

## **NEW DIMENSIONS IN LAND TENURE – THE CURRENT STATUS AND ISSUES SURROUNDING CARBON SEQUESTRATION IN REGIONAL AUSTRALIA**

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**ABSTRACT:** Carbon sequestration became topical following the United Nations Convention on Climate Change (United Nations, 1992) and Kyoto Protocol (United Nations, 1998) which identified emissions trading as a mechanism to reduce greenhouse gas emissions. In Australia a legislative framework was established to recognise carbon in forestry as a property right to enable participation in emissions trading schemes.

Carbon rights offer rural landholders the opportunity to generate an alternative income stream on their land. However, there are considerable complexities surrounding carbon rights which are generally poorly understood, including the importance of the carbon agreement where the carbon rights are transferred to a third party.

This paper builds on PhD research and provides a description of the substance and form of the carbon right in Australia and proposes a series of issues to consider for inclusion in a carbon agreement.

**KEY WORDS:** Regional development; Carbon right; Carbon sequestration; Carbon farming.

### **1. INTRODUCTION**

The agricultural sector is a significant sector in the Australian economy and has a significant responsibility with respect to land stewardship. With just over half of Australia's total land mass, or 405 474 000 ha (ABS, 2013) of land, under the operation of agricultural business, optimisation of land management is a critical issue. The business of agriculture has become more complex with the competing interests and property rights in land such as native title, mining exploration permits and leases, water rights and now carbon sequestration and

farming. For the purposes of this paper, the term ‘agriculture’ is an umbrella term used to describe the many varied activities associated with rural land including grazing and cropping.

Carbon sequestration and carbon rights represent a worthy topic for academic consideration and discussion given the volatile and evolving nature of those rights in the Australian context and the important impact they can have—both positively and negatively—on this vital sector and on Australian regions more widely.

The complexity surrounding the accounting for carbon in soil (Sheehan and Kanas, 2008) and other biomass has meant that accounting for carbon in trees or forestry is comparatively more straightforward. This has meant that carbon in forestry has received comparatively more attention for projects in Australia. However, the impact of carbon sequestration projects on rural property has not been fully explored despite its economic, environmental, legal and regional relevance.

The term ‘carbon sequestration’ refers to the capturing of carbon dioxide in the earth’s atmosphere and storing it in vegetation, soil or other forms of living biomass. Despite the frequent use of this term, there is not a statutory nor agreed definition of it. Green Facts (n.d.) defines carbon sequestration as being “*The removal and storage of carbon from the atmosphere in carbon sinks (such as oceans, forests or soils) through physical or biological processes, such as photosynthesis*”.

Whilst it is acknowledged that there are many ways to sequester carbon and improve biodiversity, when used in the context of this paper the meaning of the term ‘carbon sequestration’ shall be limited to carbon sequestered in trees as opposed to sequestration of carbon in other forms of living biomass.

The term ‘carbon right’ is referred to extensively throughout this paper and is used to describe the capturing of legal rights to carbon sequestered in vegetation or forestry. The term carbon right is generally poorly understood. The Australian Property Institute (NSW and Qld Division) states that “*A carbon property right has not been clearly defined in Australia. A clear, coherent definition is essential to provide traders in carbon assets with certainty about the nature and worth of what is being traded*”. This term is a generic one that could be more specifically described as a profit a prendre, carbon abatement interest and a number of other terms, depending on the jurisdiction involved. Given real property rights are involved here, State statute is of primary consideration, though the Commonwealth may influence some

level of control through, for example, international treaties on the environment and, from that, the operations of Sections 51 and 109 of the Australian Constitution.

The carbon right may also be a registered or unregistered interest in land. There is no general rule as to whether the introduction of carbon sequestration activities and carbon rights will have a positive or negative impact on a rural land holding. The introduction of carbon sequestration may potentially benefit a landholder where the carbon sequestration activities are strategically located on the property and /or do not prohibit nor frustrate agricultural or grazing activities. Payment received in consideration of the carbon right may also provide additional, consistent income to benefit the overall agricultural operations. However, as will be discussed below, whether the trading of carbon rights will provide tangible benefit or not to the land owner at any point in time depends on a range of factors including the quality and suitability of the agricultural land, the species of trees selected, and most importantly the nature of the carbon right and the terms and considerations of the carbon agreement which provides substance and form to the right.

The aim of this paper is to explore the substance and form of carbon rights to facilitate a greater understanding and to propose property rights issues for consideration when considering engagement in a carbon project through a carbon agreement.

## **2. THE CARBON RIGHT**

Each Australian state has responded by recognition of a right to sequestered carbon in forestry either through a previously recognised property right, such as a profit a prendre, or the establishment of a new property right to recognise the novel nature of a right to sequestered carbon. These carbon rights are tradeable domestically or internationally. Table 1 provides a brief summary of the carbon sequestration right that exists in each state:

**Table 1**, Carbon Rights in Australia

<b>State/Territory</b>	<b>Description of Carbon Right</b>	<b>Relevant legislation</b>
Queensland	Carbon Abatement Right Profit a Prendre	<i>Forestry Act 1959</i> (Qld) <i>Land Title Act 1994</i> (Qld) <i>Land Act 1994</i> (Qld)
New South Wales	Forestry Right – Profit a Prendre	<i>Conveyancing Act 1919</i> (NSW)
Victoria	Carbon Sequestration Right	<i>Climate Change Act 2010</i> (Vic)
Western Australia	Carbon Right and Associated Carbon Covenant	<i>Carbon Rights Act 2003</i> (WA)
Tasmania	Carbon Sequestration Right	<i>Forestry Rights Registration Act 1990</i> (Tas)
South Australia	Carbon Right	<i>Forestry Property Act 2000</i> (SA)

Source: the Authors.

The legal framework for the recognition and protection of carbon rights in Australia is varied due to the separation of powers between each of the states and territories and the Commonwealth by virtue of Section 51 of *The Commonwealth of Australia Constitution Act 1901*. Although the Commonwealth does have some powers to make laws pertaining to the environment, by virtue of the external affairs power in section 51(xxix) of the Constitution as established through the Tasmanian Dam case (*Commonwealth v Tasmania, 1983*), land management is not a specified Commonwealth power. Consequently land management including forestry becomes the power of individual states and territories. For this reason, the treatment of carbon rights varies significantly across the states.

In Queensland, for example, the term ‘carbon right’ is used as a generic term to describe the two different ways in which carbon is currently being recognised within the system of land management in Queensland. These two

methods of recognition of these rights are the *profit a prendre* and the *carbon abatement interest*. Both rights are relevant to both freehold (under the *Land Title Act 1994*) and leasehold land (under the *Land Act 1994*) in Queensland. In addition to the many different ways carbon rights are recognised in the various states of Australia and their level of compliance with Kyoto requirements, another issue is the way those rights are reconciled against the underlying property rights associated with freehold and leasehold land holdings. Carbon trading rights are a central component to the emissions trading scheme introduced by the Australian Government to satisfy *Kyoto Protocol* obligations (Parliament of Australia, 2010).

Like Australia, New Zealand has sought to fulfil Kyoto obligations through the implementation of carbon offset projects involving forest carbon sink projects. The New Zealand scheme has been operational in some form since late 2007 (Ministry of Agriculture and Forestry, 2011) with a covenant on title to support the scheme.

In USA there are some initiatives to respond to climate change through carbon off-set projects. Despite the establishment of the *Climate Action Reserve* (2013) (a national offset program), Stecker (2012) argues that the tools that have been established in the jurisdiction of California (the leaseholds and conservation easements), are inadequate to define and support carbon offset projects.

The area of carbon rights as a property right has become a topic of interest for many academic writers such as Arvanitakis and Boydell (2007), Hepburn and Reich (2009), Boydell *et al.* (2009), and Takacs (2009). Discussion has commenced as to how these rights should be classified within the existing rights framework. Hepburn and Reich (2009) reviews the legislative approaches adopted by each state and territory in Australia for addressing the issue of carbon rights and separating the incorporeal nature of rights to sequestered carbon from those more tangible rights that flow from land ownership. This has also been considered in an Australian context by Christensen *et al.* (2013) in a discussion of not only the property rights which support a Carbon Farming Project but also the importance of the Carbon Agreement in providing form to those rights.

The importance of a recognisable and tradeable carbon sequestration property right is acknowledged by Cuskelly (2011) regardless of whether the application of this carbon right is for carbon tax, offset projects or any other

market based policy. Cuskelly (2011) further acknowledges the importance of protection against fraud for any property right that is transferable. It is important that the carbon sequestration right is immediately recognisable by anyone seeking to purchase the superior freehold or the leasehold rights. The most obvious response to this requirement is to have the property right registered on the freehold land register which is the case in Queensland through registration of the carbon abatement interest or profit a prendre. However, this may not be a complete solution in a number of jurisdictions due to the existence of general law system of land that is not subject to indefeasibility of title. This may be a particular issue where crown leasehold tenures are involved. Additionally, there is not a publicly accessible register through which rights to carbon can be easily identified and searched.

The fragmentation of property rights to include rights to sequestered carbon as a proprietary right is essential to any proposed carbon trading scheme to be introduced in Australia where carbon rights are traded as carbon offsets, separate from the ownership and tenure of the host real property. Hepburn and Reich (2009) refer to a carbon right as a new statutory right which is unique and confers upon the holder of the right an incorporeal benefit to carbon sequestered within forestry planted on the land. Accordingly, the treatment of a carbon right as a *sui generis* right is preferable to preconceived common law categories of property rights such as a profit a prendre adopted by some jurisdictions in Australia, e.g. New South Wales and to some extent Queensland.

On an international level there are a myriad of different approaches to forestry carbon and its treatment as a property right. It is noted by Takacs (2009) that forestry carbon as a property right exists as a western legal paradigm. It is further noted that there is a need to integrate sustainable forest carbon projects into customary legal systems which are more commonly concerned with 'human to human' and 'human to nature' elements as opposed to the constructs of law and property. Takacs (2009) notes that these elements of customary legal systems should be integrated into successful carbon forestry projects.

Takacs (2009) examined the carbon sequestration/trading framework in the jurisdictions of Australia, Brazil, Costa Rica, Indonesia and Madagascar. In particular an examination was undertaken into the laws that govern reforestation projects as well as those that reduce emissions from deforestation and degradation. From this analysis, conclusions were drawn as to the

recommendations for optimal legal practices that may lead to sustainable forestation projects.

Internationally, there is significant variation between the level of resolution and appropriateness regarding carbon as a property right. To add to the complexity at a global level, there are areas of high forestation value, including Brazil (the Amazon) and many parts in South East Asia, where there is not an established land tenure system. Further, some significant jurisdictions, such as Indonesia seem to be in a state of flux where demarcation between various levels of government and sub-government, property rights and responsibilities and the economic benefits of a carbon framework are not clear (Takacs, 2009). It is noted by Takacs (2009) that central to the success of any forest carbon project is the clear articulation of title to carbon and property rights in addition to the enforceability of those rights.

The study by Hepburn and Reich (2009) seeks to consider how the various states and territories in Australia have responded to the proprietary validation of carbon rights in forestry and also to determine the appropriateness of each approach in light of the Emissions Trading Scheme. Some jurisdictions such as New South Wales and, to some extent, Queensland have sought to align carbon rights with existing common law rights through the use of a *profit a prendre*. By contrast are those jurisdictions that have recognised the novel nature of carbon rights and established a new proprietary interest in land.

Hepburn and Reich recognise the appropriateness of the approach by Western Australia in recognising a carbon right as a new statutory interest in land and is critical of the alignment with a *profit a prendre* as this form of common law right is “*ill equipped to respond to the variety of structural and conceptual issues underpinning their innovative character*” (Hepburn and Reich, 2009, p.7). They also note that clarity of statutory property rights is essential because any vagaries associated with the property right will not only effect the holder of the right but also the holder of the underlying interest in the land (Hepburn and Reich, 2009).

There is also an argument that legislation that creates a proprietary interest in land in the form of carbon rights should be uniform nationally to prevent confusion for those seeking to trade in carbon rights. Arguably, the system as it exists will also create varying levels of security of investment across the states for those seeking to invest in carbon rights.

### 3. THE CARBON RIGHT WITHIN THE PROPERTY RIGHTS FRAMEWORK

Property rights and property rights theory has generated significant academic interest and generated substantial academic writings since the time when private property rights were first recognised. The way property is understood by academic scholars and society has evolved over time. As noted by Macpherson (1978, p.1):

*“The meaning of property is not constant. The actual institution and the way people see it, and hence the meaning they give to the word, all change over time. We shall see that they are changing now. These changes relate to changes in the purposes which society or the dominant classes in society expect the institution of property to serve.”*

Macpherson (1978, p.1) also recognises that property in itself is a man-made construct or institution and as such

*“..... Property is controversial... because it subserves some more general purposes of a whole society, or the dominant classes of a society, and these purposes change over time: as they change, controversy springs up about what the institution of property is doing and what it ought to be doing.”*

Property, once viewed as a tangible object is now viewed from a legal perspective as a relationship with an object. As noted by Gleeson, Gaudron, Kirby and Hayne JJ, in *Yanner v Eaton*, the term ‘property’ was used to describe not the object itself but the many different kinds of relationships with a subject matter.

It has also been noted by scholars such as Bentham (Kegan, 1911 as cited in Hepburn, 2008) that property is inextricably linked to the law. Bentham notes that *“Property and the law are born together and die together. Before laws were made there was no property. Take away the laws and property ceases”* (Kegan, 1911 as cited in Hepburn, 2008).

The legal rights associated with property have long been referred to as a ‘bundle of rights’, like a bundle of sticks, with each stick representing a legally protected right to property. This metaphor replaces the notion of ‘sole dominion’ held by Blackstone in *William Blackstone Commentaries of the Laws of England*. Blackstone’s describes property as, *“that sole and despotic*



*dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe*". The bundle of sticks metaphor shows that property is not merely about the relationship of one person and their control and ownership over a thing, but rather it recognises the various entities that may have a relationship with each other in relation to the thing. Some of these rights will be superior over others. This metaphor is relevant irrespective of the complexity of the property interest. Despite criticism by some writers, such as Penner (1996), that the bundle of rights metaphor is conceptually limited, it is useful in demonstrating the complexity of the multiplicity of rights that may exist over a parcel of land and the potential for fragmentation of these property rights. The bundle of sticks metaphor is useful in considering the rights that the holder of the leasehold or freehold interest will have after the establishment of the carbon right on a parcel of rural land.

### ***Freehold Land***

For the holder of an interest in land, the extent of their rights (or the number of 'sticks') that they hold is dependent upon the significance of their land holding. The estate that carries the most significant private property rights is the estate in fee simple. In Queensland, for example, an estate in fee simple, i.e. a freehold estate, has the benefit of indefeasibility of title which is granted by section 184 of the *Land Title Act* 1994 (Qld). The *Land Title Act* also provides the holder of a registered interest in land with access to the statutory assurance fund, which is a state based compensation system designed to reimburse those dispossessed of an interest in land under certain circumstances.

An interest in land is defined here as a "... *legal or equitable estate in land, or ... a right, power or privilege over, or in relation to, the land.*" According to section 181 of the *Land Titles Act* "*an instrument does not transfer or create an interest in a lot at law until it is registered*". Through registration the *Land Titles Act*, creates a legal interest in land. However, the *Land Title Act* 1994 does not prevent the creation of an equitable interest in land, such as an unregistered carbon right.

The cornerstone of the Torrens Title system is protection of legal interests through indefeasibility of title of the registered legal interest holder. Whilst

indefeasibility of title is acquired immediately upon registration, the general principle regarding competing equitable claims is that if the equities are equal, priority in time will give priority. This principle applies to unregistered documents pertaining to a parcel of land, i.e. an unregistered carbon right.

When considering ownership of an object attached to the land, the legal maxim of ‘what is attached to the land becomes part of the land’ would apply. This maxim has been further clarified by case law pertaining to the nature and intention of annexation to the land; however, in general, all objects cease to be personal property once they are attached to the land. Of interest to this discussion is that all vegetation planted on the land would also be under the ‘ownership’ or control of the freehold land holder.

The freehold estate in land and the bundle of rights that accompanies it all exist by virtue of an original grant from the crown. According to the system of land tenure in Australia (the doctrine of tenure) the Crown holds ultimate ‘radical title’ to all land in Australia (*Mabo v Queensland No 2.*, 1992). All land that has not been the subject of a grant is held as unallocated state land.

### ***Leasehold Land***

Again using the Queensland example, unallocated state land and private interests in unallocated state land are regulated by the *Land Act 1994*. The Act seeks to achieve effective stewardship of unallocated State land. The requirement exists that State lands be managed having regard to the principles of *sustainability, evaluation, development, community purpose, protection, consultation and administration* (Section 4 *Land Act 1994*).

State lessees have a lesser interest than a freehold interest in that they often do not give rise to exclusive possession and are of a fixed duration. In addition, the leaseholder does not have the benefit of the statutory assurance fund if dispossessed of their interest. Lessees have a general duty to care for the land and may only use the land for stated purposes under the lease (Section 153 of the *Land Act 1994*).

A primary consideration in the management of unallocated state land in Queensland is effective land stewardship. With the most recently introduced *Land Act* and decisions surrounding the most appropriate tenure for land, consideration was given to land/environmental management considerations. Section 16 of the *Land Act 1994* introduces the requirement that prior to allocation, the land must be evaluated to determine the most appropriate tenure

taking account State, regional and local planning policies and strategies, and the object of the Act.

The granting of a leasehold interest in Queensland does not necessarily grant the right to exclusive possession (*Wik Peoples v Queensland*, 1996) which is at odds with commercial leases (*Radaich v Smith*, 1959). Commonly, unallocated state land is also subject to multiple uses arising from legally recognised land uses such as native title and state leases for a variety of forestry, agricultural, pastoral and mining purposes.

Australia has generally been slow to recognise new and novel property rights. The recognition of native title rights in 1992 by virtue of the *Mabo No. 2* decision fell well behind the recognition of indigenous property rights in other international jurisdictions. Native title is *sui generis* or unique and is recognised to sit outside of the existing tenure framework. The *sui generis* nature of native title is because the rights that are recognised are those that the indigenous group had observed pre-sovereignty and continued to exercise in some form since sovereignty. Therefore, the rights pertaining to each native title interest will be unique depending on the tribal group.

Academic discussion of property rights has expanded to include carbon rights. The growth of investment in carbon sequestration rights and how these rights may be reconciled within the existing property rights framework has been a topic of academic discussion. As Hepburn and Reich (2009) noted, carbon rights represent a new and unique form of property right. This approach has been adopted in many jurisdictions that have sought to establish a new carbon right such as the carbon abatement interest in Queensland as opposed to adopting an existing property right such as a *profit a prendre* which was initially used to recognise carbon rights in that state.

Although property law is fundamentally conservative in nature, slow to change and seeks to remain constrained with the existing framework (Heller, 1999), as society has evolved, so too has the law. Over time there has been an expansion of the law surrounding property rights from the recognition of incorporeal rights such as intellectual property rights to the recognition of native title rights in Australia. Rights to sequestered carbon in forestry and the fragmentation of ownership from the natural rights flowing from land ownership is the current challenge in the conceptualisation of property rights.

### ***Impact of the Carbon Right on Rural Land***

There has been little academic attention devoted to the outcomes of the introduction of carbon rights as a proprietary interest in land on the land holder. Boydell *et al.* (2009) identified that the legal framework for managing property rights in carbon is lagging behind the policy intent and public and corporate responsibility concerning carbon trading. This issue has come to the attention of professional institutions such as the Australian Property Institute which has promulgated the 2007 policy paper *Conceiving Property Rights in Carbon*. This paper proposes a framework for property rights in carbon. The academic work undertaken to date in this area has been limited to a discussion of the issues and has not been followed by rigorous academic or industry research.

In addition, the impact of carbon sequestration on the agricultural sector has been considered by many academic writers such as Antle and Mooney (1999), Lal *et al.* (1998) and Metting *et al.* (2001). However, much of this work has been undertaken from a scientific perspective as to the effectiveness of sequestration of carbon in soil and the impact of changes in land use, especially the forestation of agricultural land. However, the impact of carbon trading on the utility of Australian agricultural land and the value of Australian agricultural land has received very limited attention by academic writers.

Christensen *et al.* (2013) made comment that should there be a reversal of sequestered carbon, this will result in significant financial penalties for the project proponent and severe restrictions on the landholders' property through a carbon maintenance obligation.

It is likely that the obligations resulting from a registered carbon right may impact on the marketability of land and Christensen *et al.* (2013) makes comment that this may have a detrimental effect on mortgagees who are primarily concerned with the marketability of the land and states that "A mortgagee may conclude that the risks arising from a proposed project are unacceptable and cannot be managed by contract" (2013, p.33).

The impact of carbon rights on agricultural land holdings, both freehold and leasehold with respect to the utility, ability to finance and marketability represents a significant gap in the body of knowledge pertaining to carbon rights.

In addition to the carbon right there are a number of unique property rights that exist on land across the states, such as native title and mining leases. A distinction can be drawn immediately between native title and a carbon right

in that a native title interest does not exist on freehold land and does not attract any form of remuneration to the holder of the underlying interest in land, e.g. the leaseholder.

In contrast to the position with native title interests in land, there are some similarities that can be drawn between carbon rights and mining lease/permit and coal seam gas permits. For each of these interests, the landholder (freeholder or leaseholder) is potentially receiving an additional income stream on the property. This right is attached to the land and will pass to successors in title. The extent to which this income stream positively or negatively impacts on the value of the land is worthy of further note.

There has been some consideration with respect to coal seam gas and the assessment of compensation to the landholder (Fibbins *et al.*, 2013); however, many of the writings regarding coal seam gas internationally are concerned with the procedural aspects of extraction of coal seam gas and the potential environmental consequences of extraction. There has been little academic attention on the impact of rights to extract coal seam gas on the value of the underlying interest in land, either freehold or leasehold.

#### **4. THE CARBON AGREEMENT**

The nature and characteristics will be determined not only by the statutes that establish the carbon right i.e. the profit a prendre or carbon abatement interest but as noted by Christensen *et al.* (2013), careful drafting of the carbon agreement is essential to minimise risks associated with the carbon right for the landholder. In essence, the carbon agreement gives form to the carbon right.

The carbon right is registered on title—in the Queensland example, as either a profit a prendre or a carbon abatement interest.

The importance of a carefully crafted carbon agreement is imperative to the success of the carbon sequestration project. It is recommended that a carbon agreement include aspects such as:

- Permissible secondary agricultural uses for the land including a discussion of the spacing of trees to allow for grazing in between established trees.
- Identification of management responsibilities of the parties.
- Documentation of risk sharing between the parties and insurance obligations
- Species of trees to be planted
- Payment made to the landholder i.e. quantum and structure.
- Succession planning and assignment of the right.
- Duration of the project.
- Liabilities for breach of the agreement and a dispute resolution mechanism.

It is the elements of the carbon agreement that will form the characteristics of the carbon right beyond the statutory framework that has been implemented to establish the right.

## **5. CONCLUSION**

Carbon sequestration presents a significant opportunity for regional Australia both regarding positive environmental outcomes and, in the securing of a new, long term, stable income source for land-holders and on to the wider region.

This paper highlights the remarkably fragmented and immature state of such initiatives. The instability of national environmental and energy policy in Australia is partly responsible but issues such as inconsistency between state legislation and tenure systems, limited academic investigation and inadequate professional standards, debate and training also frustrate progress in the securing of the opportunities presented.

When considering a carbon sequestration project on a parcel of land, benefits available will be dependent on the suitability of the land and agricultural and grazing operations for the establishment of a carbon project, and also, the nature and form of the carbon right established. It also requires the establishment of an appropriate carbon agreement—accommodating the parameters of that state’s legislation, creating discrete rights that are, indeed, tradable and, finally, providing tangible benefits to the land owner at that point in time without unnecessarily frustrating other rural activities.

This paper explores the property rights elements of the carbon right and recommends items for inclusion in such carbon agreements. To advance these opportunities, it is essential that, before considering and advising on carbon sequestration projects, all stakeholders, including landholders and professionals, secure a comprehensive and contemporary understanding of carbon rights and their wider implications for real property use and value. It might well be argued that that is not currently the case and, critically, that such information does not exist in any cohesive form in the public domain.

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