

# Policy Change and Its Effect on Australian Community-based Natural Resource Management Practices

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## Abstract

The authors of this article report on a qualitative study of Australian community-based natural resource management groups known as Landcare groups. They discuss how four Landcare groups contributed to sustainability practices and how a policy change implemented in 2003 influenced the efforts of the groups to remain active in their activities. Using case-study methodology and drawing on Habermasian theory to support their work, the authors show that changing administrative structures created a tighter connection among government policies, projects and landholders carrying out natural resource management projects. The tighter connections provide more efficient processes to deliver officially valued outcomes as they are mediated by the catchment management authorities, but that efficiency is achieved at a cost because each landholder is now in competition with other landholders in the catchment to improve his/her own properties. Now the landholders are clients of the system, as private consumers rather than as a local community.

**Keywords:** Habermasian theory, natural resource management, policy change, community-based action

**A**gricultural development has been important in Australia's recent history, but this development has been far from sustainable. Barr and Cary (1992) described

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the 200 years of settlement as an ongoing experiment to discover a way to farm sustainably. Prior to settlement by Europeans, the mainly nomadic indigenous Australians used their knowledge of the Australian land to live with minimal impact and to preserve the environment.

Even though commentators such as Barr and Cary (2000) argued that a change in agricultural practices might be best achieved through providing benefits to private landholders, Australian governments have continued to control natural resource management by legislation. Agricultural extension has also been tried, as have environmental studies from school to university level (Allan & Stankey, 2009).

One approach to addressing Australia's natural resource management at the community level was Landcare.<sup>1</sup> In explaining why the introduction of Landcare was considered innovative, Campbell (2008) wrote:

We have identified particular environmental problems such as weeds and pests, soil erosion, salinity, declining water quality, loss of wildlife habitat and species extinctions, and we have developed responses to try to repair the damage and in some cases to deal with their causes. An innovative Australian response over the last 25 years has been the evolution of participatory approaches (like Landcare, Coastcare, Waterwatch, Saltwatch and so on) that have involved the community directly in developing and implementing measures to tackle such problems at a neighbourhood or district scale. (p. 1)

Throughout Australia, the Landcare groups in the late 1980s and the 1990s comprised volunteers who conducted minimally funded, locally based natural resource management activities (Curtis et al., 2014; Curtis & Van Nouhuys, 1999). The early Landcare-type programmes were based on the recognition that the problems of land degradation (e.g., erosion, acid soils and salinity) were interrelated and that remediation needed to involve communities, landowners and managers (Youl, Marriot & Nabben, 2006).

With an estimated 4,000 Landcare groups operating throughout Australia, Youl et al. (2006) summarized reasons for the ongoing success of Landcare:

- Landcare stimulates visionary attitudes and activities, and debates on what is sustainability;
- Landcare is egalitarian, democratic and respects local knowledge while having a flat, horizontal organization with no complex or unnecessary hierarchy;
- Landcare activities attract strong government commitment;
- Local decision making is important; and
- Many groups have a full- or part-time coordinator to support their voluntary effort (adapted from Youl et al., 2006, p. 23).

However, as Lockie and Vanclay (1997) suggested, when they explored a range of perspectives on Landcare, the social movement of Landcare needed to be analyzed in order to evaluate its impact in the 'social, political and environmental' spheres (p. vii). The progress and development of Landcare has been influenced by legislation and several changes in funding strategies, and the impact of Landcare continues to be evaluated (Woodhill, 2010).

Recently, some research has been undertaken on the ongoing role that Landcare has played and whether changes to government policy with respect to natural resource management have influenced the impact of Landcare. The aim of this article is to report how four Landcare groups contributed to sustainability practices and how a governmental policy change in 2003 influenced the efforts of the groups to remain active in natural resource management activities. Habermasian theory has been chosen to help realize this aim.

## **THEORETICAL LENS**

In this section, we briefly discuss the Habermasian theoretical lens that will be used to interpret some findings from the Landcare case studies developed for this research. The Habermasian understandings of system and lifeworld are employed to discuss implications for policy in relation to community-based environmental groups and augmenting their impact on natural resource management.

Habermas wrote about the significance of the boundaries between systems and lifeworlds (Habermas, 1987a) while indicating that there is no single large system, rather many intersecting sub-systems. Lifeworlds are the intersubjective realms where people meet in shared cultural, social and personal spaces. Habermas described the phenomenon in which a sub-system impinges on a lifeworld and alters it such that it becomes distorted, as the system colonizing the lifeworld (Habermas, 1987b). In the study reported here, at the regional level, the interface between the administrative system of the Catchment Management Authorities (CMA) and the community-based natural resource management groups (i.e., Landcare groups) may be described in terms of a boundary crisis (Habermas, 1987a, 1987b; Kemmis, 2001).

Habermas argued that there are two ways of looking at the social order. On the one hand, the social world can be viewed as a system in which people perform functions related to the system and goals, and they fulfil roles that help them to pursue those goals. This means that the social order is there to fulfil the goals of the system. On the other hand, the world is also, and separately, held together by the interpersonal relationships between the people who interact with one another in person-to-person relationships (1987b). In these person-to-person relationships, the people involved understand each other in terms of shared discourses, their relationships and decision making.

On the lifeworld side, the social world is a place where people encounter one another as human beings, not in roles, but as other people in the community. The system and lifeworld need to be considered together. Kemmis (1998) described the system and lifeworld as needing to be 'understood as dialectically-related aspects of social formation in late modernity, not as two separate entities at odds with one another' (p. 302).

The duality or the two ways of seeing the world are in a constant tension that Habermas describes as the colonization of the lifeworld by the system. People in their lifeworlds experience intrusions by the system as it sends imperatives such as demands for roles or goals that are required by the system. In Habermas's theories,

individuals and lifeworlds are under constant pressure to conform to the goals of administrative and economic systems with the result that lifeworlds are colonized by the imperatives of systems.

It is our intention in this article to explore the duality in which natural resource management policy has operated in Australia. This exploration occurs through a case-study methodology.

## METHOD

### Design

According to Stake (1995), the structure of a qualitative case study should be able to encompass characteristics including uniqueness, complexity, issues, embeddedness and interaction with multiple contexts. In the analysis of qualitative data, Stake (1995) suggested that 'the qualitative researcher concentrates on the instance, trying to pull it apart and put it back together again more meaningfully' (p. 75).

In this study, we have used multiple case studies to provide the perspectives of a range of groups. Stake (2006) highlighted the usefulness of studying several related cases to reveal possible cross-case insights, whereas issues found at the individual case level may relate to particular contexts, such as historical or social, that can 'go a long way toward making relationships understandable' (Stake, 2006, p. 12).

The data were gathered in a number of ways. Narrative data were collected through semi-structured interviews. Historical documents were sourced from four Landcare groups' records of meetings, their projects and newsletters. Further historical background was explored through an analysis of external documents such as Landcare magazines, Department of Agriculture information news-sheets and extension brochures. Observational data were gathered during the groups' general and annual meetings and those observations were recorded as field notes and journal entries. Further observational data were recorded at the annual Landcare fora organized by Murrumbidgee Landcare Incorporated (MLInc<sup>2</sup>), workshops and seminars conducted by Landcare groups.

### Study Location

This study was carried out in the Murray–Darling Basin which comprises the catchment area of the Murray River and Darling River as shown in Figure 1. The Murray–Darling Basin is part of a large drainage depression in inland Australia. This basin measures more than one million square kilometres and occupies approximately 14 per cent of the Australian mainland area (Murray–Darling Basin Commission, 2001). The region is the location of approximately 41 per cent of agricultural production in Australia. As Williams (2011) described, large tracts of land in the Murray–Darling Basin have succumbed to the unsustainable agricultural practices of 'grazing, clearing of forests and woodlands and the development of irrigation' (p. 2). The Landcare groups studied were all from the Murrumbidgee River catchment, one of the many sub-catchments of the Murray–Darling Basin.



**Figure 1** Location of the Murray–Darling Basin region in Australia; locations of the Landcare groups

**Source:** Spatial Analysis Unit, Charles Sturt University, 2011.

**Note:** The case study groups were located in the area surrounding Wagga Wagga. Wagga Wagga has a population of 57,015 and Narrandera has 3,961 people (Australian Bureau of Statistics, 2007).

### Sample and Data Collection Techniques

As explained below, a purposive sample (Miles & Huberman, 1994) of four Landcare groups was recruited, with participants of up to 12 members in each group. The case studies were carried out concurrently.

Permission was sought from the chairperson of each Landcare group to attend a meeting to describe the project and ask for volunteers. One criterion for selecting groups was that informed observers had indicated that the group had been doing interesting and productive work in its setting.

The participants who took part in the ‘conversations’ were recruited either through direct contact at the Landcare group meetings or occasionally by the ‘snow-ball’ technique in which participants nominated other members (Minichiello, Aroni, Timewell & Alexander, 1995). The research was approved by the authors’ University Ethics in Human Research Committee.

The total number of Landcare participants interviewed was 34. At times, the participants were asked to provide further information on significant responses, clarify remarks or review transcriptions of interviews. Overall, there were 63 interviews conducted. During the data collection, eight representatives from the Murrumbidgee CMA consented to be interviewed in a total of 15 interviews.

Open-ended questions were used to encourage participants to talk about their experiences, with some guiding questions intended to explore topics at a greater depth or to return to topics they may have introduced.

## Data Analysis

From the observations recorded as field notes and transcripts generated from audio recordings of interviews, we assembled the analytic notes that were organized by an intuitive analysis (as per Johnstone, 2002), but also initially with the aid of the textual analysis software NVivo (2010). Coded categories were created with data indexed against the categories to assist in a thorough examination of all material and data created (Gillham, 2000; Patton, 2002). We used several techniques to amalgamate themes or confirm the intuitive analyses (with the data in a single Nvivo database) by:

- Probing the text for the most frequently used words and phrases;
- Using the most frequently found words and phrases to identify the surrounding text for significant discourses as per the technical advice of Gibbs (2002); and
- Searching the text for discourses about policy-related issues.

The collection and subsequent analysis of historical documents belonging to the groups had several purposes. The preliminary analytical technique used was textual analysis that was augmented by comparative analysis (Leech & Onwuegbuzie, 2008). A primary purpose was to create a chronology of policies and themes across the life of the Landcare groups in the study. This served to provide a rubric detailing the types of information that the members might have been using to gain knowledge on natural resource management. Another purpose was to obtain triangulation for the narratives obtained from interviews and observations.

## RESULTS

The results of the data analysis phase are presented below. These results highlight the Habermasian notions of system and lifeworld and, in addition, focus on natural resource management policy as it pertains to Landcare.

A frequently raised source of tension between Landcare participants and administrative entities is that the timescale of 'nature' and administrative timescales are not consistent. At the national, state and regional levels of government, funding and reporting schedules are based on financial year or programme constraints that may require results within a 2-year period. Landcare groups need long-term projects,

for example, 5 years or more, to report on the effects of on-ground work. Administrative entities have reporting and auditing cycles that are based on 12 months, usually one financial year. Even if a project is funded for a longer term, say 5 years, annual reports are required. The chairperson of Group 1 explained the approach that farmers take:

The way nature works is on a different scale. Time to me (as a farmer) is something which is either completely misinterpreted or never defined by the government. Landcare is in the same boat—we can only see changes now that Landcare has been going for twenty years. ...but the timeframes of salt issues and fixing the problem is long-term—the project, the Kyeamba Action Plan, was to reduce the salt-load into the Murrumbidgee—wasn't ever going to happen in twelve months. Even if you fence a creek out, nothing in twelve months will change. (Interview, LCM1<sup>3</sup>)

Participants also managed variations to project schedules that were imposed by seasonal fluctuations (e.g., shortages or excesses of rain), and those imposed by administrative structures when the funding was only delivered when the project was completed:

You start something and you can't do the planned things...and certainly from the Landcare point of view that's certainly been a problem. For us it's the drought and just not having enough hands to comply with our in-kind contribution to the project, or the finances to actually do the fencing. (Joint interview, LCM7, LCM8)

Landcare participants wanted to continue with the successful on-ground works, such as tree planting and erosion control, whereas the funding bodies were not offering funding for those works. The Group 2 members were aware of their need for a new project to remain active. They were also aware of their inability to develop a project to comply with the funding guidelines. The uncertainty was compounded by the impatience of the natural resource officer to be able to report that she had informed the group. At one meeting, the natural resource officer told the members and guests present:

Well, you need to hurry up. We have to have your applications in by next week or even next month, but certainly before the next meeting. (Research field notes)

This example highlights the tensions created by inconsistencies in timescales at the boundary between the group's and participants' lifeworlds and those of the CMA's system.

Members of Group 2 struggled with administrative interactions at the regional level as evidenced where members of the group were reluctant to engage with the proposed projects and ideas. Evidence of a dislocation in the administrative timeline and the grassroots timeline became apparent when Group 2 members complained that the new timelines for project proposals, seminars or field days precluded their participation because they did not have sufficient time to adjust their work schedule and make arrangements to travel to the seminar.

Attempts by participants in this study to understand changes over the numerous years of Landcare resulted in some participants reflecting on the administrative

arrangements before the Murrumbidgee CMA took over the management at the regional level. The changes from the first 10 years, where the group could make their own decisions on the focus of projects, to the years since 2003, when they have had less control of activities, have been difficult for the groups as the Group 1 chairperson stated:

We've just been presented with projects...recently we have been working with the CMA, and funding devolving in a new model. That is, the Murrumbidgee CMA has been re-focusing, and setting new priorities. Who's to say that in a future time the government will just say 'well CMA aren't working, we'll scrap them and bring in something new'? And to date we have been relying a lot on government funding. They do have that control as to what they do, who they put in control of the funds they're distributing. (Interview, LCM1)

In describing the instability of the administrative arrangements, LCM1's comments were based on his frustration at the unsuccessful efforts to maintain stable relationships with the officers from the regional entity. The case studies showed that the other groups had experienced similar issues over the same period.

In the groups studied, there was a sense of powerlessness, of being unable to influence policy and regional management. The perceived loss of impact was manifest in explanations of participants who repeated the history of the networks, and individual groups, with a tone of 'disorientation, loss, and sometimes even grief' (Interview, Agency 8).

One participant lamented the changes in approaches to policy where it is now more heavily top-down and more regulated, with less grassroots consultation:

I don't know...it has deteriorated, got worse—before it was driven from the ground up...for example in the recent seminar topics—can Landcare inform policy? How to get the communications working between grass roots and bureaucrats...I don't know what can be done...things don't work anymore...now it's hard to imagine what it will take to change. (Interview, LCM28)

This participant described the lack of success of inputs from the Landcare group to policy and talked about the top-down model of administration, and it was significant that the Landcare participants had been accustomed to having the appointed coordinator speak on their behalf to the regional entities responsible for devolving funding and projects. The traditional facilitators and coordinators were able to communicate with the groups 'horizontally' using discourse that was common to all.

During the first decade of Landcare, the groups and participants were able to decide on projects and the assistance they needed to carry them out, often using a paid coordinator to take on the challenge of unfathomable paperwork and the time-consuming project management tasks. Before, with Landcare groups making decisions on the focus of projects in the sub-catchment, the participants understood the scope of projects. They queried the changes and reflected on the changing administrative structures and the underlying policies:



We do get tied down in the bureaucracy as well and hang on, how many mobs of bureaucrats and politicians can just wander on to our farms whenever they feel like it? And they go and have a bit of a look at the trees and plots. The new governments down the track when things change slightly will want to do the same. Meanwhile the rules keep changing! You go and you apply for something and that's all well and fine, but the next year you end up with a property vegetation plan or something else! Ever so slightly different but it's so well sealed up from a legal point of view that a farmer (you know, a regular farmer) is not going to understand it. And their so-called bit of give and take, but it seems much more give on the farmer's part. (Joint interview, LCM4, LCM5)

Evidence of the changing funding models was seen in the way the new projects used external earthmoving and fencing contractors, for ripping soil and tree planting. The use of external contractors reduced the amount of time members spent working together in the field on landscape-wide problems. The emphasis of whether funding was directed to groups or individuals added to the uncertainty of members regarding the future of their Landcare groups.

The changes in the funding model have really changed the dynamics. There are definitely pluses and minuses for the two types of funding delivery mechanisms. Group funding was good as it forced them to come together as a group and really be active in their projects. (Interview, Agency 2)

Group 1 had some outspoken members who were aware of the importance of engaging policy makers and worked on government consultations. There were participants who questioned whether the policy implementations and resulting projects served the interests of the Landcare group as the restrictions and legal conditions that were imposed created problems:

...in a recent Landcare funding model where the Landcare group had to find or grab a certain number of properties in order to procure funding, and whilst I'm not qualified to give legal advice, I did advise them that they'd be f\*\*\* mad if they signed this thing on behalf of everyone in the group, because it was a piece of velvet over the hammer I suspect! (Joint interview, LCM4, LCM5)

Impacts were seen in the institutionalization (or system colonization of lifeworlds) of agricultural lives with examples in the case studies. Here is an example of bureaucracy as explained by a participant:

These include disparate problems such as surrounded the introduction of compulsory courses e.g., chemical handling. These were run by registered trainers, who charged high fees, all for a piece of article plus time involved for the participant. The participant needed to attend the course, but it was conducted in a training room that was away from the property and daily activities. Plus, the certification obtained on the course required regular revision in ensuing years. (Field notes)

Already the system, in guises that included National Action Plan for Salinity and Water Quality, the Natural Heritage Trust programmes versions one and two and the Department of Soil Conservation, market and economic forces, has had an

impact on Landcare groups and farmers. Participants wanted to know how they could continue to reproduce their activities for the future where climate change forces were already impacting on their (life)worlds. The issue was how to build on the Landcare philosophy by influencing the policies that governed programmes. As might be expected in community engagement with bureaucracy, there were differences in opinion between participants about development of the funding policy, governance and administration, with one participant saying:

They only feed down what they are dictating to you to do. That is, 'This is how it's done and this is what you'll do.' We keep doing what we've been doing for years. Why haven't they got the message? I think Landcare should be listened to higher up in the pecking order. Give us better quality fences/materials ... Be more specific with what sort of trees, listen to Landcare, don't waste money with contractor bulldozer drivers, change the funding. If you give *us* more money we can get more things done with it. (Interview, LCM31)

As illustrated by this comment, the extant top-down administrative structure did not always ensure that Landcare participants received feedback from the policy communications directed to them. The impossible timelines also impacted on participants who needed longer lead-in times for attending seminars.

The data in historical documents described the approaches of some successful participants of Group 3 who found ways of operating through the system. The group members were able to make administrative connections to get projects funded, whereas other groups appeared unwilling to engage with the administrative system in a similar manner. The other rural-based groups in the study wanted funds and projects and they wanted to be effective in their on-ground work on their properties. However, the rural-based groups also appeared to understand the relevance of the work at the landscape and sub-catchment levels. Importantly, now there is the understanding that they are participating in the wider catchment management, together with an awareness of the connectedness of their work. Because of their collective active participation, they are not just being 'held together' in community groups by merely being co-inhabitants of the groups. The urban group members were also connecting with a variety of external organizations as illustrated in the group's case study.

The participants in urban Group 4 are the people who interact or intersect the most with the system (usually local government) because they understand how to use the system to improve their town. The case study for Group 4 reveals the passion and commitment of the participants. This can also be understood in the way the participants selected projects that they believed were necessary to sustain the town environmentally, while they worked in terms of their lifeworlds and their environment.

In contrast, the data show that the rural groups had less successful interactions with local government. This was apparent in the consultations with the relevant community officer who was inviting Landcare members' input to the proposed local environment plan. Observations revealed a lack of confidence (or diffidence) in collaborating with the council:

The council was preparing an environmental plan and the representative came to the meeting to ask for the Landcare group members' inputs. ...mostly the members seemed to be quite astounded that the council wanted to talk to them. The participants proceeded to talk about general non-Landcare issues such as roadside rubbish bins and roadside weeds rather than engaging with the council in natural resource management activities. (Field notes, research journal)

An agency participant supported the data from Landcare participants who were concerned about the too frequent changes in funding models, especially the recent change of emphasis from group to individual work. He provided an overview of the procedures and the new funding mechanism:

The money gets rolled out with tree planting, erosion control to help any groups, particularly Landcare, in developing projects...They needed advice, and then if they got something that they are interested in then she might provide them with guest speakers, ideas about how they might get going, but they could not work as a project manager for individual Landcare groups. The natural resource officers can only be an adviser. (Interview, Agency 8)

Participants from all four groups commented that they were never quite sure who they should be contacting when they needed to discuss an issue with a natural resource officer and in knowing with whom they would speak if they telephoned the head office of the Murrumbidgee CMA. When members of a Landcare group were struggling with adverse farming conditions due to drought, it was confusing and dispiriting to have to also struggle with disruptions and turnovers in the regional staff with whom they had invested their limited time and energy to build up working partnerships. Participant LCM31 described the experience of the group being assured continued support by the CMA and how that was eroded over a 5-year period:

I have all the financial details—one year we had \$130,000 to run the project, employ the facilitator, to help us finish that project. About five years ago that was swept under the carpet and funding stopped. They said that the Murrumbidgee CMA board would have a coordinator, employed to be responsible for our case—and they would be responsible to us for one day a week. Three years ago that stopped completely. (Interview, LCM31)

The group to which participant LCM31 belonged had lost their Landcare coordinator who previously assisted the group. As described above (Agency 8), the workloads and other demands made helping the groups very low on the list of priorities. The high rate of CMA staff movements had been reflected in frequent changes of natural resource officer. The lack of continuity resulted in Landcare groups needing time to rebuild the relationships with each changeover.

Between 1990 and 2000, Group 2's annual reports indicated natural resource officers coming and going, including where one was 'let go' because of a 'hiccup' in the funding. During the research period, the natural resource officer associated with Group 2 had moved to another location. Members of Group 2 were notified of a new natural resource officer arriving 'soon'; however, later a new natural resource officer and an existing officer from Tumut were in a job-share arrangement. (Field notes, journal).

These data provide evidence from both agency and Landcare participants of the competing demands between system imperatives for natural resource officers to be responsible for a number of Landcare groups and the lifeworld needs of Landcare groups for coordinators. The system had taken over, but failed to deliver the promise of effective funding for on-ground works.

The reduction of available funding led to more demands on the individual participants both at the Landcare group level and at the local community level. In all of the groups researched, the members said that there were too many community groups, all with committees that needed office-bearers. For example, there were the rural bushfire service, the schools, the sporting groups and, of course, the Landcare groups. As a result of fewer people living in small communities, the members rotated executive positions and shared tasks to keep the groups viable.

The local community members, and the participants in Landcare groups, were adamant that having an active local Landcare group is an important connection to environmental issues. Passion was evidenced in the responses to the interview questions about participants' feelings about the value of Landcare-type activities and how Landcare philosophies relate to the environmental concerns throughout the world.

## DISCUSSION

The original Landcare structure placed emphasis on the social relationships of communities and participants. This original conception of a local community-based movement gave high priority to the role of social life in a community (Carr, 2002; Marshall, 2008; Prager, 2010). In this way, the Landcare programmes sought to develop natural resource management via the lifeworlds of participants: their person-to-person relationships with one another in catchment-based communities. A significant change occurred with the introduction of the CMA in NSW in 2003 (as the regional entities responsible for delivering the natural resource management programmes). Rather than addressing community groups through the Landcare arrangements, the Murrumbidgee CMA chose to address individual farmers and projects on individual properties, diminishing the emphasis on community. The result has shown transformations in the way people interact among themselves and with the system.

In the system established under the CMA, the goals of the regional entity are to assure that changes occur according to its plans. The system is constructed as the mechanism for producing changes in the world. The two phases of Landcare policy implementations in the 1990s and the 2000s reflect different emphases. In the 1990s, the emphasis was on lifeworlds; in the 2000s, there was a distinct shift to reliance on the imperatives and functions of the CMA system and its goal of changing individual landholders and landholdings. In the 1990s, from the lifeworld perspective, the groups were given the authority to conduct Landcare projects, in their community-based setting, with assistance from coordinators employed by them. These groups and individuals established small sub-systems, integrated with their lifeworld aspirations towards shared understandings of sustainable agriculture and development.

Their view was that they were working together in mutually understood contexts (Habermas, 1987a).

The communications failures between the administrating entities and the groups are frequently seen as top-down versus bottom-up incompatibilities in discourse. This was apparent when the policy implementations moved down from national programmes used to address regional natural resource management problems. Furthermore, according to Habermas (1987a), since the system was regarded as the provider of services, participants viewed themselves as clients and consumers who were receiving the services. Participants understood themselves as both clients and consumers of administrative power. In taking these theories and applying them to the case studies, it is clear that a Landcare group is an administrative system and structure; it is also a lifeworld. The intersections of these are particularly interesting in this study.

We argue that the breakdown of relationships between the regional administrative entity and the Landcare groups has occurred for several reasons. The traditional structure of Landcare funding drew on social support by providing coordinators to assist the group's on-ground activities and project administration. However, after 2003 and the implementation of the regional funding and administrative model, there was a breakdown of the intersubjective agreements between the CMA and the groups that impacted on the lifeworlds of the groups. The colonizing of lifeworlds is a significant risk to the survival of Landcare groups in the region.

The regional entity, the Murrumbidgee CMA, has not seemingly had an adequate strategy for managing existing Landcare groups; the groups studied have contended with not only a drought of water but also a drought of funding. The system acts as the administrative power and decides on the priorities for distributing funds. We have found that the clients of the system (the Landcare groups) have been unable to capture funding that was intended for on-ground activities for natural resource management.

Although the studies presented here provided rich data, the cases were limited to one region in one catchment in Australia's Murray–Darling Basin. The persistence of the drought in the catchment was a significant external factor during the study. Conceivably, further research with different groups, and/or in different regions, may reveal new material. We suggest that a follow-up study of other Landcare groups that are in growth phases would contribute to the ongoing discussion, policy formation and implementation.

We argue that Landcare groups make an essential contribution to Education for Sustainability practices. Although the groups in the study were established to harness valuable social and local community processes, they have unfortunately been allowed to lose their vitality. Transformations do occur in some groups, yet our concern is that those transformations will be unable to keep up with the changes in the system. Support structures that work on community strengthening can be implemented together with coordinators, to allow groups to continue to satisfy their need for on-ground activities, and will sustain and protect groups that are not currently able to work with system changes.

Creating ways to live sustainably continues to be an important issue for policy makers, land managers and the wider public in both developed and developing societies.

The results from this study can assist the success of Education for Sustainability in developed societies such as those exemplified by Landcare groups within the Murray–Darling Basin. The results have consequences for those wanting to build stakeholder capacity, particularly in the development of long-term plans. The study's results can also be used to strengthen policy considerations, especially when framing the guidelines for funding proposals that will be followed by community-based groups.

The members of Landcare groups have relationships within the group and the relationships may be characterized by normal social life dealings such as conflicts and cooperation. Until 2003, the data from this study described supportive structures provided directly to groups that were mainly determined by the groups. The support involved funding for group facilitators, and was devolved directly to Landcare groups.

The later administrative structures under which the groups were working have involved the funding transiting through the structure of the CMA and arriving indirectly at the Landcare groups. The CMA had overarching catchment and water priorities that influenced the distribution of funding to Landcare groups. The natural resource management funding principles were more general in that the money could be distributed to individuals (via Property Vegetation Plans) as well as to Landcare groups. Therefore, the CMA was making funding and support decisions under a different set of priorities.

We contend that the current structure does not deliver *local* community outcomes, but supports *regional* catchment projects. Under both models of administrative structures, the lifeworlds were important. In the previous, more supportive, model of the 1990s, participants were able to work together relatively unhindered. Participants described the breakdown of those lifeworlds when the regional model was introduced in 2003. That breakdown was indicated by the participants removing themselves from the meetings of Landcare groups.

The colonization of the lifeworld occurs when the system appends criteria on what project types are permitted, and when preference is given to individual projects rather than group projects. The strength of the 1990s' model was in the emphasis on the local community participation as opposed to the 2003 model where the emphasis swayed to regional involvement to the detriment of the local participation. Morrison (2009) described the effects of the Caring for our Country funding that has promoted efficiency in applying funding by forcing 'less competitive regional bodies' to compete with 'local governments and other organisations' (p. 230). This has, arguably, had the effect of diverting funds away from communities. Woodhill (1999) earlier lamented neoliberal trends reflected in economic and political forces shown in, for example, continued land degradation and the inability of government programmes to halt their progress.

There are various problems with regional policy implementations that are related to the interactions of an individual's lifeworld with the organizational system. Since the policy models in the first decade of Landcare permitted paid coordinators, the groups were able to approach the regional entity through the Landcare coordinator. The coordinators were recruited by the Landcare groups and were able to talk as peers. After the removal of Landcare coordinator funding in the early 2000s,

the groups were required to approach the regional entities through the natural resource officers (employed by the CMA) and were not always capable of successful communications.

In the natural resource management context, Landcare participants are rendered powerless when they cannot participate in appropriate discourses with government agencies, and where reporting structures are not in alignment with the style needed to report on environmental outcomes resulting in loss of communicative power.

The reactions of participants in this study to changes in administration and funding can also be compared to earlier reports from Campbell (1991), Carr (2002) and Lockwood et al. (2009), all of whom found issues with the rigid vertical structure, multiple layers of governance and the difficulties of interacting with the grassroots Landcare groups' expertise. As described previously, the Landcare coordinators were accomplished in achieving horizontal communications and collaborative organization with the Landcare participants. Thus, when the regional structure was applied, the Landcare groups expected a similar mode of interaction. Their expectations were reinforced at that time by reassurances by the CMA that coordinators would continue to work with the groups. However, the lack of project support that was encountered by the Landcare groups in this study resulted in accusations of poor management and communications between the CMA and the groups.

The concerns raised by Landcare participants over the leisurely pace of action in natural resource management are important to researchers and commentators such as Marshall (2008) and Pannell and Vanclay (2011). The CMA continued to tell the participants that it was there to work with the Landcare groups. However, the consistent lack of funding for any on-ground works and large projects gave a different message to the groups. The funding designated as Landcare support was seen to be diverted to training and courses for the natural resource officers employed by the CMA.

Earlier on, we introduced Habermas's theory of the system-lifeworld boundary. We also noted the incursion (colonization) of the system on the area of responsibility of Landcare groups (lifeworld). In the cases investigated in this study, the regional administrative body, the CMA, thwarted the groups' efforts to remain active in the natural resource management activities in which they regarded themselves to be 'expert' practitioners.

Despite the existence of national Landcare facilitators, administrative and funding changes have resulted in the groups in this study operating without the previous level of support of facilitators. The first decade of Landcare funding supported paid group facilitators or coordinators (Campbell, 1992). However, after 2003, funding specifications stated that money was not available for facilitators. Tilbury, Coleman, Jones and MacMaster (2005) advocated the continued support of facilitators to enhance learning because they offered a 'more democratic approach to sustainability' (p. 30). With the drying up of funding and lack of relevant projects, participants used the solidarity built up over the previous two decades to continue the routine practice of monthly meetings. They could continue to speak about the natural resource management issues that were important to them, and to reflect on the past problems that they were able to combat successfully as a Landcare group.

## CONCLUSION

In this article, we have explored the case study data using Habermasian theory as a lens to characterize the CMA 'operating' as the system, and the Landcare participants 'existing' in a particular lifeworld. As noted previously, the system acts as the administrative power and decides on the priorities for distributing funds. We found that the clients of the system are the Landcare groups. These groups have not yet found the means to capture funding that was intended for on-ground activities for natural resource management. The changing administrative structures since 2003 have created a tighter connection among government policies, projects and landholders conducting natural resource management projects. The tighter connections provide more efficient processes to deliver officially valued outcomes as they are mediated by the catchment management authorities. But that efficiency is achieved at a cost because each landholder is now in competition with other landholders in the catchment to improve her or his own properties. Now the landholders are clients of the system, as private consumers rather than as a local community.

## Notes

1. Landcare groups are community-based groups of farmers and community members committed to sustainable management and the use of natural resources. These groups were encouraged to apply for funding to ameliorate the effects of land and water degradation in their local areas. The Landcare movement and the first groups were set up in 1986 in Victoria, Australia and spread to the other states and territories of Australia.
2. MLInc was formed in 2007, after the inaugural meeting of NSW Landcare Incorporated (NSW Landcare Inc, 2007). New South Wales Landcare Inc is the peak body's umbrella organization and aims to represent the grassroots communities, influence the various government departments, improve the infrastructure supporting Landcare and provide advice and mediation support (NSW Landcare Inc, 2007).
3. Abbreviations such as LMC1 have been used to identify participants from the various Landcare groups and agencies. The number attached to each abbreviation indicates an individual participant from that group or agency.

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