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Vale Landcare: the rise and decline of community-based natural resource management in rural Australia

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For almost two decades, community Landcare groups and supporting institutional bodies were the focus of agri-environmental policy in Australia. Despite the successes of Landcare, the programme faces challenges securing funding in an era of agri-environmental policy that preferences economic mechanisms, such as market-based instruments, for devolving funding. This longitudinal study examines how Landcare group activity and membership in one catchment have changed over the last decade. Community Landcare groups in the study area were in 'sleeper mode' or had ceased to exist, partially as a result of funding and structural arrangements and several other factors that undermined both community Landcare groups and the regional Landcare network.

Keywords: community-based natural resource management; integrated catchment management; Landcare; National Landcare Program

1. Introduction

Since its launch in 1989, Australia's National Landcare Program (NLP) has been heralded as one of the world's leading examples of community-based natural resource management (CBNRM). In an issue of this journal in 2010, Jules Pretty and colleagues described the NLP as "a remarkable social experiment" and "one of the best national examples of rural partnerships and group formation" (Pretty et al. 2010, p. 278). Evidence for the perceived significance and success of the NLP as a form of CBNRM is usually found in the extraordinary levels of membership among rural landholders in voluntary community groups achieved by the Program – at its peak, over 40% of broadacre and dairy enterprises (Hodges and Goesch 2006). Community Landcare groups were initiated and led with minimal levels of government support, with members working together to identify and address threats to natural resource and business sustainability in their local areas. Over time, membership of 'care' groups spread to other sectors (e.g. Bushcare, Coastcare etc.) and networks were established with CBNRM initiatives in other countries (notably South Africa and the Philippines). Australia's first National Landcare Facilitator, Andrew Campbell, exhorted observers to look beyond the inherent difficulty of measuring the direct impacts of programmes such as the NLP on environmental

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quality and to imagine the possibilities for "issues such as waste management, water quality, transport, urban design, food and fibre production, and wilderness management" in "a country in which one person out of every four belongs to a conservation group, actively seeking ways of improving their local environment" (Campbell 1992, p. 1). For over 20 years, the NLP enjoyed the support of all major political parties in Australia and of peak agricultural and conservation organisations. Reports to the Convention on Biodiversity stressed the centrality of Landcare groups to Australian strategies to deliver biodiversity conservation on private land (Lockie 2009).

In 2008, however, the NLP was disbanded and support for community Landcare groups was absorbed within the new Caring for our Country programme. Caring for our Country was reflective of a new phase of natural resource management (NRM) policy that prioritised measurable outcomes and market-based delivery mechanisms, on the basis that environmental degradation was conceptualised as a form of market failure best addressed through market means (see Lockie 2009, 2012). This followed after more than a decade of experimentation with market-based instruments (MBI) by both state and Commonwealth (Federal) governments, including trials run in conjunction with the NLP and/or in co-operation with community Landcare groups (Environment Australia 2001, Lockie and Tennent 2010). Certainly the NLP has never been the only programme relevant to rural landholders and support for Landcare has often been delivered through, or in tandem with, other programmes (see Table 1). Nonetheless, while previous changes to NRM arrangements were associated with significantly increased levels of funding and other support to community Landcare groups, Caring for our Country reversed this trend.

According to the Commonwealth Government, Caring for our Country strengthened the collaborative model developed in earlier programmes through increased emphasis on measurable outcomes, regional business planning, monitoring and performance improvement (Commonwealth of Australia 2008). According to critics, Caring for our Country strangled the culture of collaboration developed

Phase	Program	Timeframe	Approach	Funds
1	National Landcare Program	1989–97	Individual- and property-level change via extension and education	\$360 million
	Natural Heritage Trust 1	1997–01	As above, plus competitive devolved grants to local community groups for small projects	\$1.25 billion
2	Natural Heritage Trust 2	2002-08	Funding for regional bodies with approved plans; further participatory evaluation; some monitoring of general trends in resource condition	\$1.75 billion
3	Caring for our Country	2008–13	Base-level funding for regional bodies, plus competitive grants for priority targets and a wider range of organisations; and a new package of market-based incentives for delivery of ecosystem services	\$2.25 billion

Table 1. Australian NRM policy timeline.

Source: Adapted from Morrison et al. (2010).

through earlier programmes, with a competing culture of cost-effectiveness, audit and centralisation (Robins and Kanowski 2011).

It is timely, in light of shifting regimes of natural resource governance, to examine how community Landcare group activity and membership has adapted to programmatic change and how such changes have re-shaped landholders' experience of Landcare. This paper brings a longitudinal perspective to these questions, returning to several community Landcare groups in New South Wales (NSW) that were the focus of research undertaken between 1994 and 1996. In this paper, we elaborate first on how funding and administrative support for NRM programmes in Australia have changed over time, before turning to our situated case study of Landcare group activity and experiences.

2. Landcare funding and policy arrangements

grassroots, community-based approach to environmental management The embedded within Landcare was the first known state-sponsored programme of its type implemented outside the developing world (Curtis and Van Nouhuys 1999). Focused on the promotion of self-help groups based on localised catchments or neighbourhoods, the intention was always that community Landcare groups would remain independent of state agencies and that relatively modest government resourcing would stimulate considerably higher levels of private activity and investment. This reflected the view that natural resource degradation could not be 'fixed' by governments acting alone or seeking to regulate landholder activity; that the level of financial investment required was beyond what governments would ever be able to provide through subsidies or other means; that private landholders benefited financially from more sustainable resource use; and that co-ordination and co-operation was required at a variety of scales to manage the cross-border dynamics of natural resource degradation. Support for community Landcare groups was focused largely on the provision of administrative and professional assistance and on projects designed to stimulate private activity by trialling and demonstrating new practices, building capacity for integrated financial and natural resource planning, and encouraging group interaction and learning (Lockie 1999, Lockie and Higgins 2007). Independence of government did not mean isolation and it is widely acknowledged that much of the early success of Landcare was due to "the energies, commitment and expertise of state agency staff" (Curtis et al. 2002, p. 1212).

The thinking behind Landcare was notable, at this time, not only for its commitment to CBNRM, but for its challenge to the accepted distribution of powers within the Australian federation which traditionally assigned responsibility for NRM to the seven state and territory governments. Since the 1950s, the majority of states and territories had operated soil conservation agencies with – despite some experimentation in ICM and community group facilitation – a primary emphasis on the provision of advisory services to individual landholders. The Commonwealth reserved for itself a co-ordinating role, instituted from 1983 through the very modestly funded National Soil Conservation Program (NSCP).

From 1989 to 1992, the NSCP provided the vehicle for Commonwealth funding to the new NLP and community Landcare groups. NSCP funding targeted the knowledge and skills base of Landcare group members. Importantly, only groups were able to apply for, or receive, project funding; and activities on private land were only permitted where they had both the support and involvement of the broader community and the capacity to be used for demonstration purposes. For projects consistent with these criteria, sourcing funding was "relatively straightforward, albeit time-consuming" (Campbell 1992, p. viii). At this stage, little or no funding was made available to employ professional staff, and volunteers often faced heavy workloads (Curtis *et al.* 2002). The NSW State Government sought to address this by exhorting ICM groups formed under its own Total Catchment Management programme, (established in 1989) to take responsibility for co-ordinating catchment-wide outcomes. These groups, however, had few resources themselves, other than the good will of members, and limited capacity to raise funds.

The NLP was established as a stand-alone programme in 1992; subsuming the NSCP and placing greater emphasis on integrated land management; combining government land and water programmes; and targeting catchment or landscape scale management. The NLP had two key functions: the support of community Landcare groups and the establishment of institutional infrastructure around these groups. Initially, the NLP was funded to the tune of AUS\$360 million, with the expectation that the availability of financial assistance would stimulate group formation and action but that, sometime down the track, Landcare groups would become financially independent. Funding was also directed to the employment of professional staff known as Landcare Facilitators or Co-ordinators – usually within relevant state government agencies and working across several adjacent Landcare groups – to assist in the organisation of group activities, applications for funding, and so on (Curtis et al. 2002). Increasingly, funding to Landcare groups was allocated according to priorities set by local ICM committees. While some assistance was available from non-government sources, government was by far the largest funding source for community Landcare groups (Curtis and De Lacy 1997).

Following a change of government in 1997, the NLP, along with 16 other environment and primary industries programmes, was brought under the administrative umbrella of the new Natural Heritage Trust (NHT). New programmes were established to create opportunities for individuals and for community organisations (including, but not restricted to, Landcare groups) to apply for small grants (Envirofund), and to ramp up expenditure on works to protect and restore waterways (National Action Plan for Salinity and Water Quality). The main implication, though, for the NLP was the provision of direct funding to Landcare groups for conservation works where ICM groups had determined these to be of high priority at an integrated regional level, regardless of their educational or demonstration value. However, community Landcare groups experienced a number of difficulties stemming from complex and lengthy application forms through to lengthy delays in notification of funding outcomes. In 1999, it was claimed that new applications for funding had decreased by 41% in Victoria due to complexities with the application process (Hunt 1999). Nonetheless, from the early 1990s, community Landcare groups were comparatively well funded, with funding an important incentive for landholders to remain involved in their local group.

A second phase of the NHT (NHT2) was initiated in 2002, which provided for more fundamental reform of the mechanisms through which funding was devolved to community Landcare groups. In order to comply with the requirements of NHT2, 56 NRM regions and regional bodies were established across Australia. Many of these were based on existing ICM groups and the legal structures for NRM bodies varied across states and territories. Reform lay not so much in the institutional structures associated with NHT2 but in the requirement that Commonwealth-approved catchment action plans (CAPs) be used as the basis for all Commonwealth expenditure within each catchment, including NLP expenditure. Regional NRM groups were to work in conjunction with Landcare groups and other stakeholders to develop draft CAPs for submission to the Commonwealth and, thence, to manage their implementation. Through this process, it was argued, regional communities would decide for themselves the appropriate mix of "economic instruments, projects, regulations and so on" necessary to deliver outcomes forecast in the CAP (NNRMTF 1999, p. 15). This statement was significant in forecasting a shift in focus for regional groups away from the prioritisation of requests for funding from Landcare groups and other stakeholders to more detailed and proactive catchment planning; the development of prescriptive priorities for regional NRM programmes (including funding programmes); and the use of a wider array of policy instruments to influence landholder behaviour.

In 2008, following another change of government, the NLP, NHT2 and other NRM programmes were replaced altogether by Caring for our Country. As well as absorbing several key programmes, Caring for our Country introduced two additional changes from previous NRM policy. First, the emphasis of regional group activities (including development of catchment action plans) was to shift from community engagement and institutional capacity building towards the achievement of on-ground environmental outcomes. As mentioned above, CAPs were to include measurable targets against which progress towards sustainable resource management (and regional group performance) could be evaluated. The guaranteed, or baseline, funding previously available to regional groups for basic operations and support of community Landcare groups was cut by 40%, and requirements to align all expenditure with measurable targets increased. Although the same amount of funding was made available nationally to regional NRM groups, this funding was delivered through a competitive grants system. Second, to access competitive funding under Caring for our Country, regional planning was required not only to comply with planning and audit principles overseen by the Commonwealth but to respond to short-term (1–3 years) environmental targets established in national business plans released annually by the Commonwealth (Morrison et al. 2010). Under this regime, regional NRM groups competed both with each other and with a wider range of additional eligible organisations through the submission of investment proposals relevant to the national business plan. Funding available to community Landcare groups fell dramatically and professional staff working with Landcare groups at local and regional levels were forced to align their positions more overtly with regional NRM groups and state government agencies.

3. National Landcare Program outcomes and recent trends

Investment in the various iterations of the National Landcare Program contributed to the achievement of impressive outcomes. Some 4500 community Landcare groups were mobilised nation wide involving, in 2004–05, 41% of broadacre and dairy farm enterprises (Hodges and Goesch 2006), up from 37% in 2002 (ABARE 2003). Landcare group members were more likely to be aware of, and report, land degradation issues and more likely to adopt sustainable management practices (Hodges and Goesch 2006). Of those farmers who did not join Landcare groups, some 71% reported that their properties had benefited from participation in Landcare activities (ABARE 2003). Moreover, reviews of the NLP early last decade

indicated that Landcare groups around the country undertook important on-ground projects that were addressing NRM priorities, at the same time as informing and educating stakeholders (Cary and Webb 2000, Curtis 2003). Several studies found strong evidence that active participation in Landcare was linked to undertaking on-ground conservation works (Curtis and De Lacy 1996a, 1996b, Mues *et al.* 1998, Lockie *et al.* 2002, ABARE, 2003, Lockie 2006) and that active participation in the educational aspects of Landcare was related to the adoption of more sustainable farming practices, such as property planning and tree planting (Curtis and De Lacy 1996a, Mues *et al.* 1998, Curtis 1999).

In spite of this evidence concerning Landcare group and member activity, the NLP has long been subject to criticism for a perceived inability to translate the capacity building activities of Landcare groups and their members into demonstrable landscape-level improvements in natural resource condition (see Lockie 2006). Early iterations of the programme were criticised by numerous participants for devoting insufficient attention to works 'on the ground' and for prioritising administrative and economic criteria over the environmental benefits of proposed projects (Lockie and Goodman 2006). Subsequent iterations responded through a progressive expansion of the funding available for environmental works and by strengthening mechanisms for co-ordination and planning at larger spatial scales. Paradoxically, while environmental criteria feature more overtly in funding criteria established through national business plans for NRM investment, this has not been at the expense of administrative and economic criteria. Rather, it has been in concert with a dramatic expansion in administrative and economic criteria and in a shift from prioritisation of environmental objectives at the bioregional to the national level (Morrison et al. 2010, Robins and Kanowski 2011).

Recently, evidence has begun to emerge of declining membership in community Landcare groups in parts of Western Australia, Victoria and NSW (Curtis and Cooke 2006, Forge-Zirkler and Prior 2006, Simpson and Clifton 2010). The Victorian study found declines in: the number of Landcare groups; participation in group activities; outreach to the broader community; contact between groups and relevant government departments; collaboration with rural businesses; the use of property planning; and collaborative planning among members (Curtis and Cooke 2006). It found that Landcare groups were disbanding, going into recess or were merging. The Western Australian study found that Landcare groups were scaling back their operations as government support and facilitation were withdrawn, working as forums rather than taking an active role in projects. Forge-Zirkler and Prior (2006) found a culture within some regional NRM groups in NSW that was unsympathetic to the needs of community Landcare groups. These groups assumed that regional bodies should replace rather than support local community engagement mechanisms, displayed a poor understanding of CBNRM, and developed regional funding regimes that did not support the Landcare model.

Government funding was essential to the formation of a viable network of Landcare groups, helping to establish credibility and provide staff resourcing (Curtis *et al.* 2002), with flow-on effects for participation among community stakeholders. The programme was never intended to provide funding for large on-ground works or, indeed, to provide funding indefinitely. From the earliest stages, attempts were made to encourage both private sector investment in Landcare (via the private company Landcare Australia Limited) and Landcare group self-sufficiency. Nevertheless, at least one study has found a link between the levels of government funding

received by groups and these groups' functioning and levels of activity (Curtis *et al.* 2002). A number of observers have argued that long-term community participation in community Landcare requires adequate and on-going funding and resourcing (Curtis and De Lacy 1997, Simpson and Clifton 2010). This certainly offers a plausible explanation for the reduced community Landcare group activity observed by some studies. However, it is not the only plausible explanation and does not necessarily invalidate the notion that over time groups ought to become financially self-sufficient. Through the following case study we will examine, therefore, the relationship between group activity and government support, through the situated experiences of Landcare group members.

4. Methodology

This most recent data collection exercise builds on research undertaken between 1994 and 1996 (Lockie 1996, 1999, 2000, 2004). The case study unit for both studies was all community Landcare groups within one local government area. This area was selected to allow examination of linkages between and within Landcare groups and state agencies, to take advantage of the emphasis placed on catchment-level natural resource management by the NSW Government; and because it contained more than one community Landcare group, with varying focus areas, to compare and contrast outcomes. Longitudinal studies, which involve assessment of the same people over time, provide information on causation, stability and change (Khoo *et al.* 2002). In this particular study, examination of the same individuals, as well as changes in Landcare over time.

The first round of data collection involved face-to-face interviews with 184 people: 51 interviewed following a semi-structured format, based on theoretical sampling; and 133 interviewed following a structured format, based on strict random sampling. The second round involved face-to-face interviews with 13 interviewees from the original data collection exercise, and an additional seven interviewees who did not participate in the original data collection. The majority of data reported in this paper are drawn from the second round interviews.

While every effort was made in the second round to interview a theoretically representative sample of the original participants, one community Landcare group had disbanded and members from the original data collection exercise were unable to be contacted; and for a second group, no members were available to participate in this data collection. This meant that all interviewees were from one of three of the five Landcare groups represented in the initial data collection. Each interviewee was either: (1) a Landcare group leader who participated in the original study and who still resided in the local area; (2) a Landcare group member who participated in the original study and who still resided in the local area; (3) a Landcare network leader or other person associated with Landcare; or (4) a Catchment Management Authority (CMA) employee working with community Landcare groups in the study area; or (5) other community members involved with the CMA or Landcare in the region. Respondents were recruited with the assistance of the Area Landcare Network (ALN) Community Support Officer (CSO).

Semi-structured interviews were conducted with each interviewee, in January 2009, and were voice recorded. These interviews explored the interviewees' experiences of the following: participation in Landcare and other local organisations

and networks; the meaning of Landcare; Landcare activities; changes in Landcare since the earlier data collection exercise; NRM changes that have come about since this time as a result of Landcare and the CMA; and changes in property management, financial viability and environmental sustainability attributed to Landcare and other social networks. Upon completion of interviews, digital voice recordings were transcribed verbatim and coded inductively into relevant nodes using QSR NVivo. Data analysis focused on eliciting the main themes raised in interviews, and these were discussed and assessed between the research team. The data were managed in accordance with three key phases proposed by Saldana (2003) for longitudinal qualitative research. The first phase involves framing the data analysis with several key questions: (1) what is different between the two datasets; (2) what contextual and intervening conditions influence and affect participant changes through time; and (3) what preliminary assertions can be made (Saldana 2003, p. 63). A second set of questions helped to integrate the description data to move towards "richer levels of analysis and interpretation" (Saldana 2003, p. 63). In particular, relevant questions included: (1) which changes interrelate through time; (2) which changes harmonise with constructed social processes; and (3) what is the key issue of the study?

4.1. Case study site

This research was undertaken in one regional catchment in NSW, Australia, that supports, by regional NSW standards, a reasonably high population. The majority of land within the catchment is privately owned, and the region is an important food production region for the state. Land uses include dairy, grazing, horticulture, cereals, forestry and viticulture. Within the catchment are a number of subcatchments, including the sub-catchment where this study was undertaken. The regional CMA was established in 2004 as one of the 56 regional NRM authorities created under the NAP. It is a statutory organisation managed by a seven-member community board appointed by the NSW Government.

5. Results

5.1. Landcare participation and membership: past and present

The initial data collection found six community Landcare groups within the region (five were included in the study). At the time, these groups were experiencing, or approaching, a peak in membership and activity; and group meetings often involved 35 or more participants. Participation rates in the region, at 63% (Lockie 1996), were much higher than national farm membership figures for broadacre industries of 28% in 1992–93 (Mues *et al.* 1998). However, within the area, 27% of farm households believed that no Landcare group existed in their area and, indeed, Landcare groups did not cover the whole study area when the original survey was undertaken. This meant that where Landcare groups had formed, they achieved higher levels of membership among local farms. Landcare groups in the study area were very much farm-based organisations, rather than rural or community organisations that would involve higher numbers of non-farmers. Participation in Landcare groups in the area was most often motivated by concern for environmental problems on their own farms. Non-participants who were aware of a Landcare group they could join in their area nominated the involvement of another family member, with family

responisibilities that prohibited attendance at group events and age as the most common reasons for non-participation.

The focus of much Landcare group activity revolved around rising water tables, acid soils and dryland salinity. Field days, farm and catchment monitoring activities, tree planting, erosion control and salt reclamation activities were undertaken. According to group members, there was considerable excitement at the "mindset change" associated with acknowledging and sharing the challenges of natural resource degradation. As one participant in the second round of data collection recalled:

It was really exciting times when Landcare was around. It meant that farmers, who are often seen as the rapists and pillagers of the countryside, became those who looked after the land and that was a huge mindset change.

Subsequent to the initial data collection, another four community Landcare groups formed in the area. It is assumed that these groups were established to fulfil a demand for community Landcare groups in geographical areas where no Landcare groups were previously active. Between the original data collection and the most recent data collection, an intergroup network (IGN) also formed, covering the relevant local government area, the aims of which were to co-ordinate Landcare group activities and provide community education. In addition, a catchment-wide umbrella network (CLG) was established to represent all community Landcare groups in the catchment. The committee of the CLG comprised the chairpersons from each of the IGNs within the catchment. These were both established due to the belief that networks of groups would be more effective than individual community Landcare groups in lobbying catchment organisations and government to recognise local group priorities and needs. In addition, it was believed that these networks would assist community Landcare groups working on inter-group projects.

The most recent study discovered a remarkably different situation. Of the five groups included in the original phase, three were formally inactive according to group members, and another appeared to be inactive on the basis that no members were contactable, and on reports from respondents. The fifth group had disbanded altogether and it was unclear as to why, or when, this had occurred. Group members described the inactive groups as being in 'sleeper mode'. This term was used by respondents to describe a situation in which most felt committed to their community Landcare group and to their interpretations and aims of Landcare – most frequently described as "caring for the land". Respondents still considered themselves 'Landcarers'. However, no meetings, field days or other typical Landcare activities had been held for up to five years. The IGN, which had also been highly active, with meetings of over 200 members from the region, had failed to sustain high levels of support, with more recent meeting attendance under 10 members. The CLG had also lost support across the region, and struggled to engage Landcare group chairpersons to attend committee meetings. In reality, the IGN and CLG survived in name only.

As Landcare groups mature it is perhaps inevitable that membership and activity levels will fluctuate. Respondents noted that a number of groups had formed over the years which filled some of the same social networking and professional development roles as Landcare groups. These included Top Crop groups, which were run by the Department of Primary Industries and which held regular meetings and farm visits. In some parts of the study area, however, no other groups had arisen and landholders described the networking environment as 'a social hiatus'. Given the magnitude of recent (negative) fluctuations in Landcare group membership and activity, we would suggest that this goes beyond what might be considered cyclical or inevitable, in light of the many priorities of potential members. The following sections will explore respondents' explanations for this decline.

The loss of leaders was also a significant factor in the decline of community Landcare groups (see Curtis and Lockwood 2000, Gray *et al.* 2005). Groups were said to have commenced and gained momentum due to these individuals, who had tended to hold official positions in their community Landcare groups, for extended periods of time, missed few meetings and were highly involved in the organisation of community Landcare group events. As a (mostly) volunteer-based organisation, Landcare had been reasonably dependent on a couple of leaders in the region, and when they had experienced burnout, community Landcare groups had suffered from a lack of leadership.

5.2. Changing structural and funding arrangements

The initial data collection phase found some concern about the relationship between Landcare and total catchment management (TCM) groups, effectively the precursor to CMAs. This was based on the perception that Landcare groups and individual group members would be forced to conform to priorities established at a catchment level, but which may not reflect their more localised needs, if they were to receive any kind of support (Lockie 1996). However, direct support was, in fact, quite limited and community Landcare group members were generally far more concerned that insufficient funding was made available to assist in the implementation of on-ground works.

During the most recent data collection phase, it appeared that tensions in the relationship between Landcare and catchment management had escalated. Further, it appeared that this escalation was strongly related to the devolution of funding from the CMA directly to individual landholders to undertake projects, even where there were obvious environmental, economic or social learning benefits to be gained from landholders working together. Indeed, landholders involved in this phase of data collection stated that they would not apply for funding through Landcare groups as the CMA had advised them that funding applications were more likely to be successful if they were completed on an individual basis. While the CMAs have the flexibility to allocate funding for landholders through regional Landcare networks and community Landcare groups, as a mechanism for garnering support for their catchment action plans, and to be seen to engage stakeholders, CMAs are provided a great deal of discretion in how funding is devolved. This phase found that much of the funding for landholders bypassed community or regional Landcare groups and went directly from the CMA to individual landholders. While the ALN could apply for funding from government agencies, in general, there was said to be a preference within Caring for our Country for dealing with larger entities such as the CMA. Smaller projects, under AUS\$ 20,000, were referred back to the CMA for funding. This strongly promoted an individualistic approach to land management, which was at odds with the general Landcare aim of group NRM. As one Landcare group leader observed:

The way that the funding regime and the incentives regime is set up through this CMA is that everything is delivered to individual landholders. If you can sit in your own property and get funding for your property, why would you waste your time with a community organisation and other community members when they can't get any funding to do anything anyway?

Interviewees suggested that this was the result of power within the CMA residing with individuals who had a strong dislike for Landcare; and who tended to bypass Landcare in favour of other mechanisms for delivering funding. That these changing funding arrangements appeared to be undermining community Landcare groups was validated by comments made by the majority of respondents, suggesting that a significant factor in not engaging with community Landcare groups was that there was no funding channelled to these groups. As one respondent explained:

I've put in some native pastures and done some tree planting with the CMA, but nothing through Landcare, because the money was there through the CMA and we knew there would be no money, or very little money, through Landcare. The CMA is just where the funding is now. The government money has gone to the CMA, and the grants that are out there for Landcare are hard to get if you don't have a paid coordinator.

A related concern was the absorption of Landcare Community Support Officers (CSOs) into the CMAs. This was originally intended to support Landcare functionality, through the provision of facilities and funding for CSOs. However, in reality this resulted in a loss of the autonomy and dedicated time CSOs had for their Landcare group as they became more involved in the CMA. While anecdotal evidence suggests most NSW CMAs actively worked with community Landcare groups to assist in acquiring funding, devolve discretionary funding to CSOs for expenditure on Landcare activities and divert funding from other projects, where possible, to community Landcare groups, a handful of CMAs, including the CMA involved in this phase, have done very little to engage and support Landcare. Indeed, CSOs were given a 20% workload allocation for support for community Landcare groups, the IGN and the ALN with the remaining time dedicated to CMA work. This meant that CSOs had little time to assist with funding applications and other work previously undertaken; and instead tended to be guided by the CMA to write newsletters for Landcare groups or assist with projects already organised by Landcare groups. Both CMA staff and landholders acknowledged that this had resulted in unhelpful boundary defence between the CMA and community Landcare groups and networks in the region. A CMA staff member explained this:

When the CMAs came along, their core function originally was to support Landcare. The CSOs did feel a bit disenfranchised because they lost some of the autonomy they and the dedicated time they had for their Landcare group. That worked both ways; the groups found the CSOs were doing all types of work with people not aligned with Landcare ... In the more recent couple of years there has been what I think of as 'boundary pissing'. It's never been that cut and dried, so that institutional territoriality has not helped with the relationship or the function of the CMA or Landcare. The Landcare associations and networks have flexed a bit of muscle lately. But the capacity of Landcare groups on the ground has been really tested, and the support comes in via CMAs.

There were other issues evident pertaining to the relationships between Landcare and the CMA. CMAs applying for operational funding from Caring for our Country are required to develop, and have approved, a catchment action plan. Acquiring this funding does not formally require engagement with, or support for, Landcare groups. However, a general requirement is to provide 'community support', including to traditional (i.e. indigenous) landowners and to community NRM groups such as Landcare. For CMAs then, the inclusion of community groups such as Landcare is a de facto mandatory requirement for securing operational funding. This phase found that the CMA engaged the ALN as the single community liaison mechanism, or Liaison Committee, to provide approval for funding applications for individual landholder projects. However, it was suggested that the relationship was perfunctory at best, and was established solely to 'tick the community engagement box', with community engagement viewed as 'marketing rather than learning'. One Landcare group leader elaborated on the impact of this consultative style on the trust between landholders and the CMA:

The CMAs have dispossessed Landcare ... The CMA decided to run the region and Landcare groups became a rubber stamp ... The CMA would come out doing their funding assessments and ask us to decide whether they should go through, so we would be given the data and asked to make a decision. We might be given black and white aerial photos, or something similar, to decide. One day I couldn't tell from the photo ... I thought I'd drop in on the people and have a look at their property to get a better idea. About a week later, I got a phone call from the CMA asking why I went there. I said it was to make an informed decision, because we couldn't tell from the black and white photos. They could have been taken of the far side of the moon for all we could tell. The CMA said, "You've broken protocol, you had no business going out there". What I am getting at is that this is so far removed from the original Landcare ethic of getting out and looking at other peoples' properties. It has formed a veil over Landcare, and segregated it from the community. The CMA has become like a big hand smacking you and saying, "this is our property, we have a contract with it, stay away, you can't look at it, but please sign this so we can do what we want to do". It's so different to the Landcare philosophy of transparency, where everyone knew what everyone was doing.

5.3. Increasing compliance costs

In the mid-1990s, the NSW state government legislated that public liability insurance would be required for all registered groups as a pre-requisite for receiving funding. The requirement for public liability insurance was not in effect during the original data collection exercise, although many participants felt that funding for community Landcare groups was wasted on non-productive activities such as publicity and bureaucracy. This meant that community Landcare groups were required to take out public liability insurance when groups were already struggling with declining project funding and membership. The cost of the insurance would almost double the membership fees from AUS\$30 per year to AUS\$50 per year. With declining memberships also a problem, it was likely that the cost of membership would increase further each year. The chairperson of one community Landcare group that had folded suggested that the reason their group was not functioning was almost entirely because of the costs of taking out insurance. This was explained as follows:

The insurance cost for our group was \$400 per year, for a small group of people, and that had to be met from the membership fees. It used to be \$30 for the membership, and then we needed to ask people for another \$20 per year for insurance. There was less and less funding available, more contestability for the available funding; and then people had to pay almost double for their membership. It was a huge issue for our group. I can tell you right now it is almost entirely because of the costs of being and staying 'incorporated' and taking out insurance that we have stopped meeting. For the small struggling groups, all of their money went to insurance.

Community Landcare groups initially fought for NSW Landcare to apply for a blanket-cover that would include groups across the state, but were unsuccessful.

Eventually, those groups without ongoing projects or funding were unable to afford insurance and were absorbed under the umbrella of the ALN. It was thought that this could be beneficial and that the larger group may be more effective in lobbying or applying for funding for multi-group projects. However, where in the smaller groups respondents said members "made the effort to drive group activities", in the larger group "that personal contact was lost, people became reluctant and had to be coaxed along by individual telephone calls". In addition, there was a general lack of support among landholders for the ALN, which was seen to be unnecessarily bureaucratic and cumbersome. A frequently cited concern was that funding received through Landcare was initially subject to few requirements, while in latter years requirements were rigid. An example was given for a fencing project, where landholders were unable to select where the fencing materials were acquired from, or what fencing materials they would use:

Doing a project has become a paperwork jungle. It is too hard to do anything anymore. Now if we do a project, we can't even buy the materials ourselves. We have to collect the fencing from somewhere specific, and the fencing material is decided for us. Farmers know what to use for a fence – you don't need to tell me how to suck eggs! I get annoyed with it, so I just do it myself now, so I don't have to go through all that.

6. Changing natural resource condition

A final factor in the decline in community Landcare group membership and activity was related to an improvement in the specific natural resource conditions that community Landcare groups had tended to focus on. This was consistent with nation wide data on Landcare participation rates, which indicated these to be highest in the most extensively degraded regions (Lockie 2004). When the initial study was conducted, a major focal point was in addressing a rapidly expanding dryland salinity problem in the region. While the local dynamics of groundwater movement were complex, and often not well understood, at a coarser scale it was widely understood that rising water tables and associated dryland salinity stemmed from changes in the water balance, following the removal of perennial plants in native ecosystems and their replacement with annual crops and pastures. With a large proportion of landholders affected, community Landcare groups focused on mitigation strategies, including tree-planting and perennial pasture establishment in aquifer recharge zones and saltbush trials in areas affected by high water tables and salting. It was suggested that the scale of these mitigation strategies, in particular, tree planting activities, were arguably too low to have a major effect on salinity or other degradation problems (Lockie 1996). Indeed, interviewees at the time suggested that involvement in community Landcare groups had made very little difference to farming practices, and group members struggled to identify specific things they had done differently since joining Landcare. This is in contrast to what was found during the most recent round of interviews, where respondents attributed the work and ethos of community Landcare groups to improvements in salinity. Respondents were able to cite the numbers of trees planted, "6000 per year"; "30,000-40,000 trees"; "more trees than I could count", and suggested that this, along with liming and saltbush plantings, had contributed to a decline in salinity.

With properties and businesses devastated from the drought, landholders were also suffering financial and psychological hardships and did not wish to spend time, money and/or energy on activities that were considered beyond necessary. As one landholder explained, "you haven't got the time or the resources ... the drought has knocked around our ability to want to do the additional extras around the place". In addition, landholders were loathe to open up their properties for field, or training, days: "We used to have farm walks, but no one wants to open their farm in drought when things look horrible ... you don't want your sheep in feed lots when people come around". With landholders disengaging from community Landcare groups, as well as the ALN and the CLG, members of these groups were attempting to reinvigorate these, through encouraging guest speakers to attend, although, at the time of interviews, this had not occurred.

7. Conclusion

No longer the centrepiece of Australian natural resource management efforts, Landcare groups are dependent, for funding, on their ability to align themselves with programmes and priorities established regionally and nationally. New approaches to funding regional NRM bodies and landholders, along with structural changes at the Commonwealth level, have reduced dedicated funding for Landcare. Despite international plaudits for Australia's grand social experiment in community-based natural resource management, the National Landcare Program has always been subject to tension between the highly devolutionist model of community action and learning embedded in community Landcare groups, the cross-boundary dynamics of natural resource degradation, competing demands on government, and the need to demonstrate measurable improvements in natural resource condition. Following 20 years of seemingly universal political commitment to the Landcare model and its language of partnerships and capacity building, NRM policy is now dominated by business and investment plans, auditable targets and standards, hierarchical decision making and other signifiers of an altogether more managerialist approach to the allocation of government resources. The question is, have these changes built on and strengthened the collaborative model of earlier NRM programmes, as claimed by the Commonwealth (Commonwealth of Australia 2008), or 'strangled' the collaborative model, as claimed by critics (Robins and Kanowski 2011)? The significance of this question lies not simply in the mapping of Australian resource management policy over time but in contributing to debate over what 20 years of experimentation in CBNRM in Australia might tell us about the different ways in which collaborative models can be operationalised and supported.

The longitudinal research reported here suggests that in this particular case study site the changes in resource allocation and decision-making processes outlined above have undermined community Landcare groups. The subsumption of aspects of Landcare funding into the Catchment Management Authority and a decentring of Landcare as a key NRM policy has been implicated in a significant decline in community Landcare activity. Given the links between government funding and Landcare group activity, it is probable that a continued decline in membership will follow withdrawals of financial contributions, unless community groups are able to source alternate funding (see also Curtis and Cooke 2006, Forge-Zirkler and Prior 2006, Simpson and Clifton 2010). This is not to suggest that funding arrangements alone have resulted in the decline of community Landcare group activity. The local loss of Landcare 'champions', unpredicted natural resource events, insurance requirements placed upon Landcare groups had set out to address, have all played a role.

The longer-term sigificance of changes to Australian NRM policy will, of course, rest on their contribution to environmental outcomes and the sustainability of resource-dependent communities. Policy shifts have been justified on the basis that they will address shortcomings in the Landcare model, while maintaining the benefits of collaboration and partnership. Specific claims regarding the potential of market-based instruments and other, now preferred, policy options deserve their own scrutiny (see Lockie 2012, Lockie and Tennent 2010). The current case study suggests that, to the extent that collaboration and partnership remain critical to the project of improving natural resource management, attention needs to be refocused on the scales (social, spatial and temporal) at which resource allocation and decision making are organised.

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