BETWEEN REGULATION AND MARKETS: IRONIES AND ANOMALIES IN THE REGULAOTRY GOVERNANCE OF BIODIVERSITY CONSERVATION IN AUSTRALIA

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In 1998, Gunningham and Grabosky argued the case for a regulatory mix to be applied in the area of biodiversity conservation. Since their work was published, land clearing legislation, conservation covenants and ecosystem markets, have all played a growing role in biodiversity conservation in Australia. This article examines how well these developments contribute, individually and together, to an optimal regulatory mix for biodiversity conservation in Australia. It argues that, over the past two decades, what has transpired is a classic case of 'divergent logics' in which different regulatory tools often work in isolation or against each other. These divergent regulatory logics need to be addressed in order to move policy forward and to optimise the value of ecosystem markets. Some recent regulatory analyses help to identify the work still to be done.

Key Words: Biodiversity; conservation; ecosystem markets; regulatory governance; land clearing.

I INTRODUCTION

"Coherence of logic matters because confusion detracts from effective regulation".[1]

Since the 1980s there has been a pervasive emphasis in government policy on deregulation and microeconomic reform - rolling back the regulatory state to save on process inefficiencies and wasteful bureaucracy.[2] This has led regulatory scholars to explore the value of employing a 'regulatory mix' to function within (and perhaps compensate for) the exigencies of the deregulated state. These scholars advocate employing a range of different regulatory tools (broadly defined) to achieve the regulatory goals of cost effectiveness *and*

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[1] Baldwin and Black, 'Really responsive regulation' (2008) 71 *Modern Law Review* 59, 71.

[2] Australian Government, *Rethinking Regulation: Report of the Taskforce on Reducing Regulatory Burdens on Business* (Australian Government, 2006); Argy and Johnson, 'Mechanisms for Improving the Quality of Regulations: Australia in an International Context' (Productivity Commission Staff Working Paper, 2003); Carroll, P, Deighton-Smith R, Silver H and Walker C (eds), *Minding the Gap: Appraising the promise and performance of regulatory reform in Australia* (ANU Press, 2008); Hilmer, *National Competition Policy Review* (AGPS, 1993).

better implementation. In 1998, Gunningham and Grabosky argued the case for a regulatory mix to be applied in the area of biodiversity conservation. Since their work was published, land clearing legislation, conservation covenants and ecosystem markets, have all played a growing role in biodiversity conservation in Australia. This article examines how well these developments contribute, individually and together, to an optimal regulatory mix for biodiversity conservation in Australia. It argues that, over the past two decades, what has transpired is a classic case of 'divergent logics' in which different regulatory tools often work in isolation or against each other. These divergent regulatory logics need to be addressed in order to move policy forward and to optimise the value of ecosystem markets. Some recent regulatory analyses help to identify the work still to be done.

II TOWARDS AN OPTIMAL REGULATORY MIX FOR BIODIVERSITY CONSERVATION

In the late 1990s, one of the most influential expositions on the regulatory mix was *Smart Regulation*, by Gunningham, Grabosky and Sinclair.[3] In this ground breaking work, the authors analysed the advantages and shortcomings of various regulatory instruments including - prescriptive regulation (or command and control (CAC) regulation), self–regulation, voluntarism, education, information and economic instruments. They argued that, as each type of instrument has some benefits but also failings, regulators should utilise a broad mix of instruments so that the failings of one type are compensated for by the strengths of others.[4] In particular, greater use of voluntary economic instruments should be made to extend and supplement the regulatory reach of prescriptive regulation. In many cases, prescriptive regulation should remain "in the shadows" lurking as threat that will only be enforced if voluntary measures fail.[5]

The authors suggested instrument combinations will work particularly well when they are sequenced.[6] For instance, least cost, more voluntary forms of intervention should generally be attempted first with more prescriptive forms of regulation being implemented only if voluntary measures stall. This 'dynamic instrument pyramid' draws on the earlier work of Ayres and Braithwaite in relation to responsive regulation and tit-for-tat enforcement models.[7] It forms one of five key design principles advocated by the authors of *Smart Regulation*. Other key principles are: aiming for policy mixes incorporating a broad range of instruments and institutions; identifying and empowering non-government actors who may serve as surrogate regulators and maximising the opportunities for win-win outcomes.[8] They also identified some "inherently complementary" instrument combinations as well as some "inherently counter-productive" instrument combinations and some combinations where the outcome will be context specific. [9]

In *Smart Regulation*, Grabosky and Gunningham made a case study of regulatory design options for agriculture and biodiversity conservation. Pertinent to the Australian context, they identified some key features:

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[3] Gunningham, Grabosky and Sinclair, *Smart Regulation: Designing Environmental Policy* (Clarendon Press, 1998).
[4] Ibid 296, 387.
[5] Ibid 304, 310, 391.
[6] Ibid 404.
[7] Ayres and Braithwaite, *Responsive Regulation* (OUP, 1992).
[8] Gunningham et al., above n 3, 387-422.
[9] Ibid 427-447.

- Traditionally, the regulation of agriculture has been mostly informal, relying heavily on education and persuasion to encourage reform.[10]
- In practice, most regulators have utilised only a small range of regulatory instruments, often relying heavily on subsidies and, less frequently, piecemeal regulation prohibiting particular acts.[11]
- In many cases, agricultural subsidies designed to address one issue undermine the efficacy of other policy agendas. For instance, drought assistance encourages continuing cultivation of marginally productive land at the risk of requiring greater chemical input and land degradation.[12]
- The same is true of poorly designed, stand-alone prescriptive measures. For example, in the United States, the *Endangered Species Act*, which exists to protect individual species from endangerment or extinction, may, perversely, encourage landowners to clear unoccupied land so that endangered species will not be attracted to the land – which would result in restrictive regulatory measures being applied.[13]

Perhaps most pertinently of all, in the Australian context:

> The traditional culture of independence which characterises the agricultural sector is often reflected in resentment of government regulatory intervention, at least those forms of intervention which are perceived to be restrictive or coercive …. Unsurprisingly, in the light of this attitude, resistance to regulation has been widespread, and enforcement has, generally, been weak.[14]

Having identified the context in which biodiversity conservation regulation must operate, the authors go on to consider what an optimum regulatory mix in this area might look like. They firstly note the potential for tension when policy objectives seek dependable outcomes (implying a need for prescriptive regulation) but, consistent with the deregulatory agenda (and pragmatism), cost effectiveness, flexibility and non-invasiveness are equally important goals.[15] To resolve this tension, the authors make a number of still salient points:

1. Dependability is paramount when "there is a danger of irreversible harm" and /or harm may "produce threshold effects giving rise to the possibility of a major environmental catastrophe or system collapse". [16] Prescriptive regulation becomes essential when these criteria are met but, even then, its dependability is enhanced when used in conjunction with other instruments. Prescriptive regulation cannot be relied upon in isolation.[17]
2. Where the biodiversity loss is potentially drastic or irreversible, prescriptive regulation should include precautionary instruments. An example of a precautionary

[10] Ibid 278.
[11] Ibid 282.
[12] Ibid 288.
[13] Ibid 291.
[14] Ibid 289-290. The same trend is noted in Shepheard and Martin, 'The multiple meanings and practical problems with making a duty of care work for stewardship in agriculture' (2009) 6 *MqJICEL* 191 at 196.
[15] Ibid 336.
[16] Ibid 336.
[17] Ibid 372.

instrument is a licensing system that allows for further information and / or a tailored management strategy to be put in place.[18]

3. Where the risk is not on the scale of "irreversible harm", prescriptive regulation should recede into the background and only really be used to support voluntary measures, property rights and /or price based mechanisms.[19]
4. Property right mechanisms are strongly endorsed and the authors recommend they play a central role in most policy mixes.[20] Property right mechanisms offer numerous virtues including - cost effectiveness; low intrusiveness and flexibility. Their main drawback is their lack of dependability. They may fail to influence the behaviour of recalcitrant individuals (described as the "incompetent, ignorant or intransigent" minority).[21]
5. In general, publicly funded financial incentives, especially long term subsidies, are undesirable because - they may undermine the moral stance of the law; the right price is hard to gauge; they may undermine the market and support uneconomic practices; encourage welfare dependency and drain government resources.[22] On the other hand, perverse subsidies (that is, ones which work against achieving the policy goal) should be identified and removed.[23]
6. Despite the above concerns, publicly funded financial incentives may occasionally be used as 'circuit breakers' to help transition to a different regulatory regime, especially where claims regarding existing 'property rights' are at play.[24] The only other situation in which financial incentives may be appropriate is when ongoing management – land stewardship – is required, as is normally the case for conserving biodiversity in the long term.[25]
7. Overall, biodiversity conservation requires an integrated policy response drawing on the full spectrum of available mechanisms even if some components are seldom activated. Less intrusive instruments should be preferred with alternative options put into action when / if these fail. This optimises the policy mix combining dependability, cost effectiveness, flexibility and non-intrusiveness to the maximum extent possible.[26]

More recent literature on environmental governance has recognised the ongoing salience of many of these observations and recommendations.[27]

This article compares and contrasts two very different approaches to managing biodiversity conservation in Australia – land clearing legislation and conservation covenants. It considers

[18] Ibid 331.
[19] Ibid 356.
[20] Ibid 333.
[21] Ibid 334.
[22] Ibid 314.
[23] Ibid 322.
[24] Ibid 315.
[25] Ibid 314.
[26] Ibid 355-357.
[27] Gunningham, 'Environmental law, regulation and governance: shifting architectures' (2009) 21(2) *Journal of Environmental Law*, 179; Martin and Gunningham, 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' (2014) 1(1) *Australian Journal of Environmental Law* 5; Holley, Gunningham and Shearing, *The New Environmental Governance* Earthscan, 2012); Burgman et al, 'Designing regulation for conservation and biosecurity' (2009) 13(1) *Australian Journal of Natural Resources Law and Policy* 93.

how well the use of these different instruments, individually and together, serves to create an optimum regulatory mix.

III LAND CLEARING LEGISLATION: A CLASSIC CAC APPROACH

Most observers will readily admit that biodiversity conservation is a matter of 'public interest' amply justifying a degree of regulatory intervention to secure. State governments have acted to reserve land for nature conservation purposes since the late 19th century.[28] However, beginning in the 1970s there has been increasing recognition that land clearing on private land is a major cause of biodiversity loss and national parks alone cannot fix the problem:

> Depletion and destruction of native vegetation is a primary driver of land degradation, salinity and declining water quality and it is the biggest cause of biodiversity loss. While broadscale clearing for agriculture and urban development is a critical threat, the loss caused by clearing is compounded by the degradation of remnant bush through unsustainable grazing pressure, insect attack, disease, weeds, rising water tables, salinity, inappropriate fire management, unsustainable firewood gathering and neglect.[29]

In Australia, regulating land-use is, primarily, a task falling within the jurisdiction of the states and territories. The first state to attempt to address the 'problem' of land clearing was South Australia. In 1982 it introduced planning regulations making the clearing of any native shrubs, plants or trees, a form of 'development' requiring prior planning permission.[30] Landholders were up in arms at this intrusion on their property rights and claimed the benefit of 'existing use' provisions in the same legislation to argue agriculture (and its extension by way of land clearing) was a prior existing right that survived a change in the planning regulation. That argument was accepted by the High Court in *Dorrestijin v South Australian Planning Commission* (1984) 54 ALR 295. Eventually specific legislation was enacted to deal with the issue. The *Native Vegetation Management Act, 1985 (SA*) introduced a licensing requirement for clearing native vegetation. In its early days, the legislation also allowed for the payment of compensation if a license was refused. [31]

Land clearing legislation has not been popular in any Australian state but of all the states, Queensland has been the most recalcitrant.[32] Not until 1999, after much conflict between various stakeholders and between the Queensland and Commonwealth governments, was the *Vegetation Management Act Qld* (VMA) passed to control the clearing of remnant vegetation

[28] Australia's first national park – (now Royal) National Park – was created in 1879 just south of Sydney. It was the second in the world. See, "Defining moments in Australian history", at: http://www.nma.gov.au/online_features/defining_moments/featured/first_national_park (viewed 14/02/2016).
[29] http://www.environment.gov.au/land/vegetation/index.html cited in Bates, G, Environmental Law in Australia (Lexis-Nexis NSW, 2013) 471.
[30] *Development Control Regulations 1982* (SA) Sch 3.
[31] Bates, *Environmental Law in Australia* (Lexis-Nexis NSW, 2013) 476.
[32] Kehoe, 'Environmental law making in Queensland: the Vegetation Management Act 1999 (Qld)' (2009) 26 *Environmental and Planning Law Journal* 392; Kehoe, 'Land Clearing in Queensland' (2006) 23 *Environmental and Planning Law Journal* 77; McGrath, 'End of Broadscale clearing in Queensland' (2007) 24 *Environmental and Planning Law Journal* 5; The Wilderness Society, 'Land Clearing in Queensland', available at: https://www.wilderness.org.au/land-clearing-queensland#4 (viewed 29/10/2015).

on privately tenured land. Record amounts of land clearing were recorded in the period immediately preceding the passing of the Act.[33]

Since its inception, the life of the VMA has continued to be turbulent. In 2004, the scope of the VMA was extended to ensure the complete phasing out of broadscale clearing of remnant vegetation by December 2006.[34] The farmers' lobby group, Agforce, opposed this "heavy handed" new measure as being "unreasonable and unacceptable".[35] Eventually, a $150 million structural readjustment package was offered to the farming community as compensation for the new controls.[36] In 2009, the VMA was amended again to extend protection to high value regrowth vegetation including mature native vegetation that had not been cleared since 31 December 1989.[37] These reforms strengthened the VMA framework and extended its reach. In 2013, however, the LNP government reversed that trend and amended the Act to allow self-assessment against applicable codes for smaller operations and to abolish all regulatory controls on the clearing of high-value regrowth vegetation on freehold and Indigenous land. [38] As a result, the requirement for a pre-clearing plant survey has been scrapped in about 97% of cases.[39] Similar reforms have been implemented or are currently being considered in other jurisdictions.[40]

Even more controversially, the 2013 amendments allowed the clearing of native vegetation (remnant or regrowth) for new agricultural activities if the proposed development could satisfy a range of criteria including - land suitability; business viability and measures to avoid or minimize environmental impacts.[41] It is estimated that, as a result of these amendments, 275,000 hectares of land were cleared in 2014, triple the amount cleared in 2010. [42] Furthermore, before its departure from government in early 2015, the LNP licensed the clearing of an additional 113,000 ha of old growth vegetation. If this clearing proceeds, an estimated 60 million tonnes of greenhouse gases will be released – that is, 15 million tonnes more than the amount mitigated by the second reverse auction conducted pursuant to the Commonwealth's Emissions Reduction Fund.[43] The irony is acute.

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[33] McGrath, 'End of Broadscale clearing in Queensland' (2007) 24 *Environmental and Planning Law Journal* 5, 6; Kehoe above n 32, 399.

[34] *Vegetation Management and Other Legislation Amendment Act 2004* (Qld) s 3.

[35] Bredhauer, 'Can't see the scrub for the trees' (2004) 21 *Environmental and Planning Law Journal* 44, 45, 61.

[36] Kehoe, above n 32, 404.

[37] *Vegetation Management and Other Legislation Amendment Act 2004* (Qld) s 4.

[38] *Vegetation Management Framework Amendment Act 2013* (Qld) s 46. For an explanation of the amendments, see, Motti and Laing, 'A clear path ahead? Navigating Queensland's vegetation management framework' (2013) 28(8) *Australian Environment Review* 723.

[39] 'Government says relaxed land clearing laws will save Queensland business millions' http://www.abc.net.au/news/2013-10-17/qld-parliament-passes-legislation-to-relax-land-clearing-laws/5027656.

[40] See Beech, 'Biodiversity, the planning system and the power of referral' (2015) 30 (2/3) *Australian Environment Review* 62 (concerning South Australia); Walmsley, 'Changes to NSW native vegetation laws' (2013) 28(8) *Australian Environment Review* 718; Gerrard and Vale, 'Reforms to Victoria's native vegetation permitted clearing regulations' (2013) 28(8) *Australian Environment Review* 727.

[41] *Vegetation Management Framework Amendment Act 2013* (Qld) ss 3, 11, 46-47.

[42] Maron, M et al., 'Land Clearing in Queensland triples after policy ping pong' 18/03/2015 The Conversation, 18/03/2015, available at: http://theconversation.com/land-clearing-in-queensland-triples-after-policy-ping-pong-38279 (viewed 29/10/2015); The Wilderness Society, Large scale clearing returns to Queensland, 9/09/2015, available at - https://www.wilderness.org.au/articles/large-scale-land-clearing-returns-queensland (viewed 28/10/2015).

[43] Schneiders, 'Passing the buck on land clearing costs the country dearly' The Australian, 18/06/2015, available at: http://www.theaustralian.com.au/opinion/passing-the-buck-on-land-clearing-costs-the-country-dearly/story-e6frg6zo-1227402902327 (viewed 29/10/2015). In an alternative estimation, the WWF in September 2015

The current State government has now introduced an amendment Bill which seeks to restore the pre-2013 legal position.[44] Not all Queenslanders are happy with this policy. Mirroring its opposition in the past, the farmers' lobby group, Agforce has once again stated:

> This is back to the old stick, unfortunately, and there's not much carrot. It's just a good, old case of bashing the bush and bashing farmers.[45]

The 2016 Bill was referred to the Agriculture and Environment Committee in March 2016. During its deliberations, the Committee received 680 submissions and over 870 form submissions.[46] Just as the Bill "polarised views among submitters", the committee itself was unable to reach a majority decision as to whether the Bill should be passed.[47] The Bill was eventually defeated in the Second Reading, on 18 August 2016.

As these few examples demonstrate, land clearing regulation throughout Australia has, to date, relied heavily on a command and control (CAC) model. In the CAC model, legal rules are promulgated by the state and backed by criminal sanctions for non-compliance. CAC regulation is centred on the state in that:

> [I]t assumes the state to have the capacity to command and control, to be the only commander and controller, and to be potentially effective in commanding and controlling. It is assumed to be unilateral in its approach (government telling, others doing), based on simple cause and effect relations, and assuming a linear progression from policy formation through to implementation. [48]

In theory, CAC legislation can claim the advantages of - scale (its application can be across the board); obligation (regulatees cannot normally choose to opt in or out) and power – enforcement is state backed. These credentials contrast with voluntary conservation covenant programs (discussed below) in which, characteristically, the level of uptake cannot be guaranteed; stakeholders can opt in or out and the state needs to incentivise participation rather than enforcing it. However, despite the potential advantages of compulsory CAC legislation, the reality is often less impressive:

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reported that approved clearing for high value agriculture would produce at least 11.7 m tonnes of carbon emissions or 40% of carbon farming abtement acquired through the ERF. See, Robertson, 'Deforestation surges in Queensland ahead of crackdown on clearing', 17/ 09/2015, The Guardian, at: http://www.theguardian.com/environment/2015/sep/17/deforestation-surges-in-queensland-ahead-of-crackdown-on-land-clearing.

[44] Queensland Labor, *State Policy Platform*, 2014, 5.50; Queensland Labor, *State Policy Platform*, 2015, 35. On the delayed implementation of this policy see further, Queensland Government, 'Vegetation management business as usual' Media statement, 05/03/2015, available at: http://statements.qld.gov.au/Statement/2015/3/5/vegetation-management-business-as-usual; Robertson, J, Deforestation surges in Queensland ahead of crackdown on clearing", 17/ 09/2015, The Guardian, at: http://www.theguardian.com/environment/2015/sep/17/deforestation-surges-in-queensland-ahead-of-crackdown-on-land-clearing.

[45] Hough, Mckillop, 'Labor reignites debate on tree clearing laws in Queensland ahead of state election' 22/01/2015, available at: http://www.abc.net.au/news/2015-01-21/alp-reignites-landclearing-debate/6032484 (viewed 29/10/2015).

[46] Agriculture and Environment Committee*, Vegetation Management (Reinstatement) and Other Legislation Amendment Bill 2016, Report no 19*, 55th Parliament, June 2016, vii.

[47] Ibid vii, 3.

[48] Black, 'Decentring regulation: understanding the role of regulation and self-regulation in a 'post-regulatory' world' (2001) 54 *Current Legal Problems* 103, 106.

> Its failings are variously identified as being, inter alia, that the instruments used (laws backed by sanctions) are inappropriate and unsophisticated (instrument failure), that government has insufficient knowledge to be able to identify the causes of problems, to design solutions that are appropriate, and to identify non-compliance (information failure), that implementation of the regulation is inadequate (implementation failure) and /or that those being regulated are insufficiently inclined to comply (motivation failure).[49]

In Australia, existing land clearing regulation is prone to all these weaknesses. For instance, heavy reliance on licensing may not be an "appropriate design solution" if only because the bureaucracy involved seems insurmountable to potential users of the system – they are flawed before they even begin to attempt to comply.[50] Furthermore, whilst obtaining evidence of large scale non-compliance is now possible due to satellite data,[51] monitoring is infrequent and, of course, it can only identify illegal broadscale clearing after it has occurred. This is of little assistance in the mission to 'conserve' native vegetation. Meanwhile, successful prosecutions of offenders are few and far between.[52] Perhaps the greatest failing of all, however, is the animosity this legislation has aroused amongst the agricultural community (motivation failure).[53] The vagaries of the Queensland legislation are a good example of this. The history of the VMA is rife with conflict. Initially, in 1999, to get the legislation passed at all, the farming community was promised a sizeable re-adjustment package but unfortunately, that was not finalised until 2004.[54] Each extension of the legislation was met with hostility and /or panic clearing.[55] In 2013, with an LNP government in power, the scope of the legislation was seriously down-sized and the current government has met opposition to its policy platform of amending the VMA.[56] Opposition on this scale and over the time frame evident in Queensland suggests that, for better or for worse, a heavy handed CAC approach may be simply unsustainable in the long run.

The policy see-saw currently underway in Queensland should come as no surprise. As early as 2004, in a review of native vegetation controls across Australia, the Productivity Commission warned, "Policies that fail to engage the cooperation of landholders will themselves ultimately fail."[57] The Commission identified some of the adverse impacts of a CAC approach as including:

> Regulation of native vegetation clearing on private property effectively asserts public ownership of remnant native vegetation while leaving its ongoing day-to-day

[49] Ibid.
[50] Bredhauer, above n 35, 59; Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 76.
[51] McGrath, 'End of broadscale clearing in Queensland' (2007) 24 *Environmental and Planning Law Journal* 5, 6.
[52] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 105.
[53] Bredhauer, above n 35, 45, 61; Shepheard and Martin, 'The multiple meanings and practical problems with making a duty of care work for stewardship in agriculture' (2009) 6 *MqJICEL* 191.
[54] Kehoe, above n 32, 403.
[55] McGrath, 'End of broadscale clearing in Queensland' (2007) 24 *Environmental and Planning Law Journal* 5.
[56] Hough and Mckillop, 'Labor reignites debate on tree clearing laws in Queensland ahead of state election,' 22/01/2015, available at - http://www.abc.net.au/news/2015-01-21/alp-reignites-landclearing-debate/6032484 (viewed 29/10/2015).
[57] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 238.

> management in the hands of the (uncompensated) landholder. From the landholder's perspective, native vegetation loses much of its private value and becomes a liability. Incentives for landholders to care for, conserve or regenerate native vegetation voluntarily are undermined. When regulation reduces the private value to landholders of native vegetation, incentives to care for it are reduced. The prospective private loss also creates an incentive to circumvent the regulations (after taking into account the risks of being caught and penalised), or to bring forward clearing as insurance against possible strengthening of regulations in future.[58]

In the view of the Commission, "[R]egulation may be an efficient instrument in some circumstances, but current regulations have been imposed with insufficient consideration of the nature of the problem to be addressed and the costs and benefits of current regulation relative to other approaches.[59]

IV PROPERTY AND INCENTIVE BASED CONSERVATION INITIATIVES: CONSERVATION COVENANTS

Lagging behind the advent of land clearing legislation, the states and Commonwealth have, more discreetly and on a much smaller scale, also shown an interest in developing property rights and financial incentives to promote biodiversity conservation. Conservation covenants are one example of a voluntary, property based instrument to which other incentive and market based instruments may be applied.

A conservation covenant is a voluntary agreement between a private landholder and a government or other authorised body for the conservation of privately tenured land. The landholder continues to hold, use and live on the land subject to the conservation requirements of the covenant.[60] Conservation covenants are now statutorily recognised in Commonwealth legislation as well as various state Acts.[61] Since 2001, conservation covenants on freehold land, agreed through Commonwealth approved programs, have been eligible for specific tax concessions - an income tax deduction and /or concessional treatment on capital gains tax. This subsidy is the equivalent of a 'payment' for ecosystem services. Other opportunities for 'cashing in' on land conservation measures include - various rate relief schemes; concessional grants; bio-banking and offsetting mechanisms operating across local governments, the states and territories.[62] A leading example is the biobanking scheme established in the New South Wales' *Threatened Species Conservation Act, 1995*.[63] A review

[58] Ibid 225.
[59] Ibid xxxvi.
[60] Australian Government, 'Conservation covenants' available at: http://www.environment.gov.au/topics/biodiversity/biodiversity-conservation/conservation-covenants (viewed 21 /06 /2015).
[61] See, for instance, *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) ss 305-309; *National Parks and Wildlife Act 1974* (NSW) s 69B; *Conservation, Forests and Lands Act 1987* (Vic) s 69; *National Parks and Wildlife Act* 1972 (SA) s 45F; *Nature Conservation Act* 2002 (Tas) s 12.
[62] Falding, 'Biodiversity offsets: Practice and promise' (2014) 31 *Environmental and Planning Law Journal* 11.
[63] For a recent review of the NSW biobanking scheme, see, Dwyer, 'Obstacles in developing and implementing biodiversity markets: an overview' (2016) 30 *Australian Environment Review*, 237. See also, Curnow and Fitz-Gerald, 'Biobanking in New South Wales: Legal issues in the design and implementation of a biodiversity offsets and banking scheme' (2006) 23 *EPLJ* 298 at 304; Scanlon, 'An appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW' (2007) 4 *MqJICEL* 71; See Mamourney, Stace and Heathcote, 'Incentives for biodiversity conservation in NSW, Australia' (2009) 38 *Stetson Law Review* 357, 370; Lyster and Stephens, 'The Rise and Rise of Environmental Markets in Australia: Biodiversity Banking in New South Wales' (2007) 10 *APJEL* 1.

of that Act in 2014 reported that in six years, 5,000 hectares of native vegetation had been set aside for conservation purposes under the Act. [64] That coverage, however, is only a small proportion of a growing phenomenon. On one calculation, there were, by 2013, approximately 5,000 terrestrial properties that could be considered private protected areas in Australia covering 8,913,000 hectares.[65]

Commonwealth policy instruments have given increasing emphasis to the role of private, voluntary initiatives. For instance, Australia's current Biodiversity Strategy (2010-2030) sets 10 national targets to be realised by 2015. These include - creating an additional 600,000 km^2 of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments; a doubling of the value of complementary markets for ecosystem services and a 25% increase in the number of Australians and public and private organisations participating in biodiversity conservation activities.[66]

In 2015, pursuant to the federal government's Direct Action Plan for reducing carbon emissions, the Emissions Reduction Fund (ERF) expanded the range of financial incentives available to private landholders interested in biodiversity conservation. The ERF, which now includes the Carbon Farming Initiative,[67] offers ongoing payments (up to a maximum of 25 years) for sequestration initiatives that qualify as an approved eligible project and succeed in a competitive auction run by the Clean Energy Regulator.[68] In the first auction, run in April 2015, sequestration projects[69] accounted for approximately 28 out of 47 million tonnes of abatement in awarded contracts.[70] In November 2015, the second ERF reverse auction, as with the first auction, funded a large number of land based, vegetation management projects.[71] The average price paid to successful project proponents in the first auction was just under $14 per tonne of abatement and, in the second auction, was $12.25 per tonne of abatement.[72] It appears that, for the time being, conserving native vegetation is a cost effective method of reducing carbon emissions and the ERF is a generous new source of funding for landholders interested in so doing. This raises an interesting question - to what extent can, will or may, property rights, combined with market based incentives, increase the area and quality of privately tenured land managed for conservation purposes?

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[64] State of NSW and Office of Environment and Heritage, *Biobanking Scheme: Statutory Review Report*, 2014, 7, available at: http://www.environment.nsw.gov.au/resources/biobanking/140695BBRev.pdf (viewed 29/07/2016).

[65] Fitzsimons, "Private protected Ares in Australia: current status and future directions" (2015)10 *Nature Conservation* 1, 1.

[66] Natural Resource Management Ministerial Council, *Australia's Biodiversity Conservation Strategy 2010-2030*, 10.

[67] *Carbon Farming Initiative Amendment Act 2014* (Cth).

[68] Anon, 'Carbon farming initiative' available at: http://www.cleanenergyregulator.gov.au/Carbon-Farming-Initiative/methodology-determinations/Pages/default.aspx (viewed 04/02/2015).

[69] CER, *Emissions Reduction Fund auction results factsheet* available at: http://www.cleanenergyregulator.gov.au/ERF/Auctions-results/april-2015 (viewed 09/03/206).

[70] Australian Government, "Auction Results: April 2015" available at: http://www.cleanenergyregulator.gov.au/ERF/Published-information/auction-results/auction-results-april-2015 (viewed 21/06/2015).

[71] CER, *Emissions Reduction Fund auction results – November 2015*, available at: http://www.cleanenergyregulator.gov.au/ERF/Auctions-results/November-2015 (viewed 07/03/2016).

[72] CER, *Emissions Reduction Fund auction results factsheet - 4-5 November*, Factsheet, available at: http://www.cleanenergyregulator.gov.au/DocumentAssets/Documents/Emissions%20Reduction%20Fund%20auction%20results%20factsheet%20-%20November%202015.pdf (viewed 18/11/2015).

V CONSTRAINS AND SHORTCOMINGS OF EXISTING PROPERTY AND INCENTIVE BASED MECHANISMS

On a preliminary analysis, the scope for voluntary and market based mechanisms does indeed look promising. In 2007, Stoianoff and Kelly reported that, in the three years immediately following the introduction of the 2001 Commonwealth tax concessions the area of land under conservation covenants almost doubled.[73] However, despite the national availability of these tax concessions, the uptake across different states was very varied. For instance, South Australia had 550,000ha of land committed to conservation covenants before 2001 and an additional 21,032ha three years after the tax incentives were introduced; Queensland had 35,100ha of land committed to conservation covenants before 2001 and an additional 338,716ha committed three years later; other states experienced a doubling of land committed to conservation, but the size of land committed in any one of those states was at least 10 times smaller than that in either Queensland or South Australia.[74] Possible explanations for this highly varied uptake include:

- landholders are motivated by fiscal incentives but other considerations also are at work;
- the interest in voluntary conservation covenants has an upper limit – once that limit is reached the interest may simply plateau out; and /or
- in the absence of further government (or other) leadership and assistance, knowledge of and appetite for, engaging in these programs will remain low.

On the first point, other considerations, empirical research has highlighted a range of obstacles that deter landholders from participating in voluntary conservation covenant programs.[75] Landholders often mistrust government agendas; want greater flexibility and cannot afford to risk the loss of future income associated with tying up the land in a perpetual (or at least long term) conservation covenant.[76] Moon and Cocklin, for instance, recently interviewed 45 landholders participating in three different conservation covenant programs in Queensland.[77] They categorised program participants as production (farming business) or non-production participants (for instance, lifestyle or hobby farmers). They noted that many non-production landholders were motivated by a conservation ethos so the availability of a permanent encumbrance was one of the main incentives for their participation.[78] On the other

[73] Stoianoff and Kelly, 'Conserving Native Vegetation on Private Land: Subsidizing Sustainable Use of Biodiversity?' in Kurt Deketelaere et al (eds), *Critical Issues in Environmental Taxation* (Oxford University Press, 2007) 299, 314.

[74] Stoianoff and Kelly, 'Conserving native vegetation on private land: subsizing sustainable use of biodiversity?', in Janet Milne, Kurt Dekeleaere, Larry Kreiser and Hope Ashiabor (eds) *Critical Issues in Environmental Taxation* (Oxford University Press, 2003) 299, 315.

[75] Thackway and Olsson, 'Public/private partnerships and protected areas: selected Australian case studies' (1999) 44 *Landscape and Urban Planning* 87, 97; Moon and Coklin, 'Participants in biodiversity conservation: motivations and barriers of Australian landholders' (2011) 27 *Journal of Rural Studies* 331, 342; Todd, 'Victoria's Conservation Covenant Program: How effective has it been at achieving private land conservation?' in Hale, P and Lamb, D (eds) *Conservation Outside Nature Reserves* (University of Queensland, 1997) 173, 175; England, 'Conservation Covenants: Are they working and what have we learned?' (2015) 34(1) *University of Tasmania Law Review* 73.

[76] England, 'Conservation Covenants: Are they working and what have we learned?' (2015) 34(1) *University of Tasmania Law Review* 73, 76-82.

[77] The programs were the nature refuge program administered by the DERM, the Cassowary Coast Conservation Covenant Rate Reduction Scheme administered by local government, and the Desert Uplands Landscape program administered by an NGO, the Desert Uplands Build-up and Development Committee.

[78] Moon and Coklin, above n 75, 336, 337.

hand, for many production landholders, the more inflexible (or permanent) a program is, the more it constrains their future financial options – whether in terms of lost productivity or development potential foregone. This was a critical barrier to participation for many production landholders whose financial security depends on the success of their farming activities.

> Respondents iterated their need to maintain control over their benefit stream and were unwilling to participate in a program to the extent that it endangered that control. For example, some respondents were unwilling to participate in perpetual programs or were only willing to commit unproductive areas of their property …[79]

Even among non-production landholders, the threat of modified property rights and devalued property prices were major barriers to participation.[80] This evidence suggests financial incentives may be a necessary but not sufficient inducement to participation in these programs. [81]

Of course, it may be argued the existing financial concessions on offer are simply not sufficient to outweigh the significant restrictions placed on landholders who sign up for a conservation covenant.[82] If the ERF can offer a better or additional income stream over an extended period of time, more takers are likely to emerge. But that argument only partly deals with the problem – landholders are still being asked to gaze into their crystal ball and guess at the different income streams possible from alternative land-uses over time. Locking up the land leaves them no freedom to adapt to new opportunities that may arise in the future – they no longer control their own destiny.

In a related point, no one really knows what the level of demand for conservation covenants by private landholders is or will be in the future. Notably, after the 2001 Commonwealth concessions were introduced, Queensland, which had very little area under conservation covenants at the time, added an impressive 338,716ha to its total but South Australia, which already had 550, 000ha of land committed to conservation covenants, only added another 21,032ha after the tax incentives were introduced. [83] This may suggest there is a saturation point after which additional coverage may be hard to muster. The research by Moon and Cocklin lends some support to this possibility.[84] As the Productivity Commission observed, "[I]t may be difficult to predict conservation outcomes … conservation may be considered 'too low' or adoption rates 'too slow'".[85]

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[79] Ibid 341.
[80] Ibid 339.
[81] On the diverse "conditions, motivations and values" driving users of groundwater, see Martin and Gunningham, 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' 2014(1) *Australian Journal of Environmental Law* 5, 16, 20.
[82] Bredhauer, 'Tree Clearing in Western Queensland – a cost-benefit analysis of carbon sequestration' (2000) 17 *Environmental and Planning Law Journal* 383, 405.
[83] Stoianoff and Kelly, 'Conserving native vegetation on private land: subsizing sustainable use of biodiversity?', in Janet Milne, Kurt Dekeleaere, Larry Kreiser and Hope Ashiabor (eds) *Critical Issues in Environmental Taxation* (Oxford University Press, 2003) 299, 315.
[84] Moon and Coklin, above n 75, 342.
[85] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 197.

On the third point, the need for government (or other) leadership and assistance, high start-up and transaction costs have been identified as factors inhibiting the uptake of voluntary conservation covenants.[86] Despite the introduction of Commonwealth financial incentives ten years prior to Moon and Cocklin's research, interview respondents in their research still identified ongoing government funding, rate rebates[87] or carbon trading as measures that could compensate for the costs of placing land under a conservation covenant. This evidence suggests many landholders are either ineligible or inadequately informed about existing financial incentives or are otherwise poorly equipped to take advantage of them. Simply put, the complex paperwork and regulation associated with creating a conservation covenant and claiming any associated financial benefits may deter many individuals and small businesses from applying for them.

All in all, the evidence suggests the uptake of conservation covenants on privately tenured land is not solely dependent on financial incentives, other factors are at work. The existence of a financial incentive is a welcome but not always decisive factor for landholders considering whether or not to sign up for a conservation covenant.

Market mechanisms are not only limited by a degree of insensitivity to price signals, their actual environmental benefits may also be qualified. The accumulated evidence suggests that, if the area of land under conservation covenants is to be increased then trade-offs between economic imperatives and environmental outcomes are often required. For instance, the ERF now offers landholders the choice of a 25 year or 100 year encumbrance.[88] While this offers landholders greater flexibility, it risks compromising conservation and emission reduction outcomes. The achievement of strategic biodiversity outcomes is also compromised when, as is often the case, landholders select land of lowest productivity to include in their conservation agreement so they "have nothing to lose". This land is often low in conservation value so there may be little overall 'additionality' in conservation terms.[89]

Sadly, the evidence to date suggests markets for ecosystem services – although a part of the solution - are not a magic wand with guaranteed results for emissions reductions or biodiversity conservation. Of particular concern is the degree of uncertainty surrounding how much land may be offered for conservation covenants and at what price. Also concerning is the need to offer a degree of 'flexibility' to attract more landholders into conservation covenants. Ultimately, extending the scale and scope of voluntary conservation agreements to generate a larger market may mean compromising on some environmental outcomes. Lastly, as conceded by the Productivity Commission in 2004:

> At some point, the private provision of native vegetation and the production of goods for profit (or utility) will stop being complementary and will begin to compete. Beyond this point, native vegetation conserved for public-good purposes means that

[86] Martin and Gunningham, 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' 2014(1) *Australian Journal of Environmental Law* 5, 15.
[87] Participants in the Cassowary Coast Conservation Covenant Rate Reduction Scheme are offered an annual rate reduction ranging from 20% to 60% depending on the conservation significance of their land. Moon and Coklin, 'Participants in biodiversity conservation: motivations and barriers of Australian landholders' (2011) 27 *Journal of Rural Studies* 33, 334.
[88] Anon, 'Carbon farming initiative' available at: http://www.cleanenergyregulator.gov.au/Carbon-Farming-Initiative/methodology-determinations/Pages/default.aspx (viewed 04/02/2015).
[89] Moon and Coklin, above n 75, 340.

> the landholder is losing income because the land could be put to more privately-profitable uses.[90]

The shortcomings of a market based approach to biodiversity conservation suggest there is a continuing need for a more prescriptive, regulatory approach.

VI REGULATION VERSUS A MARKET BASED APPROACH

In *Smart Regulation*, the authors recognised that both a property rights, market based approach (financing, for instance, conservation covenants) and a CAC approach (such as land clearing legislation) are flawed in some respects yet hold promise in others. Their solution was to recommend adopting a combination of different regulatory tools, a 'regulatory mix' as previously described. In the two decades following that publication, regulatory policy in this area combined a growing number of regulatory instruments two of which are described above. The question now is - what have we learned? To what extent have we progressed towards an optimum regulatory mix and to what extent has our experience lived up to these authors' expectations? The previous analysis has demonstrated that, in Australia, over the past two decades:

1. *Prescriptive measures came first*: Contrary to the authors' strong recommendation that prescriptive regulation should be a measure of last resort,[91] native vegetation legislation generally preceded (and generally precluded) other market based and property rights based initiatives. This may have been because, in the minds of legislatures, the issue met the threshold tests for resorting to CAC regulation: "a danger of irreversible harm" and /or harm that may "produce threshold effects giving rise to the possibility of a major environmental catastrophe or system collapse".[92] However, that conclusion was (and is) at least debateable. Regardless of any scientific evidence supporting the existence of an *irreversible crisis*, it is unlikely that landholders, who stood to be adversely affected by the regulatory measures, would be keen to view their individual actions in that light. As in so many areas of environmental law, the problem is much more nuanced, the result of "death by a thousand cuts".

   An alternative explanation might be that, as the whole matter was so acrimonious and politically divisive,[93] legislative intervention was already 'the last resort'. The problem here, however, is that alternative instruments had never really been given a chance. At the same time, some of the perverse subsidies and prescriptions which had historically frustrated the development of a conservation ethos remained intact.[94]

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[90] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 228.

[91] Gunningham et al., above n 3, 304.

[92] Ibid 336.

[93] Kehoe, above n 32.

[94] In Australia, leaseholders have historically been required to clear and 'develop' their land as part of the 'populate or perish' strategy. In Queensland, it was not until 2007 that land management agreements were introduced to incorporate conservation conditions into new and renewed lease agreements. In 2012 the Newman Government dispensed with Delbessie Agreements. See, Holmes, 'Adapting leasehold tenures to meet emerging conservation needs' in Hale and Lamb (eds) *Conservation Outside Nature Reserves* (University of Queensland, 1997) 136-142; Holmes, 'Pastoral lease tenure in in Australia: historical relic or useful contemporary tool?'

2. *The circuit breaker didn't work:* In 1989, Grabosky and Gunningham argued the role of compensation is largely that of a 'circuit breaker' enabling the transition to a new regime whilst "maintaining motivation, equity and community acceptance."[95] In Australia, land clearing legislation has typically allowed for some individual or communal compensation in the early years following new legislation. In the agricultural community (as elsewhere) belief in the "freedom of private rights" is so strong that new legislation was simply unlikely to happen without it. Of course, it is one thing to 'broker a deal' using compensation as a lure but quite another to affect a change of attitude through the use of a one off subsidy. In effect, the circuit breaker didn't work in the way the authors envisaged – belief in the sanctity of private property rights remained unchanged and landholders continued to bear a grudge against the incursion of the law on their 'rights'. In Queensland, this grudge quickly re-surfaced at the first available opportunity.

3. *Education and moral persuasion was not successful:* The above evidence, that belief in the sanctity of private property rights was not diminished, suggests that education and moral persuasion were either not attempted or were not successful. Regulators failed to harness the whole gamut of regulatory options to aid their cause.

4. *Precautionary regulation was problematic:* In 1998, Gunningham and Grabosky argued that regulation not only provides coercive sanctions but may also "guide administrative process and warn when greater precaution is necessary".[96] Licensing regimes are an example of this function, allowing the regulator to tailor an appropriate conservation response to individual circumstances. In line with this advice, native vegetation legislation typically prohibited the clearing of native vegetation except as permitted under a licence. In reality, however, licensing regimes have not delivered on the ideal of context specific solutions incorporating tailored instrument combinations. On the contrary, the level of bureaucracy and the fees involved have simply added to the frustrations of landholders.[97] In several states, recent amendments have responded to this dilemma by expanding the range of exempt or self-assessable activities to reduce the 'green tape'.[98] As in other areas of regulation, the scope for a tailored and

(1994) 16 *The Rangeland Journal* 106, 121; Graham, 'Tensions between public environmental regulation and private property interests: the case of land clearing in New South Wales' (2014) 29(9) *Australian Environment Review* 264, 266; Department of Natural Resources & Water, *State Rural Leasehold Land Strategy* 2007, Qld; AgForce Queensland, 'Delbessie' available at: http://www.agforceqld.org.au/index.php?tgtPage=&page_id=310 (viewed 3/02/2015). For some recent developments see, Redman, 'Statement from the WA Lands Minister' Australian Story, ABC, available at http://www.abc.net.au/austory/content/2014/s4135087.htm (viewed 3/02/2015); Thyme and Macartney, *Australia: Rural leasehold land reforms in Queensland*, 15/09/2014, available at: http://www.mondaq.com/australia/x/338576/landlord+tenant+leases/Rural+leasehold+land+reforms+in+Queensland (viewed 03/02/2015).

[95] Gunningham et al., above n 3, 315.

[96] Ibid 330.

[97] Bredhauer, above n 35.

[98] See Beech, 'Biodiversity, the planning system and the power of referral' (2015) 30 (2/3) *Australian Environment Review* 62 (concerning South Australia); Walmsley, 'Changes to NSW native vegetation laws' (2013) 28(8) *Australian Environment Review* 718; Gerrard and Vale, 'Reforms to Victoria's native vegetation permitted clearing regulations' (2013) 28(8) *Australian Environment Review* 727.

responsive approach to environmental issues is being progressively eroded by resort to de-regulatory styles of risk based management.[99]

5. *Financial incentives were not provided or were hard to access:* Although Grabosky and Gunningham did not generally condone the long term use of public subsidies they acknowledged that, where conservation objectives necessitate a degree of ongoing land care and maintenance, landholders may need to be remunerated. However, vegetation management legislation did not always build this into the equation. One off compensation payments were used as a circuit breaker. To the extent they were available, incentives for ongoing land management arose under other legislation and were subject to separate eligibility criteria. In Queensland, for example, conservation covenants are governed by the *Nature Conservation Act* administered by the Department of Environment and Heritage whereas the *Vegetation Management Act* is administered by the Department of Mines and Natural Resources. Native vegetation legislation failed to distinguish between the moral imperative for prohibiting unregulated land clearing and the need to foster and engage the farming community to inculcate an ethic of ongoing land stewardship.[100]

6. *The market for ecosystem service has been slow to develop and is plagued by uncertainty and stop-start agendas:* Gunningham and Grabosky envisaged a prominent role for property rights and market based measures in relation to biodiversity conservation. Unfortunately, their enthusiasm was not mirrored in actual practice. Although various schemes have emerged, they have been relatively slow to evolve and, as discussed above, high start-up and transaction costs have often placed them beyond the reach of many landholders. Where a market for ecosystem services is available the market price is unlikely to reflect the true opportunity cost to farmers who, in order to participate, must forego the opportunity to develop their land in other ways should new markets and opportunities arise.[101] In reality, the so called "irrational, intransigent or incompetent" minority who resist a price incentive may in fact be acting quite rationally on this long term point of view. [102]

7. *Additionality requirements prevent some landholders from participating in markets for ecosystem services:* To meet international requirements for additionality, projects supported by the Emissions Reduction Fund are subject to offsets integrity standards.[103] These standards ensure that, without funding from the ERF, the particular carbon abatement would be "unlikely to occur in the ordinary course of events". For landholders, this requirement means they can only nominate land that is not already

[99] Tombs and Whyte, 'Transcending the deregulation debate? Regulation, risk and the enforcement of health and safety law in the UK' (2013) 7 *Regulation and Governance* 61.
[100] Farrier, 'Vegetation Conservation: the planning system as a vehicle for the regulation of broadacre agricultural land clearing' (1991/2) 18 *Melbourne University Law Review* 26, 59.
[101] Coklin, 'Participants in biodiversity conservation: motivations and barriers of Australian landholders' (2011) 27 *Journal of Rural Studies* 331, 339; Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 228.
[102] Gunningham et al., above n 3, 316; Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 228.
[103] *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) s 133.

> protected from clearing by reason of another law or tenure type.[104] This makes sense in terms of reducing carbon emissions but means landholders who have previously entered a conservation covenant or whose land is already protected by law from land clearing and development are not eligible to participate in this scheme (or the Commonwealth ITAA financial incentives). The inevitable result is the current regulatory environment encourages landholders to resist any further regulatory intervention and to hold back from voluntarily entering into conservation covenants in order to 'wait and see' if a better (or any) price will become available through a market mechanism. No wonder there is ongoing pressure to reduce the impact of native vegetation legislation! Biodiversity conservation has fallen prey to an "inherently counter-productive" instrument combination.

Although *Smart Regulation* was written almost twenty years ago (1998), this article has dwelt in some depth on its analysis and prescriptions because it includes a valuable case study of how to design an appropriate policy mix for biodiversity conservation. Sadly, over the intervening two decades, the continuing chasm between political and pre-existing philosophical agendas; changing circumstances and poorly sequenced interventions have not worked in favour of a successful regulatory mix. On the contrary, the regulation of biodiversity conservation is currently characterised by an 'inherently counter-productive' combination of policy instruments. The idealised theorizing of the authors has not quite 'gone to plan' in the real world of messy politics, limited budgets, uncoordinated policy making and changing circumstances.[105] The next section considers whether some more recent "diagnoses" of regulatory governance have anything to contribute to remedying some of these issues.

VII POSSIBLE WAYS FORWARD

In the intervening years since 1998, the work of Baldwin and Black on designing 'really responsive regulation' has, in particular, refreshed and expanded on some of the core recommendations of *Smart Regulation*. One of the objectives of their thesis is to consider:

> [H]ow a regulator should deal with resource constraints, conflicting institutional pressures, unclear objectives, changes in the regulatory environment, or indeed how particular enforcement strategies might impact on other aspects of regulatory activity, including information gathering, and how regulators can and should assess the effectiveness of their particular strategies when any of these circumstances obtain.[106]

Building on the work of Ayers and Braithwaite (which also influenced the authors of *Smart Regulation*), they argue that regulators will be 'really responsive' (and ultimately more effective) when, in any particular regulatory setting, they take into account: attitudinal settings; the broader institutional environment of the regulatory regime; the different logics of regulatory tools and strategies; the regime's own performance and changes in each of those elements.[107] Baldwin and Black advocate expanding the realm of regulatory inquiry to take all these factors into account so that, ultimately, regulation will become 'really responsive'.

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[104] See, for example, "Avoided clearing of native regrowth" available at: http://www.environment.gov.au/climate-change/emissions-reduction-fund/methods/avoided-clearing-native-regrowth.
[105] Baldwin and Black, above n 1, 61.
[106] Ibid 61.
[107] Ibid 69.

The following discussion explores how this expanded list of relevant considerations may apply and be useful to the regulation of biodiversity conservation in Australia at this point in time:

A *Attitudinal Settings*

Baldwin and Black suggest regulators must be responsive to the cultures and understandings (the operating and cognitive frameworks) that operate within regulated organisations. The authors recognise strategic action is structured by many pressures including "pursuit of profitability or reputation, market position, congruence of external regulatory demands and internal goals, the means by which regulatory norms are imposed, the perceived fairness of the regulatory regime and the nature of the external environment".[108] Motivational postures (the social signals that individuals send to the regulator to communicate the degree to which they accept the regulatory agenda) need to be studied in their broadest context. Grabosky and Gunningham also recognised the need to understand the culture and context in which regulation operates. Their description of the key contextual features underpinning biodiversity conservation, including polarized views around the sanctity of private property rights and ongoing resentment of coercive government regulation, is discussed above and seems to be of continuing relevance today.

B *The Institutional Environment:*

Regulation must recognise and respond to the constraints and opportunities regulators (as well as regulatees) must deal with. The actions of regulators (as well as regulatees) are structured by "the norms regulating their conduct, by the senses of appropriateness of actions, of understandings of how the environment operates, and by the distribution of resources between themselves and others with whom they interact."[109] In 1998 Gunningham and Grabosky were sensitive to the resource constraints of regulatory actors and to regulators' historical reliance on education, persuasion and subsidization in the agricultural sector generally.[110] That picture has become more complicated in the past twenty years as regulators have adopted a tougher stance relying on controversial CAC legislation. Furthermore, other areas of government, such as environmental departments, have also become involved in land clearing issues, potentially complicating lines of authority and communication. Meanwhile, traditional forms of agricultural extension, fostering communication and cooperation, have been scaled back.[111] These trends suggest a greater distance (and possibly less trust) now exists between the regulator and regulated community. These departments may now be more remote and less inclined to 'champion' wholeheartedly the interests of the communities they serve. Certainly, the regulatory picture has indeed fallen prey to "the real world of messy politics, limited budgets, uncoordinated policy making and changing circumstances".[112]

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[108] Ibid 70.
[109] Ibid 70.
[110] Gunningham et al., above n 3, 293-295.
[111] Bredhauer, above n 35, 59-60.
[112] Baldwin and Black, above n 1, 61.

C *The Logics of Different Regulatory Tools and Strategies:*

Regulatory "logics" are the different ways of influencing behaviour (punishment, persuasion, compensation etc.) generated by different regulatory tools. Different regulatory tools are premised on different logics so, when they are used in combination they may send out confused or contradictory messages. Baldwin and Black warn that, "Coherence of logic matters because confusion detracts from effective regulation".[113] In 1998 Grabosky and Gunningham were aware that combining different regulatory instruments could lead to tension or become counter-productive.[114] To deal with this issue, the authors recommended sequencing the introduction of instruments with voluntary and less intrusive measures preceding resort to CAC legislation. As we have seen, whether justified or not, that was not the sequence followed with respect to land clearing. It is only in recent years that market based instruments for biodiversity conservation have begun to proliferate, some years after the first introduction of prohibitive land clearing legislation.

The result is, as noted above, there is a degree of incoherent logic in current policy. For instance, high value remnant and (in some cases) regrowth vegetation is generally protected from land clearing without any ongoing entitlement to compensation for landowners. Without additional finance, the land may be neglected and quickly become overrun with weeds and feral animals.[115] Meanwhile, land of less environmental significance may be voluntarily placed under a conservation covenant and 'sold' in various newly emerging markets or at least be used to claim the benefit of various government subsidies. These incoherent logics mean landholders have no incentive to maintain areas of existing remnant or protected high growth vegetation unless and until they can participate in a market or incentive based conservation scheme. Their participation is not possible, however, if additionality requirements exclude land that is already protected by regulation from being included in these schemes.

D *Performance Sensitivity:*

Baldwin and Black suggest regulators need to monitor and measure the impact of regulatory measures and be ready to modify tools and strategies accordingly.[116] Although this sounds obvious, measuring the impact of regulation - which may combine qualitative, quantitative and expressive policy goals – can be problematic. With respect to biodiversity conservation, one simple measure is the decrease in land clearing following legislative intervention. There have been some impressive results here. For instance, in Queensland, the Department of Natural Resources and Mines reported a 36% reduction in tree clearing rates in the aftermath of the *Vegetation Management Act, 1999*, with even greater reductions (another 67%) following the implementation of the ban on broadscale clearing in 2006.[117]. There are fewer reports, however, on whether these lands are being successfully maintained and managed to maximise biodiversity values. For many reasons, biodiversity loss is continuing apace.

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[113] Ibid 71.
[114] Gunningham et al., above n 3, 437.
[115] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 109.
[116] Baldwin, and Black, above n 1, 73.
[117] DRNM, *Land Cover Change in Queensland 2003-20004: A State wide Land Cover and Trees Study Report*, 2006, 1; McGrath, 'End of broadscale clearing in Queensland' (2007) 24 *Environmental and Planning Law Journal* 5, 6. For some figures from other states, see, Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 106.

Moreover, the political backlash that culminated in the 2013 Queensland reforms, suggests that future changes to the law, reversing hard won prohibitions on land clearing, are also not beyond the realm of possibility. Whilst the achievements of CAC legislation should not be ignored, complacency is not warranted. Added to this is the change of regulatory environment, noted above, characterised by a growing (albeit still relatively modest) market for ecosystem services. Regulators might need to "modify tools and strategies accordingly".

E *Responsiveness to Change*

Related to the above, Baldwin and Black argue regulatory strategies need to be ready to adapt to movements in regulatory priorities, circumstances and objectives".[118] They give a pertinent example: "If, for example, the government introduces an emissions trading scheme to control a toxic water pollutant that is used in a certain production process, the Environment Agency might be well advised to reconsider its use of command-based controls over that substance."[119] As discussed above, the regulatory environment for biodiversity conservation has been and is still changing - albeit not as rapidly as some policy statements would like. The evolving regulatory framework shows evidence of incoherent logics, different agendas and multiple regulators operating within the regulatory space and sometimes at odds. Without wishing to 'throw out the baby' of CAC legislation, a holistic review of current regulatory policy seems warranted. Whilst CAC legislation has served well to create an immediate halt on broadscale land clearing, it has failed to create an ethic of land stewardship and seems permanently at risk of a political backlash. Meanwhile, voluntary and incentive based schemes may exclude land that is protected under earlier legislation due to their additionality requirements. Land stewardship (maintenance and management) is neglected in favour of simply adding additional hectares of 'protected' land. Voluntary mechanisms are also haphazard in terms of their strategic coverage and biodiversity outcomes and, furthermore, they inject uncertainty and inconsistencies into the regulatory regime when viewed as a whole. All these facets confirm the need to keep the overall policy and governance regime under regular review and open to change.

In summary, the 'really responsive' analysis of Baldwin and Black confirms many of the findings and recommendations identified by Grabosky and Gunningham. In the context of biodiversity conservation, the additional (or re-emphasized) insights their analysis contributes are threefold. First, they highlight the importance of the institutional environment, including clashing policy directions and cross institutional mandates. The thrust of their argument is that in the real world "pragmatism dictates" so regulatory analysis may simply need to recognise and accommodate that reality. Nevertheless, "coherence of logic matters" and regulators should strive for that goal. Secondly, Baldwin and Black emphasize the need for regular monitoring and review not only with respect to the impact of particular measures but also with respect to changes in the regulatory landscape as a whole. The authors acknowledge that task is not an easy one; measuring the full range of costs and benefits associated with legal or policy reforms is always problematic and biodiversity conservation is no exception. Lastly, and complementary to their other findings, Baldwin and Black emphasize the need for an ongoing, responsive approach to changes in the regulatory landscape over time, a sentiment Grabosky and Gunningham would undoubtedly condone.[120]

[118] Baldwin and Black, above n 1, 73.
[119] Ibid, 74.
[120] See, for example, Gunningham's later work in Gunningham, 'Environment law, regulation and governance: Shifting architectures' (2009) 21(2) *Journal of Environmental Law* 179, 211.

Whilst Baldwin and Black's analysis emphasizes the need for ongoing monitoring, review and responsiveness, their analysis remains light on the mechanics of how to improve practice in this area. Recent work by Martin and Gunningham may add some flesh to these recommendations.[121] They advocate emulating the type of systems theorizing that has become prevalent in the natural sciences to generate a better understanding of how environmental governance systems are actually working as a whole:

> Apply the scientific model to improving environmental law, being more explicit about the theories that underpin proposed interventions and more scientific in evaluating and learning from real-world experience in implementing these theories.[122]

The authors go on to argue that instead of "isolated instruments that address only some of the symptoms of a more systemic problem" we should be focused on "shaping the systems that generate unsustainable outcomes".[123] To do this, regulatory proponents will need to "increase the behavioural sophistication" of laws and regulations.[124] One way to do this is to develop frameworks and methods to better evaluate and manage the various social, environmental and commercial risks and impacts experienced by different stakeholders. This type of system wide thinking is necessary because "this variety of factors may make it impossible for the farmer to do what the regulators would wish, or cause these responses to be far slower than policy makers expect".[125]

In other recommendations, pertinent to biodiversity conservation, the authors recommend:

- Streamline the architecture of the laws and market arrangements we use, to reduce the inefficiencies that arise from complexity.
- Make greater use of the opportunities for 'collaborative governance' and co-regulation whilst improving public confidence in such approaches by ensuring objective scrutiny and accountability.
- Manage transaction costs, so as to create more effective laws and market instruments that operate more efficiently.[126]

These recommendations are generally consistent with the findings in this article.

Lastly, and specifically with respect to the Australian context, many of the recommendations of the Productivity Commission's *Inquiry Report into Impacts of Native Vegetation and Biodiversity Regulations* (2004) remain pertinent today. In particular, the Commission highlighted the important role played by "service contracts" in the European Community where, in contrast to regulations and /or contracts simply prohibiting the clearing of native

[121] Martin and Gunningham, 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' 2014(1) *Australian Journal of Environmental Law* 5.
[122] Ibid 18.
[123] Ibid.
[124] Ibid 20.
[125] Ibid 17.
[126] See, "Ten concepts to improve Australian regulation" in Martin and Gunningham, 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' 2014(1) *Australian Journal of Environmental Law* 5, 18. Similar recommendations were made by the Productivity Commission. See, 'Regulatory best practice principles and recommendations' in Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 223.

vegetation, landholders are paid for their ongoing conservation management and on the basis of actual outcomes. [127] Service contracts have the potential to overcome some of the stewardship problems (neglect, weeds, pre-emptive clearing etc.) identified in the Australian context.[128]

At a more systemic level, the Productivity Commission identified the need for:

- greater exposure of the costs and benefits of conservation effort;
- clarification of environmental objectives; and
- a process for determining agreed landholder and community responsibilities for achieving those objectives.[129]

The Productivity Commission accepted there are public and private benefits associated with the conservation of native vegetation but argued private landholders should not be forced to bear the cost of any additional public benefits that accrue over and above their personal gain and at their own personal cost. Landholders should, "[B]ear the cost of actions that directly contribute to sustainable resource use (including, for example, land and water quality) and, hence, the long-term viability of agriculture and other land based operations." Conservation benefits over and above those goals (for instance, to achieve biodiversity, threatened species or emissions reductions objectives etc.) should be paid for by government and "purchased from landholders where intervention is deemed cost-effective".[130] Accepting this would shift the cost of conserving native vegetation more towards the taxpayer, the Commission argued "the appropriate objective of policy should be maximising net community benefits, not minimising budgetary outlays".[131]

VIII CONCLUSION

No one disputes the desirability of conserving Australia's native vegetation but the method of achieving that goal is hotly contested. The issue is a multifaceted one with economic, social and political drivers heavily influencing the regulatory landscape. In 1988, the regulatory analysis of biodiversity conservation offered by Grabosky and Gunningham was insightful. Their 'smart regulation' recommendations offered a way forward incorporating a mix of regulatory tools (in the widest sense) and a holistic view of regulatory governance. Over the last two decades some of their recommendations have been implemented but not always in the sequence or in the manner envisaged by Grabosky and Gunningham. New regulatory tools were adopted in a disjointed fashion and without reference to the consequences of 'incoherent logics'. In general, educational, informational and collaborative governance tools receded to the background whilst heavy handed regulation generated new divisions based on suspicion, resentment and acrimony.[132] The "messy world" of real political life intervened and compromised the successful implementation of smart regulation principles.

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[127] Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations,* 2004, Commonwealth of Australia, 205-207.
[128] Ibid 204.
[129] Ibid 222.
[130] Ibid See Recommendations 10.7 and 10.9 at, pp 238-239.
[131] Ibid 233.
[132] Bredhauer, above n 35, 59-60.

The current time is both a critical and an exciting one for biodiversity conservation. Conservation covenants, eco-markets and service contracts offer considerable promise but they, like any other regulatory tool, also have their drawbacks. For best results, they need to be embedded in a more holistic and insightful regulatory regime that rewards stewardship and is at least cognisant of system wide as well as individuals' constraints and influences. As the area is undergoing rapid change, monitoring, review and ongoing reform should also be encouraged. Perhaps most importantly of all, trust and collaboration also need to be restored. This can only be achieved through an accountable and collaborative discussion[133] which ultimately recognises and defines agreed cost sharing principles.

[133] The literature on collaborative governance derives largely from the work of Habermas in Habermas, *The Theory of Communicative Action, Vol 1: Reason and the Rationalisation of Society* (Beacon Press, 1984). For an introduction to collaborative environmental governance (or new environmental governance), see, Holley, *The New Environmental Governance* (Earthscan, 2011); Fung and Wright, *Deepening Democracy: Institutional Innovations in Empowered Participatory Governance* (Verso, 2003); Buss, T et al., *Modernizing Democracy: Innovations in Citizen Participation* (Sharpe, 2006).