Environmental Justice Australia

Submission

in response to

The Productivity Commission Draft Report on the Regulation of Agriculture

prepared by

Environmental Justice Australia

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About Environmental Justice Australia

Environmental Justice Australia (formerly the Environment Defenders Office, Victoria) is a not-for-profit public interest legal practice. Funded by donations and independent of government and corporate funding, our legal team combines a passion for justice with technical expertise and a practical understanding of the legal system to protect our environment.

We act as advisers and legal representatives to the environment movement, pursuing court cases to protect our shared environment. We work with community-based environment groups, regional and state environmental organisations, and larger environmental NGOs. We also provide strategic and legal support to their campaigns to address climate change, protect nature and defend the rights of communities to a healthy environment.

While we seek to give the community a powerful voice in court, we also recognise that court cases alone will not be enough. That's why we campaign to improve our legal system. We defend existing, hard-won environmental protections from attack. At the same time, we pursue new and innovative solutions to fill the gaps and fix the failures in our legal system to clear a path for a more just and sustainable world.

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Environmental Justice Australia (EJA) welcomes this opportunity to make comment on the Draft Report *Regulation of Australian Agriculture* (Draft Report). EJA has undertaken a range of legal work of relevance to regulation of Australian agriculture. A non-exhaustive list includes advice on federal water law, reports on the carbon farming initiative, and submissions on native vegetation clearing controls and on biosecurity and invasive species laws.

The Draft Report canvasses a wide range of issues. In these submissions we comment on the Terms of Reference for the Inquiry and then primarily on the issue of environmental regulation.

The scope of the inquiry and terms of reference

Consideration of the terms of the inquiry is warranted, as these impact directly and significantly on the scope of the inquiry. We acknowledge that the Terms of Reference are set by the Government and the Commission is required to work within them. Nevertheless, it is our view that the terms of reference are unduly narrow and the inquiry therefore fails to consider the purposes and functions of law and regulation as whole in relation to Australian agriculture. The preponderant assumption in the Draft Report is that regulation entails cost with little or no countervailing benefit and without regard to the calculation of private and public interest in regulatory systems. There are a broad range of public interest considerations and public benefits needed in a proper and effective assessment of regulation in general or in any particular circumstance. We are of the view that regulation affecting agriculture could be organised more efficiently and effectively than it is at present. However, this must be done with regard to the full range of interests and benefits affected by that regulation, including proper management of common or public goods and consideration of the public interest. Certain important benefits to be achieved by regulation are identified, for instance in the earlier submissions made by Professor Martin on behalf of UNE's Australian Centre for Agriculture and Law.[1]

Further, given the unduly narrow scope of the inquiry, an important opportunity has been missed to consider the value of Australian agriculture in a wider sense and in a wider context. This includes its

[1] Submission 2 received 3 March 2016:

> Many rural regulations do provide private (as well as public) benefit. Some examples may suffice to make this point.
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> 1. Regulatory control of agricultural invasive species may impose a cost or constraint on some landholders, but it reduces economic losses and costs to other landholders as well as producing public good benefits.
> 2. The control of unauthorised water extraction or contamination is essential to the integrity of the market for private rights. Australia's valued reputation for safe agricultural products depends partly upon having an effective and credible regulatory system.
> 3. There can be systemic benefits to Australia from regulations even when it is hard to measure these. Australia has entered into international agreements for biodiversity protection, species trade, biosecurity, and the like because Parliament has identified a benefit which outweighs the likely costs of regulations.
> 4. Regulation is often used to protect the collective social capital, by helping to create a more just and humane society. Social capital has direct and indirect effects which include creating trustful conditions that enable efficient contracts.
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> It can also be argued (as has been done by Michael Porter and others) that regulation can cause industries to adapt to competitive pressures, making them more internationally competitive. For rural industries, demonstrating sound ethical and ecological performance would seem to be strategically relevant.

contribution to, and the benefits derived from, ecosystem functioning, a dimension now the subject of extensive economic literature and well-established economic models such as ecosystem services and 'natural capital.'[2] To put these considerations in some perspective, recent analysis of the global value of ecosystem services puts their value, depending on methods of calculation, at between US$125 trillion and US$145 trillion.[3] Ecosystem benefits and losses can flow from agricultural operations to the wider community, and agricultural operations receive ecosystem services.[4] The stock and flows of ecosystem benefits and services needs to be properly accounted for in decision-making and management.

Management of agriculture and natural resources for the protection and enhancement of these benefits will necessarily require regulatory responses, as well as financial subsidies and incentives, properly designed and targeted. In some instances, properly designed regulation is preferable to alternative approaches, such as the creation of market and property-based instruments to key resources.[5] The narrow approach that the terms of reference sets up fails therefore to account for the full context and circumstances of Australian agriculture and agricultural regulation. A key aspect of that context is not merely underpinning common pool resources in which agricultural activities are situated (e.g. biodiversity, atmosphere, water, soil) but the well-reported fact of the degradation and loss of integrity and benefits of those commons-based resources. A symptom of the narrow approach to the inquiry seems to be, in respect of issues such as environmental regulation in particular, extensive citation from vested industry groups, reliance on anecdotal information and examples from individual farmers, and informational biases. Extensive literature on for example ecological economics, multifunctional landscapes, or stewardship principles to farming seem not to have informed the inquiry or have done so marginally and cursorily.

Recommendation*: Assessment of agricultural regulation needs to genuinely and properly take account of the stock and flows of ecosystem benefits and services, including the character and extent of benefits and services to agriculture, rural communities and the community generally.*

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[2] See e.g. Millenium Ecosystem Assessment *Ecosystems and Human Well-being: A Framework for Assessment* (2005); Wentworth Group of Concerned Scientists *Australian Agriculture: Redesigning for Resilience*, http://www.wentworthgroup.org/docs/Australian_Agriculture_Redesigning_for_Resilience.pdf

[3] Robert Constanza, Rudolph De Groot, Paul Sutton, Sander van der Ploeg, Sharolyn J. Anderson, Ida Kubiszewski, Stephen Farber, R. Kerry Turner 'Changes in the global value of ecosystem services' (2014) 26 *Global Environmental Change* 152. At 2007 $US. This study estimates the *loss* of ecosystem services from 2007-2011 at US$4.3-20.2 trillion/year.

[4] Emma Aisbett and Marit Kragt *Valuing Ecosystem Services to Agricultural Production to Inform Policy Design: An Introduction* (Environmental Economics Research Hub Research Report no. 73, 2010)

[5] See e.g. Paul Martin, Amanda Kennedy, John Page and Jacqueline Williams 'Environmental property rights in Australia: constructing a new Tower of Babel' (2013) 30 *Environmental and Planning Law Journal* 6 531; Cameron Holley and Darren Sinclair 'Governing water markets: achievement, limitations and the need for regulatory reform' (2016) 33 *Environmental and Planning Law Journal* 4 325

Environmental Regulation

Stewardship as well as productivity the basis for Australian agriculture

The prevailing proposition of the Draft Report in relation to environmental regulation is that it is appropriate where its overall benefits outweigh costs to individual farmers and to the community. Following from this the proposition is that existing environmental regulation is complex, poorly administered, constraining, costly, and not necessarily well performing.

However, the overarching purpose of environmental regulation in Australia is its contribution to ecologically sustainable development. That norm has been articulated in policy for more than two decades. It is reflected in many environmental statutes affecting agriculture including at State and Federal levels, including legislation primarily designed for environmental purposes and that designed with mixed (e.g. development, commercial and environmental) objectives in mind such as land-use planning and water management. Assessment of environmental regulation in the context of agricultural production in Australia cannot merely occur against private costs and benefits (i.e. costs and benefits to individual landowners or industries) but must first of all consider how it has (re)orientated practice and behaviour toward ecological sustainability.[6] As Martin et al identify: 'Environmental law [and regulation] has a practical purpose: to help shift human behaviour into sustainable patterns.'[7] To the extent economic analysis plays a key role in this interplay of law and agricultural practice it is to consider the overall welfare of productive and environmental outcomes – that is to consider the achievement of *ecologically sustainable* agriculture.

In a practical sense, the inter-relationship of agricultural production and environmental regulation should be directed toward *stewardship* of the land, alongside productivity, and this has been expressed commonly as an environmental duty of care.[8] The public good or public interest character of environmental factors in agriculture are best represented by models of stewardship and stewardship obligations. We submit that this is a fundamental consideration for the assessment and evaluation of environmental regulation in Australian agriculture.

Giving effect to stewardship in agricultural production is unlikely to be achieved without clear and effective normative underpinnings, such as provided for in instruments such as biodiversity legislation, environmental protection laws and planning controls aimed at protecting and conserving public benefits. Those underpinnings represent a 'floor' for sustainable land management. They do

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[6] See Paul Martin, Ben Boer, and Lydia Slobodian (eds) *Framework for Assessing and Improving Law for Sustainability: A Legal Component of a Natural Resource Governance Framework* (IUCN Environmental Policy and Law Paper 87, 2016), http://www.iucn.org/sites/dev/files/content/documents/2016/eplp_87_web.pdf

[7] Ibid, 118

[8] There are various expression of such a duty of care owed by land managers such as *Catchment and Land Protection Act 1994* (Vic), s 20; *Environment Protection Act 1994* (Q), s 319; see also Gerry Bates *A Duty of Care for the Protection of Biodiversity on Land: A Consultancy Report* (Productivity Commission, 2001), http://www.pc.gov.au/research/supporting/biodiversity-duty-of-care/docpobol.pdf

need to be built on through funding to achieve environmental outcomes and in this respect use of environmental 'market mechanisms' can be appropriate and valuable tools. However, they cannot and do not exist or operate in isolation and there are real limits to expansion of proprietary and economised approaches to the 'purchase' of ecosystem services.[9] Further, market based mechanisms for the funding ('purchase') of environmental management on private (including agricultural) land can require complex and sophisticated regulatory tools, whether operating under contract or statute or both.[10]

***Recommendation**: The regulation, management and support of Australian agriculture should proceed on the basis of models of land manager stewardship for land and resources. Those models should be given equal weight to productivity models and be viewed as inter-related. This approach can be achieved by, for instance, the integration of ecosystem services into private and public decision-making.[11]*

***Recommendation**: Land and resource stewardship should be seen as underpinned by principles of ecologically sustainable development and regulatory systems should be designed to give effect to those principles.*

Risk-based regulation

Risk-based approaches to environmental regulation can be appropriate and useful but only if well-designed, targeted, principled, enforceable and enforced.[12] Concepts of risk-weighting and proportion in decision-making are well-established in models such as ESD, which includes principles of prevention and precaution founded on risk and threat of environmental harm. So for example the establishment of clear and effective standards for threatened species protection should be scaled according to threats and risk of extinction. Standards permitting greater interference in or modification of habitat are appropriate depending on those risks – where the risks are not immediately high (e.g. populations of a species are vulnerable but not endangered) regulatory standards might permit certain manageable impacts and some discretion; where risks are high (e.g. critically endangered species) standards should not permit adverse actions and discretion should be strictly confined.

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[9] See Martin et al, above, n 5

[10] See e.g. Trust for Nature *Land based Environmental Markets and the Law: the Evolving Legal Landscape Underpinning Ecosystem Services Markets in Victoria* (2014), http://www.trustfornature.org.au/data/media/00002011/Web2-Land-based-environmental-markets-and-the-law.pdf

[11] See e.g. Victorian Commissioner for Environmental Sustainability *State of the Environment Report 2013* (2013) – Part B, Goal 1: Resilient Ecosystems, [1.1], https://www.ces.vic.gov.au/sites/default/files/publication-documents/Part-B-Goal-1.pdf

[12] See Bruce Lindsay and Cecilia Riebl 'Risk-based regulation in environmental governance' (2013) 30 *Environmental and Planning Law Journal* 452

As the Draft Report notes, jurisdictions such as Victoria have introduced risk-based approaches to environmental regulation through mechanisms such as native vegetation clearing rules. Efforts have also been made to reform Victoria's environmental impacts assessment laws[13] according to risk-based approaches, but legislation has not been developed as far as we understand.

The use of risk-based approaches in Victoria's native vegetation clearing regulations has been notoriously problematic. At one level, it has sought to automate environmental decision-making, which has led to scope for inaccuracy and error.[14] At another level, it has narrowed the value of native vegetation to associations essentially with rare or threatened species, establishing values that are in effect only partially representative of the actual values of native vegetation.[15] Those calculations and considerations do not take into account *economic* risks associated with *loss* of native vegetation.[16] The native vegetation clearing regulations contain extensive categories of exemption which can tend to undermine the integrity of a broad-based risk assessment approach (for example, extensive exemptions for Crown authorities means their actions are not risk-assessed). Finally monitoring, evaluation and enforcement of land clearing has been very poor and these key governance aspects of vegetation management are rarely accounted for in risk-based systems.

While complex assessment and decision-making procedures are used, the framework focuses foremost on facilitating land clearing. Operating through the Victorian planning system, native vegetation clearing regulations are nevertheless the principal source of management of biodiversity on private land and necessarily balance those biodiversity (environmental) considerations against economic and social considerations.

The point should be made here also that Victoria's key biodiversity law outside public lands legislation, the *Flora and Fauna Guarantee Act 1988* (FFG Act), is for all intents and purposes ineffective and rarely used.[17] While this source of environmental regulation should in theory protect

[13] *Environmental Effects Act 1978* (Vic)

[14] Yung En Chee 'Hidden flaws in Victoria's new native vegetation clearing rules' *The Conversation* 3 October 2013, https://theconversation.com/hidden-flaws-in-victorias-new-native-vegetation-clearing-rules-18516

[15] Those values include land management protection, such as erosion control and salinity mitigation, water quality management, aesthetic and amenity values, and cultural values. While such values were given parity with biodiversity values under original land clearing controls introduced into the Victorian planning scheme in 1989, they are effectively treated as ancillary values (as 'other matters') under the current Permitted Clearing Guidelines.

[16] The economics of native vegetation management were considered expressly in a series of reports completed by Charles Sturt University in the late 1990s, culminating in Carla Miles, Michael Lockwood, Sandra Walpole Evelyn Buckley *Assessment of the on-farm economic values of native vegetation* (Charles Sturt University, 1998), https://www.csu.edu.au/__data/assets/pdf_file/0011/704396/report107.pdf

[17] Environment Defenders Office (Victoria) Ltd *Where's the Guarantee? Implementation and enforcement of the Flora and Fauna Guarantee Act 1988 and the Wildlife Act 1975* (2012), https://envirojustice.org.au/downloads/files/law_reform/edo_vic_wheres_the_guarantee_report.pdf;

and conserve high value and high risk environmental values in agricultural (and other) landscapes it in fact has virtually no regulatory impact at all. In a risk-based system, a reformed FFG Act would provide clear regulatory standards and guidance, including as appropriate no-go zones for adverse environmental impacts and actions such as for endangered or critical endangered species. That kind of clear, rigorous and effective approach would not only provide transparency to landowners but contribute to the framework for resourcing and funding to private land conservation (whether via markets or otherwise).

***Recommendation**: Risk-based approaches to environmental management in agricultural landscapes need to be founded on key principles and governance frameworks, including (among other things) stewardship models, broad-based identification of risks and values at issue, appropriate use of prescriptive measures and precautionary approaches (such as where threats are significant and outcomes uncertain), and key sources of governance risk.*

Landscape approaches to assessment and approvals

Landscape-scale management is necessary, is underdeveloped, and holds considerable potential for integration of land uses and stewardship. By definition planning, assessment and approvals at the landscape scale include 'nested' and integrated actions, which is to say at both the landscape, locality and property level. Extensive and innovative work has been done on landscape management and planning.[18] Key lessons to be derived from this work is that success in this context depends on adept collaboration and planning, coordination across governmental, nongovernmental and private sectors, a long-term resource base, considerable time and effort and goodwill (including by farmers), cross-tenure management, appropriate governance arrangements, and a grounding stewardship ethic.[19] Well-designed and adapted legal and regulatory mechanisms are crucial.

Statutory mechanisms such as strategic assessments or biodiversity programmes can be particularly useful and valuable in providing the legal framework in which landscape-scale management occurs. The significant shortcomings in those mechanisms however often lies in the discretionary nature of their use and application (which leads to their underutilisation) or their use to shortcut assessments and approvals at the property or project level (which can lead to poorly informed, 'coarse'

Victorian Auditor-General *Administration of the Flora and Fauna Guarantee Act 1988 (2009*), http://www.audit.vic.gov.au/publications/2008-09/flora-fauna-full-report.pdf

[18] See e.g. James Fitzsimons, Ian Pulsford, Geoff Wescott (eds) *Linking Australia's Landscapes: Lesson and Opportunities from Large-scale Conservation Networks* (CSIRO Publishing, 2013); Carina Wyborn 'Landscape scale ecological connectivity: Australian survey and rehearsals' (2011) 17 *Pacific Conservation Biology* 122

[19] See generally Fitzsimons et al, note 12 above; Hatfield-Dodds S, Proctor W *Delivering on the Promise of Stewardship: Issues in Realising the Full Potential of Environmental Stewardship Payments for Landholders and the Land* (CSIRO, 2008)

assessment). To be done properly, strategic assessment needs to be well-resourced and integrated with assessment and approvals at other scales.[20]

Further, the fate of well-designed landscape-based approaches to integrated land and resources management (referred to here as stewardship but sometimes termed 'multifunctionality' or 'agri-environmental' approaches in EU or US contexts) will likely remain constrained, under-developed or at worst mere rhetoric without the further development of assessment, reporting and valuation tools capable of accounting for multiple landscape values in decision-making (including business as well as governmental decision-making). For instance, public environmental goods such as biodiversity, water quality, clean air, soil integrity, and associated ecological processes are only slowly and unevenly being incorporated into accounting frameworks and this is a much more recent process than orthodox economic accounts systems. The 'bundling' or 'stacking' of a more fully representative system of accounts is a challenging exercise[21] but necessary if an authentic accounting is to occur for all relevant values in agricultural landscapes.

***Recommendation**: Landscape-scale management needs to be more systematically and effectively developed in Australia, built on solid legal, regulatory and financial foundations, and ensure integrated decision-making and governance across (landscape and property/project) scales. Landscape scale management models need to be led by the Commonwealth but with strong systems of collaboration across sectors and interests affected.*

***Recommendation**: The development and maturing of systems of fully representative landscape 'accounts' needs to be progressed, through which models integrating productive, ecological and cultural values are used in the management of agricultural landscapes.*

Integrated (economic, social and environmental) decision-making

One of the surprising, if not ill-informed, propositions in the Draft Report concerns the suggestion that decision-making does not presently require consideration of economic, social and environmental factors – or what is often referred to as 'integrated' decision-making. In most contemporary land-use planning and environmental laws integrated decision-making is a cornerstone. In part this is reflected in the underpinning norm of ecologically sustainable development, the promotion of which is included in the objects of, for example, the Environment Protection and Biodiversity Conservation Act

[20] See e.g. Andrew Macintosh 'Best practice environmental impact assessment: a model framework for Australia' (2010) 69 *Australian Journal of Public Administration* 4 401

[21] See e.g. Gina La Rocca and Robert Deal *Giving Credit Where Credit is Due: Increasing Landowner Compensation for Ecosystem Services* (USDA, General Technical Report 842, 2011), http://www.fs.fed.us/pnw/pubs/pnw_gtr842.pdf; Todd Jones, Henry de Bey, and Stephen Williams *Constructing a Strategy for Marketing Ecological Services from Private Lands: Stacking vs Bundling (USDA Office of Ecosystem Services and Markets*, 2009), http://www.katoombagroup.org/documents/USDA%20Report%20Stacking%20and%20Bundling%205-3-09%20v%206.doc

(EPBC Act) at the national level.[22] In Victoria, land-use legislation also seeks integrated decision-making – indeed, it is a principal test of administrative (e.g. permit) decision-making.[23] In the management of native vegetation under the Victorian planning system, it has been regularly the case that decisions to grant permits to clear native vegetation have deferred to economic and development considerations over environmental or biodiversity considerations,[24] including in agricultural circumstances.[25] Indeed, native vegetation clearing regulations operating in Victoria since 2014 have substantially diluted the weight of environmental (biodiversity) considerations in decision-making regarding permits to clear native vegetation, such as by removing any obligation to avoid clearing in proposal design in the large majority of cases.[26] Hence, not only is decision-making regarding biodiversity management on private land in Victoria required generally to take into account economic, social and environmental factors but the scales have now been tipped heavily in favour of economic and development considerations and against environmental considerations.

***Recommendation**: Integrated decision-making (economic, social and environmental) needs to be recognised as well-established in Australian law, regulation and policy-making. Greater weight and effect needs to be given to environmental factors in decision-making and policy-making, including to facilitate and encourage ESD approaches in Australian agriculture.*

Benefits of so-called 'one stop shop' are illusory

The concept of a so-called 'one stop shop' for environmental assessment and approvals is cited favourably in the Draft Report as a solution to 'regulatory overlap and duplication.' In practice the concept refers to delegation of assessment and decision-making powers to a particular decision-maker, whether of laws across political jurisdictions (e.g. Federal and State) or administrative jurisdictions (e.g. environmental approvals, planning approvals). The term in recent years has referred to the former and in particular delegation of federal decision-making to State or Territory decision-makers. As Queensland barrister and academic Chris McGrath has noted in his analysis on the topic, the 'one-stop shop' concept is 'misleading' and 'vacuous.'[27]

As a regulatory mechanism this model of delegation is essentially a procedural device and does not avoid the need for an assessor and/or decision-maker to exercise statutory duties to assess or decide on the full scope of substantive matters or issues that would have been assessed/decided on anyway.

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[22] *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), s 3(1)(b); 3A(a)

[23] *Victorian Planning Provisions*, cl 10.04 – Integrated decision-making

[24] *Villawood Properties v Greater Bendigo City Council (Red Dot)* [2005] VCAT 2703

[25] See e.g. *Pretlove v West Wimmera Shire Council* [2007] VCAT 162

[26] *Victorian Planning Provisions*, cl 52.17; *Permitted Clearing of Native Vegetation: biodiversity Assessment Guidelines* (2013)

[27] Chris McGrath 'One-stop-shop for environmental approvals a messy backward step for Australia' (2014) 31 *Environmental and Planning Law Journal* 164

Furthermore, there are systems of bilateral assessment and approvals under Federal legislation currently, so calls for one-stop shops do not seem to add much to administrative efficiencies.

Delegations of the type proposed include assessments and decisions to be made around projects in which the States themselves have direct or indirect interest (e.g. infrastructure, development projects with revenue implications) and wholesale delegation of federal environmental assessments and approvals to State decision-makers will, among other things, involve conflicts of interest by the States.

One of the benefits of 'omnibus' national environmental legislation (of which the EPBC Act is a model) is that it allows for national standards – including as relevant standards based on international agreement. This approach provides for national oversight and a degree of uniformity especially in relation to broad qualitative criteria, such as significant impacts on threatened species, on World Heritage Areas, or treaty protected species. National laws in this respect provide a 'floor' for management standards, although this is presently limited to those areas identified as 'matters of national environmental significance.'

Overhaul public administration of environmental management

Complexity and inefficiencies in environmental regulation in respect of agriculture (and other sectors) in part arises because of the inherent complexity in managing landscapes and natural resources in an integrated manner, including across functions and purposes. Yet it also arises from the political and legislative approach that has historically been taken to environmental management in Australia – typically a compromise between State and Federal jurisdictions (as represented for example in the *Intergovernmental Agreement on the Environment* of 1992), a relatively decentralised environmental regulatory system, and ambivalence in national leadership on the issue. These are questions currently being tackled by the Australian Panel of Experts on Environmental Law (APEEL), with which we have been involved for nearly two years. While APEEL is still in the process of completing and finalising its work it will be making recommendations on, among other things, preferred approaches and models to national environmental regulation, including its integration with land management systems at the State level and public administration in relation to land-based activities such as agriculture.

Overhaul of public administration in relation to agriculture and environmental management likely requires a fundamental rethinking of the relationship of national and State and Territory governments on these issues so that there is greater scope for federal leadership, for example, around legislated standard-setting, and sub-national implementation. The latter would include both State and regional dimensions to implementation and practice.

In addition, improved regulation and administration of environmental matters in relation to agriculture requires both significantly increased resourcing and channels of broad-based participation across governmental, nongovernmental and private actors. Those approaches require and imply quite sophisticated governance (not only at the landscape scale but also sectoral governance, such as

across supply chains). Simplistic models and approaches to governance which advocate merely 'more or less regulation', or 'more or less government', fail to recognise the contemporary nature of governance and regulation – which includes public and private elements, the management of private and common goods, the advance and retreat of societal goals and objectives, and the role and use of different tools and paradigms.[28] There are properly environmental constraints and opportunities in agricultural production and management, and it is appropriate for clear legislative and regulatory mechanisms to be employed to affect behaviours and practices around those constraints and opportunities. Indeed, in our experience, legislative and regulatory tools are essential to provide greater transparency to the exercise, given that tendency to greater 'flexibility' or discretion frequently leads to more uncertainty and obscurity in decision-making.

***Recommendation**: The regulation of Australian agriculture should be reviewed in the context of land and resources governance and the full complement of legal, policy and behavioural mechanisms reasonably available to effect sustainable and productive outcomes.*

***Recommendation**: The Final Report should propose in principle greater national leadership on the integration of agricultural and environmental outcomes through Commonwealth law, policy and funding models.*

[28] See e.g. Paul Martin and Neil Gunningham 'Improving governance arrangements for sustainable agriculture: groundwater as an illustration' (2014) 1 *Australian Journal of Environmental Law* 1 5; Neil Gunningham 'Environmental law, regulation and governance: shifting architectures' (2009) 21 *Journal of Environmental Law* 2 179