission reductions.⁵¹ Compared to the amount of reductions urged by the IPCC’s *Fourth Assessment Report 2007*,⁵² the *Stern Review*,⁵³ the more moderate *Garnaut Review*,⁵⁴ and other sources,⁵⁵ emission reductions set by the *Kyoto Protocol* are ‘overwhelmingly inadequate’.⁵⁶ Therefore, the system itself is at best environmentally neutral. It is primarily

44 Ibid 197.

45 Ibid.

46 UNFCCC, ‘Views on Options and Proposals for Addressing Definitions, Modalities, Rules and Guidelines for the Treatment of Land Use, Land-Use Change and Forestry’ in UNFCCC, *Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol*, UN Doc FCCC/KP/AWG/2010/CRP.2 (2010).

47 Byrne et al, above n 41, 434; Risa Maeda, *Japan buys 30 Million Tonnes of CO2 Rights from Ukraine* (2009) Thomson Reuters Foundation AlertNet <<http://www.alertnet.org/thenews/newsdesk/T12318.htm>> at 16 September 2009; UNEP and UNFCCC, *Understanding Climate Change: A Beginner’s Guide to the UN Framework Convention and its Kyoto Protocol* (2002) [31] UNFCCC <http://unfccc.int/resource/docs/publications/beginner_en.pdf> at 16 September 2009.

48 See, eg, Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law & the Environment* (3rd ed, 2009) 358–68.

49 Ibid 368–9 regarding policing of the Kyoto flexibility mechanisms.

50 See especially ibid 371.

51 Nicholas Stern, *The Economics of Climate Change: The Stern Review* (2007) 4–5; Robert Mendelsohn, ‘Reviewing Stern: Lessons for Australia’ in Committee for Economic Development of Australia, *Climate Change – Getting It Right* (2007) 34; Garnaut, above n 6.

52 IPCC, *Fourth Assessment Report* (2007).

53 Stern, above n 51.

54 Garnaut, above n 6.

55 See, eg, David Spratt and Philip Sutton, *Climate Code Red: The Case for Emergency Action* (2008).

56 Birnie, Boyle and Redgwell, above n 48, 371.

an economic measure,⁵⁷ with economic consequences appearing before environmental ones.⁵⁸

Where environmental law would say: ‘consume less — pollute less — pay less’, a ‘cap and trade’ approach says: ‘consume more — pollute more — pay more’. These are fundamentally different messages. In the latter case, there will only be a positive environmental effect if the ‘pay more’ for pollution disincentive is adequately enforced.⁵⁹ However, if a party is failing to meet its commitments ‘[n]o sanctions can be imposed; there is power only to *recommend* measures ... that facilitate compliance’.⁶⁰ There is therefore no certainty regarding either economic or environmental benefits of the cap and trade scheme, which is duly criticised by some experts.⁶¹ However, there is one aspect of the *Kyoto Protocol* which appears to have more certainty about its immediate environmental benefit — preservation of ‘carbon sinks’ such as forests.⁶²

2 The Rationale behind LULUCF

According to a global GHG estimate, ‘agriculture, forests, and other land uses ... account for some 20 percent of the total amount of carbon that exists on the planet’.⁶³ Consequently, Dyson’s theory⁶⁴ — that emitted CO₂ is reabsorbed by vegetation via carbon sequestration⁶⁵ — appealed to economists. In 1992, Cline suggested that global warming abatement costs could be cut through forestry measures⁶⁶ at a marginal cost of 10 to 25 times lower than that of other measures.⁶⁷ Participating countries therefore included afforestation, reforestation and deforestation in emissions accounting.⁶⁸

57 The theoretical background of the *Kyoto Protocol* is traced to Ronald Coase, ‘The Problems of Social Cost’ (1960) 3 *Journal of Law and Economics* 1; Alfred Pigou, *The Economics of Welfare* (1920); Harold Demsetz, ‘Towards a Theory of Property Rights’ (1967) 57 *American Economic Review* 347. See also Birnie, Boyle and Redgwell, above n 48, 363–4.

58 For example, the first phase of the European ETS ‘came badly unstuck in May 2006 when the market crashed, losing over 70 per cent of its value’: Birnie, Boyle and Redgwell, above n 48, 368.

59 See Joseph Tomain, ‘Conservation without Regulation: Property-Based Environmental Protection’ (2009) *University of Cincinnati* 25, 25: ‘Another problem with regulation isn’t so much its existence or its absence, it’s the fact that often regulation is unenforceable’.

60 Birnie, Boyle and Redgwell, above n 48, 369.

61 See, eg, *ibid*; Bodansky, above n 23; Hansen, above n 34; Byrne et al, above n 41.

62 See the relevant definitions and sections of the international instruments: UNFCCC arts 1(7), 4(1)(d), 4(2)(b), 4(2)(c), 12(1)(a); *Kyoto Protocol* arts 2(1), 3(3), 3(4), 3(7), 3(12); Marrakesh Accords (COP-7, Marrakesh, 29 October to 10 November 2001) definitions, arts 3(3), 3(4), 12..

63 David Freestone, ‘Foreword’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) ix, x.

64 See Freeman Dyson, ‘Can We Control Carbon Dioxide in the Atmosphere?’ (1976) 2 *Energy* 287; Larry Lohmann, ‘The Dyson Effect: Carbon “Offset” Forestry and the Privatization of the Atmosphere’ (2001) 15 *International Journal of Environment and Pollution* 51.

65 See, eg, Australian Coal Association, *Carbon Capture and Storage* (2008) <<http://www.australiancoal.com.au/environmentCCS.htm>> at 11 April 2009.

66 Cline, above n 35, 7.

67 *Ibid*.

68 IPCC, *Land Use*, above n 13, 3.

Avoided deforestation is identified as ‘the cheapest option for mitigating increases in emissions of [GHGs]’,⁶⁹ though beset with ‘real world’ problems such as illegal logging, ‘a lack of institutional capacity and rampant corruption’.⁷⁰ Afforestation, as a measure, is limited by the amount of land for which it is feasible.⁷¹ It is also difficult to predict the quantity of carbon credits generated through reforestation.⁷² Of these options, the CPRS Bill only provides for reforestation.

However, practically every aspect of the LULUCF rationale is doubted.⁷³ A number of criticisms apply to reforestation, especially:

- impermanence of the sinks,⁷⁴ which delay release of CO₂ rather than prevent it;
- ‘[r]eforestation or forest conservation in one place can, in principle, cause deforestation elsewhere. Such effects of climate mitigation activities outside a project’s boundaries have been labelled “[carbon] leakage”’;⁷⁵
- the sterilisation of land for other uses;⁷⁶ and
- the creation of perverse incentives ‘that might increase rather than reduce emissions’⁷⁷ as ‘landowners might cut forests and later claim carbon credits for reforesting the same land’.⁷⁸
- In addition, there is a concern about a lack of regulations⁷⁹ dealing with sink projects,⁸⁰ which involve large areas of land.⁸¹

69 Freestone, above n 63, x.

70 Johannes Ebeling, ‘Risks and Criticisms of Forestry-Based Climate Change Mitigation and Carbon Trading’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 43, 45. See also Charlotte Streck et al, ‘Creating Incentives for Avoiding Further Deforestation: The Nested Approach’: at 237.

71 Cline, above n 35, 7.

72 Ebeling, above n 70, 45.

73 See, eg, Lohmann, above n 64; Gerald Leach, ‘Think before You Sink’ (2002) 46 *Tiempo*, University of East Anglia <<http://www.tiempocyberclimate.org/portal/archive/issue46/t46a4.htm>> at 19 July 2009; Australian Government, *Green Paper*, above n 10; Australian Government, *White Paper*, above n 11; Frank Ackerman and Lisa Heinzerling, *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection* (2002) Georgetown University Law and Policy Institute <<http://www.tufts.edu/gdae/publications/C-B%20pamphlet%20final.pdf>> at 17 April 2009.

74 Ebeling, above n 70, 46.

75 Ibid 49.

76 Ibid 53.

77 Ibid 52.

78 Ibid.

79 Nicola Durrant, ‘Emissions Trading, Offsets, and Other Mitigation Options for the Australian Coal Industry’ (2007) 24 *Environment and Property Law Journal* 361, 371; Andrew Thompson and Rob Campbell-Watt, ‘Carbon Rights – Development of the Legal Framework for a Trading Market’ (2004) 2 *National Environmental Law Review* 31, 35.

80 Maria Manguiat et al, ‘Legal Aspects in the Implementation of CDM Forestry Projects’ (2005) [31] International Union for Conservation of Nature Environmental Policy and Law <<http://www.iucn.org/themes/law/pdffdocuments/EPLP59EN.pdf>> at 31 July 2009.

81 See generally *ibid*; Durrant, above n 79; Council of Australian Governments (‘COAG’), *Consultation Regulation Impact Statement: Draft Guiding Regulatory Framework for Carbon Dioxide Geosequestration* (2006) <<http://www.austlii.edu.au/au/other/dfat/nia/2006/42/1.pdf>> at 16 September 2009.

These criticisms demonstrate that the whole scheme of forestry carbon credits is based on highly controversial propositions.

C *The Climate Change Jurisprudence: Property Law vs Environmental Law*

There is a longstanding division between environmental and property law. Property law is grounded in centuries of case law which have developed incrementally, often with regard to competing philosophical theories.⁸² Environmental law has a more recent origin and formed into an independent discipline several decades ago.⁸³ It is comprised mostly of ad hoc legislation⁸⁴ passed ‘without a theoretical framework’,⁸⁵ and from its beginning stands in deep contrast, even antagonism,⁸⁶ to the traditional property law.⁸⁷

Environmental law deals with a subject that is inherently expansive,⁸⁸ as ‘environment’ can extend to global, even cosmic, proportions, not being easily definable.⁸⁹ Its power is negative,⁹⁰ restrictive,⁹¹ and proscriptive. Its metaphysical⁹² vector is directed towards the collective good,⁹³ away from ‘private’ and individual. It always appears ‘in the public interest’,⁹⁴ with criminal sanctions

- 82 See, eg, Lawrence Becker, *Property Rights: Philosophic Foundations* (1977). See Lord Beloff, ‘Property and the Pursuit of Happiness’ in Colin Kolbert (ed), *The Idea of Property in History and Modern Times* (1997) 3, 4; Antonio Gambaro, ‘Public vs Private Land Property? Or Complex Regimes of Rights on Land?’ in Maria Elena Sánchez Jordán and Antonio Gambaro (eds), *Land Law in Comparative Perspective* (2002) 1, 1–2; Georg Wilhelm Friedrich Hegel, ‘The Philosophy of Right’ (T M Knox trans, first published 1820, 1952 ed) in Robert Hutchins et al (eds), *Great Books of the Western World* (1952) vol 46 [trans of: *Grundlinien der Philosophie des Rechts*] 1.
- 83 Gerry Bates, *Environmental Law in Australia* (7th ed, 2010) 3; Murray Raff, *Private Property and Environmental Responsibility: A Comparative Study of German Real Property Law* (2003) 1.
- 84 Adil Najam, ‘Future Directions: The Case for a “Law of the Atmosphere”’ (2000) 34 *Atmospheric Environment* 4047 [1]. See generally Guido Calabresi, *A Common Law for the Age of Statutes* (1999) 3.
- 85 Rohan Bennett, Jude Wallace and Ian Williamson, ‘Organising Land Information for Sustainable Land Administration’ (2008) 25 *Land Use Policy* 126, 128.
- 86 David Grinlinton, ‘Property Rights and the Environment’ (1996) 4 *Australian Property Law Journal* 41, 428–47; J Peter Byrne, ‘Property and Environment: Thoughts on Evolving Relationship’ (2004–05) 28 *Harvard Journal of Law and Public Policy* 679; Rose, above n 20, 163; Theodore Steinberg, *Slide Mountain: Or the Folly of Owning Nature* (1996) 5–7, 48–50.
- 87 Donald Denman, ‘Property and the Environment’ in Colin Kolbert (ed), *The Idea of Property in History and Modern Times: The Sir Ian Mactaggart Memorial Lectures and Complementary Essays* (1997) 155, 165; Hegel, above n 82, 23 [46].
- 88 Denman, above n 87, 157–8, referring to ‘the “dustbin” environment’ and ‘pseudoenvironment’.
- 89 But see Gerry Bates and Zada Lipman, *Corporate Liability for Pollution* (1998) 13: ‘The term “environment” ... now generally encompasses all natural resources and organisms, organic and inorganic matter, facets of the environment (land, air and water), human-made or modified structures and areas, and interacting natural ecosystems’.
- 90 Denman, above n 87, 161.
- 91 Grinlinton, above n 86, 42–7.
- 92 As to the metaphysics of the environmental law, see *ibid* 21; Rose, above n 20, 163; Michael Northcott, *A Moral Climate: The Ethics of Global Warming* (2007) 6; Denman, above n 87, 159; Byrne, above n 86.
- 93 Gambaro, above n 82, 2: ‘the relevant issue is... that of: *Private vs Public Use of Land*’ (emphasis in original).
- 94 Grinlinton, above n 86, 62. See also Gambaro, above n 82, 2.

reflecting strong moral⁹⁵ condemnation of an injury to the environment: tougher penalties are administered and their range is increasing.⁹⁶ The environmental ideology⁹⁷ is gathering momentum, bringing with it ‘a philosophical revolution at least as dramatic as that of the seventeenth century’.⁹⁸

By contrast, property law regulates interpersonal legal relations⁹⁹ appertaining to things. ‘Property’ is ‘concentrations of power over things and resources’.¹⁰⁰ Property law ‘is an expression of control over the natural world’.¹⁰¹ Its power is positive,¹⁰² unfettered,¹⁰³ and, prima facie, absolute.¹⁰⁴ It has been described as the ‘law of men dividing “mine” from “thine”’,¹⁰⁵ its metaphysical relevance resting with private affairs of individuals. Hegel notes:

[T]he specific characteristics pertaining to private property may have to be subordinated to a higher sphere of right (eg to a society or the state)... Still, such exceptions to private property cannot be grounded in chance, in private caprice, or private advantage, but only in the rational organism of the state.¹⁰⁶

If Hegel is right, then environmental law is nothing more than a growing list of exceptions to private property grounded in the rational organism of the state. Indeed, according to Rose, ‘property rights’ groups view environmental measures as ‘takings’ of private property.¹⁰⁷ Their view is shared by many landowners, who demand compensation from the government for various environmental restrictions placed on their use of property.¹⁰⁸

95 Al Gore, *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It* (2006) 11.

96 Kim Glassborow, ‘Environmental Offences – Recent Decisions in the Land and Environment Court’ (2009) 24 *Australian Environment Review* 31. See also Nicola Durrant, ‘Tortious Liability for Greenhouse Gas Emissions? Climate Change, Causation and Public Policy Considerations’ (2007) 7 *Queensland University of Technology Law and Justice Journal* 403, 404.

97 Byrne, above n 86, 684–5.

98 Jonathon Porritt, ‘A Full Repairing Lease on Planet Earth’ in Colin Kolbert (ed), *The Idea of Property in History and Modern Times* (1997) 49, 61.

99 Wesley Newcomb Hohfeld, ‘Some Fundamental Legal Conceptions as Applied in Judicial Reasoning’ (1913) 23 *Yale Law Journal* 16, 21–2; Brendan Edgeworth et al, *Sackville & Neave Australian Property Law* (8th ed, 2008) 3–4.

100 Kevin Gray and Susan Gray, ‘The Idea of Property in Law’ in Susan Bright and John Dewar (eds), *Land Law: Themes and Perspectives* (1998) 15; Edgeworth et al, above n 99, 4.

101 Steinberg, above n 86, 7.

102 Denman, above n 87, 161.

103 JCV Behan, *The Use of Land as Affected by Covenants and Obligations Not in the Form of Covenants* (1924) 4.

104 Hegel, above n 82, 23 [44].

105 Denman, above n 87, 160.

106 Hegel, above n 82, 23–4 [46].

107 Rose, above n 20, 163.

108 Denman, above n 87, 160–1; Australian Associated Press, ‘Property Owners Set to Lose Out to Koalas’, *News.com.au* (Online), 28 July 2009, <<http://www.news.com.au/business/story/0,27753,25847240-31037,00.html>> at 28 July 2009; James Ely, ‘Property Rights and Environmental Regulation: The Case for Compensation’ (2004) 28 *Harvard Journal of Law and Public Policy* 51, 52–5 cited by Byrne, above n 86, 681; Becker, above n 82, 2; Gambaro, above n 82, 2; Adler, above n 34.

The ‘cap and trade’ approach is as an attempt to reconcile property law and environmental law. This is the context of the current arrangement. The analysis of the laws is undertaken below.

III ANALYSIS OF THE CURRENT ARRANGEMENT: AUSTRALIAN CARBON SEQUESTRATION LAWS FROM THE PROPERTY LAW PERSPECTIVE

Without an overarching CPRS, any laws creating property rights in carbon sequestered in trees are, at best, provisional. The creation of a property right in forestry carbon, which can be referred to as a ‘forestry carbon right’, is premised upon the adoption of the ‘cap and trade’ approach, of which ETS is an example, since a market-based regulatory method requires a defined property right as the subject matter of the exchange.¹⁰⁹

Several general problems transpire behind the current arrangement of carbon sequestration laws in Australia. First, the primary motivation behind the laws appears to lie in the economic benefits of forestry carbon trading rather than any environmental benefits of the proposed carbon rights. Second, these laws have largely created statutory property rights that have been criticised as ‘confusing and strained’¹¹⁰ and in breach of the *numerus clausus* principle. Third, the lack of uniformity¹¹¹ between the States with regards to the definition of carbon rights creates a fundamental problem for establishing a consistently defined commodity that can be exchanged in national and international markets. Fourth, the lack of clarity and specification of the property right in carbon gives no firm legal basis for management of transactional risks and adjudication of disputes. The analysis below throws light on these and some other issues that emerge.

A Motivation

State governments suggest that the creation of ‘explicit and separate property rights for carbon sequestered in trees’¹¹² has both economic and environmental benefits. The second reading speeches of the Ministers in Western Australia and Victoria express what the proponents of these legislative instruments have advanced as their rationale. In Western Australia, the responsible Minister explained:

There are significant economic and environmental benefits for the State in facilitating the establishment of tree plantations and other environmental

109 In other words, the carbon right would be otiose if a carbon tax were chosen instead of a ‘cap and trade’ scheme as the regulatory method.

110 Pamela O’Connor, ‘The Extension of Land Registration Principles to New Property Rights in Environmental Goods’ in M Dixon (ed), *Modern Studies in Property Law* (2009) Vol 5.

111 Hepburn, above n 18.

112 Victoria, *Parliamentary Debates*, Legislative Assembly, 2 November 2000, 1466 (The Hon Sherryl Garbutt, Minister for Environment and Conservation).

plantings. The benefits relate to the potential for trading in carbon rights, the production derived from the plantings, and the environmental improvements they provide.¹¹³

The Victorian Minister similarly stated:

The overriding purpose of this legislative change is to encourage investment in carbon sink establishment in Victoria. The development of [GHG] mitigation programs, specifically carbon sequestration, has been identified as offering the potential to generate significant additional investment in forestry and wood-based industry.¹¹⁴

The federal government also contends that carbon ‘offsets help achieve economic development and environmental protection at the same time’.¹¹⁵ However, the short-term effect on environment is likely to be that of increased pollution,¹¹⁶ while the proposed economic effect depends on whether the current legislation provides ‘a solid legal foundation’¹¹⁷ for it.

B Analysis of the Current Laws

This section analyses the legislative approaches of the States to categorising CSRs as various property rights and the suitability of each right for this purpose. The States variously categorise CSRs as a restrictive covenant; profit à prendre and profit à rendre; chose in action; and *sui generis* statutory carbon right. It seems to be self-evident that such different categories cannot be equally suitable for managing CSRs.

1 The Suitability of Restrictive Covenant: Forestry Rights Act 1996 (Vic)

The *Forestry Rights Act 1996* (Vic) applies to CSRs some but not all of the features of a restrictive covenant. According to ss 11(b), 14(2), forest property and CSRs respectively are deemed not to be an interest in land. By virtue of s 9, a forest property right (defined to include a CSR) is enforceable ‘against any person ... as if it were a restrictive covenant, despite the fact that it may be positive in nature or that it is not for the benefit of any land of the forest property owner’. This creates a

113 Western Australia, *Parliamentary Debates*, Legislative Assembly, 22 May 2002, Second Reading (The Hon Francis (Fran) Logan, Parliamentary Secretary).

114 Victoria, *Parliamentary Debates*, Legislative Assembly, 2 November 2000, 1466 (The Hon Sherryl Garbutt, Minister for Environment and Conservation).

115 National Heritage Trust, *Managing Our Natural Resources: Can Markets Help?* (2004) [8] Natural Resource Management <<http://www.nrm.gov.au/publications/brochures/pubs/nrm-mbi.pdf>> at 16 September 2009.

116 This is in fact confirmed by the expectations of such industrial giants as Shell Ltd: see Shell Ltd, ‘CO₂ Management’ (2009) <<http://realenergy.shell.com/?lang=en&page=CO2Management&siteversion=html&247SEM>> at 31 July 2009; Shell Ltd, ‘Calling on Governments for Change’ (2009) <http://www.shell.com/home/content/responsible_energy/environment/climate_change/governments/governments.html> at 31 July 2009.

117 John Taberner, ‘NSW Developments in Carbon Sequestration Legislation’ (2000) 3 *Inhouse Counsel* 41.

contradiction, as the rules regarding enforceability are premised on the restrictive covenant being a property right and an equitable interest in land.¹¹⁸ In other words, if we take into account that ‘covenant’ is essentially only a contract,¹¹⁹ the legislation is trying to make contractual rights enforceable against parties not privy to the contract, to make them operate as rights in *rem*. Thereby, it collapses the laws of contract and property into one, with rather grave consequences for both: it is bad legislative practice to blur the boundaries of property and contract enforcement, as ultimately it imposes unpredictably high information costs¹²⁰ on an unidentifiably large number of parties and ignores a fundamental difference between the two institutions.¹²¹

Of a lesser concern is the fact that the legislation also contradicts the two prerequisites of restrictive covenant, which are that it must be negative in nature¹²² and it must relate to the land of the covenantee.¹²³ Legislative precedents have been set for both digressions. For example, the former can be found in the *Conveyancing Act 1919* (NSW) ss 88BA, 88D, 88E, *Nature Conservation Act 1992* (Qld) s 45 and some other statutes in Australia¹²⁴ and the United Kingdom.¹²⁵ The difference, however, is that in the NSW legislation, it is the Crown that possesses the right to impose positive covenants, not a private party as in Victorian law.

According to Bender, the ‘negative in nature’ prerequisite ‘stems from the reluctance of the courts to grant [mandatory] injunctions requiring the supervision of a party’s compliance by the courts’.¹²⁶ The means for such supervision are not provided in the legislation. Victorian Government could argue that the principle of *negative* covenant is ‘arbitrary, and it impedes transactions in land which have become socially desirable’.¹²⁷ Moreover, as Bradbrook and Neave note, ‘various law reform bodies have criticised the rule... and have recommended that positive covenants should also bind successors in title to the covenantor in certain circumstances’.¹²⁸ Yet, Chambers contends that ‘the essential test for the

118 Edgeworth et al, above n 99, 904; Adrian Bradbrook, Susan MacCallum and Anthony Moore, *Australian Real Property Law* (4th ed, 2007) 796. See also *Tulk v Moxhay* (1848) 2 Ph 774 and *Luker v Dennis* (1877) 7 Ch D 227 (‘*Tulk v Moxhay*’) cited by David Jackson, *Principles of Property Law* (1967) 59.

119 G L Newsom, *Preston & Newsom’s Restrictive Covenants Affecting Freehold Land* (9th ed, 1998) 1; Sir Robert Megarry and Mark Thompson, *Megarry’s Manual of the Law of Real Property* (7th ed, 1993) 65; W J M Ricquier, *Singapore Law Series: Land Law* (1985) 195, 198; Adrian Bradbrook and Marcia Neave, *Easements and Restrictive Covenants in Australia* (2nd ed, 2000) 259. See also C G Hall, *Servitudes* (2nd ed, 1957) 93.

120 Thomas Merrill and Henry Smith, ‘The Property/Contract Interface’ (2001) 101 *Columbia Law Review* 774, 777, 851–2.

121 See especially *ibid* 851.

122 Bradbrook, MacCallum and Moore, above n 118, 794; *Haywood v Brunswick Permanent Benefit Building Society* (1881) 8 QBD 403 (Court of Appeal); Jackson, above n 118, 60; Robert Chambers, *An Introduction to Property Law in Australia* (2nd ed, 2008) 167.

123 *Clem Smith Nominees Pty Ltd v Farrelly* (1978) 20 SASR 227; Bradbrook, MacCallum and Moore, above n 118, 795; Edgeworth et al, above n 99, 897.

124 Bradbrook and Neave, above n 119, ch 14.

125 Newsom, above n 119, 63, 71.

126 Mark Bender, ‘Triple Treat: Legal Options for the Removal or Modifications of Restrictive Covenants on Land in Victoria’ (2006) 13 *Australian Property Law Journal* 179, 181.

127 H W R Wade, ‘Covenants – “A Broad and Reasonable View”’ (1972) 31 *Cambridge Law Journal* 157.

128 Bradbrook and Neave, above n 119, 264.

validity of a restrictive covenant is whether it can be enforced effectively by a prohibitive injunction.¹²⁹ A covenant that includes positive duties fails the test of many property law textbooks.¹³⁰

Regarding the second prerequisite, decoupling the restrictive covenant from land to be benefited can be found in agreements made between planning authorities and landowners (usually developers) per s 173 of the *Planning & Environment Act 1987* (Vic), which, when recorded on title,¹³¹ run with the burdened land¹³² and can be enforced by the planning authority even though it holds no land benefited. One may note, however, that both of these legislative precedents involve influences of environmental law on property law rather than developments within property law itself, as was the case in *Tulk v Moxhay*,¹³³ for example. (Although an argument has also been put forward¹³⁴ that *Tulk v Moxhay* itself was one of the first examples of environmental regulation¹³⁵ — channelled through the courts.) Since property law and environmental law are essentially antagonistic,¹³⁶ these precedents might indicate a decline of property law — operating with regard to land¹³⁷ — being subsumed or replaced by environmental law. Another important consideration is that these agreements are enforceable by government agencies and are a tool of ‘soft regulation’, that is, regulation through contract rather than through ‘command and control’ methods. Extending this legislative device to regulation of dealings between private parties raises very different considerations and dangers.

Not only is the suitability of restrictive covenant questionable with respect to the forest property rights — since CSRs are not restrictive covenants per se, but are only enforceable in the manner of restrictive covenants — the doctrine is a dubious vehicle (or analogy) for them. If CSR is not an interest in land, if it is positive in nature¹³⁸ and if it is not expected to ‘touch and concern the land’¹³⁹ of the CSR holder,¹⁴⁰ why treat it as if it were a restrictive covenant for enforcement

129 Chambers, above n 122, 168.

130 To name a few: Megarry and Thompson, above n 119, 65, 410; Thomas Platt, *A Practical Treatise on the Law of Covenants* (1829) 31; Jackson, above n 118, 60; Ricquier, above n 119, 199; Graham Battersby, *Williams’ Contract for Sale of Land and Title on Land* (4th ed, 1975) 777 et seq.

131 *Transfer of Land Act 1958* (Vic) s 88(2).

132 *Transfer of Land Act 1958* (Vic) ss 181, 182.

133 (1848) 2 Ph 774.

134 In fact, over the years there have been quite a number of interpretations of the policy behind *Tulk v Moxhay* (1848) 2 Ph 774. See, eg, *Port Line Ltd v Ben Line Steamers Ltd* [1958] 2 QB 146, 164 (Diplock J); *Barker v Stickney* [1919] 1 KB 121, 131–2 (Scrutton LJ).

135 Porritt, above n 98.

136 See above n 86 and accompanying text.

137 Rose argues that there is bright future for property law, but she mostly deals with intellectual property, which I specifically exclude by limiting my observation of the decline of property law to land only. Rose also discusses hybrid property resulting from carbon markets as a positive development for property law. However, hybrid property rights might just as well be interpreted as indicators that environmental law is starting to prevail upon and distort property law: Rose, above n 20.

138 *Lumley v Wagner* (1852) 1 De GM & G 604.

139 Bradbrook and Neave, above n 119, 264.

140 Thus failing the requirement of relation to land of the covenantee. See *Clem Smith Nominees Pty Ltd v Farrelly* (1978) 20 SASR 227.

purposes? Just because we can do anything by legislation, it seems. This addition to the law of restrictive covenant, already described as ‘a morass of technicalities, inconsistencies and uncertainties’,¹⁴¹ would make it even more inconsistent, uncertain and ‘full of semantic swamps’¹⁴² with speculative outcome for the economic and environmental causes it aims to advance.

Lastly, it is not clear what rules relate to the removal or modification of CSRs. Since this can be seen as affecting enforceability, and no other rules are provided by the Act, arguably the restrictive covenant rules apply. These rules, however, have been designed for different purposes, such as removal of covenants which hinder land use planning,¹⁴³ and are quite inappropriate in the new context. I suggest therefore that restrictive covenant analogy should be regarded as unsuitable for the purposes of carbon rights trading and that reference to it in the *Forestry Rights Act 1996* (Vic) should be repealed.

2 The Suitability of Profit à Prendre

(a) Conveyancing Act 1919 (NSW)¹⁴⁴

Section 88AB(1) states: ‘a forestry right shall, for all purposes, be deemed to be a profit à prendre’. Forestry rights and, by implication, CSRs constitute an interest in land.¹⁴⁵ Section 88AB(2) purportedly clarifies how this provision works if ‘a forestry right consists in whole or in part of a [CSR]’:

(a) the profit from the land is taken to be the legal, commercial or other benefit ... of carbon sequestration by any existing or future tree or forest on the land that is the subject of the [CSR],

(b) the right to take something from the land is taken to be the right to the benefit conferred by the [CSR].

The provision in (b) attempts to avoid the obvious inconsistency of the CSRs with the nature of profit à prendre. Wylynko comments:

a traditional profit à prendre is the right to take something away from the land. This would not... extend to the right to place something on the land. Nor does it... encompass the right to ensure something remains on the land. Carbon sequestration, on the other hand, is the process of

141 Bradbrook and Neave, above n 119, 263.

142 Jacob Beuscher, *Land Use Controls: Cases and Materials* (3rd ed, 1964) 92 cited in Patrick McAuslan, *Land, Law and Planning: Cases, Materials and Text* (1975) 246 cited in Bradbrook and Neave, above n 119, 263.

143 Bender, above n 126.

144 The same analysis applies to Tasmanian legislation since *Forestry Rights Registration Act 1990* (Tas) ss 3, 5 closely follow the NSW provisions.

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

sequestering carbon on the land, or... stopping carbon from leaving the land. In effect, the right to plant trees, or to stop the harvest of trees.¹⁴⁶

The legislation fails to achieve a convincing analogy by substituting a concrete land product or creature with the abstract ‘benefit conferred’, which naturally cannot be taken away from the land. Profits are regulated at common law by rules similar to those which apply to easements, for example, modes of creation and extinguishment. Even though ‘statutory profits à prendre exist which give the status of a profit to rights which would not qualify as such at common law,’¹⁴⁷ such distortion is unwarranted in case of CSRs.

Further complications arise from whether the profit à prendre in this case is classified as sole/several (‘enjoyed to the exclusion of the owner of the land’¹⁴⁸) or in common¹⁴⁹ (‘enjoyed with the owner of the land’¹⁵⁰). If it is sole, then it denies the landowner any control over all trees and topsoil, as the latter also sequesters carbon. This seems absurd as this would make the ‘deal’ too expensive for the landowner. However, if it is held in common,¹⁵¹ then there is nothing stopping the landowner from clearing the trees, for instance. This too seems absurd as this would make the deal too worthless for the CSR holder. Also, as profits are servitudes they cannot amount to a right of possession that excludes the owner from ordinary and reasonable use of the land.

Jackson mentions that profits are classified by reference to their subject matter into several categories,¹⁵² but of particular relevance are profits of pasture¹⁵³ and, to a lesser extent, of estovers.¹⁵⁴ Jackson describes rights of pasture as including ‘right of a person to enter the land of another and remove grass, crops or other forms of vegetation’¹⁵⁵ as well as ‘rights of vesture or herbage’; while ‘a profit of estovers is a right to take wood from the land of another to use as fuel in domestic

146 Brad Wylynko, ‘On the Road to Greenhouse Gas Emissions Trading’ (2000) *Australian Mining and Petroleum Law Association Yearbook* 359, 367. Further, Megarry J in *Lowe (Inspector of Taxes) v J W Ashmore Ltd* [1971] Ch 545, 557 stated: ‘To be a profit [à prendre], the right must be a right to take part of the land or the creatures on it; what is taken must, when taken, be susceptible of ownership; and the right must be created by a transaction capable of creating an interest in land.’ Since the ‘benefit conferred’ is not susceptible of ownership, the inconsistency with carbon rights goes to the heart of classifying a right as profit à prendre. See also Brendan Edgeworth, ‘Profits à Rendre: A Reincarnation?’ (2006) 12 *Australian Property Law Journal* 200, 201.

147 Adrian Bradbrook, Susan MacCallum and Anthony Moore, *Australian Property Law: Cases and Materials* (3rd ed, 2007) 1273.

148 Paul Jackson, *The Law of Easements and Profits* (1978) 29.

149 According to Bradbrook, McCallum and Moore profits in common are non-existent in Australia, although prevalent in England: see Bradbrook, McCallum and Moore, *Australian Real Property Law*, above n 118, 776. However, if they exist in theory, they can be considered in this discussion, if only theoretically, for completeness.

150 Jackson, *The Law of Easements and Profits*, above n 148, 29.

151 Jackson mentions that this is the more prevalent form of profits, especially in husbandry: *ibid* 29–30. Naturally, it is also quite conflict-prone and there are more cases on it to guide the courts.

152 *Ibid* 30.

153 *Ibid*.

154 *Ibid* 33.

155 *Ibid* 31.

and agricultural repairs'.¹⁵⁶ It is quite clear that the 'subject matter' of these rights is the same or is very close to the one that the government is trying to establish with regard to carbon sequestration. The fundamental difference is in what is done to this subject matter: it is not being taken away in our carbon sequestration scenario.

One may speculate whether its tentative 'sibling', the profit à rendre — 'a right or an obligation to go onto land to add something to the land that is of benefit to it'¹⁵⁷ — might be more suitable, 'as the converse of profit à prendre'.¹⁵⁸ At least one test has been proposed for this modified right: 'the benefit given needed to be a benefit to the land and not just a benefit for the user'.¹⁵⁹ It appears to be an equitable interest as there is no express provision in the statutes for the rights to be registered.¹⁶⁰ Logically, this right is a somewhat better fit for the CSRs since planting trees is envisaged as part of it. However, several problems emerge: not all carbon sequestration involves adding something to land, as many carbon sinks just have to be preserved; the profit à rendre is a novel right itself, and it is not clear whether any courts besides those of NSW would recognise it; and, even if recognised, there are no specific laws associated with it, so it would not clarify the legal rights and obligations of the parties. Overall, it is just as uncertain as the CSR itself. Therefore, it is also regarded as unsuitable.

(b) Forestry Act 1959 (Qld)

Natural resource products, which include 'carbon stored in a tree or vegetation' and 'carbon sequestration by a tree or vegetation',¹⁶¹ are the subject of a profit à prendre under ss 46(1AA), 61J(5), while s 61J(4) states that 'the vesting of natural resource product under the agreement does not create an interest in land'. Thus, according to the Act, the deemed profit à prendre is not an interest in land. As the rules which the law has developed for dealings with profits are premised on it being real property held in the land of another, this legislative context renders the doctrine of profit à prendre meaningless, at least in relation to the carbon rights.

3 *The Suitability of Chose in Action: Forest Property Act 2000 (SA)*

Section 3A(1) defines carbon rights as 'the capacity of forest vegetation to absorb carbon from the atmosphere', constituting 'a form of property... in the nature of a chose in action'. Firstly, this definition is too limited in scope as only 'forest vegetation' as opposed to park or simply land vegetation becomes the subject

¹⁵⁶ Ibid 33.

¹⁵⁷ Edgeworth, 'Profits à Rendre: A Reincarnation?', above n 146, 201.

¹⁵⁸ Ibid 202.

¹⁵⁹ Ibid 205 citing *Permanent Trustee Australia Ltd v Shand* (1992) 27 NSWLR 426, 431 (Young J); *Hornsby Council v Roads and Traffic Authority of NSW* (1997) 41 NSWLR 151, 155 (Meagher JA); *Clos Farming Estates Pty Ltd v Easton* (2002) 11 BPR 20.

¹⁶⁰ Ibid 207.

¹⁶¹ *Forestry Act 1959* (Qld) s 5, sch 3.

matter of the legislation. Some other rights would have to be created for other types of vegetation. This seems illogical and costly.

Secondly, the definition exhibits a conceptual *faux pas* in conflating a physical attribute of plants (ie, the capacity of vegetation to absorb a gas from the atmosphere) with an abstract common law transferable right such as debt or contract. This physical attribute of plants would be logically regarded as part of *living* plants,¹⁶² which would necessarily be classified as fixtures on land.¹⁶³ This leads to an absurdity: if the same thing can be both a chose in action and a fixture, then soon debts and contracts will be regarded as fixtures on land.

Thirdly, a chose in action is ‘an intangible personal property right... incapable of physical possession and can only be claimed or enforced by a legal/equitable action’.¹⁶⁴ It is weaker than a profit à prendre. However, s 12 allows a forest property agreement (which may include a carbon rights agreement)¹⁶⁵ to be registered ‘as if a forest property agreement were a profit à prendre’, giving rise to two anomalies. First, it implies that the agreement itself, rather than a right conferred by it, becomes a real property right, which is paradoxical because agreements are choses in action. Second, it may imply that a carbon right — an intangible personal property — by being transcribed into an agreement becomes a real property right. As these inconsistencies cannot be surmounted, a chose in action is not an appropriate category for carbon rights.

4 Sui Generis Property Right and Carbon Rights Act 2003 (WA)

In Western Australia, carbon rights constitute a *sui generis* category — a separate interest in land.¹⁶⁶ According to s 6(3), it is a hereditament (ie, capable of being inherited and an encumbrance). Section 6(2) states: ‘A carbon right has effect even if it has the same proprietor as the affected land’, which contradicts the definition of ‘encumbrance’ — the ‘proprietary right held *by one person over the property of another* that limits the ways in which the owner may... deal with the property’.¹⁶⁷ As the Act does not clarify whether the hereditament is corporeal or incorporeal,¹⁶⁸ if the carbon rights are subtracted from the freehold estate, it is unclear what will remain. Although s 8(2) describes the carbon right as not conferring any right of possession and not being a subdivision, the extent

162 ‘Plants’ here do not include ‘pot plants’.

163 Regarding trees, see Western Australia, *Parliamentary Debates*, Legislative Assembly, 22 May 2002, Second Reading, 10963–4 (The Hon Mr Logan, Parliamentary Secretary). See generally on the doctrine of fixtures Lynden Griggs, ‘The Doctrine of Fixtures: Questionable Origin, Debatable History and a Future That Is Past!’ (2001) 9 *Australian Property Law Journal* 51.

164 Peter Butt (ed), *Butterworths Concise Australian Legal Dictionary* (3rd ed, 2004) 69; *National Trustees Executors v FCT* (1954) 91 CLR 540, 584 (Kitto J).

165 *Forest Property Act 2000* (SA) s 5(1)(b).

166 *Carbon Rights Act 2003* (WA) ss 3, 6(1)(a).

167 Butt, above n 164, 148 (emphasis added).

168 Incorporeal hereditaments include a profit à prendre and/or a restrictive covenant.

of encumbrance is left at large.¹⁶⁹ The carbon right is defined only negatively, in terms of what it is not, leading to a potential destabilisation of the powers¹⁷⁰ associated with the landowner's bundle of rights,¹⁷¹ since the owner of a fee simple might be left with fewer powers than a tenant. While many State schemes result in restrictions on the use of land,¹⁷² this one has peculiar dangers as it is not explicitly restrictive and it is not administered by the State, but is left to private parties and courts to work out. This can lead to unpredictable injustices and anomalies, as well as no certainty of enforcement.

Another argument against a *sui generis* carbon right resides in the *numerus clausus* principle,¹⁷³ discussed below.¹⁷⁴ If the Parliament has worked it all out in advance and the right is attached to a scarce resource, such as water fit for human consumption, then there is no objection and the *numerus clausus* principle does not apply. However, where — as in this case — the courts are presented with a new right defined negatively against the nature of property law; a right attached to carbon, which is an abundant and unwanted resource; a right which is supposed to operate internationally and be compatible with the ETS, so that there is no certainty regarding which registry it is going to belong to, — the *numerus clausus* principle might as well be invoked.

Similarly, the famous Cohen's dictum: 'Why then is there no property in air? ...because there is no scarcity',¹⁷⁵ — poses a direct objection to the *sui generis* property right in carbon — overabundant in the air. Such an addition to the rights constituting property in land may lead to fraud.¹⁷⁶ A possible objection to this argument is that CO₂ is different from 'CO₂ sequestered in vegetation' as the latter might be considered a scarce resource. However, the latter is only considered valuable because, and as long as, the former is deemed to be a pollutant.¹⁷⁷ In itself 'CO₂ sequestered in vegetation' is not a resource, at least, if a 'resource' means 'a source of supply, support, or aid'.¹⁷⁸ It has no analogy to any other known resource such as oil or minerals. One cannot do anything with or from it. It must stay 'sequestered in vegetation'. More logically it should be regarded as a 'product' of one of the stages in the vegetation lifecycle. The actual resource is the vegetation.

169 'The bundle of rights associated with an instrument will... differ according to the origins of the allowance... and in whose hands the instrument is held': Durrant, 'Emissions Trading, Offsets and Other Mitigation Options for the Australian Coal Industry,' above n 75, 365.

170 Geraint Thomas, *Thomas on Powers* (1998) 4.

171 Bruce Ziff, *Principles of Property Law* (2nd ed, 1996) 2.

172 See generally Stefan Hajkowicz, 'The Evolution of Australia's Natural Resource Management Programs: Towards Improved Targeting and Evaluation of Investments' (2009) 26 *Land Use Policy* 471.

173 See eg, Brendan Edgeworth, 'The *Numerus Clausus* Principle in Contemporary Australian Property Law' (2006) 32 *Monash University Law Review* 387; Wolfgang Mincke, 'General Principles of Property Law: A Traditional Continental View' in Paul Jackson and David Wilde (eds), *The Reform of Property Law* (1997) 197.

174 See text at n 195 et seq.

175 Felix Cohen, 'Dialogue on Private Property' (1954) 9 *Rutgers Law Review* 357, 364.

176 See Kevin Gray, 'Property in Thin Air' (1991) 50 *Cambridge Law Journal* 252; Pierre-Joseph Proudhon, *What is Property?* (D Kelley and B Smith trans, first published 1840, 1994 ed) [trans of: *Qu'est ce que la propriété?*].

177 As in Carbon *Pollution* Reduction Scheme (emphasis added).

178 Macquarie University, *Macquarie Australia's National Dictionary* (4th ed, 2006) 1037.

In the list of general property rights, such as profit à prendre, restrictive covenant, chose in action, lease, estate in fee simple, the specific carbon right appears to be an odd one. It is one property right too many. Accordingly, none of the proposed categories of property rights seems appropriate as vehicle of the CSR. The next sections of this article discuss other problems with the current approach.

C Problems with the Adopted Legislative Approach

When traditional property rights are employed in a newly conditioned, untested, and clearly uncertain field of life and law, complications ensue: slow, uncertain and costly dispute adjudication; permanence/irreversibility of rights, especially, in the context of the ‘worst-case scenarios’; undesirable transgression of the *numerus clausus* principle; and other considerations.

1 Dispute Adjudication

The creation of property rights, as envisaged by the States, means placing the CSR under regulation of the contract, commercial and property law. This, in the eyes of the Council of Australian Governments (‘COAG’), amounts to ‘no regulation’.¹⁷⁹ While the COAG’s opinion relates to carbon *geosequestration*, their arguments against the present policy framework are readily applicable: ‘where no precedent exists for contract, commercial and property law, in Australia, ... [it] could prove costly and timely if litigation was pursued’.¹⁸⁰ In other words, if the incidents of the new property rights are not statutorily defined, it will take a long time for the common law to develop jurisprudence around them. In the meantime, the scope of the rights will be uncertain, imposing costs on business. In addition, COAG cites high risk of externalities and fears of monopoly power as pointing against adoption of the ‘no regulation’ approach.¹⁸¹

Also, if the disputes over property rights go through the congested commercial lists in the ordinary Courts, rather than specialised Courts, such as the Land and Environment Court in NSW, the delays are unavoidable.¹⁸² Even if most cases were channelled through the specialised courts, lack of legislative guidance in the current provisions and general inapplicability of property law precedents to new conflict scenarios could lead to severe strain on the justice system and loss of public confidence in it.

179 COAG, above n 81, 10.

180 Ibid 10.

181 Ibid 10–11.

182 Stephen Colbran et al, ‘The Adversarial System in Crisis?’ in Stephen Colbran et al, *Civil Procedure: Commentary and Materials* (4th ed, 2009) 22.

2 Permanence / Irreversibility of Rights

The following ‘worst-case scenarios’ show that, due to the permanent nature of property rights, any policy mistakes would be unforgiving, with liability potentially falling onto a relevant State government.

(a) Worst-Case Scenario 1: Value of Land Drops Due to Sterilisation and Loss of Excludability

The value of the land could drop because it becomes sterilised after the sale of CSRs. This could happen because when the landowners sell their CSRs and with them — ‘access to land’, they may become unable to develop the land from then on. The legislation does not specify the limits of ‘access to land’, which is quite important, especially in the case of Western Australia where a *sui generis* property right is introduced and the potential for misunderstanding of the limits of access is enormous. It is apparent that ‘access to land’ granted to ‘carbon traders’ and also to third parties (when derivative ‘carbon rights’ are sold to them) could lead to multidimensional conflicts.

There are many challenges for State legislatures in defining CSRs and limits of ‘access to land’. For instance, what if the new holders of these rights want to station themselves permanently next to their ‘property’ to make sure nothing happens to it? What if the land will automatically become subject to unannounced audits by anyone from the local government to Subsidiary Body for Implementation (‘SBI’), Global Environment Facility (‘GEF’),¹⁸³ World Bank,¹⁸⁴ UNEP¹⁸⁵ as well as scientists¹⁸⁶ wishing to ‘measure’ quantities of sequestered carbon? All of these intrusions have been suggested as possible ones in the future. What if, as a result of these intrusions, the landowners will demand compensation for being misled into selling for quick profit something they thought was insignificant but it turned into loss of control over their land?

The existing legislation does not contain any procedures to manage the potential outcome of these ‘scenarios’. In my view, the legislation should be either repealed and replaced with a national scheme or amended in anticipation of the worse-case scenarios.

183 *Approaches to Monitoring and Evaluation of Capacity-Building at Different Levels: Technical Paper*’ (2008) UNFCCC [3] <http://unfccc.org/unfccc/images/document/c_building.pdf> at 20 August 2009.

184 *Ibid* [4].

185 *Ibid*.

186 See, eg, Paige Brown, Bruce Cabarle and Robert Livernash, *Carbon Counts: Estimating Climate Change Mitigation in Forestry Projects* (1997); Philip Polglase, Mark Adams and Peter Attiwill, *Measurement and Modelling of Carbon Storage in a Chronosequence of Mountain Ash Forests: Implications for Regional and Global Carbon Budgets: Report to State Electricity Commission* (1994); Brendan Mackey et al, *Green Carbon: The Role of Natural Forests in Carbon Storage* (2008); Ian Bateman, Andrew Lovett and Julii Brainard, *Applied Environmental Economics: A GIS Approach to Cost-Benefit Analysis* (2003).

(b) Worst-Case Scenario 2: Governments Liable to Compensate

The State governments may be called to compensate either landowners, or CSR holders, or both, if a number of events take place. The parties who purchase CSRs are now mostly companies formed specifically for this purpose and can be referred to as the ‘carbon traders’. They aim to accumulate the rights and then resell them at a profit to the emissions-intensive trade-exposed industries (‘EITEIs’). At the moment, nothing stops the carbon traders from monopolising¹⁸⁷ and potentially holding EITEIs to ransom¹⁸⁸ through inflated pricing. If this happens, the State governments might have to recall CSRs or set fixed prices on them, as a result of which these parties might demand compensation because the government has taken their ‘property’ rights away. This would be especially difficult in situations where foreign companies own such rights, as changes in policy would trigger *Foreign Acquisition and Takeovers Act 1975* (Cth) and *Foreign States Immunities Act 1985* (Cth).¹⁸⁹ These provisions do not extend to a change in regulations.¹⁹⁰ If changes in the system are anticipated, there is an incentive to introduce regulatory property permits as opposed to property rights, because the former do not entail any automatic rights to compensation in any worst-case scenario.

Another possible scenario for compensation would be if all parties — the landowners, the ‘carbon dealers’ and the EITEIs — had a case for compensation. An example is if all such parties claimed that they had been misled and/or they have relied on a scheme that has collapsed due to government’s negligence in introducing a seriously deficient scheme. This would be quite ironic, considering Logan’s words: ‘[t]he Government’s aim of reducing uncertainty has been moderated by a concern to not expose the State to liability’.¹⁹¹

(c) Worst-Case Scenario 3: Incompatibility with the International Carbon Market

CSRs defined under Australian law could turn out to be incompatible with rights traded on international markets.¹⁹² Garnaut has stated: ‘A fundamental prerequisite for selling permits is transparent monitoring that complies with standards accepted by the international community and in particular by the main permit buyers’.¹⁹³ Hence, one of the reasons for incompatibility could be a difficulty in monitoring the allocation and distribution of private property

187 COAG, above n 81, 10–11.

188 Grant Anderson, ‘Carbon Pollution Reduction Scheme: Impact on Mining and Energy Industries’ (2008) 31 *University of New South Wales Law Journal* 931, 937.

189 See Jean-Pierre Fonteyne, Anne McNaughton and James Stellios, *Harris – Cases and Materials on International Law: An Australian Supplement* (2003); D Harris, *Cases and Materials on International Law* (6th ed, 2004).

190 Harris, above n 189.

191 Western Australia, *Parliamentary Debates*, Legislative Assembly, 22 May 2002, Second Reading 10960–10963 (The Hon Mr Logan, Parliamentary Secretary).

192 Regarding current state of carbon market, see Karan Capoor and Philippe Ambrosi, *State and Trends of the Carbon Market 2009: World Bank* (2009).

193 Garnaut, above n 6, 229.

rights as there might not be any easy way to have them verified¹⁹⁴ by the SBI, GEF, World Bank or some other international body, after the sales have taken place. As a result, the CSRs might lose some or all value, which may trigger a case for State governments compensating landowners and/or carbon traders. Alternatively, unexpected financial losses might result in market crash and failure as has happened in Europe in May 2006 with the European Union ETS.

3 *The Numerus Clausus Principle*

Another argument against multiple types of CSRs resides in the *numerus clausus* principle,¹⁹⁵ or the ‘closed list’ principle stating that ‘we are not free to create new “property rights”’.¹⁹⁶ It ‘expresses the stringency of the common law’s approach to property rights, particularly over land’.¹⁹⁷ Although the principle is operative since the 19th century in court systems only,¹⁹⁸ and is not meant to be a restriction on the legislature, the policy behind it can be transferred to the legislative creativity. According to Merrill and Smith, it is economically feasible and achieves “‘optimal standardisation” of property rights’.¹⁹⁹ In other words, it seems to be a question of keeping records on the title registry; the more comprehensive the registry, the less the principle would operate.²⁰⁰ However, what has not been mentioned is that with every novel property right comes the cost of working out how it is created, transferred and extinguished, what specific rights are incident to it, and the extent to which it is enforceable against the holders of other rights. Although formally all but the Western Australian State Government have defined the carbon right by including it in traditional types of property rights, in essence new property rights have been created since, subject to my analysis below, old property law precedents would not be applicable to these new carbon rights without significant modification.

4 *Other Considerations*

The common criticism, shared with other State laws,²⁰¹ is that the carbon sequestration laws have been passed without any attempt at uniformity.²⁰² Even

194 Verification here implies that the CSRs have to correspond to the presence of carbon-storing vegetation or land.

195 See eg, Edgeworth, ‘The *Numerus Clausus* Principle in Contemporary Australian Property Law’, above n 173; Mincke, above n 173, 210–11.

196 Mincke, above n 173, 210.

197 Edgeworth, ‘The *Numerus Clausus* Principle in Contemporary Australian Property Law’, above n 173, 387.

198 Ibid 388.

199 Thomas Merrill and Henry Smith, ‘Optimal Standardization in the Law of Property: The *Numerus Clausus* Principle’ (2000) 110 *Yale Law Journal* 1, 69. See also Edgeworth, ‘The *Numerus Clausus* Principle in Contemporary Australian Property Law’, above n 173, 388.

200 Edgeworth, ‘The *Numerus Clausus* Principle in Contemporary Australian Property Law’, above n 173, 389.

201 See, eg, the long-standing criticism of the State Corporations laws, resolved by the *Corporations Act 2001* (Cth), and the problematic attitudes to abortion laws.

202 See Hepburn, above n 18; O’Connor, above n 110.

definitions of ‘carbon sequestration’²⁰³ are different. Considering that these laws have been passed specifically to facilitate trade — especially interstate, if not international — how can this be achieved if the ‘product’ is a different ‘product’ in each State and the rights to it undergo magical transformation across each border? More specific problems arise within each Act as CSRs are squeezed into the mould of profit à prendre, restrictive covenant, chose in action and *sui generis* property rights.²⁰⁴ Not only are these moulds hardly suitable, there might be damage caused to the institution of property law as a whole if its categories are used improperly. Environmental cases might set a precedent for exceptions, which, when used in ordinary property cases, would destabilise the traditional boundaries of each right. Thus, the case against the current arrangement is very strong and alternative solutions must be sought. They are presented and analysed below.

IV OTHER TRADITIONAL PROPERTY RIGHTS CANDIDATES

The unsuitability of the ‘other’ traditional property rights for regulating the CSR market can be inferred from the fact that they have been left out, presumably, after serious consideration. However, the cases for long-term leases and easements in gross are considered in this discussion for completeness.

A Long-Term Leases

Some companies, intending to become carbon traders, prefer to enter into 99 or 100 year²⁰⁵ leases with farmers in order to ensure preservation of carbon assets. Sometimes, the long-term lease approach is only hinted at rather than explicitly discussed. For example, when Natural Resource Management North’s CEO, James McKee, advertises: ‘people who want to commit land for revegetation for 100 years can apply and if approved, would get annual payments’.²⁰⁶ At the same time, National Association of Forest Industries features the following information on their website:

The new carbon sink forest legislation ... allows the separation of the ownership of the trees from the land, allowing landowners to lease land to businesses to grow carbon forest sinks. The landowner would receive

203 See *Conveyancing Act 1919* (NSW) s 87A; *Forestry Act 1959* (Qld) sch 3; *Forestry Rights Registration Act 1990* (Tas) s 3; *Forestry Rights Act 1996* (Vic) s 3(1); *Carbon Rights Act 2003* (WA) s 3; while the *Forest Property Act 2000* (SA) does not define ‘carbon sequestration’.

204 See *Conveyancing Act 1919* (NSW) s 88AB; *Forestry Act 1959* (Qld) s 61J(5); *Forest Property Act 2000* (SA) ss 3A(1), 12; *Forestry Rights Registration Act 1990* (Tas) s 5(1); *Forestry Rights Act 1996* (Vic) s 9; *Carbon Rights Act 2003* (WA) ss 3, 5(1), 6.

205 Rose Grant, ‘Carbon Trading and Emission Reduction Projects in Tasmanian Agriculture’ ABC (Online), 11 June 2009, <<http://www.abc.net.au/rural/content/2008/s2595121.htm>> at 21 August 2009.

206 *Ibid.*

an income from the lease of the land with the business obtaining the tax deduction and the revenue from the carbon credits.²⁰⁷

While the title of the legislation is not cited, it is likely to be the *Income Tax Assessment Act 1997* (Cth) subdiv 40-J. According to s 40-1005, landowners, leaseholders and even licencees are permitted to claim tax deductions for capital expenditure incurred as a result of establishing trees in carbon sink forests. This approach seems to be taking hold in Australia.

Its apparent advantage is that it obviates the difficulties of adjusting the traditional property rights to the CSR scenarios by leasing the land together with the trees and carbon sequestered in them. However, it is doubtful that this is the impression that the farmers would get when they sign such a lease. In fact, there is no way to know what any individual lease agreement would demand of each individual farmer under the guise of a carbon sequestration initiative. There is thus a potential for fraud and misunderstanding, which may lead to an increased number of disputes.

There are also historical reasons for avoiding long-term leases. As Weisman suggests: 'a lease ... for too long a period ... undermines the reasons behind the policy of granting a lease rather than ownership. Also, a lease for a very long period could be perceived as fictitious, as ownership in disguise'.²⁰⁸ Even after 49 years people 'tend to regard themselves as owners rather than as mere lessees',²⁰⁹ which sometimes results in lapse in repayments. In Australia, such was the sorry story of quit rents in NSW in the 19th century.²¹⁰

Other difficulties are: in Canberra Crown leases are limited to 99 years; it is inherently difficult to regulate long-term leases since they fall in between two 'chairs': that of ownership and that of a short-term lease, as distinct rules are required in each case.²¹¹ Lastly, the character of this right is changing due to a daily diminution of the term: '[a] long-term lease inevitably reaches a stage in which it becomes a short-term lease'.²¹² Hence, Weisman asks:

Should an assignee of a remaining period of a lease, however short, be subject to the same rules which applied to the lease in its inception, when it was a long-term lease, although from the point of view of the assignee his lease was never a long-term one?²¹³

While these difficulties are not fatal to this approach to carbon sequestration, they certainly forewarn of future problems, losses and conflicts.

207 *Carbon Sink Forest Legislation* (2009) National Association of Forest Industries <<http://www.nafi.com.au/site/industry%20news.php>> at 21 August 2009.

208 Joshua Weisman, 'Long-Term Leases As an Alternative to Ownership' in Colin Kolbert (ed), *The Idea of Property in History and Modern Times* (1997) 109.

209 *Ibid* 110.

210 Enid Campbell, 'Quit Rents in Colonial Australia' (2009) 35 *Monash University Law Review* 32, 38.

211 See especially Weisman, above n 208, 110–11.

212 *Ibid* 111.

213 *Ibid*.

B Easements in Gross

Easement in gross is an easement without a dominant tenement,²¹⁴ that is, without land that has the benefit of the easement.²¹⁵ It is an exception that waives three out of the following four substantive requirements:

- there must be a dominant and servient tenement;
- the easement must ‘accommodate’ the dominant tenement;
- the tenements must not be held and occupied by the same person; and
- the right must be capable of forming the subject matter of a grant.²¹⁶

While easements in gross have now become part of property law tradition as a result of statutory easements for utility corridors, just over a century ago their existence was vehemently opposed.²¹⁷ In Australia, easements in gross are usually created in favour of the Crown or local and public authorities²¹⁸ (eg for the supply of gas, water and/or electricity, drainage or sewage services)²¹⁹ though in the Northern Territory, Western Australia, South Australia and Tasmania, legislation conditionally permits creation of easements in gross between private persons.²²⁰

As to whether this is a good development or not, one could infer from the following passage regarding easements in civil law countries:

All services or utilities can become content of easements, provided that the service or utility gives some durable benefit to the land, rather than to the individual owner as such. Where that condition is not fulfilled, the contract loses its feature of right *in rem* and becomes a pure personal covenant.²²¹

While common law and civil law are expected to differ, this position of the civil law clearly demonstrates that the only *raison-d’être* for easements is the benefit to neighbouring *land*.²²² To some extent, the rationale behind tolerating easements in gross is that the public interest involved implies the benefit to the whole land

214 *Conveyancing Act 1919* (NSW) s 88A(1A).

215 Tasmania Law Reform Institute, *Law of Easements in Tasmania*, Issues Paper No 13 (2009) [iii] University of Tasmania <<http://www.law.utas.edu.au/reform/documents/EasementsIssuesPaperA4.pdf>> at 19 September 2009.

216 Edgeworth et al, above n 99, 974.

217 J L Goddard, *A Treatise on the Law of Easements* (4th ed, 1891) 8–10. See also *Rangeley v Midland Railway Co* (1868) 3 Ch 306 (Lord Cairns); James Casner (ed), *American Law of Property: A Treatise on the Law of Property in the United States* (1952) vol 2, 235.

218 Edgeworth et al, above n 99, 978–9.

219 *Conveyancing Act 1919* (NSW) s 88A(1B)(a)–(b).

220 Edgeworth et al, above n 99, 979.

221 Angel Carrasco Perera, ‘Interests in Land and Transfer of Land’ in Maria Jordán and Antonio Gambaro (eds), *Land Law in Comparative Perspective* (2002) 55, 65.

222 Cf Tasmania Law Reform Institute, above n 215, 24–6 justifying release of easements in gross for private parties by their commercial viability. With respect, only a few references supporting this opinion have been provided by the authors and there was no attempt to undertake an analysis of the consequences of lifting the restriction on easements in gross.

of a country. Without this benefit to land, an easement in gross *is* a contract and nothing else. Allowing such contracts to operate between individuals as rights *in rem* is a breach of all distinction between contract law and property law. The consequences of this have been discussed above. Other reasons for avoiding easements in gross in CSR scenarios are that different activities (reforestation and avoiding deforestation) would fall into different categories of easements (positive and negative respectively) which may lead to the application of different sets of rules and ensuing confusion. Since neither of the traditional property rights candidates appear any more suitable, the overseas experiences of the European Union and United States are discussed in search of further alternatives.

V OVERVIEW OF OVERSEAS EXPERIENCES: THE EUROPEAN UNION AND THE UNITED STATES

The experiences of the European Union and the United States illustrate the approaches of large developed countries which influence Australia.²²³ The examples of carbon sequestration approaches adopted in Latin American²²⁴ or African countries are deemed unsuitable for analogy since those countries are classified as ‘developing’, thereby attracting a different set of international obligations.

A *The European Union Position*

The European Union ETS has excluded LULUCF until 2008²²⁵ for reasons that have not been circulated.²²⁶ The commentators seem perplexed as to whether rejecting LULUCF is sensible in view of the European Union being the largest ‘demandeur for credits’.²²⁷ Scholz and Jung convey that:

The major stumbling block discouraging private sector demand is clearly that forestry credits cannot be used for compliance under the ...EU ETS. A recent survey showed that 40 percent of the participating private sector

223 See, eg, Garnaut, above n 6, 177–9.

224 Manuel Estrada Porrua and Andrea García-Guerrero, ‘A Latin American Perspective on Land Use, Land-Use Change, and Forestry Negotiations under the United Nations Framework Convention on Climate Change’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 209. See also Rattan Lal et al (eds), *Carbon Sequestration in Soils of Latin America* (2004).

225 Trines, above n 14, 39 citing Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003, art 11a(3)(b); Rosimeiry Portela, Kelly Wendland and Laura Ledwith Pennypacker, ‘The Idea of Market-Based Mechanisms for Forest Conservation and Climate Change’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 11, 21.

226 Farhana Yamin, ‘Part 1: The International Rules on the Kyoto Mechanisms’ in Farhana Yamin (ed), *Climate Change and Carbon Markets: A Handbook of Emissions Reduction Mechanisms* (2005) 1, 46.

227 Trines, above n 14, 39.

entities would purchase forestry credits if they were recognized under the EU ETS.²²⁸

Lack of LULUCF has even been blamed for the European Union carbon market failure.²²⁹ However, voluntary retail carbon offsets, including forestry carbon offsets, are available worldwide from providers based in Europe, as well as in the US and Australia.²³⁰ The European Environment Agency lists the use of LULUCF under ‘mitigation options to achieve [GHG] emissions targets’ in 2007 and 2008.²³¹ No less than 15 European Union member-states have been reporting on their use of carbon sinks in those years.²³² The obvious lesson to be learnt from this experience is that excluding LULUCF altogether from the ETS is not a solution.

B The United States Position

The United States’s refusal to ratify the *Kyoto Protocol* has led to it taking ‘a back seat in international negotiations’.²³³ There is no ETS or any overarching GHG reduction system,²³⁴ though the United States Environmental Protection Agency²³⁵ can regulate GHG emissions under the federal *Clean Air Act* after a United States Supreme Court decision in 2007.²³⁶ At least four different Acts,²³⁷ representing different GHG management models, have been introduced in the United States Senate, without ultimately any one of these succeeding. Yet, there is a functioning Chicago Climate Exchange, offering voluntary (ie, not legally required but potentially legally binding) carbon offsets²³⁸ for ‘projects

228 Sebastian Scholz and Martina Jung, ‘Forestry Projects under the Clean Development Mechanism and Joint Implementation: Rules and Regulations’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 71, 81.

229 Robert O’Sullivan, ‘Reducing Emissions in Developing Countries: An Introduction’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 180, 188.

230 Scholz and Jung, above n 228, 81 citing at n 48 Nadaa Taiyab, ‘Exploring the Market for Voluntary Carbon Offsets’ (2006) 14 International Institute for Environment and Development <<http://www.iied.org/pubs/pdfs/15502IIED.pdf>> at 22 August 2010: ‘There are an estimated 30 to 40 providers worldwide, most of them based in Europe, the USA, and Australia’.

231 See respectively for 2007 and 2008, European Environment Agency, *Greenhouse Gas Emission Trends and Projections in Europe* (2007) 28; European Environment Agency, *Greenhouse Gas Emission Trends and Projections in Europe* (2008) 36.

232 Ibid respectively (2007) 89 and (2008) 37.

233 See, eg, Garnaut, above n 6, 178.

234 See, eg, Lenore Taylor, ‘Barack Obama Demands Progress on Emissions Trading Scheme’, *The Australian* (Online), 25 February 2009, <<http://www.theaustralian.news.com.au/story/0,25197,25105536-263,00.html>> at 25 February 2009.

235 See curiously Agence France-Presse, ‘US Environmental Protection Agency Deems CO2 a Health Risk’, *News.com.au*, 18 April 2009, Environment, <<http://www.news.com.au/story/0,27574,25350377-23109,00.html>> at 18 April 2009.

236 Garnaut, above n 6, 178.

237 See, eg, *Lieberman-Warner America’s Climate Security Act 2007; The Climate Stewardship and Innovation Act 2007; The Electric Utility Cap-and-Trade Act 2007; The Clean Air Planning Act*.

238 Chicago Climate Exchange, ‘CCX Offsets Program’ (2010) <<http://www.chicagoclimatex.com/content.jsf?id=23>> at 22 August 2010.

that credibly reduce GHG emissions'.²³⁹ There are also several functioning legislative initiatives. For example, the California Climate Action Registry, which includes California Forest Protocols providing standards 'on how to account for, measure and monitor, and verify emission reductions and sequestration from forest conservation, management, and restoration'.²⁴⁰ The Northeast Regional Greenhouse Gas Initiative provides the Model Rule that only allows afforestation as the eligible activity for offset credit.²⁴¹ Kelly et al report:

the project sponsor place[s] the project site under a legally binding, permanent conservation easement. The easement would require the land to be maintained in a forested state in perpetuity... If afforestation offsets are lost because of wildfires or other damaging events, the user of the credits is required to replace those credits in order to remain in compliance.²⁴²

While this model is not necessarily better, it at least provides for the possibility of inadvertent natural disturbances, such as fires. An absence of such provisions is a notable weakness of the Victorian legislation as the recent *Victorian Bushfires Royal Commission* predicts increased fire hazard.²⁴³

In other aspects, the United States model involving *conservation easements* is not suitable for Australia, as there is no equivalent property right. Dukeminier and Krier exposit:

Conservation servitudes ... created as covenants run into the rule that if the benefit is in gross the burden will not run. The benefit of conservation servitudes usually runs to a public or nonprofit organization, such as a nature conservancy.²⁴⁴

Another definition states: '[a] conservation easement is a legal agreement appended to the land deed that restricts the type and amount of development that may take place on private property'.²⁴⁵ The problems identified in this approach include 'permanence, additionality, leakage, and monitoring'.²⁴⁶ In fact, the dissatisfaction of the American policymakers with this model is such that some have turned to the Australian paradigm for inspiration. Thus, Passero suggests in her policy proposal:

In addition to clarifying the rights of a forest-based reduction, it may also be helpful to acknowledge a distinct new right in real property, a forest

239 Portela, Wendland and Pennypacker, above n 225, 21.

240 Cathleen Kelly et al, 'Using Forests and Farms to Combat Climate Change: How Emerging Policies in the United States Promote Land Conservation and Restoration' in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 275, 285.

241 Ibid 282.

242 Ibid.

243 Bernard Teague, Ronald Mcleod and Susan Pascoe, Royal Commission, *2009 Victorian Bushfires Royal Commission Interim Report* (2009) [3.25] <<http://www.royalcommission.vic.gov.au/Interim-Reports>> at 18 August 2009.

244 Jesse Dukeminier and James Krier, *Property* (5th ed, 2002) 892.

245 Dick Kempka and Dawn Browne, 'Terrestrial Carbon Offsets for Industry Portfolios' in Peter Fusaro and Marion Yuen (eds), *Green Trading Markets: Developing the Second Wave* (2005) 159, 166.

246 Ibid 168.

carbon storage right. Australia has already taken this initiative to facilitate reforestation and investments in reductions. The establishment of such a right would enable the use of real property instruments, like easements, profits and covenants, to help secure the permanence of forest-based emission reductions. Furthermore, the delineation of such a right will create better clarity with respect to the title, which in turn, will support the verifiability and enforcement of reductions.²⁴⁷

Rather than being flattering to the Australian lawmakers, this passage clearly shows the confusion that reigns in the minds of policymakers with regard to the place of property law and property rights in the totally new environment which calls for a new framework and a new arrangement. The solution to the problems cannot be found overseas, but it can be found in the past: the next chapter analyses the suitability of the *Green Paper Model* for CSRs.

VI SOLUTION TO THE PROBLEMS: THE GREEN PAPER MODEL – A NEW ARRANGEMENT

This chapter discusses the framework and political developments behind the *Green Paper Model*, as well as the constitutional basis for it. The model is then described as it appears in the *Green Paper*, followed by the critique and comparison with the CPRS Bill pt 10. Since, pursuant to this analysis, the *Green Paper Model* falls into the category of regulatory property rights, the category's suitability as a vehicle for CSRs is explained. Lastly, the advantages and perceived disadvantages of the *Green Paper Model* are highlighted and addressed respectively.

A Framework and Political Developments

Administratively allocated carbon permits would be introduced into the Australian market if the ETS were to become operative.²⁴⁸ While the details of the ETS are outside the scope of this article, a strong argument can be made that instead of State-generated CSRs and forestry carbon rights, the national carbon permits currency should be used for the LULUCF, as the *Green Paper* has proposed in 2008.²⁴⁹ It seems more efficient for LULUCF to be managed centrally by the Commonwealth in order to ensure compliance with international standards and the monitoring of carbon emissions.

247 Michelle Passero, 'The Nature of the Right or Interest Created by a Market for Forest Carbon' (2008) 3 *Carbon and Climate Law Review* 248, 253.

248 Australian Government, *White Paper*, above n 11, vol 2, 14–16.

249 See Australian Government, *Green Paper*, above n 10, 127–34.

The Rudd Government's proposal on the ETS left the LULUCF uncovered,²⁵⁰ providing only for voluntary²⁵¹ participation and only in regard of reforestation.²⁵² Garnaut explained it when he observed that LULUCF emissions were difficult to measure and could be negative (where a forest grows and carbon is sequestered) as well as positive; and they were concentrated in the developing world.²⁵³ Garnaut also maintained that '[t]he current international regime gives limited rewards for reductions in [LULUCF] emissions, and does little to foster sequestration'²⁵⁴ and that 'countries would be well advised to use a mix of regulatory and fiscal measures to help maintain or increase forest cover'.²⁵⁵

Yet it is not entirely clear why of all the options under the *Kyoto Protocol* only reforestation has remained in the CPRS Bill, although the *Green Paper* mentions that the government believes that 'complex land use policy challenges ... are best addressed directly through water policy and natural resource management policy'.²⁵⁶ Potential repercussions of such exclusivity are that some native vegetation could be pre-emptively cleared so that the land becomes eligible for reforestation.²⁵⁷ There is also no incentive whatsoever for preservation of native forests (avoiding deforestation),²⁵⁸ while scientists have discovered that the National Carbon Accounting System ('NCAS') has 'underestimated the carbon carrying capacity of natural forests with high biomass stock'.²⁵⁹ Mackey et al also maintain that industrialised forests and/or monocultures are more susceptible to loss and have reduced resilience to pests, diseases and climatic change.²⁶⁰ Pursuant to this finding, the federal government should create greater incentives for preservation of native forests by allocating more permits to them than to the reforested stock. At the moment, however, there is a perverse incentive to clear native forests so as to be able to reforest the land at a profit.

One reason against allocating a higher number of permits to native forests is that the 'Kyoto rules exclude forests established prior to 1990'.²⁶¹ However, the *Green Paper* further stipulates:

250 Independent Pricing and Regulatory Tribunal, ('IPART'), *Review of NSW Climate Change Mitigation Measures* (2 July 2009) vols 1 and 2. See also IPART, 'IPART Recommends a Method for Assessing NSW Climate Change Mitigation Measures and Reviews 26 NSW Programs', *Media Release*, 2 July 2009, <<http://www.ipart.nsw.gov.au/announcements.asp>> at 29 September 2009.

251 Australian Government, *Green Paper*, above n 10, 17: 'because, unlike other sectors of the economy, forests are likely to store more carbon than they emit'. See also at 129.

252 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10; Australian Government, *Green Paper*, above n 10, 37.

253 Garnaut, above n 6, 236–7.

254 Ibid.

255 Ibid.

256 Australian Government, *Green Paper*, above n 10, 18, 127.

257 Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations*, Productivity Commission Inquiry Report No 29 (2004) xxvi.

258 Although the *Green Paper* explains that the Article 3.4 of the *Kyoto Protocol* allows inclusion of native forests: Australian Government, *Green Paper*, above n 10, 119–20. Another reason for not including them is also given in the *Green Paper* at 120: 'Extreme fires are a particular risk for emissions from forests'.

259 Mackey et al, above n 186, 7.

260 Ibid 5–6.

261 Australian Government, *Green Paper*, above n 10, 17.

The Government believes these accounting rules are not an appropriate reflection of reality—carbon stored in wood products should be recognised in international agreements. Australia will, therefore, increase its efforts to influence changes to the international climate change framework in ways that reflect Australia’s particular circumstances...²⁶²

The United Nations Climate Change Conference in Copenhagen, 6–18 December 2009, has failed to open a way for the accounting of carbon sequestered in native forests. Thus were the CPRS Bill to remain the same, it would put native forests at an unacceptable risk.

B Constitutional Issues: States vs Commonwealth

The ‘Constitution does not confer a specific head of power on the Commonwealth in relation to the environment’.²⁶³ However, after the ratification of the UNFCCC and the *Kyoto Protocol* by the Commonwealth under the external affairs powers,²⁶⁴ an overlap between State and Commonwealth ability to legislate regarding energy and forestry sectors becomes undisputable.²⁶⁵ Moreover, if the Commonwealth ‘passes a law that is properly within its power to pass, and if that law is designed to “cover the field” of an area that is already the subject of state ... legislation, then the Commonwealth law overrides the state law’.²⁶⁶ But maybe out of diplomatic considerations, the federal government waits for State governments to defer to their LULUCF policies, as is currently happening with States’ policies on energy and pollution.²⁶⁷ After all, the NSW Government’s GHG website,²⁶⁸ where one could apply for CSRs registration, accreditation, and audits,²⁶⁹ already points to the website of the Federal Department of Climate Change and, in particular, to the description of NCAS²⁷⁰ and free carbon accounting software.²⁷¹ In any case, the Commonwealth has the power to override inappropriate State arrangements. The discussion below focuses on the *Green Paper* Model that has been presented by the federal government in 2008 but has not reappeared in the *White Paper* or the CPRS Bill.

262 Ibid.

263 Bates and Lipman, above n 89, 23.

264 *Australian Constitution* s 51(xix).

265 Karen Gould, Monique Miller and Martijn Wilder, ‘Legislative Approaches to Forest Sinks in Australia and New Zealand: Working Models for Other Jurisdictions’ in Charlotte Streck et al (eds), *Climate Change and Forests: Emerging Policy and Market Opportunities* (2008) 253, 254.

266 Ibid 255.

267 IPART, *Review of NSW Climate Change Mitigation Measures*, above n 250, vol 1.

268 NSW GHG, ‘Carbon Sequestration – Forestry’ (2009) <<http://www.greenhousegas.nsw.gov.au/print.asp?REF=/acpforestry>> at 1 August 2009.

269 See, eg, NSW Greenhouse Gas Reduction Scheme, ‘Accreditation Notice: Carbon Sequestration Abatement Certificate Provider’ (2009) <<http://www.greenhousegas.nsw.gov.au>> at 1 August 2009.

270 Australian Government, Department of Climate Change, ‘National Carbon Accounting System’ (2009) <<http://www.climatechange.gov.au/ncas>> at 1 August 2009.

271 Australian Government, Department of Climate Change, ‘National Carbon Accounting Toolbox CD’ (2009) <<http://www.climatechange.gov.au/ncas/ncat/index.html>> at 20 September 2009. For a commercial version of the software see CarbonNetworks, <<http://www.carbonnetworks.com>> at 1 August 2009.

C The Green Paper Model — A New Arrangement

1 Description

The *Green Paper* discusses two designs:

One option would be for forest landholders to report annually and receive or surrender permits accordingly... [R]eporting obligations could be streamlined using the [NCAS]. An alternative approach would be to allow forest landholders to report (and receive or surrender permits) less frequently for example every five years or by the end of the international commitment period.²⁷²

(The CPRS Bill allows both options, but the default period is five years.)²⁷³ The *Green Paper* also specifies that ‘disturbances such as harvesting or fire and any subsequent replanting, regeneration or conversion of forest land to an alternative use would ... need to be reported’²⁷⁴ when they happen. Regrettably, no such provision is present in the CPRS Bill. Further details of the *Green Paper* proposal are as follows:

The Australian definition of a forest for the purpose of *Kyoto Protocol* accounting specifies a minimum area of only 0.2 hectares, tree crown cover of 20 per cent and a tree height of two metres.²⁷⁵ ...While a higher threshold could be considered for scheme participation, using this definition as the threshold would allow most farm forestry, conservation and environmental plantings into the scheme, which would benefit rural communities. Scheme administrative costs and implementation risks could be minimised through the use of the [NCAS] and National Carbon Accounting Toolbox to facilitate reporting...²⁷⁶ [F]orest landholders who opt in to the scheme would not be allowed to opt out unless they surrender permits for all potential emissions from the forest.²⁷⁷ ... [A] separate category of domestic offsets is not proposed for reforestation activities. However, voluntary coverage of forestry could benefit many farmers and entities that have established carbon sink forests to generate offset credits.²⁷⁸

272 Australian Government, *Green Paper*, above n 10, 133.

273 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 223(1)(a). The Bill gives an option to nominate a period in s 223(1)(b) of ‘at least 12 months’: s 223(3)(b)(i). But see generally Australian Government, *White Paper*, above n 11, 14–16: ‘The value of administratively allocated permits issued to emissions-intensive trade-exposed entities will be valued at zero at the end of an income year ending before the last surrender date for the emissions year for which they were issued.’ There is also a complication with regard to a sunset clause in s 101 of the CPRS Bill, which annuls all Australian emission units on 31 December 2013, while they only appear first in 2012: s 88.

274 Australian Government, *Green Paper*, above n 10, 133.

275 Ibid 133–4, citing Department of Climate Change, *National Inventory Review*, 2006.

276 Ibid, citing Department of Climate Change, *National Carbon Accounting System*.

277 Ibid 135.

278 Ibid 136.

2 Critique and Comparison with the Part 10 of the CPRS Bill

While the *Green Paper Model* lacks a lot of the detail that is present in the CPRS Bill, its structure is much clearer. The CPRS Bill is weighed down by the compromises between the State arrangements and the Federal proposal, requiring, for instance, that the application be made by the person who holds CSR ‘in relation to the project’,²⁷⁹ but still accompanied by written consents of:

- (i) the person who holds an estate in fee simple in the project area...;
- (ii) the person who holds the forestry right in relation to the project ...;
- (iii) any mortgagee of the project area...²⁸⁰

Yet for the purpose of forest maintenance obligations, it is the person holding the forestry right who is singled out.²⁸¹ This creates an ample ground for a surge in litigation, since the forestry right holder and CSR holder under the State laws can be different persons. The CPRS Bill also does not discuss what would happen if written consents are withdrawn, but only the ways to withdraw an application. There is also a puzzling requirement in s 209(4):

The Authority must not declare that the reforestation project is an eligible reforestation project unless the Authority is satisfied that:

- (b) if the project area is ... Torrens system land—the project area is ... held under a single title...

Lastly, ss 240 and 241 effectively create another set of definitions and requirements for CSR and forestry right respectively, which are clearly at odds with the State-based regimes. Rather than unifying the disparate State legislations, these sections add further complexity to the legislative conundrum.

These problems were not present in the original *Green Paper Model*, nor were there the separate requirements for non-transferable certification of reforestation,²⁸² eligible entity recognition,²⁸³ and reforestation project,²⁸⁴ adding up to the costly administration. The frequent references to the NCAS in the *Green Paper* are absent from the CPRS Bill. Instead, the latter gives some ‘formulas’²⁸⁵ for working out the number of ‘free Australian emission units’ (‘AEUs’). The formulas have little (if any) mathematical signs, yet there are frequent references to a ‘computer program’²⁸⁶ in the assignment of the AEUs. There are no references in the CPRS Bill to satellite monitoring of the areas involved, which is disappointing, as the

279 Carbon Pollution Reduction Scheme Bill 2009 (Cth) ss 195(2), 209(4)(d).

280 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 209(4)(e).

281 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 226(8)–(9).

282 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10 div 3.

283 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10 div 4.

284 Carbon Pollution Reduction Scheme Bill 2009 (Cth) pt 10 div 5.

285 Carbon Pollution Reduction Scheme Bill 2009 (Cth) ss 195(3), 196(1)–(2), 220(3), 226(2).

286 Carbon Pollution Reduction Scheme Bill 2009 (Cth) ss 195(8), 196(4), 220(6), 226(10). See also Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 374.

NCAS includes such a facility.²⁸⁷ It emerges, therefore, that the CPRS Bill is a step back from the *Green Paper*, with the *White Paper* documenting how and why the government was convinced to retreat and compromise.

3 Regulatory Property Rights from the Property Law Perspective

The obvious differences in design between the *Green Paper* and the CPRS Bill models can be set aside to analyse their common element: the notion of a regulatory property right — the AEU — as personal property.²⁸⁸ In 1998 Rose wrote: ‘central models for pollution control and resource conservation are regulatorily-created, transferable property-like rights... [described as] “hybrid property”’.²⁸⁹ The prototype for the AEU is tradable emission rights for air pollution introduced in the 1990 Amendments to the *Clean Air Act*²⁹⁰ to reduce the presence of pollutants causing acid rain. The success of the acid rain scheme has been apparently repeated with individual transferable quotas of fish catch introduced in NZ fisheries,²⁹¹ and in other contexts.²⁹² While a strong ideological opposition exists to the application of hybrid property to the environment and offers a vocal alternative — for example, by establishing a limited common property²⁹³ or even by endowing the environment with a legal personality,²⁹⁴ it seems futile to go against the strong current of international pressure. From the property law perspective, there is no harm in adding an extra personal right to a landowner, as opposed to forcibly fragmenting the land property rights into use rights.²⁹⁵ Therefore, AEU should be issued directly to landowners or forest landholders rather than persons with CSRs and/or forestry rights. The latter two categories simply should not exist.

4 Advantages of the Green Paper Model

The benefits of the *Green Paper* Model, especially if it were to include an assignment of extra AEU for native forests, would be as follows:

- a clear incentive for the landowners to maintain carbon sinks and introduce new sinks in order to obtain carbon permits;

287 Australian Government, ‘National Carbon Accounting System’, above n 270. Satellite images are also available at Australian Government, Bureau of Meteorology, which calculates monthly Normalised Difference Vegetation Index (‘NDVI’): <<http://www.bom.gov.au/NDVI/NDVI2.shtml>> at 31 July 2009. The results are presented in images: at <<http://www.bom.gov.au/cgi-bin/nmoc/nmoc.sat.monthlyprd.pl>> at 20 September 2009.

288 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 94.

289 Rose, above n 20, 163–4.

290 *Clean Air Act* 42 USC [7401], 7651 (1990); Rose above n 20, 165.

291 See generally Rose, above n 20, 166; O’Connor, above n 110; Adler, above n 35.

292 Rose, above n 20, 165–6.

293 *Ibid* 180; Byrne et al, above n 41.

294 Christopher Stone, ‘Should Trees Have Standing? – Toward Legal Rights for Natural Objects’ in Richard Chused (ed), *A Property Anthology* (1993) 109.

295 See generally Gould, Miller and Wilder, above n 265, who use the term ‘unbundling’ for fragmentation.

- control over the land and trees at all times remains with the landowner, avoiding the possibility of disputes and litigation;
- easy monitoring of sinks, permits and trade annually, or per accounting period, including a degree of transparency that would most likely satisfy any international monitoring agency;
- avoidance of complications involving fire insurance and damage, as natural or anthropogenic fire damage would be automatically accounted for in the yearly distribution of the permits;
- dynamism and flexibility, as the scheme could at any time be modified, enhanced or revoked without any risk of liability and claims to compensation (as the mechanism is mostly regulatory);
- centralised accounting of the permits, allowing easier international trade and participation in joint implementation or foreign ETS flexibility mechanisms ;
- no destructive effect on property law, contract law and commercial law;
- fraud prevention;
- no extra strain on court system; and
- greater environmental benefit.

It is thus of fundamental importance to amend the CPRS Bill accordingly and repeal the existing State carbon sequestration legislation all together.

5 Perceived Disadvantages

There are a number of perceived disadvantages in repealing the State legislation and in introducing AEU's for native forests: the forest holder might change his/her mind and redevelop the land; non-anthropogenic emissions from natural disturbances would have to be taken into account; and the transaction costs might be high. These concerns are addressed below.

(a) Change of Mind vs Environmental Protection

A landowner might want to redevelop a carbon sink if financial incentives change. Selling the trees as timber, or clearing the trees to make the land available for crops or buildings, might become more profitable. The CPRS Bill allows withdrawing from the scheme, but not the State legislation, which does not provide any buy-back option for fragmented rights. If the main purpose of the legislation were to protect carbon sinks, it would be worthwhile to consider in whose care carbon sinks should be placed: the government; carbon traders; or landowners.

(i) The Crown or Commons

Criticisms of placing a resource under the care of the Crown or Commons are usually based on: a long standing and frequently recited Aristotle's dictum that

whatever 'is common to the greatest number has the least care bestowed upon it',²⁹⁶ and the failure of the Soviet Union to provide adequate protection to the environment,²⁹⁷ with the net effect of the public ownership resulting in worse environmental problems than in capitalist countries. Frequent references are made to Hardin's tragedy of the commons.²⁹⁸ The Crown would be also required to compensate landowners for any repossessed land, making the move expensive, as '[t]here may not be enough money in the world to buy all the environmental protection we need'.²⁹⁹ So this is not an option.

(ii) Carbon Traders

The current laws invest the third party with care over carbon sinks. One may safely predict that the third party would be either an EITEI, which only cares about carbon rights for bureaucratic purposes, or a carbon trader whose aim would be to accumulate as many carbon rights as possible and sell them at a profit to EITEIs. While the third party is granted the right of access to the land, it is not expected to be permanently on the land taking care of it, as it might conflict with the landowners' rights. So a *split incentives* scenario is created: a landowner does not have any incentive to take care of the carbon sink because it is someone else's property and he/she might actually profit (get his/her land back) if a fire destroys the sink; while the carbon rights holder is physically separated from the carbon sink, so taking care of it, even if desirable, would be fraught with difficulty and conflict, especially as 'right of access' to land probably does not encompass the right to stay on the land.

(iii) The Landowner

A landowner, having the power to stay on the land, is arguably the best person to take care of the land or to delegate such care to a tenant or an employee. Defenders of private property argue that, with correct incentives, the best environmental outcome can be achieved through private property owners.³⁰⁰ If the incentives force the value of the land up due to the presence of a carbon sink, the natural consequence of it would be that landowners preserve and increase the number of carbon sinks. If, however, it becomes less profitable for the land to have a carbon sink, the landowner should be able to withdraw from the scheme. In some instances such a change in land use would be in public interest and should be permitted. The *Green Paper* Model proposes giving the AEU to landowners, which is going to secure the best environmental outcome.

296 Aristotle, *Politics* (Benjamin Jowett trans, first published 1981, 2004 ed) 25 [trans of: *Πολιτικά*]. See especially Daniel Cole, *Pollution & Property: Comparing Ownership Institutions for Environmental Protection* (2002) 2; Jacob Viner, 'The Intellectual History of Laissez Faire' (1960) 3 *Journal of Law and Economics* 45, 48.

297 See, eg, Denman, above n 86, 155; Beloff, above n 82, 3; Adler, above n 35.

298 Garrett Hardin, 'The Tragedy of the Commons' (1968) 162 *Science* 1243; Porritt, above n 98, 49; Cole, above n 296; Edgeworth et al, above n 99.

299 Porritt, above n 98, 49.

300 See, eg, Adler, above n 35.

(b) Non-Anthropogenic Emissions

Australia's current international position is that 'national accounts should include emissions and removals from anthropogenic sources only'.³⁰¹ 'Natural disturbances' should be identified, quantified and excluded from accounting.³⁰² So at present the problem of fires, droughts and floods is left to the unregulated market forces.³⁰³ It seems unworkable to let the carbon sequestration laws operate in the absence of any provisions regarding 'natural disturbances' predicted to increase in Australia.³⁰⁴ There must be a legislative mechanism for factoring in natural disturbances. If this is accepted, then responsiveness of AEU's to natural disturbances becomes its advantage rather than a disadvantage. Also, if the total GHGs in the atmosphere and their effect on the planet are of concern, it is more prudent to account for natural disturbances resulting in significant carbon emissions.

(c) Transaction Costs

Transaction costs would accompany any of the suggested schemes, though by far the highest costs seem to be associated with the CPRS Bill due to incalculable amount of administrative paperwork involved. The *Green Paper Model* may actually result in lower costs if satellite monitoring is deployed instead of paperwork reports and if the focus is kept on landowners, rather than on CSR and forestry carbon right holders. It would also be advisable to reduce the number of certificates required in order to apply for transferable AEU's.

In the presently discussed arrangement, there will be transaction costs in registering CSRs and forestry carbon rights on the Torrens Land Registry each time they are resold (which can be quite often as the market is expected to be speculative). The Torrens Land Registry then might have to be reconciled with the Register of Reforestation Projects³⁰⁵ and the NCAS and/or include other property interests created for environmental purposes.³⁰⁶ This would be expensive.³⁰⁷ Also, since the *Kyoto Protocol* envisages international monitoring of the carbon offsets, the Torrens Land Registry might become subject to international scrutiny with many private details of the landowners becoming exposed, possibly, in breach of the *Privacy Act 1988* (Cth).

301 UNFCCC, 'Views on Options and Proposals for Addressing Definitions, Modalities, Rules and Guidelines for the Treatment of Land Use, Land-Use Change and Forestry: Submissions from Parties: Australia', in UNFCCC, *Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol*, UN Doc FCCC/KP/AWG/2009/MISC/11 (2009) 5.

302 *Ibid* 6.

303 Western Australia, *Parliamentary Debates*, Legislative Assembly, 22 May 2002, Second Reading: Carbon Rights Bill 2002 (The Hon Francis (Fran) Logan, Parliamentary Secretary).

304 Australian Government, *Green Paper*, above n 10, 60.

305 See Carbon Pollution Reduction Scheme Bill 2009 (Cth).

306 Bennett, Wallace and Williamson, above n 85; Pamela O'Connor, Sharon Christensen and William Duncan, 'Legislating for Sustainability: A Framework for Managing Statutory Rights, Obligations and Restrictions Affecting Private Land' (2009) 35 *Monash University Law Review* 233.

307 On the discussion on feasibility of including all property interests on the Torrens Land Registry, see generally Bennett, Wallace, and Williamson, above n 85.

So, the *Green Paper* Model transaction costs are expected to be lower than those incurred by the State-based approaches. Also, under the *Green Paper* Model, the Commonwealth is responsible for the costs, whereas currently the State governments are responsible. If very high costs are involved, the Commonwealth would be better equipped to absorb them. Thus, the *Green Paper* Model's perceived disadvantages may actually be advantages in disguise.

VII CONCLUSIONS

The State carbon sequestration laws have been passed in anticipation of the overarching climate change policy. They are, therefore, provisional. The Rudd Government's climate change policy, or CPRS, itself was shaped in the context of unprecedented politico-economical controversy and is riddled with compromises and uncertainties. The traditional property law jurisprudence is inadequate, if not antagonistic to, environmental regulations. The analysis of those categories of property rights which have been included in the State carbon sequestration laws as vehicles for forestry carbon rights and CSRs shows that neither restrictive covenant, nor profits à prendre nor à rendre, nor chose in action, nor *sui generis* carbon right are suitable to operate in the novel scenarios without encountering unpredictable and possibly devastating information costs, a surge in litigation and claims for compensation from the respective governments. Lack of uniformity among these laws, even regarding definitions of their subject matter, precludes any possibility of establishing the intended interstate and international trade in carbon permits. Also, split and perverse incentives emerge which may lead to environmental disasters. Finally, when the juncture between the State laws and the CPRS Bill pt 10 is analysed, further absurdities and difficulties become evident. Thus, these laws fail to secure either environmental or economic benefit, and so they should be repealed. At the very least, they should be amended to include buy-back options for landowners and provisions dealing with consequences of 'natural disturbances' such as fires.

The solution resides in the *Green Paper* Model which proposes creation of regulatory property under the auspices of the NCAS and with deployment of satellite monitoring. The flexible forgiving nationally-administered system of AEU's issued directly to landowners would obviate the manifold economic and environmental adverse effects of the current arrangement. It is strongly recommended that the COAG and the federal government reconsider their legislative approach to carbon sequestration and LULUCF in light of the *Green Paper* Model's obvious advantages.

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