

## **Authority, Responsibility and Process in Australian Biodiversity Policy**

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## **Abstract**

*Despite a raft of policies targeting biodiversity, Australia has yet to stem biodiversity decline. This study analyses biodiversity conservation policies in two contrasting Australian landscapes, with a specific emphasis on how authority and responsibility are determined and allocated using a novel linguistic tool (the Institutional Grammar Tool) and interviews with policy makers. Analysis revealed concerns around the narrowness of authority and the dominance of normative statements rather than rules. Unclear roles and responsibilities further diluted the clarity and allocation of authority. Political and economic factors drive policy implementation and constrain authority in both regions. A heavy focus on procedures rather than outcomes was also evident. Implications for policy design and the associated authority include broadening the definition of biodiversity, ensuring policy language more clearly allocates responsibilities, paying increased attention to the distributive as well as procedural elements of biodiversity policy, and developing buffering mechanisms to better cope with political and economic drivers.*

## **1 Introduction**

Biodiversity loss is a critical concern on the global environmental agenda; and the rate of loss has already exceeded critical thresholds, posing significant risks to the resilience of ecosystems.<sup>1</sup> Australia exemplifies the seriousness of this crisis. The country is a global biodiversity hotspot with a high level of endemism and is one of the most mega-diverse in the world,<sup>2</sup> as well as one of the world's most economically wealthy.<sup>3</sup> Conservation of biodiversity has been enshrined in Australia's legislation and in a suite of policies and programs for decades. Yet this unique natural heritage – and apparent capacity to protect it – is juxtaposed against very high extinction rates, including the highest mammal extinction rate in the world.<sup>4</sup>

The failure to stem ecosystem decline has been blamed on numerous factors, many in the realm of governance. Inadequate responses to threatening processes such as fire,

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<sup>1</sup> Rockström, J et al, "A safe operating space for humanity" (2009) 461(7263) Nature 472

<sup>2</sup> Lindenmayer, D and Burgman, M, Practical conservation biology (CSIRO publishing, Melbourne, 2005) p 43

<sup>3</sup> Enright, MJ and Petty, R, Australia's Competitiveness: From Lucky Country to Competitive Country (Wiley, Singapore, 2013) p 2

<sup>4</sup> Woinarski, JCZ, Burbidge, A and Harrison, P, The Action Plan for Australian Mammals 2012 (CSIRO Publishing, Collingwood, VIC, 2014) p 2

climate change, and invasive species have been blamed in part for the poor performance.<sup>5</sup> A recent review of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), Australia's central legal framework for conserving biodiversity, criticised the Act's emphasis on protection of rare, threatened species without a commensurate focus on the broader ecological context.<sup>6</sup> To improve Australia's track record, the review called for the adoption of more landscape-scale approaches. Broadening the scope of current approaches is needed to address ecological processes<sup>7</sup> and the underlying causes of biodiversity decline.<sup>8</sup>

While such a shift would address decades of ecological critiques of single-species approaches,<sup>9</sup> moving from theory to practice in landscape-scale biodiversity conservation has been challenging.<sup>10</sup> Though a landscape focus is now evident in many initiatives throughout the country,<sup>11</sup> formal authority in Australia, in the form of legislative mandate, remains tightly linked to the threatened species and ecological communities paradigm. Even those organisations with formal authority are not necessarily empowered to act at larger scales. Authority is at the core of good governance,<sup>12</sup> bestowing formal roles and responsibilities on individuals and organisations and influencing how power and resources are distributed.<sup>13</sup>

The public good characteristics of biodiversity also call for consideration of authority. Identifying and allocating authority and responsibility for conserving biodiversity is challenging, especially when this public good is located on private property. Although authority and responsibility should be delegated to the appropriate levels, retaining some central authority and standard setting by governments is required to reconcile local costs

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<sup>5</sup> See eg McGregor, A et al, "What are the policy priorities for sustaining ecological processes? A case study from Victoria, Australia" (2011) 12(3) *Ecological Management & Restoration* 194 at 195

<sup>6</sup> Hawke, A, *The Australian Environment Act: Final Report of Independent review of the Environment Protection and Biodiversity Conservation Act 1999* (Department of the Environment, 2009) p 10

<sup>7</sup> Coffey, B and Wescott, G, "New directions in biodiversity policy and governance? A critique of Victoria's Land and Biodiversity White Paper" (2010) 17(4) *Australasian Journal of Environmental Management* 204 at 208

<sup>8</sup> Dovers, S and Hussey, K, *Environment and sustainability: a policy handbook* (Federation Press, Annandale, 2013) p 59

<sup>9</sup> See eg Noss, RF, "From plant communities to landscapes in conservation inventories: A look at the nature conservancy (USA)" (1987) 41(1) *Biological Conservation* 11 at 12

<sup>10</sup> Lindenmayer, DB et al, "A checklist for ecological management of landscapes for conservation" (2008) 11(1) *Ecology Letters* 78 at 79

<sup>11</sup> See eg Fitzsimons, J, Pulsford, I and Wescott, G (eds), *Linking Australia's Landscapes: Lessons and Opportunities from Large-scale Conservation Networks* ((CSIRO Publishing, 2013).

<sup>12</sup> Brechin, SR et al, "Beyond the Square Wheel: Toward a More Comprehensive Understanding of Biodiversity Conservation as Social and Political Process" (2002) 15(1) *Society & Natural Resources* 41 at 46

<sup>13</sup> Hutchcroft, PD, "Centralization and Decentralization in Administration and Politics: Assessing Territorial Dimensions of Authority and Power" (2001) 14(1) *Governance* 23 at 26

and public benefits.<sup>14</sup> Also, the evidence is weak that decentralisation is effective in achieving biodiversity outcomes.<sup>15</sup> The multiscale nature of biodiversity conservation means delegation will cross jurisdictions, governance levels, and require the cooperation and coordination of disparate actors across governance levels.

Mirroring other areas of environmental governance, biodiversity governance has taken an increasingly networked form, where resources, authority and responsibility are widely dispersed among government and non-governmental actors. These complex actor networks must collectively set and implement the rules and norms that drive governance.<sup>16</sup> Successful cooperation and policy implementation among multiple actors requires clearly defined and mutually understood roles and responsibilities as well as clearly defined objectives.<sup>17</sup> All of these issues are closely linked to core principles of good governance, especially accountability, which concerns the allocation and acceptance of responsibilities and justification of decisions and actions. Legitimacy is another principle of good governance linked to authority, as it encompasses the validity of an actor's authority to govern, which does not solely originate in law, and the integrity with which it is exercised.<sup>18</sup>

Actors responsible for implementing policy need appropriate levels of authority to respond to drivers and take action. Dynamics between biodiversity institutions, economic institutions, and the political arena are of particular relevance. Biodiversity institutions do not operate in isolation from the broader policy context; they interact strongly and continually with many other institutional arrangements (e.g. agricultural development, water use).<sup>19</sup> These dynamics mean development agendas are often at odds with achievement of biodiversity conservation objectives, and the successful pursuit of both economic development and biodiversity conservation objectives has been elusive.<sup>20</sup> Biodiversity governance has also had little influence on other sectors or economic and land

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<sup>14</sup> Ring, I, "Biodiversity governance: adjusting local costs and global benefits" in T. Sikor (ed), *Public and Private in Natural Resource Governance. A False Dichotomy?* (Earthscan, 2008) 107-126 at pp 112-113

<sup>15</sup> Miteva, DA, Pattanayak, SK and Ferraro, PJ, "Evaluation of biodiversity policy instruments: what works and what doesn't?" (2012) 28(1) *Oxford Review of Economic Policy* 69 at 75

<sup>16</sup> Börzel, TA, "Networks: reified metaphor or governance panacea?" (2011) 89(1) *Public Administration* 49 p 154-155

<sup>17</sup> See eg Mattessich, PW and Monsey, BR, *Collaboration: what makes it work. A review of research literature on factors influencing successful collaboration* (Wilder Research Centre, Saint Paul, 1992) p 24; see also Hill, M and Hupe, P, *Implementing Public Policy: Governance in Theory and in Practice* (SAGE Publications, London, 2002) p 151

<sup>18</sup> Lockwood, M, "Good governance for terrestrial protected areas: A framework, principles and performance outcomes" (2010) 91(3) *Journal of Environmental Management* 754 at 758

<sup>19</sup> Paavola, J, Gouldson, A and Klavánková-Oravská, T, "Interplay of actors, scales, frameworks and regimes in the governance of biodiversity" (2009) 19(3) *Environmental Policy and Governance* 148 at 151

<sup>20</sup> McShane, TO et al, "Hard choices: Making trade-offs between biodiversity conservation and human well-being" (2011) 144(3) *Biological Conservation* 966 at 967

use policies, which often have goals that contravene biodiversity conservation objectives.<sup>21</sup> The deep involvement of the state in subsidising and actively pursuing development, often at the expense of ecological sustainability, has a long history in Australia.<sup>22</sup> All of this suggests authority to conserve biodiversity is complicated and weakened by confrontations with strong economic and political drivers, a question explored in each of the Australian landscapes in this study.

The aim of this study was to analyse biodiversity conservation policies in two contrasting Australian landscapes, with a strong focus on how authority and responsibility are determined and allocated. As biodiversity conservation activities move beyond a species focus to concentrate on landscapes, the complexity of these settings requires clear attention to authority and responsibility. Little attention has been paid to date to comprehensive analyses of these attributes with respect to biodiversity. This paper combines an analysis of policies-on-paper, accessed through application of a novel linguistic tool, with analysis of policies-in-practice, accessed through in-depth interviews. The findings provide a firm basis for policy design as well as an effective mixed methodology suitable for further policy analysis efforts.

## 2 Case studies and the governance context

Two case study regions with significant biodiversity features, the Tasmanian Midlands and the Australian Alps (Figures 1 and 2), provided the testing ground for examining how authority and responsibility are determined and allocated in Australian biodiversity policy. Before turning to the case studies, a brief overview of Australia's system of government provides context for the discussion of responsibility, accountability and authority. Australia's decentralised model of federalism means state governments retain primary constitutional and legal responsibility for land use decisions and for managing land, water, and biodiversity. Section 51 of the *Constitution* confers only a limited set of concurrent legislative powers to the Australian Government.<sup>23</sup> Although these 'heads of power' do not include the environment, the federal government has expanded its power through case law,

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<sup>21</sup> Paloniemi, R et al, "Biodiversity conservation across scales: lessons from a science-policy dialogue" (2012) 2(0) Nature Conservation 7 at 10

<sup>22</sup> Walker, KJ, "Australia's construction of environmental policy" in K. Crowley and K. J. Walker (eds), *Environmental policy failure: the Australian story* (Tilde Publishing, 2012) 11-28 at 13-20

<sup>23</sup> Bates, GM, *Environmental law in Australia* (8th ed, LexisNexis Butterworths, Chatswood, 2013) pp 130-155

development of cooperative arrangements, and increased financial dominance.<sup>24</sup> Empowered by the external affairs power, the federal government enacted the EPBC Act, which lists nationally and internationally threatened and endangered flora, fauna, ecological communities and heritage places, all defined as matters of national environmental significance (MNES).

Though constitutional change is difficult in Australia, constitutional advancement has occurred through case law and administration.<sup>25</sup> Australia's brand of federalism has become increasingly centralised.<sup>26</sup> The Australian Government plays a significant role in setting the agenda and guiding policy, although the states still retain much of the authority and responsibility for implementation, including the development and implementation of biodiversity policy. The federal government has remained reluctant to expand its powers too far without strong public support, however, as moves that are not well supported tend to attract criticism and litigation from the states.<sup>27</sup> Successful collective action rests on frequent negotiations across jurisdictions and actors, making consistency and progress difficult to achieve.<sup>28</sup> The complexity of these nested arrangements suggests a need for clarity around who does what and who has the power to act, if collective action is to be successful.

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<sup>24</sup> Johnston, J, "The Constitution and the Environment" in H. P. Lee and Peter A Gerangelos (eds), *Constitutional advancement in a frozen continent : essays in honour of George Winterton* (Federation Press, 2009) 79-104 at pp 85-95

<sup>25</sup> Lee, HP and Gerangelos, PA (eds), *Constitutional advancement in a frozen continent: essays in honour of George Winterton* ((Federation Press, 2009).

<sup>26</sup> Walker, GdQ, "The Seven Pillars of Centralism: Engineers' Case and Federalism" (2002) 76 *Australian Law Journal* 678 at 690

<sup>27</sup> Bates, n 23 at p 133

<sup>28</sup> Harding, R, Hendriks, CM and Faruqi, M, *Environmental decision-making: exploring complexity and context* (Federation Press, Annandale, 2009) at p 91

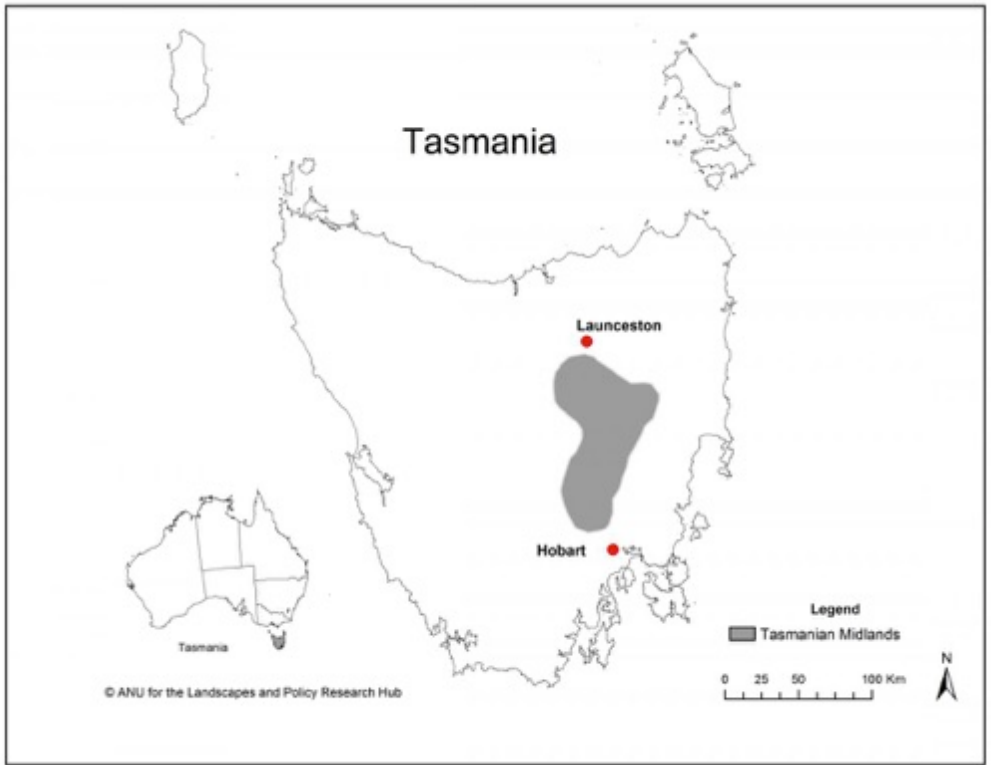


Figure 1 Location of the Tasmanian Midlands

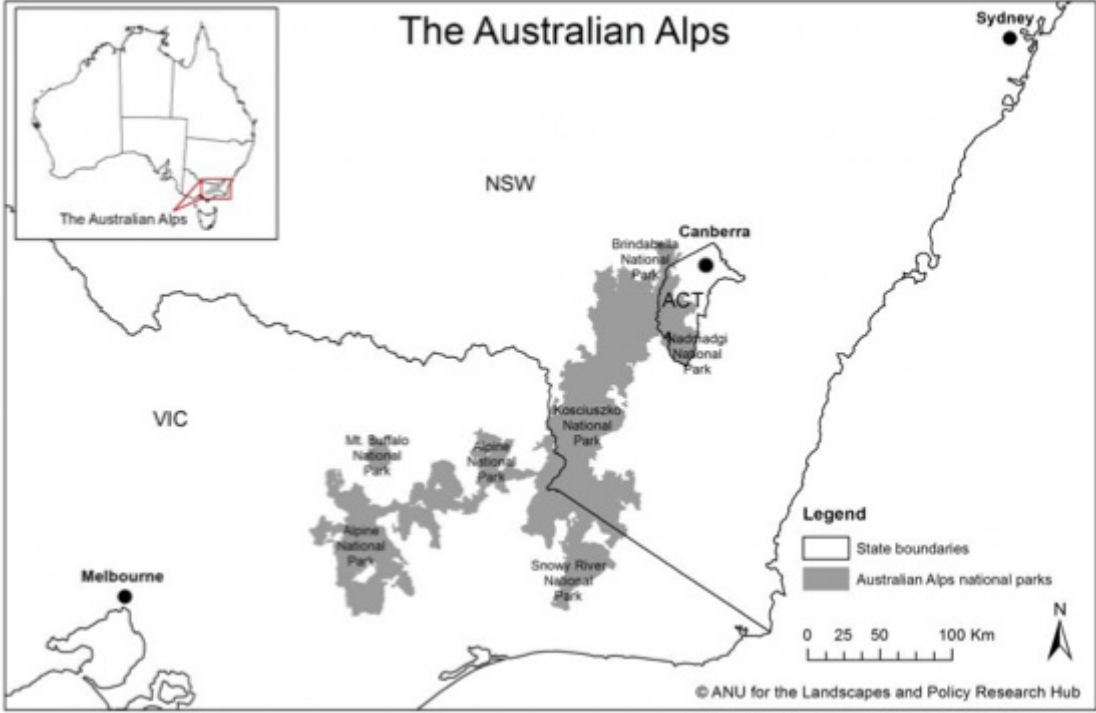


Figure 2 Location of the Australian Alps

## 2.1 Tasmanian Midlands

The Tasmanian Midlands has been listed as one of Australia's 15 national biodiversity hotspots for its high level of endemism under threat.<sup>29</sup> The Midlands is one of the oldest continually grazed and first areas in Australia to be cleared for agriculture.<sup>30</sup> The landscape is a mosaic of farmland and native vegetation, primarily grasslands and dry eucalypt forest.<sup>31</sup> Native vegetation is less than 30 per cent of its original extent, fragmented, and often in poor condition.<sup>32</sup> Land is predominantly privately owned, thus private landholders manage most of this remnant native vegetation. Less than 2 per cent of the region is in public reserves,<sup>33</sup> so conservation in this landscape requires the collective action of individual landholders. Biodiversity governance has taken a highly networked form, with landholders, government, non-governmental organisations, and regional groups all playing important roles.

An irrigation scheme under development in the region provides the backdrop to the documents analysed in this article. The federal government requested that a strategic assessment be conducted on the Midlands Water Scheme (MWS) to assess its impact on Lowland Native Grasslands listed under the EPBC Act. The assessment area includes 59 per cent of the remaining federally listed grasslands on private land,<sup>34</sup> but it does not deal with biodiversity attributes not listed under the Act. In this degraded landscape, the potentially dramatic increase in land under irrigation could be a significant driver of land use change and biodiversity decline.

## 2.2 Australian Alps

The Australian Alps is a mountain range about 500 km long spanning the states of Victoria and New South Wales (NSW) and the Australian Capital Territory (ACT). Reserved as a series of national parks, its land tenure is secure; but its nationally and internationally significant biodiversity values, including many endemic alpine and subalpine species, still

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<sup>29</sup> Department of the Environment, *Biodiversity Hotspots* (Commonwealth of Australia), <<http://www.environment.gov.au/biodiversity/conservation/hotspots/national-biodiversity-hotspots>>.

<sup>30</sup> Mooney, C, Defenderfer, D and Anderson, M, *Reasons why farmers diversify: Northern Midlands, Tasmania* (Rural Industries Research and Development Corporation, Barton, 2010) p 25

<sup>31</sup> Cowell, S, *Landscape Report: The Midlands Conservation Action Plan* (Tasmanian Midlands Landscape Project, Hobart, 2008) p 13

<sup>32</sup> Sattler, P and Creighton, C, *Australian Terrestrial Biodiversity Assessment 2002* (National Land and Water Resources Audit, Land & Water Australia, Canberra, 2002) p 179

<sup>33</sup> Cowell, n 31 at p 3

<sup>34</sup> DPIPWE, *Strategic Impact Assessment Report* (DPIPWE, Hobart, 2010) p 52



face threats from invasive plants and animals, climate change, and dwindling public resources and support for biodiversity conservation.<sup>35</sup>

Under the Australian Constitution land management responsibilities, including national park management, rest with the states and territories. Parks Victoria, the New South Wales National Parks and Wildlife Service (NPWS) and Australian Capital Territory Parks and Conservation Service are the state and territory agencies with primary responsibility for land management in the bioregion. Cooperation across three jurisdictions, along with the federal government, is through the Australian Alps National Parks Cooperative Management Program, which has operated under a memorandum of understanding (MOU) since 1986.<sup>36</sup> The Australian Alps Liaison Committee (AALC) is the central coordinating body under the Program, with responsibility for preparing the strategic plan required by the MOU. The MOU has proven strong and flexible enough to survive political and funding cycles, major fire events, and some contentious management issues like cattle grazing in the Victorian Alps.<sup>37</sup>

### 3 Methods

This research adopted a dual methodological focus of analysing policies-on-paper and policies-in-practice, acknowledging institutions evolve over time and often deviate substantially from their documented origins.<sup>38</sup> A mixed method approach based on linguistic analysis of policy documents and semi-structured interviews were used as complementary methods to access policies on paper and in practice, respectively.

Linguistic analysis relied on the Institutional Grammar Tool (IGT) to analyse and understand the structure and content of institutional arrangements.<sup>39</sup> Analysing the linguistic content of policies helps uncover messages to the groups targeted by the policies, and analysis of institutional design may reveal important aspects of the political and institutional context.<sup>40</sup> The method aligns with the complex characteristics of biodiversity

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<sup>35</sup> Lockwood, M et al, 'Biodiversity governance and social-ecological system dynamics: transformation in the Australian Alps' (2014) 19(2) *Ecology and Society* 13 <<http://www.ecologyandsociety.org/vol19/iss2/art13/>>.

<sup>36</sup> Crabb, P, *Managing the Australian Alps: a history of cooperative management of the Australian Alps national parks* (Australian Alps Liaison Committee and Australian National University, Canberra, 2003)

<sup>37</sup> Crabb, P and Dovers, S, "Managing natural resources across jurisdictions: Lessons from the Australian Alps" (2007) 14(4) *Australasian Journal of Environmental Management* 210 at 214-215

<sup>38</sup> Ostrom, E, *Understanding institutional diversity* (Princeton University Press, Princeton, 2005) pp 19-22

<sup>39</sup> Crawford, S and Ostrom, E, "A Grammar of Institutions", *Understanding institutional diversity* (Princeton University Press, 2005) 3-31 p 137

<sup>40</sup> Mondou, M and Montpetit, É, "Policy Styles and Degenerative Politics: Poverty Policy Designs in Newfoundland and Quebec Mondou/Montpetit: Policy Styles and Degenerative Politics" (2010) 38(4) *Policy Studies Journal* 703 at 704

policy.<sup>41</sup> By providing a structured method to identify and categorise institutional statements, researchers can aggregate the minutia of policy to reveal practically and theoretically relevant relationships.<sup>42</sup>

Application of the IGT generates a detailed description of what actions are prescribed, permitted or obliged, who can participate, and under what conditions.<sup>43</sup> This provides a structured way of understanding the intended target of policies and how policies prescribe opportunities and constraints. After parsing and coding individual statements, the data can be analysed individually, as a whole, and as nested groups.<sup>44</sup> At the same time, the tool is limited in its ability to access the often tacit and habituated elements of institutions, as they are not always expressed in linguistic statements that are easily parsed and analysed with this empirical tool. This limitation is well known<sup>45</sup>; however, few studies to date have tested or supported the IGT with complementary methods such as interviews.<sup>46</sup> Further, the IGT has so far only been tested in the US and Pakistan.

As such, this study relied on in-depth interviewing to provide insight into how policies are understood and implemented in practice. Crawford and Ostrom<sup>47</sup> highlighted that institutional statements, as identified and analysed using the IGT, only matter if the target and users of the policy know and use them, and just because a statement can be analysed with the tool does not indicate the statement is meaningful in a practical sense. Using the tool alongside interviews aimed at understanding institutions in practice helped shed further light on authority, responsibility and associated processes of biodiversity governance in the study areas.

### 3.1 Applying the Institutional Grammar Tool

The IGT was applied according to the empirical guidelines of Basurto et al.<sup>48</sup> and including refinements made by Siddiki et al.<sup>49</sup> This was achieved by organising institutional

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<sup>41</sup> Basurto, X et al, "A Systematic Approach to Institutional Analysis: Applying Crawford and Ostrom's Grammar" (2010) 63(3) Political Research Quarterly 523 at 534

<sup>42</sup> Siddiki, S et al, "Dissecting Policy Designs: An Application of the Institutional Grammar Tool" (2011) 39(1) Policy Studies Journal 79 at 98

<sup>43</sup> Crawford and Ostrom, n 39 at 139-140

<sup>44</sup> Basurto et al, n 41, p 528

<sup>45</sup> See for eg Crawford and Ostrom, n 39 at 139; Siddiki et al, n 42 at 98

<sup>46</sup> Siddiki, S, Basurto, X and Weible, CM, "Using the institutional grammar tool to understand regulatory compliance: The case of Colorado aquaculture" (2012) 6(2) Regulation & Governance 16; Kamran, MA and Shivakoti, GP, "Comparative institutional analysis of customary rights and colonial law in spate irrigation systems of Pakistani Punjab" (2013) 38(5) Water International 601

<sup>47</sup> Crawford, S and Ostrom, E, "A Grammar of Institutions" (1995) 89(3) The American Political Science Review 582

<sup>48</sup> Basurto et al., n 41 at 526

statements into five subcomponents: Attribute (A), Deontic (D), aim (I), Condition (C), Or else (O) (alternatively called ADICO)<sup>50</sup> and the object (B) proposed by Siddiki et al<sup>51</sup>. (Table 1). The tool was only applied to portions of selected policy documents (see below) consisting of institutional statements with the minimum AIC syntax.<sup>52</sup>

The subcomponents were modified as indicated in Table 1. In this study the Deontics of ‘will’ and ‘must’ are differentiated for the first time. Deontics draw on the linguistic concept of mode, which describes a speaker’s attitude toward a situation. The words ‘will’ and ‘must’ are qualitatively different in English, expressing different degrees of certainty. ‘Must’ indicates a strong obligation,<sup>53</sup> whereas ‘will’ hedges future actions and can portray a lack of confidence in the policy’s assertions.<sup>54</sup> The Condition field was expanded in this study to include ‘why’ elements, along with when, where, and how (Table 1). This accommodated language about why a particular action would be taken, e.g. “due to the international and national significance of many of its values”.<sup>55</sup>

**Table 1. Subcomponents of the IGT syntax including the modifications applied in this study**

Sub-component*	Description	Modification
Attribute (A)	Individual or organization to which it applies	---
Deontic (D)	What is permitted, obliged, or forbidden (e.g. must, may, shall, shall not, will)	‘Will’ and ‘must’ coded separately, previously both coded as ‘must’
aim (I)	Goal or action to which D refers	---
Condition (C)	When, where, how or why the aim applies	‘Why’ added to ‘when’, ‘where’, and ‘how’
Or else (O)	Punitive action if rule is not adhered to (e.g. fine)	---
object (B)	Inanimate or animate part of a statement that receives the action (e.g. plan or policy)	Introduced to resolve ambiguities in grammar and allow for a clearer distinction between actor and what actor is acting upon

\* This article maintains the naming conventions of each component throughout, e.g. ‘aim’ and ‘object’.

Sources: Crawford and Ostrom (1995), see n 47; Crawford and Ostrom (2005), see n 39; Basurto et al (2010), see n 41; Siddiki et al (2011), see n 42.

<sup>49</sup> Siddiki et al., n 42 at 88

<sup>50</sup> Crawford and Ostrom, n 29 at 140-152

<sup>51</sup> Siddiki et al., n 42 at 85

<sup>52</sup> Basurto et al., n 41 at 526; Siddiki et al., n 42 at 88

<sup>53</sup> Payne, TE, Describing morphosyntax: A guide for field linguists (Cambridge University Press, Cambridge, 1997) p 246

<sup>54</sup> Dunmire, PL, "The rhetoric of temporality" in Barbara Johnstone and Christopher Eisenhart (eds), Rhetoric in Detail: Discourse Analyses of Rhetorical Talk and Text (John Benjamins Publishing, 2008) vol 31, 81-111 at pp 94-96

<sup>55</sup> NPWS, Plan of Management Kosciuszko National Park (Department of Environment and Conservation NSW, Sydney South, NSW, 2006) p 46

The grammatical syntax of the IGT is used to identify three types of institutional statements: shared strategies, rules and norms (Table 2). This provides insights into the (often tacit) assumptions about how institutions are likely to guide behaviour to help determine how policy choices are made. With shared strategies, actors have mutual understandings and stable preferences that they pursue and optimise. Norms rely on shared group perceptions with behaviour driven by identity and a sense of what is proper and improper behaviour in a particular situation.<sup>56</sup> Rules focus on prescribing, allowing, or requiring actions and knowing there are consequences for non-compliance. Rules have the strongest effect on behaviour, provided the rules are perceived as legitimate.<sup>57</sup>

Four biodiversity policy documents – two for each case study – central to biodiversity conservation in these regions were selected for analysis using the IGT (Table 3). They were selected in consultation with two key informants with in-depth knowledge of biodiversity conservation in the case study regions. Crucially, all four documents are current, in use, influential in decision-making for conservation and at a landscape-scale, and have a statutory basis.<sup>58</sup>

**Table 2. Description of institutional statements**

Type of statement	Description	Sub-components
Shared strategies	Statements that try to create mutual understandings as a way to guide behaviour. Their effectiveness relies on stable actor preferences and pursuing and optimizing these preferences.	AIC / ABIC
Norms	Statements that rely on shared group perceptions of what is proper and improper behaviour in a particular situation. They are most effective when actors behave in ways that they believe are right, proper, or consistent with their identity.	ADIC / ABDIC
Rules	Statements and actions that are inconsistent with these prescriptions are rendered ineffective or may be sanctioned by actors with the authority to impose punishment.	ADICO / ABDICO

*Sources:* Crawford and Ostrom (1995), see n 47; Young OR, *The Institutional Dimensions of Environmental Change: Fit, Interplay and Scale* (MIT Press, Cambridge, 2002) pp 32-37; March JG and Olsen JP, “The Institutional Dynamics of International Political Orders” (1998) 52(4) *International Organization* 943 at 949.

The two Midlands policies analysed relate to the irrigation scheme (Midlands Water Scheme – MWS). The first is the Program Report for the MWS,<sup>59</sup> prepared to address impacts in the construction and operation of the irrigation scheme. This document, prepared

<sup>56</sup> Crawford and Ostrom, n 47 at 583

<sup>57</sup> Siddiki et al, n 46 at 170

<sup>58</sup> A small number of policy documents was selected given application of the IGT is time consuming, particularly for large documents.

<sup>59</sup> DPIPWE, *Strategic Assessment for the Water Access Program Midlands Water Scheme, Tasmania, Program Report: Environment Protection and Biodiversity Conservation Act 1999*, DPIPWE No (2011).

by the Tasmanian Government, builds on the strategic environmental impact assessment,<sup>60</sup> which identified high risks to listed grassland communities. The Program Report outlines how the state of Tasmania will meet its commitment to no clearance and conversion of listed grasslands (hereafter ‘program commitments’), and the federal Minister for the Environment’s approval under the EPBC Act is contingent on that commitment being met. Although the Tasmanian Department of Primary Industries, Parks Water & Environment (DPIPWE) is responsible for this commitment, Tasmanian Irrigation (a state-owned corporation) will operate the Scheme; and landholders and pre-qualified consultants will play important roles at the property scale. The federal Minister for the Environment approved the Program Report under Part 10 of the EPBC Act. This section of the EPBC Act (i.e., the enabling legislation) was the second policy analysed for the Midlands case study.

For the Australian Alps, the two documents selected focused on the management of the parks. The Plan of Management for Kosciuszko National Park (PoM)<sup>61</sup> is a statutory document expressing how the NPWS will meet its conservation and management responsibilities. The Alps Strategic Plan,<sup>62</sup> the second Alps document analysed, guides actions of the cooperative program across all the jurisdictions, but is non-statutory (Table 3).

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<sup>60</sup> DPIPWE, n 34

<sup>61</sup> NPWS, n 55

<sup>62</sup> AALC, Strategic Plan 2012–2015 for the Australian Alps national parks Co-operative Management Program (Australian Alps National Parks Co-operative Management Program, Jindabyne, 2011)

**Table 3. Documents analysed with the IGT in this study**

<b>Policy document</b>	<b>Study area</b>	<b>Lead agency</b>	<b>Statutory/Non-statutory</b>	<b>Purpose of policy</b>	<b>Content of policy</b>
MWS - Program Report*	Tasmanian Midlands	DPIPWE (Tasmanian Government)	Statutory (Part 10 of the EPBC Act)	Provides means to meet program commitment to no clearance and conversion of lowland native grasslands under the Scheme.	Outlines roles, responsibilities, and actions to mitigate impacts of construction and operation of the MWS on MNES.
Part 10 EPBC Act (Strategic Assessments)	Tasmanian Midlands	Department of Environment (Australian Government)	Statutory	Legal framework to assess impacts on MNES. Section 10 provides the enabling legislation for conducting strategic assessments.	The Act provides authority to the Australian Government to approve the MWS as outlined in the Program Report.
Plan of Management (PoM) for Kosciuszko National Park (NP)	Australian Alps	NPWS (NSW Government)	Statutory (Part 5 of the <i>National Parks and Wildlife Act (NSW) 1974</i> )	Provides an assessment and broad scope of work for maintaining or improving the condition of the values of the NP, including biodiversity.	Identifies priority areas and management actions, including those related to significant biodiversity attributes, over the short, medium and longer term.
Strategic Plan 2012–2015 for the Australian Alps Cooperative Management Program	Australian Alps	AALC (cross-jurisdictional)	Non-statutory	This 3-year plan provides a framework for achieving the objectives of the MOU and guides the priorities of the cooperative program.	Outlines the framework for implementation of cooperative management, including biodiversity conservation. There is no shared legislation or management plan, so this is the only plan covering the whole bioregion.

\* Analysis is only provided for Part 5, the main section of the report containing institutional statements.

### 3.2 Conducting and analysing the interviews

A total of 50 semi-structured, in-depth interviews were conducted. Interview participants were selected using purposive sampling<sup>63</sup> to target individuals with an implementation role in the organisations involved in the landscape-scale biodiversity conservation policies selected for analysis (Table 4). An initial list of participants was identified through research and policy contacts in each region and within the federal government. Additional participants were determined through snowball sampling.<sup>64</sup>

**Table 4. Categories of interview participants**

Category	Midlands (n)	Alps (n)
Australian Government	7	2
State or territory government	7	17
Landholders & peak farming body	5	N/A
NGOs and Regional Natural Resource Management Groups*	4	N/A
Other interests (e.g. researchers, irrigators, hydro)	5	3
<b>Total</b>	<b>28</b>	<b>22</b>

\* These groups facilitate planning, delivery and implementation of integrated natural resource management in the 54 catchments or bioregions in Australia.

In terms of implementation roles, for the Midlands policies participants needed to have direct experience with strategic assessment, irrigation development, and/or implementation of the EPBC Act. Participants included the lead author of the MWS Program Report, providing a unique opportunity to explore of how the findings from applying the IGT to this document aligned (or not) with the author's original intention in crafting the report. In the Australian Alps, interviews were conducted with NPWS personnel (for the Kosciuszko PoM) and participants in the cooperative program (for the Strategic Plan).

Importantly, these interviews were conducted as part of a comprehensive diagnostic exploring institutional fit with the problem of biodiversity conservation,<sup>65</sup> which extended well beyond the policy documents analysed using the IGT. The interviews thus provided a rich insight into decision-making in practice. This is the first study to use the IGT independent of the Institutional Analysis and Development (IAD) Framework,<sup>66</sup> using instead

<sup>63</sup> Babbie, ER, *The practice of social research* (12th ed, Wadsworth Cengage Learning, Belmont, 2010) pp 195-196

<sup>64</sup> Atkinson, R and Flint, J, "Sampling, snowball: accessing hidden and hard-to-reach populations" in Robert L. Miller and John D. Brewer (eds), *The A-Z of Social Research* (SAGE Publications, 2003) 275-280 at p 275

<sup>65</sup> Young, OR, "Building regimes for socioecological systems: Institutional diagnostics" in Oran R Young, Leslie A King and Heike Schroeder (eds), *Institutions and environmental change: principal findings, applications, and research frontiers* (MIT Press, 2008) 115-144

<sup>66</sup> Ostrom, n 38 at 1-27

an original conceptual framework based on the diagnostic approach.<sup>67</sup> Researchers have suggested the tool can and should be used with frameworks other than the IAD,<sup>68</sup> but this had not been done previously.

The interview transcripts were coded using a cross-case approach to thematic analysis,<sup>69</sup> focusing on roles, responsibilities, and authority. This set of a priori codes guided the first level of analysis, followed by a second level of analysis where emergent themes were identified by coding patterns in the data and then synthesised into themes across cases.<sup>70</sup> These results were combined with those from the linguistic analysis to develop a composite picture of policies-in-practice and -on-paper.

#### **4 Responsibility, accountability and authority for biodiversity conservation in an agricultural landscape**

Analysis of the policy documents and the diagnostic interview revealed a strong reliance on norms, a lack of clarity about responsibilities, and issues regarding accountability and authority in the Midlands agricultural landscape. A perceived and actual lack of authority combined with procedural rather than outcome-focused policy design raises interesting implications for biodiversity conservation and the policy adjustments necessary to promulgate it.

Norms dominated the Midlands documents, with 89% and 84% of the statements analysed using the IGT being norm-based, rather than strategy- or rule-based (Table 2, Table 5). Virtually no rule-based statements were evident. A norms-based, 'soft' approach to policy implementation was also evident through the Deontic and alms analyses using the IGT (Table 1, Table 5 rows 7 & 8). The word 'will' was the dominant Deontic in one of the Midlands documents; a word suggesting uncertainty about future implementation.<sup>71</sup> Even when the stronger Deontic 'must' appeared dominant from analysis of the EPBC Act it was accompanied by weak alms (e.g. provide, consider, facilitate) (Table 5). Taken together with the dominance of norms, the coding highlights institutional arrangements built on soft

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<sup>67</sup> Clement, S et al, "A diagnostic framework for biodiversity conservation institutions" (2015) (under review) *Pacific Conservation Biology*

<sup>68</sup> See eg Siddiki et al, n 42 at 98-99

<sup>69</sup> Babbie, n 63 at 395-406

<sup>70</sup> Creswell, JW, *Qualitative inquiry and research design: choosing among five approaches* (3rd ed, SAGE Publications, Thousand Oaks, 2013) pp 185-200

<sup>71</sup> Dunmire, n 54 at 94-96



approaches, underpinned by shared understanding of what is proper or improper behaviour, rather than sanctions and rewards.

**Table 5. Summary of coding results for each document**

Component	Tasmanian Midlands Program Report	Part 10 EPBC Act	PoM for Kosciuszko NP	Alps Strategic Plan
Number of Shared Strategies	10 (10%)	5 (16%)	680 (69%)	122 (51%)
Number of Norms	90 (89%)	27 (84%)	310 (31%)	119 (49%)
Number of Rules	1 (1%)	0	0	0
Total Number of Statements	101	32	990	241
Most common Attributes	<ul style="list-style-type: none"> <li>• Tasmanian Government (32) [21 implied]</li> <li>• Water entity* (30) [23 implied]</li> <li>• Australian Government (17) [8 implied]</li> <li>• DPIPWE (9) [4 implied]</li> </ul>	<ul style="list-style-type: none"> <li>• Minister for the Environment (26) [8 implied]</li> <li>• All actors to which the Act applies [default - implied] (5)</li> </ul>	<ul style="list-style-type: none"> <li>• NPWS (924) [914 implied]</li> <li>• Lessees or licensees in the ski resort areas (22)</li> </ul>	<ul style="list-style-type: none"> <li>• Program Manager (43) [38 implied]</li> <li>• Reference groups (35) [30 implied]</li> <li>• AALC (29) [14 implied]</li> </ul>
Most common aims	<ul style="list-style-type: none"> <li>• Monitor (31)</li> <li>• Identify (8)</li> <li>• Approve (6)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide (6)</li> <li>• Apply (4)</li> <li>• Act (3)</li> <li>• Consider (3)</li> </ul>	<ul style="list-style-type: none"> <li>• Manage (70)</li> <li>• Ensure (59)</li> <li>• Provide (40)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide (14)</li> <li>• Advise (9)</li> <li>• Facilitate (9)</li> </ul>
All Deontics	<ul style="list-style-type: none"> <li>• Will (52)</li> <li>• Must (26) [23 implied]</li> <li>• May (9) [4 of which implied]</li> <li>• Must not (2) [both implied]</li> </ul>	<ul style="list-style-type: none"> <li>• Must (12)</li> <li>• May (9)</li> <li>• Must not (6)</li> </ul>	<ul style="list-style-type: none"> <li>• Will (149) [6 implied]</li> <li>• May (74) [42 implied]</li> <li>• Must not (37) [26 of which implied]</li> <li>• Must (26) [21 implied]</li> <li>• Will not (12) [1 implied]</li> <li>• Do not (5)</li> <li>• Should (4)</li> </ul>	<ul style="list-style-type: none"> <li>• Will (90) [20 implied]</li> <li>• May (20)</li> <li>• Must (5) [3 implied]</li> <li>• Should (3)</li> <li>• Will not (1)</li> <li>• Would (1)</li> </ul>

• This is presently Tasmanian Irrigation, but the Tasmanian Minister for the Environment may declare another entity responsible to the Scheme in the future. The report thus uses the broader term 'water entity' to ensure the policy still applies even if the responsible party changes.

Interviewees consistently confirmed a reliance on norms over rules in practice as well as on paper as revealed by the IGT analysis. For example in interviews, when asked about the source of their authority to conserve biodiversity, both government and non-government members said it was through working with landholders to develop shared strategies and trust. Statutory authority was secondary. As one Tasmanian participant put it, the general sense was regulation would not protect the grasslands. *It's actually about appropriate management that implements biodiversity conservation into those systems. With trust and goodwill, working with the landholders.* Many interviewees feared actions over the previous few years had undermined trust, including inadequate consultation with the State government and landholders regarding federal listing of the grasslands under the EPBC Act and the sharp political divide between conservation and use of resources in Tasmania (i.e. 'greenies' versus industry).

When asked about the high number of norm statements in the Midlands documents, one interviewee noted: *if you want to get to the point where you've got 80-90% rules, versus, 10% norms, there's a heap of up-front consultation you've got to go through to get agreement on understanding, and to get agreement on those outcomes.* The aforementioned tight timelines accompanying the Program Report made such negotiations difficult, as did the State government's reluctant participation in the strategic assessment process, large because it was a condition of federal funding. Norms have weaker effects on behaviour than rules, and compliance is greatest with 'must' statements.<sup>72</sup> If compliance is a desired end point, as it is with the Program Report, then a reliance on norms, rather than rules with sanctions, may not lead to this end point. In the case of the Program Report, non-compliance could compromise the program commitments.

This 'soft' approach with its reliance on norms was also evident through implied rather than explicit Attributes (i.e. an individual or organisation) (Table 1, Table 5). Rather than explicitly defining responsible parties in each statement, both of the Midlands documents were dominated by implied Attributes. Frequent use of passive voice meant implication was not always straight forward, though the surrounding text helped identify the Attribute. This task was challenging, however, for the Program Report, with the responsible parties clearly identified in one part of the document, but difficult to discern in the monitoring and implementation section. Clear links to program commitments

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<sup>72</sup> Ostrom, n 38 at 152; Siddiki et al, n 46 at 180

in the latter section were also lacking. This made it difficult to clearly delineate responsibilities and roles and determine who was accountable for what (and to whom).

Clarity of roles and responsibilities also emerged as an issue in the interviews. Responsibilities for monitoring and evaluation were especially problematic. For the Program Report, now in the implementation phase, roles and responsibilities are still being negotiated. Some participants were concerned that politically driven, short timeframes prevented sufficient negotiation and consultation prior to submitting the Program Report for Ministerial approval. Interviewees commented that Tasmanian Irrigation has been hesitant to take responsibility for landscape-level monitoring of the impacts of irrigation development on biodiversity, as the state conducted the strategic assessment on their behalf and attributing the source of biodiversity impacts at that scale is difficult. While the State has accepted responsibility for monitoring, several interviewees highlighted its reluctance to do so, especially in the absence of adequate resources.

Part of the weakness of the Program Report can be attributed to the limitations of the current EPBC Act that guided the crafting of the Program Report and guides biodiversity conservation more generally, formally limiting federal involvement to MNES. The narrow scope of the EPBC Act has been called the 'dark side' of the Act's 'virtue' and is the result of the aforementioned tensions of cooperative federalism and the desire to constrain federal power.<sup>73</sup> While strategic assessment has been posed as a solution to narrow scope of assessment under the EPBC Act and a key strategy in shifting to landscape scale,<sup>74</sup> the objects and content of the Act remains focused on MNES.

A strong focus on policy process rather than policy outcomes was evident from both the IGT and diagnostic interview analyses. Analysis of statements in the two Midlands policies regarding 'when, where, how and why the aim applies' (Table 1 row 5: Condition sub-component)<sup>75</sup> revealed emphasis on *how* the aim should be achieved, generally a process, instead of *when* or *where*. This applied to all documents, even Part 10 of the EBPC Act, which specified processes for entering into agreements to conduct strategic assessments in detail, for example:

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<sup>73</sup> Godden, L and Peel, J, "The Environment Protection and Biodiversity Conservation Act 1999 (Cth): Dark Sides of Virtue" (2007) 31(1) Melbourne Law Review 106 at 134-142

<sup>74</sup> Hawke, n 6 at 2

<sup>75</sup> These results are not included in Table 5 because of their length and discursive nature.

*for the assessment of other certain and likely impacts of actions under the policy, plan or program if: (a) the actions are to be taken in a State or self governing Territory; and (b) the appropriate Minister of the State or Territory has asked the Minister administering this section to ensure that the assessment deal with those other impacts to help the State or Territory, or an agency of the State or Territory, make decisions about the actions...*

This single Condition statement continues with several more sub-Conditions that all are part of processes for establishing these agreements. Analysis of the oBject sub-component<sup>76</sup> of the IGT (Table 1, row 6) also suggests an emphasis on process rather than outcomes, with Part 10 of the EPBC Act having written comments, advice, or agreements as oBjects. For the Tasmanian Midlands Program Report, oBjects frequently referred to program requirements, such as Farm Water Access Plans (FWAPs), monitoring, and auditing procedures.

Interviewees corroborated the procedural focus of the IGT findings, and married this with concerns regarding accountability. They noted that processes such as FWAPs were in place to achieve the program commitments, but these processes were faltering in the absence of clear accountabilities. This was a persistent problem for the MWS and its associated policies, the Program Report and strategic assessment: *If you don't have clear accountability and don't have clear objectives, then it doesn't matter what tool will apply, it will all just be a bit of a mess* (Australian Government participant). Problems with accountability were noted in many interviews: *It's not clear what has to be reported, who has to report it, what the annual report is – and I just don't think it's as good as what we normally do* (Tasmanian Participant).

Many interviewees perceived either a lack of authority or a lack of willingness to deploy authority to protect the Midlands landscape from further degradation. Although most interviewees were aware of the Tasmanian Government's commitment to no clearance or conversion of listed grasslands, concerns centred on the fact that governmental authority was linked only to grasslands listed under the EPBC Act and not to conserving ecosystems: *They'll leave that little bit of grassland. Everything else around it can be cleared and converted to beautiful poppies [under irrigation]. It's useless* (Tasmanian Participant). Australian Government participants also acknowledged the narrowness of their authority, as

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<sup>76</sup> Like the Condition data, the oBject data were also discursive and extensive and hence are not included in Table 5.

discussed previously in terms of the narrow scope and associated narrowness of responsibilities under the EPBC Act. In absence of legislative reform, looking to the EPBC Act for authority is insufficient for landscape-scale efforts, requiring that authority be gained and maintained through other means, such as through the acceptance and support of stakeholders.<sup>77</sup>

A constraint on authority in the Program Report is ministerial discretion. With dozens of pieces of legislation beyond the EPBC Act applying to the construction and operation of the MWS, several ministers are involved, each with their own powers. The use of the word 'may' and other hedging language was: *partly because we can't fetter our Minister. We can't put another piece of policy in place that requires him to do something that, under his Act; he's got discretion over* (Tasmanian Participant). Whether that discretion would be used to act if monitoring mechanisms detected a problem was an open question for many participants, who thought the political will was in favour of development. The political pressure to ensure the Scheme was developed, and the sense by some participants that the Strategic Assessment was more a 'tick box' exercise, echoes problems elsewhere, where conservation policy may not only weaken under economic pressure, but be actively used to pursue a development agenda.<sup>78</sup>

An emphasis on procedure again emerged in discussions of authority. Two procedures at the heart of the Program Report are development of FWAPs for managing environmental impacts on individual farms, and landscape-scale monitoring to ensure these smaller scale impacts do not trigger cumulative ecological impacts at larger scales. It is still early in the implementation of the program, but weaknesses in the procedures were revealed early when the process of legislative approvals was not followed as outlined in the Program Report. Deviations at this early stage raised questions for some interviewees about whether the State or federal government would use this authority to ensure compliance with the Program Report. Although a few participants considered the federal government more willing to use command-and-control than the state, many participants remained uncertain about the strength of this will or the government's ability to exert authority early enough to avert significant impacts. Many participant concerns echoed those in the literature on

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<sup>77</sup> Lockwood, above n 18 at 758

<sup>78</sup> Apostolopoulou, E and Pantis, JD, "Development plans versus conservation: explanation of emergent conflicts and state political handling" (2010) 42(4) Environment and planning A 982 at 997

regulatory capture;<sup>79</sup> a problem made more acute by DPIPWE's dual role in primary industries and environmental conservation. This is consistent with critiques that government's deep involvement in fostering economic development shapes Australian environmental policy.<sup>80</sup>

This tension between wanting strong authority as well as a norm-based approach was evident from many interviews. As one interviewee noted: *I think it's quite schizophrenic actually, in the sense that some things it's all about what they [landholders] want, i.e. water for example...But then something like the grasslands listing, there was basically no consultation at all, it was just like 'we're listing it and that's it'.* This highlights the Janus face of biodiversity governance, where, despite the rhetoric, governance-beyond-government is not necessarily more democratic<sup>81</sup>.

While rules may be a less viable source of compliance in network governance situations like the Midlands,<sup>82</sup> regulation can provide an important safety net for biodiversity as a public good.<sup>83</sup> Participants found weaknesses in this safety net, based on issues of responsibility and authority, making them uncertain about the future of biodiversity conservation in the Midlands. To remedy this, some wanted a broader statutory framing of the biodiversity values to be protected (e.g. ecological processes, action on the causes of loss) and formal allocation of responsibilities and authority that is both broader and stronger.

It is perhaps unsurprising that responsibilities and authority in this landscape, with respect to biodiversity conservation, are unclear and contested. This is not just because there was little time for negotiation amid strong political drivers, but also because of Australia's complex system of cooperative federalism.<sup>84</sup> There are many implications of this system for environmental governance; but for the Midlands the contested area of state sovereignty and policy implementation is further complicated in an era of increasing federal influence, especially through financial means, as in other Australian jurisdictions.<sup>85</sup> One

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<sup>79</sup> See eg Levine, ME and Forrence, JL, "Regulatory capture, public interest, and the public agenda: Toward a synthesis" (1990) *Journal of Law, Economics, & Organization* 167

<sup>80</sup> Walker, above n 22 at 13-20

<sup>81</sup> Swyngedouw, E, "Governance Innovation and the Citizen: The Janus Face of Governance-beyond-the-State" (2005) 42(11) *Urban Studies* 1991 p 1993

<sup>82</sup> Peters, BG, "Virtuous and Viscous Circles in Democratic Network Governance" in Eva Sørensen and Jacob Torfing (eds), *Theories of democratic network governance* (Palgrave Macmillan, 2007) 61-76 p 63

<sup>83</sup> Gunningham, N and Young, MD, "Toward optimal environmental policy: the case of biodiversity conservation" (1997) 24 *Ecology Law Quarterly* 243 at 261

<sup>84</sup> Harding et al., above n 28 at 84-92

<sup>85</sup> See eg Kildea, P and Williams, G, "The Constitution and the management of water in Australia's rivers" (2010) 32 *Sydney Law Review* 595 at 603-605; see also Bates, n 23 at pp 142-146

concerned Tasmanian participant claimed the federal government approach to implementing the EPBC Act was “borderline ultra vires”. Though Part 10 of the EPBC Act is discretionary, the federal government was able to essentially require a strategic assessment by making funding contingent upon completion of such an assessment under this legislative provision. These clashes raise concerns and questions for most participants about who has authority and responsibility, with this lack of clarity further confounded by the ‘soft’ procedurally-oriented policy language evidenced through the IGT analyses.

## 5 Responsibility, accountability and authority for biodiversity conservation in a national parks landscape

In contrast to the Midlands findings, the Alps analyses revealed a reliance on both strategies and norms. A focus on process rather than outcomes and concerns regarding a lack of clarity in responsibility and authority were shared with the Midlands. Regarding authority, both case studies illustrate jurisdictional concerns, but playing out in very different ways. For the Midlands, the jurisdictional issues relate to who is responsible and who has the authority, with evident tension between federal and State governments. For the Alps, concerns relate to limited authority to cohesively manage biodiversity across borders when responsibilities are spatially limited (i.e. within states and the ACT) and politically influenced.

Shared strategies were more a feature of the Alps documents (69% and 51% of statements) compared to the norms dominating the Tasmanian documents, although norms still comprised 49% of the statements for the Alps Strategic Plan (Table 2, Table 5). A complementary finding was the word ‘will’ as the dominant Deontic in both Alps documents (Table 5); a word suggesting some uncertainty about implementation. Both the Alps documents are aspirational planning documents hence the softer language and reliance on norms and shared strategies.

The language in these documents conveys uncertainty in whether the institutional statements will be achieved, not just because of the dominant Deontic (‘will’), but also because of the linguistic mode. For both case studies, the language used in the policy documents generally fell into the *irrealis* end of the spectrum, where the *irrealis* mode makes no claims about truth or whether an event or state of affairs actually occurred,<sup>86</sup>

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<sup>86</sup> Payne, n 53 at 244-248

seeking instead to manipulate future behaviour.<sup>87</sup> At the other end of the linguistic spectrum is the *realis* mode asserting that a specific event or state of affairs has actually happened or is true. Though there has been little research in this area, the *irrealis* mode has been posited as a common linguistic feature of policy, which must often regulate over long stretches of time and space, thus driving a focus on potentiality rather than actuality.<sup>88</sup>

Although there was a large number of implied, rather than explicit, Attributes defining responsibilities in the Alps documents (Table 5), these were much easier to infer because of the small number of organisations with responsibilities in this protected area landscape. For example, the PoM for Kosciuszko NP had 924 occurrences of the park management agency (NPWS) as the Attribute, 914 of which were implied. As the party with clear statutory responsibility for the PoM, however, it was straightforward to identify the Attribute.

While on paper responsibility and authority in the Alps seems simple, in practice the situation is more complicated. For example, regarding the PoM for Kosciuszko, interviewees noted that the roles and responsibilities of the NPWS diverge significantly in practice, with the plan providing more a 'wish list' than a useful guide. While the plan provides objectives and priorities for on-ground management, in reality managers face limited budgets, staff capacity, and politically driven imperatives such as prescribed burning. Regarding political imperatives, one NSW participant commented: *The working groups within the organisation [AALC] probably are not fully aware of just how much pressure that can be exerted from the Minister's level...We might have arguments on how the Park should be managed...but we can't go on doing that without implementing the directions of the government of the day.*

Prescribed burning of a percentage of the Alps each year has been politically mandated by the State Governments of Victoria and NSW. This policy decision is in response to catastrophic Victorian bushfires in 2009. Rather than working to meet the conservation objectives laid out in written policies, interviewees expressed concern they were spending large amounts of time on prescribed burning, largely to achieve non-conservation objectives. This not only funnels resources away from conservation activities, but also has created concerns about the potentially negative effects of these activities on biodiversity. In contrast to the Midlands, the concern here was not about the clarity of responsibilities, but about

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<sup>87</sup> Givon, T, *Syntax : a functional-typological introduction* (John Benjamins Publishing company, Amsterdam, 1984) vol 1 at pp 396-397

<sup>88</sup> Graham, P, "Predication and propagation: A method for analyzing evaluative meanings in technology policy" (2002) 22(2) Text 227 p 263



which responsibilities are more important: responding to community and political concerns about bushfires or protecting the values of the national parks. This is a perennial concern in public administration, where there is a need to 'let the managers manage' which is undermined by efforts from political and higher level authorities to 'make the managers manage'.<sup>89</sup> While this is often posed as a way to keep agencies accountable, it can obscure substantive responsibilities.<sup>90</sup>

While the NPWS has formal authority to implement the Kosciuszko PoM, increasingly its actions are linked not to this statutory document, but to political priorities. Although the NPWS develops operational plans to implement the PoM, these operational activities are increasingly driven by corporate priorities originating beyond the PoM and from other political arenas. One priority consistently raised by interviewees was a strong interest by NSW in improving their customer service, *our push at the moment is all customer service, customer service, customer relations – how does everyone think you're really good. I think science as underpinning work is disappearing, because it's becoming "what's the community's view?"* (NSW Participant). Some interviewees thought this was related to a lack of public support for parks, and that the agency was increasingly driven by public opinion and political influence in an effort to gain that support. Interviewees commented that NPWS was focusing on being a 'good neighbour' (e.g. wild dog control, prescribed burning) and with the limited resources available this was resulting in few resources being available for PoM implementation.

A focus on processes rather than biodiversity outcomes was evident from the Alps analyses, as was also the case for the Midlands. In applying the IGT and assessing the Condition sub-component (Table 1, row 5) it was evident that, again similarly to the Midlands, how an aim should be achieved (generally described as a process rather than when or where) was the focus of the policy statements. The oBject analysis using the IGT also revealed a process focus. This was especially the case for the Alps Strategic Plan, where the oBjects ranged from improving management, to enhancing cooperation and learning across borders, and to better engaging the community and other stakeholders. Less process oriented but just as wide ranging were the oBjects for the Kosciuszko PoM, ranging from

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<sup>89</sup> Behn, RD, Rethinking Democratic Accountability (Brookings Institution Press, Washington, D.C., 2001) p 30

<sup>90</sup> Ansell, C, Pragmatist democracy: evolutionary learning as public philosophy (Oxford University Press, New York, NY, 2011) p 133

features of the Park (e.g. geological attributes, infrastructure) to groups and organisations (e.g. ski resort lessees and user groups).

Authority was clearly a concern regarding the role and activities of the AALC and the associated cooperative program. Interviewees noted the program's limited influence on policy and governance at the state level and beyond, attributed in part to the reality that each jurisdiction maintains land management responsibility. The cooperative program's lack of authority makes successful navigation of politically contentious issues difficult, such as prescribed burning and feral horse management, and it struggles to achieve influence at higher levels of government and in the state and federal political arenas.<sup>91</sup>

This issue of authority raises questions about how the cooperative program achieves biodiversity objectives in the absence of legislative mandate. While the Alps Strategic Plan assigns a range of responsibilities to individuals and groups in the cooperative program, these are all 'soft', aspirational activities (Table 5 row 6 and 7). This is because the states and territories hold statutory responsibility for biodiversity and land management, and cooperative cross-border arrangements operate under an MOU. Interviewees confirmed the important role of the program in facilitating cross-border learning, but noted it has limited effectiveness because legislative mandates and day-to-day decision making ultimately rests with the states. Cross-border collaboration was an 'add-on' to park managers' jobs; and with constrained resources both within the cooperative program and in the agencies themselves, the program struggles to achieve its goal of a consistent approach: *It still comes down to the jurisdictions that have the control of the areas they manage to choose their priorities and allocate their resources. So, we don't necessarily have a consistent approach* (Victorian Participant).

Issues of authority in the Australian Alps are attributable to Australia's system of cooperative federalism where responsibility for managing the land and the biodiversity it supports rests with individual states, making management across these jurisdictional divides problematic. The challenges of achieving consistency across borders and dealing with politically contentious issues limit the practical reach of the current cooperative program. Despite a range of impressive achievements under a soft policy instrument (i.e. an MOU), agencies frequently fail to implement works undertaken under the banner of the

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<sup>91</sup> Crabb and Dovers, above n 37 at 215

cooperative program, limiting their ability to deal effectively with Alps-wide issues.<sup>92</sup> This underscores the fragility of the cooperative arrangements; where despite long-term survival, the program has little authority to implement its agenda.

Even where statutory authority exists, there are similar political challenges at the park scale for Kosciuszko National Park. In contrast to the laundry list of items in the PoM, in practice political matters are a strong determinant of priorities. Prescribed burning is an example of such an issue. The push to increase prescribed burning is a reaction to community concerns about risk and crowds out other management responsibilities. Agencies also get caught in community crossfire in these debates, making their tasks as managers of biodiversity and other values even more challenging.

## 6 Design implications for biodiversity policy

The results for both study areas have implications for designing and researching biodiversity policy in Australia and internationally. The scope of biodiversity legislation and how governance can adopt a broader approach needs to be directly addressed. At the same time, how this can be done in a cooperative federalist system, and how different tiers of government operate in the same geographic space, are key issues influencing authority and responsibility for conserving biodiversity. Even when formal authority and responsibility to manage biodiversity are clearly delegated on paper, the question of how to cope with political and economic pressures is a perennial challenge for biodiversity governance globally. Finally, an intriguing result that merits further examination is the over-emphasis on procedures, rather than outcomes, in biodiversity policy design revealed through this study.

The narrow framing of biodiversity policy is not isolated to Australia. Having moved into the 'landscape era',<sup>93</sup> the need to move beyond species is widely discussed. Yet just how that should be done in practice in Australia and elsewhere has remained challenging for scientific, economic, and political reasons.<sup>94</sup> While Australia has broadened its federal legislation somewhat to include ecological communities and a limited set of threatening processes, the scope of the EPBC Act is still limited. In the United States, by contrast, the

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<sup>92</sup> Crabb and Dovers, above n 37 at 215

<sup>93</sup> Simberloff, D, "Flagships, umbrellas, and keystones: Is single-species management passé in the landscape era?" (1998) 83(3) *Biological Conservation* 247 at 247

<sup>94</sup> See eg Carroll, C et al, 'Connectivity conservation and endangered species recovery: a study in the challenges of defining conservation-reliant species' (2014) *Conservation Letters* <<http://dx.doi.org/10.1111/conl.12102>>; see also Fitzsimons et al, n 11

scope the *Endangered Species Act of 1973* (ESA) and the tools to conserve biodiversity have expanded significantly to include more avenues for conserving habitat and improving connectivity.<sup>95</sup> Legal actions to ensure the ESA was administered and agencies fulfilled their responsibilities have also pushed biodiversity governance toward a more landscape-scale approach.<sup>96</sup> While the narrower scope of the current EPBC Act may be easier to manage, legislative reform is likely necessary to support the desired shift to landscape-scale approaches.

While strategic assessment is a favoured solution to the lack of landscape-scale attention in the EPBC Act,<sup>97</sup> such assessments remain tied to MNES. This is particularly problematic in fragmented landscapes like the Midlands, where the integrity of ecosystems cannot hinge on protecting pockets of vegetation while less threatened – but ecologically important – vegetation is affected by intensified agriculture. More specification in Part 10 of the EPBC Act could strengthen strategic assessments by, for example, requiring consideration of ecosystem processes and functions. Strategic assessment is merely a tool, and better consideration of landscape-scale and cumulative impacts can only be delivered with strongly defined terms of reference and rigorous assessment; though this may be at odds with the vocal desire by the Australian Government to cut red tape and administrative burden.<sup>98</sup>

At the same time, the scope of federal involvement (including through the EPBC Act) and cross-jurisdictional cooperation is constrained by the Australian constitution and the country's system of cooperative federalism (Section 4.2). Although interpretations of the head powers in case law are increasingly broad and the federal government has gained influence through financial dominance,<sup>99</sup> there remains a reluctance to transfer further environmental governance powers to the federal government. In both case studies, cooperative federalism makes landscape-scale conservation more challenging since formal authority remains with state jurisdictions. Issues of role clarity, responsibility, and accountability have long been evident in Australia, and even intergovernmental agreements

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<sup>95</sup> Ouellette, M and Cheong, HE, "The Endangered Species Act and Habitat Conservation Plans" (2014) 66(6) *Planning & Environmental Law* 4 at 5

<sup>96</sup> Thomas, CW, *Bureaucratic landscapes: interagency cooperation and the preservation of biodiversity* (MIT Press, Cambridge, 2003) pp 267-268

<sup>97</sup> Hawke, n 6 at 2

<sup>98</sup> Chee, Y, Parris, K and Wintle, B, *Methodologies and Tools for Strategic Assessments under the EPBC Act 1999. A Report to the Department of Sustainability, Environment, Water, Populations and Communities (DSEWPaC)* (Applied Environmental Decision Analysis, School of Botany, The University of Melbourne, Melbourne, 2011) p 7

<sup>99</sup> Johnston, above n 24 at 98-99

on the environment<sup>100</sup> have not resolved the issues. Although the federal government has far more power now than imagined at the time of federation,<sup>101</sup> the recent political climate has favoured devolution of decision-making to the states, even under the federal EPBC Act.<sup>102</sup> In the short to medium term, biodiversity can be expected to remain largely a state responsibility and non-statutory ways of gaining authority to work at a landscape-scale will likely remain a necessity.

These complexities of multi-level governance are not unique to biodiversity governance in Australia. The United States<sup>103</sup> and European Union<sup>104</sup> face similar challenges in balancing state sovereignty against coherent and strategic responses across jurisdictions. While horizontal and vertical interplay in biodiversity governance has created conflicts and slowed progress, actors have grown more sophisticated in dealing with these dynamics; and efforts to move to more participatory, 'bottom up' approaches have led to some procedural improvements<sup>105</sup> although this appears to be largely driven by situational conflict.<sup>106</sup> Despite some advances, there is no clear way forward on how to manage these dynamics or how to resolve the need for some central oversight against the principle of subsidiarity for a public good like biodiversity, especially on private land.<sup>107</sup>

While attention to statutory authority is important, collaboration across agencies and jurisdictions is often not the result of law, but of political mandates.<sup>108</sup> Economic and political influences, such as the primacy of agriculture in the Midlands landscape and contemporary political pressures pushing Alps management to respond to public demands, highlight that the political environment complicates formal authority. Political influences are strong drivers in both case study systems and are an intrinsic feature of natural resource governance.<sup>109</sup> Spending too much time "doing politics" is a longstanding complaint from

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<sup>100</sup> *Intergovernmental Agreement on the Environment*, Government of Australia; *Heads of agreement on Commonwealth and State roles and responsibilities for the Environment*, Government of Australia.

<sup>101</sup> Kildea and Williams, above n 85 at 603

<sup>102</sup> See eg Priest, M and White, A, "Changes to environment protection and biodiversity conservation act-not what they first seem" (2014)(Aug 2014) *Australian Environmental Law Digest* 11

<sup>103</sup> Arha, K and Thompson, BH (eds), *The Endangered Species Act and Federalism: Effective Conservation through Greater State Commitment* (RFF Press, 2011).

<sup>104</sup> Baker, S, "The dynamics of European Union biodiversity policy: interactive, functional and institutional logics" (2003) 12(3) *Environmental Politics* 23

<sup>105</sup> Paavola, n 19 at 155

<sup>106</sup> Rauschmayer, F, van den Hove, S and Koetz, T, "Participation in EU biodiversity governance: how far beyond rhetoric?" (2009) 27(1) *Environment and planning. C, Government & policy* 42 at 55

<sup>107</sup> Ring, above n 14 at 12-122

<sup>108</sup> Thomas, n 96 at 22

<sup>109</sup> Young, n 65 at 125

managers,<sup>110</sup> but actors must work in a more sophisticated way with politics to actively buffer external influences and achieve biodiversity outcomes. This is an under-researched area in public administration, but such buffering could include strategic positioning, networking, defending (e.g. finding ways to maintain capacity during times of financial pressure), and prospecting (e.g. searching for new ways the agencies can address political problems).<sup>111</sup> Identifying solutions that addressed both the scientific need for larger-scale approaches and the political problems of legal action under the ESA were critical to achieving landscape-scale collaboration in the United States.<sup>112</sup>

It is possible the procedural focus observed in the case study regions was also linked to authority. A common traditional view of public agencies is that they are meant to be neutral conduits, enacting the will of the people, as expressed through politicians.<sup>113</sup> To maintain this hierarchy of authority, governments place a high value on procedural rationality, which disconnects process from substantive outcomes.<sup>114</sup>

The linguistic mode and passive phrasing evident in the documents analysed in this research imply an assumption that governments will be able to control future actions with a series of propositions and proposals that are presumed to achieve the desired outcomes without clear linkages.<sup>115</sup> Like many policy documents, those in this study relied heavily on irrealis mode and passive voice, which creates uncertainty about just who is obligated to undertake actions,<sup>116</sup> and to whom they are accountable if they do not comply. This is especially the case for the Program Report in the Midlands. While uncertainty is inherent in policymaking, constructing policies using vague language and process creates more uncertainty. Yet it is possible that the imprecision and lack of clarity is deliberate. When confronted with the results of this study, one federal employee responded by listing a range of reasons why this was done, including:

*When our policy tools are not well suited to the problem, but we have no others...When*

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<sup>110</sup> Brechin et al, above n 12 at 47

<sup>111</sup> Miles, RE et al, "Organizational Strategy, Structure, and Process" (1978) 3(3) The Academy of Management Review 546 at 550; O'Toole, LJ and Meier, KJ, Public Management: Organizations, Governance, and Performance (Cambridge University Press, Cambridge, 2011) p 55

<sup>112</sup> Thomas, n 96 at 264

<sup>113</sup> Vinzant, J and Crothers, L, "Street-level leadership: rethinking the role of public servants in contemporary governance" (1996) 26(4) The American Review of Public Administration 457 at 144

<sup>114</sup> Ansell, n 90, at 145; Hironaka, A and Schofer, E, "Decoupling in the environmental arena: the case of environmental impact assessments" in A.J. Hoffman and M.J. Ventresca (eds), Organizations, Policy and the Natural Environment: Institutional and Strategic Perspectives (Stanford University Press, 2002) 214-231 p 219

<sup>115</sup> Graham, n 88 at 263

<sup>116</sup> Turner, D and Hartzell, L, "The lack of clarity in the precautionary principle" (2004) 13(4) Environmental Values 449 at 453-454

*our knowledge of the issue is poor...When we don't want take responsibility for an issue that **is** our responsibility...When we don't want take responsibility for an issue that **is not** our responsibility....[emphasis added]*

This covers a wide range of policy situations, and sheds some light on the rationale behind the construction of (and lack of clarity in) policies analysed in this study.

The heavy procedural emphasis in the biodiversity policies examined here is an area meriting further attention in policy design. An overemphasis on process can shift attention away from biodiversity outcomes<sup>117</sup> and the substantive elements of environmental policy and law.<sup>118</sup> Such concerns are part of wider debates in environmental policy and law about procedural versus substantive law<sup>119</sup> and outputs versus outcomes.<sup>120</sup> A topic that remains underexplored in biodiversity policy, however, is whether this emphasis on procedure is at the expense of considering outcomes and how they are distributed.

This points to distributive and procedural elements of social justice, critical aspects of legitimate environmental governance.<sup>121</sup> In the two case studies, an emphasis on process as a means to achieve outcomes was evident both on paper and in practice, suggesting an asymmetrical emphasis on procedural justice. Importantly, fair process is no guarantee of a fair outcome, particularly as distributed across the social, economic and environmental dimensions. Social justice research has historically assumed people care more about procedures than distribution of outcomes, extrapolating from the work of Lind and Tyler<sup>122</sup> yet a meta-analysis of justice research<sup>123</sup> challenged this notion, suggesting the converse. The relationships between just outcomes, just process, and perceptions of fairness are complex, but a clear message from justice research is that a narrow focus on any one element is undesirable.

Greater attention to outcomes and how they outcomes are distributed is critical for effective biodiversity conservation, especially in situations such as the Midlands where this

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<sup>117</sup> Wallace, KJ, "Confusing means with ends: A manager's reflections on experience in agricultural landscapes of Western Australia" (2003) 4(1) Ecological Management & Restoration 23 at 23-24

<sup>118</sup> See eg Lindstrom, MJ, "Procedures Without Purpose: The Withering Away of the National Environmental Policy Act's Substantive Law" (2000) 20 J. Land Resources & Env'tl. L. 245

<sup>119</sup> See eg Baker, M, "What Does It Mean to Comply with NEPA: An Investigation into Whether NEPA Should Have Procedural or Substantive Force" (2011) 31(1) Utah Environmental Law Review 241

<sup>120</sup> See eg Wallace, n 117

<sup>121</sup> Paavola, J, "Institutions and environmental governance: A reconceptualization" (2007) 63(1) Ecological Economics 93 at 94

<sup>122</sup> See eg Lind, EA and Tyler, TR, The social psychology of procedural justice (Plenum Press, New York, 1988)

<sup>123</sup> Skitka, L, Winquist, J and Hutchinson, S, "Are Outcome Fairness and Outcome Favorability Distinguishable Psychological Constructs? A Meta-Analytic Review" (2003) 16(4) Social Justice Research 309 at 332

public good is largely on private land. The outcomes matter both for society and the private individuals involved. Although the importance of considering social justice elements of biodiversity governance are recognised,<sup>124</sup> procedural justice is still the major focus and little published research explores how social justice principles feature in the implementation of biodiversity policy. A neglect of both distributive and procedural justice in practice has been identified in biodiversity policy in the EU.<sup>125</sup> Social justice principles, incorporating *both* procedural and distributive justice, provide a useful frame for advancing biodiversity policy.

## 7 Conclusion

Clearly defined and allocated roles and responsibilities are essential for effective biodiversity policy implementation among multiple actors. Multiple actors are a key feature of biodiversity conservation in these two landscapes, and many landscapes globally where biodiversity is valued. In the Midlands agricultural landscape, statutory authority only exists to protect MNES with other elements placed at jeopardy through inadequate consideration and allocation of authority at a landscape scale. The murky interface between biodiversity policy and irrigation development in the Midlands is an example of limited, unclear hierarchies of authority. If Australia is to achieve biodiversity objectives at a landscape scale, there is a need to clarify who is responsible for achieving objectives at that scale. In the Alps, roles and responsibilities are clearer, but the same question remains: who is responsible for landscape-scale biodiversity objectives? Given the constitutional and legislative policy arrangements in Australia, this is still unanswered in a multi-jurisdictional situation like the Alps.

Both weak and limited authority were evident in the case analyses, again illustrating a broader, systemic issue in biodiversity policy Australia, with clear parallels elsewhere. In the Midlands, the interplay between biodiversity institutions and strong economic and political drivers suggest the former are weak by comparison, both on paper and in practice. Participant concerns about the future of the Midlands ecosystem are reasonable, given that even the regulatory safety net is relatively weak and framing is narrow. In the Australian Alps, park agencies like the NPWS have the legislative mandate within jurisdictional boundaries, but conservation of biodiversity is a minor item on the political agenda and easily

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<sup>124</sup> Brechin et al, n 12 at 43; Paloniemi, R and Tikka, PM, "Ecological and social aspects of biodiversity conservation on private lands" (2008) 11(4) Environmental Science & Policy 336 at 337

<sup>125</sup> Paavola, J, "Protected Areas Governance and Justice: Theory and the European Union's Habitats Directive" (2004) 1(1) Environmental Sciences 59 at 72-73



overshadowed by other political imperatives. For the AALC the problem is even more acute, as it is an entirely voluntary cooperative program, subject to politics both within and across jurisdictions. Although the issues and threats in each case study are different, both highlight questions about how to strike the appropriate balance between forced and un-mandated compliance and cooperation to achieve conservation of a public good.

The integration of social justice into biodiversity policy is a substantive policy design issue. The asymmetrical emphasis on process on paper and practice highlights a need to investigate the social justice dimensions of biodiversity policy. This research suggests increased attention on distributive justice could improve policy design, but it is important that this also extend to policies-in-practice. While focusing on elements that can be monitored and controlled is a common response to environmental problems,<sup>126</sup> a conscious effort must also be made to elevate the importance of substantive outcomes in biodiversity governance.

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<sup>126</sup> Hironaka and Schofer, n 114 at 216