

Roll-out neoliberalism and hybrid practices of regulation in Australian agri-environmental governance

Stewart Lockie^{a,*}, Vaughan Higgins^b

^aFaculty of Sciences, Engineering and Health, Central Queensland University, Rockhampton, Qld 4702, Australia

^bSchool of Humanities, Communications and Social Sciences, Monash University, Gippsland Campus, Churchill, Vic 3842, Australia

Abstract

In the last 15 years, agri-environmental programmes in Australia have been underpinned by a neoliberal regime of governing which seeks to foster participation and 'bottom-up' change at the regional level at the same time as encouraging farmers to become entrepreneurial and improve their productivity and environmental performance without government interference. However, while experiencing a degree of success in terms of farmer involvement, considerable tensions are evident in such programmes. Drawing on an 'analytics of governmentality', this paper argues that while current agri-environmental programmes enable authorities to combine often competing and contradictory imperatives under the rubric of single political problems—what has been termed *hybrid* forms of governing—it also contributes to the continuing failure of these programmes to achieve their desired effects. As a consequence, neoliberal forms of governing tend to be characterised by experimentation with a range of governmental technologies in order to make programmes workable in practice. We explore two different types of technologies—standards schemes and direct government regulation—that have emerged in recent years, and how these have sought to address the limitations evident in 'participatory' programmes. The paper concludes by arguing that while these initiatives seek to encourage farmer compliance in seemingly divergent ways, their capacity to be workable, and have broader effects, in practice will depend upon their capacity to manage the competing imperatives of environmental degradation, capital accumulation and private property rights.

Keywords: Agri-environmental regulation; Governmentality; Hybrid governance; Legitimacy; Standards

1. Introduction

A good deal of literature has emerged from Australia over the last several years exploring the trend in rural and agricultural policy towards programmes that seek to facilitate various forms of self-regulation, self-help and entrepreneurialism. Rather than direct forms of intervention, successive governments have attempted to create the conditions for individuals, business enterprises and even state agencies to take greater responsibility for themselves and their conduct. In some instances, we have seen a devolution of responsibility from state agencies to various communities and individuals for dealing with seemingly intractable problems such as rural and regional development (Dibden and Cheshire, 2005; Herbert-Cheshire, 2000;

O'Toole and Burdess, 2004), rural service delivery (Alston, 2005), farm viability (Higgins and Lockie, 2002) and drought relief (Higgins, 2001). In other instances, we have seen the deployment of neoliberal strategies to deal with problems in which state agencies have had little, or no, historic involvement. Such instances include Commonwealth, or Federal, promotion of agri-environmental measures such as Landcare (Lockie, 1999, 2000) and regional natural resource management (Ewing, 2003).

It has been argued that much of the attraction of neoliberal strategies to Australian governments has lain in the resolution they have offered of a number of competing political imperatives and discourses (Lockie, 1997). Broadly speaking, neoliberal strategies have been consistent with discourses of small government, fiscal austerity, individual freedom and private property rights. However, they also have been consistent with more upbeat discourses of community empowerment, partnership,

*Corresponding author. Tel.: +61 7 49306539; fax: +61 7 49306402.
E-mail address: s.lockie@cqu.edu.au (S. Lockie).

capacity building and social capital. The alignment of seemingly competing political discourses, has led some scholars to characterise these strategies as *hybrid* assemblages of governing in that they incorporate social and environmental sustainability with the pursuit of economically 'rational' practices (Higgins and Lockie, 2002). Despite the outward success of programmes such as Landcare in fostering farmer inclusiveness and participation (Lockie, 1998a), the hybridity on which they are based has given rise to a number of tensions. On the one hand, farmers are expected to become entrepreneurial and 'active' agents who improve their productivity and competitiveness without government interference. On the other, they are expected to put community interests before their own by providing off-site and/or long-term social and environmental benefits (Lockie, 2000). The ongoing tension between these rationalities has served to limit the impact of many agri-environmental programmes and to undermine confidence in the effectiveness of participatory strategies in addressing broader-scale environmental issues (CSIRO, 2003).

Drawing upon an 'analytics of governmentality' (e.g., Dean, 1999; Miller and Rose, 1990; Rose, 1999), this paper argues that while such tensions have contributed to legitimacy problems for governments seeking to govern natural resource management, they also have had productive effects in terms of re-defining the 'proper' limits of public and private intervention, and in enabling the rise to political prominence of new regulatory practices. Thus, a range of alternative strategies recently have emerged seeking more effectively to address the problems evident in participatory strategies of governing. These include the apparently contradictory approaches of increased state regulation and the growth of private agri-environmental standards. Significantly, as we argue in the paper, such approaches do not simply resolve the legitimacy problems raised by tensions in existing governmental regimes—we argue that they too are characterised by debates concerning how best to regulate agri-environmental conduct. We explore in the paper how existing neoliberal approaches to agri-environmental regulation are being adapted—through private standards—and supplemented—through direct regulation—and the effects on how land managers and rural environments are governed.

2. Neoliberalism, legitimation and the state

For many critical scholars drawing upon neo-Marxist theories of power, neoliberalism is a powerful mode of regulation associated with the global spread of market-based discourses and practices (e.g., Dicken, 2003; Holton, 1998; McCarthy and Prudham, 2004; McMichael, 2004; O'Riain, 2000). From this perspective, neoliberalism involves a restructuring of state-based regulation in ways that promote privatisation, free trade, deregulation and global competitiveness. Sometimes characterised as a withdrawal of state intervention in favour of 'market rule' or 'jungle law' (see Peck and Tickell, 1994), it is

increasingly recognised that neoliberalism involves complex processes of de-regulation *and* re-regulation; the 'roll-back' neoliberalism of the 1980s—characterised by the Thatcher and Reagan administrations—contrasting with the 'roll-out' agenda of the 1990s in which the Clinton and Blair governments in the US and UK sought to provide 'Third Way' alternatives to the perceived limits of market-centric neoliberalism (Peck and Tickell, 2002). Far from causing problems or contradictions for the neoliberalist project, Peck and Tickell (2002, p.389) argue that this most recent phase has contributed to "a striking co-existence of technocratic economic management and invasive social policies". In sum, neoliberalism has proved to be a far more durable form of regulation than many predicted. It:

...has demonstrated an ability to absorb or displace crisis tendencies, to ride—and capitalise upon—the very economic cycles and localised policy failures that it was complicit in creating, and to erode the foundations upon which generalised or extralocal resistance might be constructed (Peck and Tickell, 2002, p. 400).

The argument that neoliberalism absorbs or displaces its own crisis tendencies resonates with broader neo-Marxist approaches to legitimation.

For neo-Marxists, capitalism is a crisis-ridden mode of production in which the private appropriation of socially produced wealth results in the concentration and centralisation of capital, a falling rate of profit, and class conflict. Further crisis tendencies are generated by the propensity of private capitals to defend profits by externalising the environmental and social costs of production and thus, in the longer term, to undermine the conditions of production and increase average costs (O'Connor, 1998). In both cases, the state is seen to intervene in order to maintain conditions for capital accumulation, and in order to do so it must secure legitimation and/or consent for the social and economic order (O'Connor, 1984). One of the primary strategies through which such legitimation has been pursued by neoliberal regimes, according to Hay (1994) and O'Connor (1998), has been the development of devolved programs that displace responsibility to deal with the ecological consequences of capital accumulation from states to civil society. Such strategies, Hay (1994) believes, minimise the cost to governments of securing legitimacy while making no more than token gestures towards addressing the objective causes of environmental degradation. However, as Dryzek (1992) points out, the concessions made through community-based natural resource management programmes to more participatory models of democracy also create arenas in which the accumulation imperative potentially may be challenged. The question is, how might these potential contradictions between displacement and democratisation be played out?

The work of Peck and Tickell (2002) provides a starting point in reflecting on this issue. They note that recent 'roll-out' variants of neoliberalism are highly creative in drawing together technocratic techniques of economic

management with a deeply interventionist agenda focusing around social and certain environmental issues. Peck and Tickell (2002, p. 396) argue that such reforms represent a deepening of the neoliberal project yet also contribute to "a constantly shifting landscape of experimentation, restructuring, (anti)social learning, technocratic policy transfer, and partial emulation". Ensuing neoliberal rule systems are both pervasive and elusive; providing the technical and ideological frameworks for regulatory and institutional reform while denying their own profoundly political character. However, in contrast with Peck and Tickell's (2002, p. 401) conclusion that neoliberalism should be understood as something "clearly more than the sum of its (local institutional) parts", we argue that it is, in fact, necessary to focus more analytical attention on how the experiments, techniques, policies and programmes that constitute these local institutional parts are drawn together in *hybrid* ways if we are to account for the creativity, and thus legitimacy, of neoliberal programmes of rule. Adaptation and compromise, we suggest, is a central feature of neoliberalism that contributes not only to its durability but which makes it reliant on a variety of strategies and techniques. To develop this argument, we draw upon insights from the literature on governmentality. The contribution of governmentality is its epistemological shift from explaining the reproduction of neoliberal modes of rule in terms of the structures through which they are institutionalised, to examining the relationship between the rationalities and technologies of knowledge that make these 'structures' thinkable and manageable in the first place (see Higgins, 2004).

From a governmentality perspective, all programmes of governing are characterized by 'crisis tendencies.' This is seen to result not so much from the structural characteristics of any particular mode of production but from all efforts to make programmes workable. As Miller and Rose (1990, p. 10–11) argue:

Whilst 'governmentality' is eternally optimistic, 'government' is a congenitally failing operation. The world of programmes is heterogeneous and rivalrous and the solutions for one program tend to be the problems for another ... The 'will to govern' needs to be understood less in terms of its success than in terms of the difficulties of operationalizing it.

The 'failure' of programmes to achieve their desired effects does not mean necessarily that governing is void of order and durability, or that authorities face a constant deficit of legitimacy (see Higgins, 2004). Instead, legitimation and order are a contingent effect of attempts to render governing thinkable and practicable (Rose, 1999).

Neoliberalism emerges from this perspective not simply as a rejection of the welfare-state but as a hybrid assemblage of rationalities and techniques in which citizenship is no longer constructed in terms of social obligations and collectivised risk but in terms of the capacity of individuals to conduct themselves in a self-regulating and

entrepreneurial manner (Rose, 1999). By establishing a 'regime of the social' in which social and environmental responsibility are viewed as logical outcomes of conducting oneself in an 'entrepreneurial' manner (Dean, 1999), seemingly competing policy objectives are addressed as single political problems (Stenson and Watt, 1999). Nevertheless, the hybridity of neoliberal programmes of rule is both a strength and limitation. While contradictions are de-politicised under the mantle of single problems, the practice of governing threatens continually to expose these contradictions in making programmes locally workable (e.g., O'Malley, 1996) or in aligning often competing regulatory spaces and actors (Robertson, 2004). The failure of programmes to achieve their desired effects leads frequently to ambivalence, negotiation and experimentation, yet is a crucial part of making governing workable in practice (Higgins, 2004).

Hybrid forms of governing have in recent years come to dominate agri-environmental governance in Australia. In the following section of the paper we examine a number of key programmes that have a 'hybrid' focus. This forms an important context for considering the 'failure' of such programmes, and attempts to render agri-environmental governance workable by shifting the boundaries of 'legitimate' regulation.

3. Hybrid practices of agri-environmental governance

In this section, we outline a highly integrated set of agri-environmental measures that have sought to govern *through* the managerial capacities of Australian farmers. Since the early 1980s, farmers in Australia have been exposed to 'market discipline' through the dismantling of statutory marketing boards and other institutional arrangements for the collectivisation of risk (Gray and Lawrence, 2001). At the same time, a neoliberal rationality of governing increasingly has driven the development of agricultural policies and programmes. This has included a range of agri-environmental measures including the National Landcare Program (NLP), property management planning (PMP) programs, drought assistance measures and the National Land and Water Resources Audit. While they are not the only agri-environmental measures to be implemented over this period, they stand out in terms of having attracted the greatest publicity and being implemented on the broadest scale. As argued elsewhere, these initiatives might be characterised as hybrid practices of governing in that they define land managers as socially and ecologically responsible only to the extent that they have the capacity to pursue economically 'rational' practices (Higgins and Lockie, 2002). Nevertheless, as we argue in the following section of the paper, this is not simply a matter of progressive neoliberal colonisation of the social-tensions can, and do, emerge contributing to changes in the conduct of governing.

Property management planning may be defined most simply as an integrated approach to the management of

ecological, human and capital resources at a whole farm, or greater, scale (Campbell, 1991). Typically, this involves mapping out the physical resources, attributes and layout of the farm as a basis for reassessing existing practices and managing them according to land use capability and production and financial goals. Although PMP may identify actions that land managers do not consider financially viable in the short-term, it allows them to prioritise the allocation of resources to wherever in their operation they can most effectively be utilised and to reassess those priorities as circumstances, goals and knowledge change. As an ongoing process, PMP is seen to provide a highly effective basis for landholder learning, particularly when undertaken collectively in subcatchments, or watersheds, in which case opportunities are generated for joint learning and for coordination of activities among landholders (Campbell, 1991).

Although enjoying status as a programme in its own right (the National Property Planning Programme), the key vehicle for the dissemination and coordination of PMP over the last decade has been the National Landcare Programme. The NLP was initiated in 1988 to encourage people to form community Landcare groups based on localised watersheds or neighbourhoods with the purpose of addressing local environmental problems in a cooperative and coordinated manner. According to Curtis and De Lacy (1997), the NLP was based on a programme logic in which limited government funding of 'community development' processes in rural Australia would improve knowledge of land degradation, promote the development of a stewardship ethic, and stimulate private investment in improved management practices. Underlying this logic was a belief, reflected in the Commonwealth Decade of Landcare Plan, that "economic growth and a well-managed environment are fundamentally linked" (Commonwealth of Australia, 1991, p.20); that clearer market signals, including better information on the costs and benefits of land management techniques as provided through Landcare participation, would lead to a confluence of economically and environmentally rational behaviour.

With government funding available to assist with group coordination and the implementation of experimental and demonstration projects, the predominant focus for Landcare group activities was education, farm and catchment planning, tree planting, and demonstrations and trials of new practices (Lockie, 1999, 2000, 2001). Landcare groups thus provided: an enhanced learning environment in which farmers and other land users could be exposed to new ideas and experiment with their application; the opportunity to scale up individual property planning exercises to a sub-catchment level where consideration of the inter-relationships between individual farms could be used to develop more effective plans; and a set of peers to whom individual land managers could be held accountable for inaction in addressing the off-site impacts of farming practices identified through the planning process (Cary and Webb, 2000; Curtis, 2003).

On the surface, it is difficult to construe PMP or Landcare as anything other than highly rational and desirable farm and catchment management tools. However, it is important also to consider that the technologies of governing used through PMP, and disseminated through Landcare, have been incorporated within a wider array of political projects and concerns—operating at a greater diversity of scales—than may, at first, seem obvious. Of most importance here has been the inter-related incorporation of PMP within drought relief and structural adjustment measures and the national auditing of 'capacity for change' within agriculture.

Since the early 1990s, drought and financial assistance programs in Australian agriculture have been re-oriented towards education and training in risk assessment and management techniques. The 1992 National Drought Policy, for example, formally linked drought assistance with the Rural Adjustment Scheme (a programme designed to smooth the exit of inefficient producers from the industry) by challenging the popular understanding of dry weather and declining farm incomes as circumstances outside the control of individual farmers (Higgins, 2001). Instead, it institutionalised an alternative definition of these as events that could be planned for and managed as part of farmers' normal approach to business management. Where property planning had once been the preserve of soil conservation agencies more concerned with erosion rates and sediment traps than with farm business management, the re-focusing of drought and structural adjustment programmes provided a context in which farm planning could be drawn into economic and welfare agencies and reoriented as a means of reallocating funds away from relief measures and towards training and assistance in the financial, land management and marketing techniques believed necessary to maintain farm viability.

The assumption embodied in these policies that the prudent and self-reliant farmer will pursue sustainable resource management as an essential component of financial viability is mirrored in a host of other policies and programmes including a National Land and Water Resources Audit undertaken between 1997 and 2002 (Lockie et al., 2002). Significantly, Audit work on the capacity of Australian farmers to implement sustainable resource management practices reversed the more common conceptualisation of sustainable land management as a precursor to financial viability by utilising rates of structural adjustment (i.e. entry both in and out of farm enterprises in any given region) as indicators of capacity to change (Cary et al., 2001). Ecological sustainability was thus defined, through this aspect of the Audit, in terms of the allocation of resources to their most efficient economic use as evidenced by short-term structural change rather than by long-term stability in production (an understanding reflected in a variety of other state natural resource initiatives such as the marketisation of water allocation). While the causal relationships embedded in these understandings remain largely speculative and

common-sensical (Lockie et al., 2002), the ability of this vision of the prudent and self-reliant farmer to draw together ecological, social and economic aspects of sustainability in a practical manner through techniques such as Property Management Planning seems to provide a powerful rationale for their continued state support. Nevertheless, as we argue below, significant tensions have emerged in the actual effects of these hybrid programmes of agri-environmental governing on farming practices.

4. Cracks in the edifice: the limited impact of neoliberal agri-environmental programmes

At face value, the decentralisation of responsibility to identify and deal with agri-environmental problems—when supported by techniques to enhance the capacity of farmers and others to monitor and regulate their behaviour—would seem to have considerable potential as a strategy to improve the responsiveness of farm management to ecological and economic feedback signals (Dryzek, 1990). This is especially so when we consider the high rates of involvement in Landcare with 37 percent of farm businesses in the broadacre and dairy sectors represented as members and 50 percent of all Australian farmers using these groups as sources of information (ABARE, 2003). Further, 91 percent of farmers with some involvement in Landcare believe that they have made changes to land management practices as a result of their participation, while 95 percent of Landcare group members and 71 percent of non-members report that their properties have benefited from participation in Landcare activities (ABARE, 2003). Implementation of on-ground conservation works is significantly higher in agricultural districts with high rates of Landcare membership (ABARE, 2003; Curtis, 2003; Curtis and De Lacy, 1997; Mues et al., 1998) and participating farmers talk often of the ways in which Landcare, PMP and related activities have increased their awareness of the warning signs of land degradation and encouraged them to act on these warning signs sooner rather than later (Lockie, 1998a).

In spite of these positive signs, however, the uptake of more sustainable management practices on Australian farms remains slow, and the changes stimulated by Landcare and related programmes are better described as evolutionary and incremental than as revolutionary or systemic (Barr and Cary, 2000; Campbell, 1991). Further, it is becoming increasingly obvious that these measures have had little impact on natural resource condition beyond the scale of individual paddocks (fields) and properties, with indicators of regional or catchment resource condition such as water quality continuing their widespread national decline (CSIRO, 2003). The CSIRO (2003) attributes this to: the predominant focus of practices encouraged by Landcare and PMP on maintaining productivity at the farm level; the significant number of farmers who still have not implemented them; difficulty in translating the resulting patchwork of individual actions into cumulative

regional outcomes; and lack of analysis of the relationships between farm-based practices and regional hydrological and ecological processes. These criticisms are mirrored in a widespread belief among participants that while Landcare has been highly successful in raising awareness of land degradation, and good will to do something about it, there are major steps to be taken towards effective implementation of change 'on the ground' (Cary and Webb, 2000; DAFF, 2003). What we seek to show here is how these limitations relate to the hybrid character of neoliberal agri-environmental measures.

As mentioned above, the package of agri-environmental measures discussed so far in this paper ask farmers both to take more responsibility for their own productivity and competitiveness and to put community interests before their own by providing off-site and/or long-term social and environmental benefits. Rates of participation in Landcare suggest that, to at least some extent, a significant proportion of landholders are prepared to do this. At the same time, however, those landholders face a range of constraints including limited capital and human resources, low commodity prices, and, in some cases, a lack of practical, technically sound and profitable solutions to land degradation problems (Cary and Webb, 2000). A neo-Marxist perspective on crisis in agriculture reminds us that even in the event that technological changes and short-term improvements in farm income relieve these constraints, the long-term trends remain those of declining terms of trade and farm consolidation. Individual landholders, this suggests, will remain ill-equipped to internalise enough of the social and environmental costs of their activities to generate landscape scale benefits. However, even in those times and spaces where agriculture is profitable, we are left with a fundamental contradiction between the definition of sustainability as an outcome of the economically efficient allocation of resources, and the attribution of responsibility to address environmental degradation to individuals with limited scope to capture sufficient benefits from environmental works to justify expenditure on them (see Cary and Webb, 2000). It is little wonder that the willingness of farmers to implement environmental practices has been shown to decline markedly where those practices offer few productivity benefits and/or the further removed in space, time and certainty the benefits of those practices become (Lockie, 1998a, 1999).

The continuing escalation of agricultural land and water degradation in Australia has elicited a number of responses, some of which may be characterised as adaptations to existing neoliberal practices of governing, and others that do not align easily with this approach. The following section looks briefly at the implementation of 'command and control' regulatory measures in response to the particularly emotive issue of land clearing. It will be argued that while governments have perceived an opportunity for decisive action to address environmental problems, their pre-existing commitments to individual participation, self-reliance and entrepreneurialism have

lent extra credence to arguments that regulatory controls infringe private property rights; including the 'right' of farmers to improve production. While the 'failure' of previous schemes to achieve their desired effects may have raised questions about the legitimacy of participatory technologies of governing it has not, as yet, led to their wholesale abandonment. Instead, a wider range of hybrid techniques have gained political prominence that promise more effectively to govern farmers' agri-environmental conduct through the integration of participatory techniques with increased use of formal marketised techniques of self-monitoring and accountability (see Higgins, 2005).

5. Regulating for legitimacy: the case of vegetation management

Retention of a significant portion of native vegetation is believed necessary to preserve ecological stability, regulate hydrological processes and support agricultural sustainability (Jenkins, 1998). Its loss has become a highly emotive issue. On the one hand, Australian governments have received considerable criticism from urban electorates and international agencies for rates of land clearing that—in Queensland in particular—are among the highest in the world (Sherwin, 2000). On the other, there are very strong beliefs among Australian farmers that rights inhering in private property entitle them to develop their properties to their full productive potential (Reeve, 2001) and that legislative approaches do little to encourage active and effective management of the conservation values of native vegetation following the cessation of clearing (Slee and Associates, 1998).

Since the 1930s, attempts to deal with agricultural land and water degradation in Australia have overwhelmingly been based on suasive measures such as the provision of research and advisory services, and what few regulations have existed on activities like tree clearing seldom have been strictly enforced (Bradsen and Fowler, 1987). New governance regimes have thus been developed at State and Federal levels for both forestry and agricultural lands that legislate for vegetation management based on scientific bioregional assessment and a mixture of regulatory restrictions and corporatist agreements between the state and select actors (Lane, 2003).

The Queensland *Vegetation Management and Other Legislation Amendment Act 2004*, for example, aimed to stop all broadacre land clearing on agricultural lands by December 2006. Leading up to this date, all land clearing was banned temporarily while regionally based vegetation management plans were developed, against which all applications for further land clearing up to the phase-out date were assessed and which defined, in an ongoing manner, regrowth vegetation exempt from clearing restrictions (NRME, 2004). Despite the inclusion of several consultative processes in the development of regional vegetation management plans, the principles underlying the State Policy for Vegetation Management (2004) and

legislation made no concession to locally defined needs, values and priorities. Maintaining regional conservation values was defined strictly in terms of retaining 30 per cent of the pre-clearing extent of remnant vegetation, allowing no further reduction of 'endangered' and 'of concern' ecosystems, and so on. To ameliorate the financial impacts of these measures, and mollify landholder concerns, an AUS\$150 million assistance package was announced, \$130 million of which was targeted through the Queensland Rural Adjustment Authority towards improving farm viability and providing exit assistance; \$12 million of which was targeted towards vegetation management measures such as fencing; and \$8 million of which was directed through industry groups to promote best management practices.

It is too early to tell how effective this will be in the long-term. However, it is not too early to conclude that any overtures to democratic processes have been weak, nor that many landholders feel the direct legislative approach an assault on private property rights and a betrayal of the partnerships and trust built up through Landcare and catchment management arrangements (Reeve, 2001). By providing tools and institutions through which participants could consider how their farming activities may have affected others and beginning to take responsibility for their own actions, Landcare and PMP not only avoided confrontation with an absolutist view of private property rights but reinforced and legitimised it. By the end of the first decade of Landcare, it is arguable that Australian farmers were even more unlikely to accept the legitimacy of non-market environmental regulation than they were at the beginning of it.

6. Adapting neoliberal practices of governing: market solutions to continued environmental damage

The NLP, PMP and related measures may be seen as tentative steps towards the supplementation of roll-back neoliberalism (as seen in the withdrawal of 'welfarist' measures) with roll-out measures that seek more actively to create conditions for the rational and effective operation of markets. Since the mid-1990s, however, there has been a dramatic increase in the commitment shown by government agencies and industry representative bodies both to the conceptualisation of environmental degradation as an outcome of market failure and to the promotion of market-based incentives for resource conservation (see Elix and Lambert, 1998; Grafton, 2005; LWA, 2003; Scott et al., 1998; Slee and Associates, 1998). Market failure is seen to arise from three basic sources: (1) open access property rights regimes that encourage the externalisation of environmental costs; (2) inadequate information about the long-term impact of agricultural practices; and (3) inappropriate pricing of natural resource inputs such as water and fertiliser (Scott, 1998). Given the focus of the Landcare and PMP programmes on suasive measures (education, information and training) to encourage improved

natural resource management, additional instruments have been identified as necessary to address other aspects of failure (Scott, 1998). While industry bodies have lobbied heavily for measures that include subsidies and tax concessions for environmental works, state policy has focused on more revenue-neutral measures such as the creation of property rights and markets for natural resources (e.g., tradeable irrigation rights or pollution permits) and the removal of perverse incentives (e.g., tax rebates on land clearing) (Industry Commission, 1997). Importantly, state policy has not assumed that clearly defined property rights and markets are by themselves sufficient to ensure sustainable natural resource management. Rather, it has been proposed that these be coupled with a 'duty of care' to the environment inhering in private property rights and operationalised through compliance with voluntary and locally developed codes of practice (Industry Commission, 1997).

At face value, the ability of Australian governments to match rhetoric with action on market-based solutions has been limited. With some notable exceptions—such as tradeable permits to access water for irrigation and other purposes (Mobbs and Moore, 2002)—property right and market creation schemes remain subject to considerably more discussion than implementation (Scott, 1998). It is increasingly clear, however, that governments are not the only major players in the development and regulation of market solutions to environmental degradation; and that it is through the specific techniques of standards-setting and auditing that Australian farmers will be confronted with both opportunity and obligation to demonstrate their 'duty of care'.

Standards are of particular significance to contemporary neoliberal regimes; providing a mechanism to harmonise activities and products across disparate geographical and social spaces and thus to improve the efficiency of trading and interaction (Barry, 2001; Power, 1997). A range of ostensibly private standards regimes have emerged in recent years that use the market as a means of governing farmers' agri-environmental conduct. Governments have welcomed these schemes and sought to provide support in the form of R&D and financial assistance to encourage their adoption by farmers. Standards are defined as 'a published document which sets out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs the way it was intended to' (Standards Australia, 2004, p. 2). They may take two main forms: process standards and production standards.

Process standards specify the procedures that enterprises need to follow in order to monitor and manage environmental impacts (Mech and Young, 2001, p. 8–9). The most clearly evident example of process standards in Australia are Environmental Management Systems (EMS). While these are yet to be adopted on a large scale by farmers (see Carruthers, 2005), a National Framework for EMS in Agriculture was developed in 2002 and subsequently

underwritten in 2003 by an AUS\$8.5 million National Pilot Program (DAFF, 2004). The National Framework is compatible with the International Standard ISO14001 to enable external auditing and verification of farmer compliance. Both the National Framework and Pilot Program emphasise the relationships between systematically identifying and managing environmental impacts from the enterprise to the catchment scales, the pursuit of improved business performance, and compliance with emerging market demands for quality and environmental assurance (DAFF, 2004; NRMCC, 2002). EMS are thus claimed to address a number of potentially competing environmental, financial and social objectives, and seek to build on the hybrid forms of governing evident in programs such as Landcare and PMP by using market mechanisms to reward farmer compliance.

Production standards address production processes and product attributes. They include 'production protocols' that 'define specific features associated with a marketed product' as well as performance standards that specify 'a level of environmental performance to be met' (Mech and Young, 2001, p. 8–9). In response, for example, to criticism regarding heavy pesticide use (see Short, 1994) the Australian cotton industry developed a set of best management practices (BMPs) to assist growers to 'identify and manage risks, create a safe workplace for staff, design cotton farms that minimise environmental impact, use pesticides in a safe and responsible manner, use all available options to control pests, minimise usage and recycle water, and store and handle chemicals safely' (Cotton Australia, 2004, p. 1). Industry statistics show that, in the 2002 season, 60 per cent of the national crop was produced under audited BMPs. While the immediate outcomes of BMPs are argued by the industry (see Cotton Australia, 2004) to be improved efficiency and better health for grower families and employees; environmental sustainability is identified as a long-term outcome.

Process and production standards are not, of course, mutually exclusive. While the organic food industry represents possibly the most visible example of combined process and production standards, several commentators have argued that, in the longer-term, it is likely to be combined process and production standards initiated and regulated by food retailers that are likely to have the greatest impact on agri-environmental governance in Australia and New Zealand (see Campbell and Stuart, 2005; Dibden and Cocklin, 2005) and across the agri-food sector more broadly (see Bain et al., 2005; Busch and Bain, 2004; Henson and Reardon, 2005). Unlike industry codes of practice, standards schemes initiated by retailers are seldom voluntary for producers wishing to supply those retailers (Lockie, 1998b). The EUREP-GAP (Good Agricultural practice) system, for example, was established by a coalition of major European retailers including Tesco (UK), Ahold (Netherlands) and Metro (Germany) to maintain standards for food safety, environmental sustainability, agrochemical use and workplace health and safety

(EUREPGAP, 2001). The global concentration of retail ownership—including the increasing presence of European retailers in Asia—means that EUREP-GAP compliance is likely to become, in effect, a condition of entry to several major markets for Australian produce (Busch and Bain, 2004; Campbell, 2004). The recently published *National Food Industry Strategy* thus encourages Australian producers to position themselves within the rationalised and exclusive supply chains developed by these retailers (Commonwealth of Australia, 2002) and industry specific guidelines are under development to help growers achieve this through compliance with the EUREP-GAP protocol (Commonwealth of Australia, 2004).

It is telling that of all the market solutions that potentially could be applied to the resolution of agri-environmental issues in Australia, those that are likely to have the most widespread impacts are those that are implemented via private standards schemes. Retailer-driven standards illustrate Barry's (2001) argument that standardisation is a political project, as opposed to simply a matter that is the realm of technical specialists. For Barry (2001), standards are concerned with the reduction of differences between technical practices and instruments across space. Such processes not only create 'calculable spaces' that render existing practices problematic and amenable to intervention in new ways, but also constitute new sites and objects for political conflict. For retailers, these standards may be seen as strategies to pre-empt regulation of their own activities while fostering consumer trust and reducing exposure and liability to food-borne risks (Freidberg, 2004; Lockie and Salem, 2005; Pearce and Hansson, 2000). The enthusiasm of governments, on the other hand, for these standards might be conceptualised as attempts to avoid the legitimacy problems of participatory natural resource management strategies through techniques of calculation and accountability that again devolve responsibility for environmental and sustainability issues by rendering them a logical outcome of following market signals.

However, standards schemes are unlikely to resolve all the legitimisation problems facing Australian agriculture. One of the most obvious questions is whether compliance with schemes such as EUREP-GAP will lead, in the longer term, to improved farm returns that support environmental activities. While there is clear evidence that organic certification does provide a positive market value for environmental services (Halpin, 2004), it is unclear whether EUREP-GAP compliance, or indeed participation in voluntary standards schemes such as EMS, will promote healthier commodity prices or whether the costs of compliance merely will exclude smaller producers and encourage further concentration in the farming sector (see Busch and Bain, 2004; Campbell, 2005; Mech and Hugo, 2004). Further, by directing incentives in a universalistic manner to all individual farm enterprises, standards schemes and other market solutions do not always provide mechanisms to deal with spatial and temporal variability in

the distribution of ecological processes, environmental degradation, management requirements or human resources. In other words, they are generally ill-equipped, in and of themselves, to prioritise measures to address environmental issues to where and when they are needed most, or to ensure an equitable and effective distribution of costs to deal with them. One response to this limitation has been to increase state support for devolved catchment-based natural resource management activities (Ewing, 2003). These, as we already have seen, have their own limitations (see also Dibden and Cocklin, 2005). Quite another response has been an increase in direct legislative regulation of particular environmental management issues.

7. Conclusion

This paper has argued that the legitimacy of agri-environmental programmes needs to be re-conceptualised as an effect of specific assemblages of governing. Rather than a response by governments to epochal crises, legitimacy problems are a constitutive feature of the 'failure' of governing to achieve its desired effects. Such failure is by no means negative, in the sense of regulation being void of order or durability, but is productive in problematising the legitimate boundaries and limits of public and private intervention, and in creating new spaces and objects of governing. From this perspective, the rise to political prominence of seemingly contradictory agri-environmental initiatives—standards schemes and direct forms of government regulation—represents part of broader efforts to make existing neoliberal practices of governing workable. Such initiatives are more than simply a means for authorities to provide legitimacy for their actions while doing little in reality to address environmental problems.

In this paper, we have argued that much of the appeal of Landcare, property management planning, standards schemes, and the like, has been the discursive resolution they offer to the competing imperatives of environmental degradation, capital accumulation and private property rights. These strategies we have characterised as *hybrid* assemblages of governing in the sense that social and environmental sustainability are addressed through the pursuit of economically 'rational' practices. This may be regarded as less of an abdication of responsibility by governments to deal with social and environmental crises than as an attempt to avoid direct confrontation with what Reeve (2001) refers to as the 'slumbering dragon' of private property rights in rural Australia. Such hybridity is significant, therefore, in drawing attention to the ongoing work required to make neoliberal 'projects' of rule workable in practice. It points also to the limits of neoliberalism in agri-environmental governance. Where neo-Marxist approaches have tended to view neoliberalism as a largely unified and inherently durable mode of rule which progressively colonises 'the social', the argument advanced in this paper, informed by an analytics of governmentality, is that far more attention needs to be paid to how the

activity and boundaries of agri-environmental governing are assembled. Greater focus on the hybrid ways in which governing is held together enables more sustained focus on the productive environmental and social effects of neoliberalism as well as showing that alternatives sometimes exist within, rather than being external to, rule.

Thus, as we have seen, participatory strategies for managing agricultural environments have continued to be problematised both within and outside the farming community. Continued decline in regional environmental indicators—including native vegetation cover—has stimulated variously the adaptation of existing agri-environmental measures to encourage more consideration of catchment-wide processes; the imposition of new standards schemes by upstream retailers wishing to avoid criticism and liability by imposing measures to demonstrate a duty of care on their suppliers; and the deployment, by governments, of distinctly non-liberal legislative restrictions. There is, as yet, no way of knowing whether these restrictions will be effective in achieving either compliance or the goals of biodiversity conservation and ecological health. Many of these measures have, however, been actively resisted in the past. Further, the support that neoliberal strategies and techniques have lent the discourse of private property rights has served only to strengthen the beliefs among landholders that such interventions are inappropriate, ineffective and unnecessary: that is, that they run counter to landholders' existing rights; are unlikely to encourage the active management necessary to preserve conservation values; and ignore what farmers are doing already to improve natural resource management.

As a rationality of governing, neoliberalism has productively opened the self-regulating capacities of Australian farmers to calculation and influence through a variety of programmes and techniques. Conversely, its effects have been variable in the sense that the legitimacy of programmes have relied on the circumscription of strategies and techniques difficult to render workable in practice and generating considerable conflict in implementation. It is true that land clearing legislation is not an isolated example of direct environmental regulation. However, its emergence given the international trend away from command and control environmental regulation in general—and the overwhelmingly neoliberal character of agri-environmental governance in Australia in particular—must be regarded as significant. It suggests that despite the many market solutions and other techniques yet to be implemented on a wide scale, Australian agri-environmental regulation will, in order to be workable in practice, continue to rely on experimentation with hybrid techniques of governing. This is not by any means to suggest the days of neoliberal forms of governance are numbered. However, just as the hybridity of governmental programmes provides a means for extending 'roll-out' neoliberalism, it also provides opportunities for tensions to emerge, regulatory boundaries to be re-configured, and the practical achievement of

agri-environmental governance to be reflected upon in alternative ways.

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