



The cost of collaboration: how Caring for Our Country has shaped regional Natural Resource Management in an Australian river catchment

C.F. Benham, S.G. Beavis & K.E. Hussey

To cite this article: C.F. Benham, S.G. Beavis & K.E. Hussey (2015) The cost of collaboration: how Caring for Our Country has shaped regional Natural Resource Management in an Australian river catchment, Australasian Journal of Environmental Management, 22:3, 285-297, DOI: [10.1080/14486563.2014.976847](https://doi.org/10.1080/14486563.2014.976847)

To link to this article: <https://doi.org/10.1080/14486563.2014.976847>



Published online: 20 Feb 2015.



Submit your article to this journal [↗](#)



Article views: 444



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 4 View citing articles [↗](#)

The cost of collaboration: how Caring for Our Country has shaped regional Natural Resource Management in an Australian river catchment

C.F. Benham*, S.G. Beavis and K.E. Hussey

Fenner School of Environment and Society, Australian National University, Canberra, Australia

Funding arrangements for Natural Resource Management (NRM) in Australia have undergone a number of changes in the last decade, including the transition from the Natural Heritage Trust (NHT) to the Caring for Our Country (CfoC) program (recently merged with Landcare to become the National Landcare Programme). It has been suggested that CfoC eroded some of the gains in regional autonomy, community engagement and goodwill made under the NHT. This article presents the results of research conducted with regional NRM bodies and community-based stakeholders in the Upper Murrumbidgee catchment, south-eastern Australia. It explores the impacts of the CfoC grants structure on NRM bodies and communities, and examines the practical responses of resource managers to funding constraints. The research demonstrates that the structure of NRM funding delivery under CfoC played a key role in shaping the strategic and operational activities of regional NRM bodies and community groups. In particular, the short-term, single-issue focus of the program placed pressure on collaborations between regional NRM bodies and other groups, and could inhibit strategic and integrated approaches to NRM. At the same time, however, NRM planners and community stakeholders have actively managed the limitations of the CfoC structure to optimise catchment outcomes for communities and the environment.

Keywords: collaboration; funding; Natural Heritage Trust; NRM; National Landcare Programme; stakeholders

Introduction

The last decade has witnessed marked changes in the way that Natural Resource Management (NRM) is funded and delivered in Australia. In 2008, the incoming federal Labor Government abolished the previous Liberal Government's NRM funding model, the Natural Heritage Trust (NHT). Its replacement was Caring for Our Country (CfoC), a 2.25 billion-dollar program designed to achieve efficiencies and improve environmental outcomes by narrowing the federal NRM agenda to six priority areas, one of which is 'community skills, knowledge and engagement' (DAFF and DSEWPaC 2009, 2011a). In the first phase of CfoC (2008–2013), a third of the funding pool was allocated to recipient organisations as base-level funding, with the remainder dispensed in the form of project-based grants to applicants

*Corresponding author. Email: claudia.benham@anu.edu.au

through competitive application processes (DAFF and DSEWPac 2011a, 2011b; Robins & Kanowski 2011).

Following the election of a new Liberal Government in 2013, CfoC was merged with Landcare to create the National Landcare Programme. As this new program takes shape, it is vital that we look back at past successes and failures in NRM funding to ensure that future NRM programs respond adequately to the needs of Australia's communities and environment.

CfoC and regional NRM in Australia

Many of the organisations applying for funding under CfoC were regional NRM bodies. There are currently 54 regional NRM bodies across Australia, and these vary greatly in size, structure, function and capacity (Robins & Dovers 2007). In New South Wales and the Australian Capital Territory – our study areas – they include Catchment Management Authorities (CMAs) and the Australian Capital Territory (ACT) Natural Resource Management Council.

NRM organisations operate at the interface between government, community and industry, working with local groups and providing a focal point for Australian Government investment (Browne & Bishop 2011; Hajkowicz 2009; Hillman & Howitt 2008; Ross & Dovers 2008; Ryan et al. 2010). These organisations have assumed a significant proportion of natural resource planning and program delivery functions over the last decade (Beach et al. 2008; Lane & Robinson 2009; Prager 2010; Robins & Dovers 2007; Wallis & Ison 2011).

Some regional NRM organisations predicted that CfoC would erode the environmental and social gains made under the NHT (Ryan et al. 2010). More recently, Robins and Kanowski (2011, p. 88) also observed that the first phase of CfoC had undermined attempts to integrate NRM initiatives at the regional scale and 'prejudiced the goodwill of many in the natural resource management community'.

A review of the first phase of CfoC (2008/2009–2012/2013) revealed that many of these early concerns were realised. The review identified a number of key shortcomings in the CfoC funding model. Among these were that the CfoC program, despite its focus on integration and collaboration, had failed to promote an integrated approach to NRM across the government, community and industry sectors (DAFF and DSEWPac 2011c). This was in contrast to the needs of stakeholders, who

suggested that governments, regional natural resource management organisations and community and industry representatives should work together to plan and prioritise management actions so there is minimal overlap or gaps. Others suggested that a commitment to collaborative planning for natural resource management should be happening at all levels of government. (DAFF and DSEWPac 2011c)

Impacts of funding on collaborative NRM

Collaborative NRM initiatives are sensitive to constrained funding environments and short-term grants structures (Benham et al. 2014). Funding limitations can prompt NRM agencies to become more insular, narrowing their focus to core business initiatives (Margerum & Whitall 2004; Robins & Kanowski 2011). Short-term funding and contracting mechanisms, such as those fostered by the CfoC grants system, can also lead to high staff turnover, thereby inhibiting the development of collaborative relationships between NRM staff and

communities. Commenting on their experiences of a collaborative NRM planning process in Queensland, Hamilton et al. (2009, p. 223) observed that:

Continuity of staff proved a major difficulty in ensuring successful delivery ... The success of the integrated approach was based on personal relationships ... however with high staff turnover within regional NRM bodies, there were not always NRM staff available to undertake ... planning at workshops.

With the exception of research by Robins and Kanowski (2011), and despite widespread acknowledgement of the role that funding plays in facilitating collaborative approaches to NRM (Ansell & Gash 2007; Brown et al. 2005; Lachapelle et al. 2003; Larson et al. 2010; Wondolleck & Yaffee 2000), there has been little case study investigation of the impacts of funding delivery structures on collaborative NRM initiatives in the Australian context. In particular, the effects of changes to NRM funding following the transition from the NHT to CfoC have not been explored though detailed case study research. This article explores the effects of the CfoC funding delivery structure on collaborative NRM governance initiatives in Australia, through a case study of the Actions for Clean Water (ACWA) project, a collaborative planning process designed to improve water quality in the Upper Murrumbidgee catchment, south-eastern Australia (Figure 1). Using interviews and workshops with key players in the ACWA process, we sought to determine whether the structure of NRM funding affected the operations and strategic decision-making of regional NRM bodies and community groups in the catchment, with a specific focus on the role that Australian Government funding plays in shaping opportunities for collaboration. The research also explored strategies used by NRM staff to overcome resourcing constraints and promote collaboration across the NRM sector.

The ACWA project

The ACWA project was managed by a committee comprising representatives from the Murrumbidgee Catchment Management Authority (MCMA), the ACT NRM Council, the Upper Murrumbidgee Catchment Coordinating Committee, Upper Murrumbidgee Waterwatch, ACTEW Water (formerly ACTEW Corporation) and energy provider ActewAGL. The Management Committee was advised by representatives from 22 stakeholder groups including ACT and New South Wales government agencies, community-based organisations and private consultants (see Table 1).

Between mid-2011 and mid-2012, the ACWA project produced a plan for reducing turbidity in the Upper Murrumbidgee catchment over two-, five- and ten-year time frames. The plan details strategies for reducing turbidity in the catchment through remediation works, education programs and land management initiatives (MCMA 2011). The plan will be implemented by participating organisations, both individually and in collaboration, over the coming decade. Although it builds on earlier discussions around the issue of turbidity in the Upper Murrumbidgee, the scope of the ACWA project, and the size and composition of the stakeholder group, is unique in the catchment.

Methods

Between October 2011 and December 2011, we interviewed 15 NRM staff and stakeholders involved in the ACWA project. We also held two workshops in Queanbeyan and Cooma, New South Wales. The workshops were held immediately following ACWA

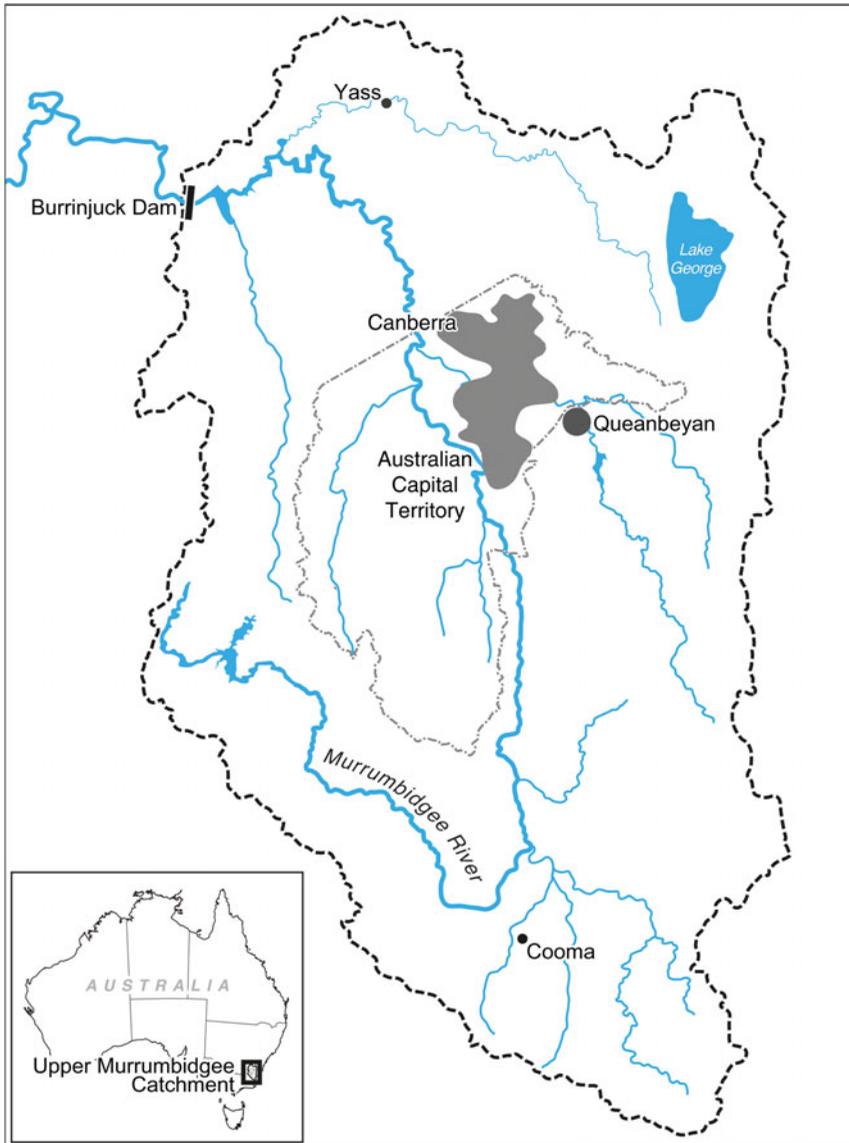


Figure 1. Map of the Upper Murrumbidgee catchment. This includes the Lake George catchment (943 km²), which does not contribute inflows to the Murrumbidgee River. Based on map from Gilmore (2008).

project meetings and were attended by 16 respondents – 7 interviewees and 9 additional respondents drawn from the ACWA staff and stakeholder group. In total, 24 respondents participated in the study, from community representatives to NRM professionals and utility providers. The research process was highly iterative (Layder 1998, p. 30), beginning with a pilot study comprising interviews with six members of the ACWA

Table 1. List of organisations participating in the ACWA project.

ACWA Management Committee
ACTEW Water
ActewAGL
Murrumbidgee Catchment Management Authority (MCMA)
Upper Murrumbidgee Waterwatch
Upper Murrumbidgee Catchment Co-ordinating Committee (UMCCC)
ACT Natural Resource Management Council (ACT NRM)
ACWA Advisory Group
ACT Government Department of Environment, Climate Change, Energy and Water (DECCEW)
ACT Parks & Conservation Service
ACT Rural Landholders Association (ACTRLA)
Bush Heritage
Cooma-Monaro Shire Council
Cooma Waterwatch
Commonwealth Scientific and Industrial Research Organisation (CSIRO)
Greening Australia (Capital Region)
Kosciusko to Coast (K2C)
Land & Property Management Authority
Molonglo Catchment Group
Murray Darling Basin Authority (MDBA)
Numeralla Landcare
NSW Crown Lands
NSW Department of Primary Industries (DPI)
NSW Office of Environment & Heritage (OEH)
NSW Office of Water
Queanbeyan City Council
Upper Murrumbidgee Landcare (UMLC)
Soil & Land Conservation Pty Ltd.
Upper Murrumbidgee Demonstration Reach (UMDR)
Snowy Scientific Committee

Management Committee. Based on the pilot interviews, we modified the interview questions and structure to better capture participants' views and experiences.

Because it was not possible to survey every ACWA stakeholder in the time available for this research, we used a combination of purposive sampling techniques (see Bradshaw & Stratford 2010; Layder 1998; Patton 2002) to narrow down the participant group. Criterion sampling involves studying 'all cases that meet some predetermined criterion of importance' (Patton 2002, p. 238), while opportunistic or emergent sampling 'permits the sample to emerge during fieldwork' (Patton 2002, p. 240). In this case, the only criterion for inclusion was that participants be directly involved in the ACWA project. Because all actors within the network boundary met this criterion, we invited all ACWA stakeholders to participate in the research project (opportunistic sampling). Because the sampling process was partially opportunistic, the sample is not representative of the ACWA stakeholder group as a whole. We nevertheless attempted to include participants from as many stakeholder categories as possible (see Table 2).

Interviews ranged in length from 20 minutes to 90 minutes and were held at participants' homes, offices and the Australian National University, with one interview

Table 2. ACWA stakeholders, by professional affiliation.

Stakeholder category	Number of stakeholders in ACWA network	Number of stakeholders in research sample
Community/not-for-profit organisation representative	10	9
Corporate entity representative	5	2
Government agency representative	26	13
Private consultant	3	0
Total	44	24

Note: There were no individuals representing themselves in the ACWA project. As Newig et al. (2010) and Prell et al. (2010) point out however, stakeholders typically represent a range of interests, values and motivations – both individual and organisational. That is, they are likely to bring their individual interests and biases to their interactions with other stakeholders, even if, nominally, they are acting as representatives of the organisations they work for. The complexities of multiple ‘identities’ in the ACWA context are explored in Benham et al. (2014). We acknowledge that these categorisations may obscure the often cross-sectoral nature of NRM organisations. Furthermore, individuals within ACWA may be involved, in different capacities, in a range of organisations. To deal with this complexity, we categorised respondents initially based on the organisation they represent in ACWA, and whether or not they are paid to perform their role. We then confirmed these categorisations with respondents during interviews or in email follow-ups. Stakeholders from independent consulting firms are not represented in the sample. This is consistent with comments made by interviewees regarding the representativeness of the ACWA stakeholder body (see Benham et al. 2014).

conducted by telephone. The interviews were aimed at assessing the impacts of funding constraints, funding delivery structures and other constraints on the day-to-day operations of NRM staff and stakeholders during the ACWA project. We also asked participants about their experiences of ACWA, including the extent to which ACWA helped them to form linkages with other stakeholders within the ACWA network and the factors that can help promote these linkages (please see Benham et al. 2014, for further detail). We used a semi-structured interview technique to keep the interviews focused on the research topic, while allowing participants a degree of freedom in discussing their experiences of the ACWA project. This approach ensured that the research remained open to a range of viewpoints and information. During interviews, participants were also asked to complete a survey matrix designed to measure changes in the structure of stakeholder relationships through the ACWA process (Wasserman and Faust, 1994). This article draws on qualitative data from the interviews and workshops. The results of the matrix survey are reported in detail elsewhere (see Benham et al. 2014).

We supplemented interview data with two half-hour workshops, held in Queanbeyan and Cooma, New South Wales, in December 2011. Using stakeholder influence mapping techniques adapted from Mayers and Vermeulen (2005), participants were asked to map the influence of their respective organisations on the development of the draft ACWA plan. Eleven stakeholders participated in the Queanbeyan workshop; five attended the Cooma workshop. The stakeholder mapping exercise acted as a stimulus for group discussion about stakeholder experiences of the ACWA process. It also provided further information on the characteristics of, and relationships between, participating organisations, first identified during interviews (Mayers & Vermeulen 2005).

Interviews were digitally recorded and transcribed for analysis. The transcripts, together with notes from the workshops, were thematically coded and analysed using NVivo 9 software to draw out participants’ views on the ACWA process and key constraints on their work and involvement in NRM.

Key findings

Effects of resource constraints on collaboration

Broadly, this research found that resource constraints – in this case, restrictions on funding and staffing – had a significant impact on the ACWA planning process (see Table 1, for a summary). This finding is consistent with a large body of earlier research into NRM resourcing (Ansell & Gash 2007; Crowley 2001; Farrelly 2005; Hajkowicz 2009; Hamilton et al. 2009). Funding limitations inhibited the capacity of some stakeholders involved in the ACWA project to attend meetings and devote time to commenting on draft plans. Travel costs were particularly prohibitive for participants who lived outside the cities or towns where the ACWA meetings were held. Funding constraints also meant that planners in the ACWA process sometimes struggled to bring external expertise into the stakeholder group. For example, few private consultants participated in the planning process because the Management Committee could not afford to engage them. Stakeholders located outside the immediate catchment area were also less well connected to others in the ACWA network. A lack of external expertise early in the planning process impacted the robustness of the draft plan, as one NRM professional noted:

When I was reading the draft I thought they'd dismissed a lot of areas which had been high sediment inputs [in the past], or areas that were devoid of riparian vegetation ... it was a bit concerning to see that.

Effects of funding structure on collaboration

We also found that the structure of funding delivery plays a crucial role in the success of initiatives like ACWA. Robins and Kanowski (2011) have critiqued the structure of the CfoC program, suggesting that its *short-term, single-issue* focus and *highly competitive* application processes have created unintended and detrimental outcomes for natural resource managers, communities and the environment. Although the Upper Murrumbidgee catchment is a relatively well-resourced area as a result of the high density of NRM organisations operating in the region, this research found that funding structures which link NRM staffing arrangements to discrete, short-term projects inhibited staff ability to participate in and contribute to the ACWA planning process and to form crucial relationships with stakeholders. Participants in the ACWA project cited four key characteristics inhibiting CfoC's ability to support the project (Table 3). Chief among these is that CfoC links NRM funding to 'discrete issues and quantitative measures of activity – that is, outputs rather than outcomes' (Robins & Kanowski 2011, p. 93).

Project-based funding structures

Staff in the NRM sector are often employed on a short-term, contractual basis (Hamilton et al. 2009; Robins & Kanowski 2011). The agency and community representatives interviewed in this study suggested that such a staffing structure impacts on the ability of NRM staff to lead and/or contribute their expertise to collaborative processes and to form the stakeholder relationships necessary to drive implementation over the long term. Project-based funding can undermine the ability of NRM staff to form relationships with stakeholders, because staff are frequently lost when project funding ends. For example, a

Table 3. Effects of funding constraints and structure on the ACWA process.

Funding characteristic	Effects on the ACWA process
Limited funding available for NRM	Inadequate funding to administer the collaborative processes and engage a broad range of stakeholders (including private consultants)
Project-based funding structures	High staff turnover affects relationships with stakeholders, inhibits institutional memory and undermines the continuity of collaborative processes Little funding for long-term projects: 'Now there's no money ... but the problem hasn't gone away' (NRM professional) Uncertainty over future funding prospects impedes strategic planning
Issue-focused funding structures and shifting funding priorities ('flavour of the month' approach)	Lack of holistic management at the catchment scale Low flexibility for NRM organisations/high degree of centralised control of the NRM agenda Low priority issues (including turbidity) are less likely to receive NRM funding Lack of investment in research and development to underpin NRM initiatives NRM staff must tailor funding applications to Australian Government priorities or risk missing out on grants
Competitive grants processes	Funding applications are assessed in isolation, with NRM organisations competing for funding. Significant resources are invested in preparing applications that are not approved Results in a lack of holistic management at the catchment scale

founding member of ACWA withdrew part-way through the process because his contract was not renewed due to lack of ongoing funding. As one NRM professional commented:

We are on contract, so 12 months, 18 months if you're lucky. And as soon as that money dries up, it's the end of that project and potentially the end of a staff member ... When we transitioned into Caring for our Country ... we went from having ... thirty-odd staff and \$15 million worth of projects to less than 20 [staff] and \$12 million worth of projects.

One landholder suggested that high staff turnover also means landholders are unwilling to invest time in developing relationships with NRM staff, because those staff are unlikely to remain in the same job or organisation for extended periods. Short-term contracting arrangements also impede succession planning and lead to loss of institutional memory, and, in some cases, increase the workloads and risk of burnout among ongoing staff.

Issue-focused funding structures and shifting political priorities

A number of interviewees also commented on what they called a ‘flavour of the month’ approach to NRM funding at the federal, state and territory levels. Rapidly changing priorities at the federal level mean that NRM agencies sometimes struggle to secure ongoing funding for planning and program delivery, especially if planners are not dealing with national priority issues, as determined by the federal government (Robins & Kanowski 2011). The Upper Murrumbidgee catchment, for example, has historically received limited funding support because it has not been significantly affected by high profile issues such as salinity or acid sulphate soils. Robins and Kanowski (2011 p. 95) comment that ‘those [state and territory] governments that do not align their strategic directions (and resources) with those of the federal government are likely to forego a significant injection of federal funds.’ The results of this research project suggest that regional NRM bodies and community organisations face similar challenges.

The current structure of NRM funding under CfoC also meant that regional NRM organisations have little scope to allocate funding resources according to their management priorities (Robins & Kanowski 2011). This suggests that, despite the push towards regionalisation of NRM functions in Australia during the NHT, the Australian Government retains a high degree of control over the activities of regional NRM bodies and other groups whose operations depend on federal funding. One community representative commented that:

The Commonwealth pretends that it’s resourcing the [Catchment Management Authorities] to do things at the local level but it’s not, because it constrains what they can do so tightly ... it makes all the major decisions itself.

The lack of funding available for erosion management in the Upper Murrumbidgee, for example, meant that, even though a number of organisations flagged turbidity as an issue in the catchment as early as 2003 and again in 2009, the formal ACWA process could not commence until adequate funding had been sourced from the non-government sector. More than 50 per cent of funding was sourced from ACTEW Water and ActewAGL, and was offered following community consultations around the development of a water pipeline, the Murrumbidgee to Googong Water Transfer project. This convergence of interests in the quality of water in the Upper Murrumbidgee led to the ACWA project. As one representative of the Management Committee commented, ‘You’ve got ACWA because we are all interested in the same outcome.’

This ‘flavour of the month’ funding situation is problematic because it can delay action on critical management issues. It also prevents ongoing management or maintenance of NRM infrastructure. As one NRM professional commented:

If you were doing riparian vegetation or some instream works ... if they fail and there is no money to maintain them then that is, I guess an investment which they [the Australian Government] deem to be ... unworthy.

Shifting and uncertain funding structures also generate additional financial burdens for community groups and NRM agencies that need to tailor their funding applications to political priorities (Larson et al. 2010). In the words of one community program coordinator:

If the focus this year is rabbit control, then suddenly [we have] to figure out how we're going to control rabbits ... we then have to bend what we do to try and meet those needs.

Competitive grants processes

Another key structural feature of CfoC – the competitive nature of the Phase 1 grants process – was also found to have implications for integrating NRM initiatives throughout the Upper Murrumbidgee catchment. Under CfoC, NRM organisations must bid for funding in a competitive grants process. Two interviewees reported that in the Upper Murrumbidgee, the competitive approach to funding inhibited integrated and holistic program delivery across the catchment and failed to recognise that actions in one part of the catchment can have complex, and often delayed, effects on other areas of the river system. In the 2011–2012 funding round, for example, two funding bids were made for projects by regional NRM bodies in the Upper Murrumbidgee catchment; only one of these was successful (DAFF and DSEWPac 2011a).¹

Perennial issues: comparing CfoC and the NHT

Many of the issues discussed here are perennial constraints in NRM, and some, such as funding limitations, restrictive timelines and stakeholder burnout, were previously identified as particular shortcomings of the NHT (see, for example, Crowley 2001; Farrelly 2005; Hajkowicz 2009). As such, they are not unique to the CfoC funding model. The narrowing of NRM funding to 'matters of national significance' began under the NHT and its partner initiative, the National Action Plan for Salinity and Water Quality (known as the NAP; see Crowley 2001). The NHT was also criticised for a range of other shortcomings unrelated to funding, such as a lack of integration among environmental targets within regional plans (McAlpine et al. 2007), and for failing to produce substantial improvements in environmental quality (see Hajkowicz 2009), although the second phase of the NHT (NHT2) went some way towards addressing problems of integration and strategic direction encountered by the first phase of the NHT (NHT1). However, a marked move away from mandated regional plans, and towards an increasing focus on centralised priorities, occurred under CfoC (Robins & Kanowski 2011). It can be said, then, that CfoC not only reproduced some of the structural weaknesses of NHT but also eroded some of its successes.

Overcoming funding constraints

Despite the challenges posed by funding and other constraints, collaborative NRM projects *can* succeed (Wondolleck & Yaffee 2000). We found that stakeholders in the ACWA project were actively using their personal and professional connections to formulate coordinated responses to funding challenges. Many were conscious of the need to build relationships between NRM planners and stakeholders, and leverage those relationships to actively manage uncertain and shifting institutional and political environments through a range of strategies, including making joint applications for funding. One participant also commented that funding restrictions had encouraged collaboration, saying that when CfoC was first rolled out, his organisation

had so much money we didn't need to partner up with other organisations because we were able to fund projects ourselves. So we were probably a lot more [insular] back then, whereas now because we don't get as much funding ... by default we actually really need to collaborate and partner up with other organisations and get more bang for our buck that way.

In general, the NRM managers and planners we spoke to were keenly aware of the constraints imposed on them by the structure of CfoC. Many commented that they found it difficult to overcome the constraints imposed by funding limitations, and some said that they felt they had little influence over federal government funding arrangements. Some, however, also commented on the opportunities presented by constrained funding environments, pointing out that funding restrictions can spur agencies into sharing resources with other organisations and forging ongoing collaborative relationships.

Conclusions

While the restructuring of NRM funding through CfoC aimed to bring communities and governments at all levels together to respond to key NRM issues, this research has demonstrated that the narrowing of Australia's NRM agenda, and the accompanying changes to funding delivery structures under CfoC, resulted in unwanted consequences for staff and stakeholders in an Australian river catchment.

NRM staff and stakeholders in the Upper Murrumbidgee catchment have collaborated successfully across the sector despite constrained funding environments, and funding delivery arrangements which have promoted competitive, rather than integrative approaches to NRM.

However, the difficulties we have outlined here suggest that the NRM sector in the Upper Murrumbidgee would benefit greatly from a stronger focus on supporting NRM staff to build linkages across government and with non-government stakeholders. These linkages underpin coordinated, effective implementation (Curtis & Lockwood 2000). In order to do this, we suggest:

- a move towards more integrated, catchment-scale approaches. Such a shift in turn demands that funding agencies must move away from project-based funding delivery towards a greater focus on coordination across existing NRM structures and organisations; and
- longer-term funding in recognition of the extensive time frames associated with collaborative NRM planning processes. These processes are frequently 'stepping-stones' towards better environmental outcomes, rather than discrete projects (see Benham et al. 2014).

Our research further suggests that there is a certain amount of similarity between the structural weaknesses of the NHT and CfoC programs. As we move forward into a new phase of NRM funding in Australia, the health of our catchments depends on our ability to examine these past successes and shortcomings in NRM funding, in order to shape a more collaborative future.

Note

1. Although Greening Australia (Capital Region) Ltd. and the ACT Government Department of Environment, Climate Change, Energy and Water (DECCEW) received funding for paddock rehabilitation and weed control programs through the CfoC open call process.

References

- Ansell, C & Gash, A 2007, 'Collaborative governance in theory and practice', *Journal of Public Administration Research and Theory*, vol. 18, no. 4, pp. 543–571.

- Beach, S, Brown, K & Keast, R 2008, *Together now: stakeholders in government agencies*, Third Sector Panel Track, International Research Society for Public Management Conference, Brisbane, Australia.
- Benham, C, Beavis, S & Hussey, K 2014, 'Planning for success in a climate change future: collaborative water governance in the Upper Murrumbidgee catchment, South-eastern Australia', *Australian Journal of Water Resources*, vol. 18, no. 1, pp. 1–14.
- Bradshaw, M & Stratford, E 2010, 'Qualitative research design and rigour', in I Hay (ed.), *Qualitative research methods in geography*, Meridian series in geography, Oxford University Press, Melbourne, pp. 67–76.
- Brown, VA, Dyball, R, Keen, M, Lambert, J & Mazur, N 2005, 'The reflective practitioner: practising what we preach', in M Keen, VA Brown & R Dyball (eds.) *Learning in environmental management: towards a sustainable future*, Earthscan, London, pp. 224–243.
- Browne, AL & Bishop, BJ 2011, 'Chasing our tails: psychological, institutional and societal paradoxes in natural resource management, sustainability and climate change in Australia', *American Journal of Community Psychology*, vol. 47, 354–361.
- Crowley, K 2001, 'Effective environmental federalism? Australia's Natural Heritage Trust', *Journal of Environmental Policy and Planning*, vol. 34, no. 4, pp. 255–272.
- Curtis, A & Lockwood M 2000, 'Landcare and catchment management in Australia: lessons for state-sponsored community participation', *Society and Natural Resources*, vol. 13, pp. 61–73.
- DAFF (Department of Agriculture, Fisheries and Forestry) and DSEWPac (Department of Sustainability, Environment, Water, Population and Communities) 2009, 2 July, *\$403 million investment for the Australian environment & sustainable agriculture, media release*, Australian Government, Canberra.
- DAFF (Department of Agriculture, Fisheries and Forestry) and DSEWPac (Department of Sustainability, Environment, Water, Population and Communities) 2011a, *Caring for Our Country*, viewed 12 October 2011, <<http://www.nrm.gov.au/about/caring/index.html>>.
- DAFF (Department of Agriculture, Fisheries and Forestry) and DSEWPac (Department of Sustainability, Environment, Water, Population and Communities) 2011b, *The review of Caring for Our Country: Australia's Natural Resource Management investment initiative*, Discussion Paper, Australian Government, Canberra.
- DAFF (Department of Agriculture, Fisheries and Forestry) and DSEWPac (Department of Sustainability, Environment, Water, Population and Communities) 2011c, *Caring for Our Country review: the story so far*, Consultation Summary Report, Australian Government, Canberra.
- Farrelly, M 2005, 'Regionalisation of environmental management: a case study of the Natural Heritage Trust, South Australia', *Geographical Research*, vol. 43, no. 4, pp. 393–405.
- Gilmore, R 2008, *The Upper Murrumbidgee IQQM calibration report*, A report to the Australian Government from the CSIRO Murray-Darling Basin Sustainable Yields Project, CSIRO, Canberra, Australia.
- Hajkowicz, S 2009, 'The evolution of Australia's natural resource management programs: towards improved targeting and evaluation of investments', *Land Use Policy*, vol. 26, pp. 471–478.
- Hamilton, J, Chilcott, C & Paton, C 2009, 'Towards a common goal: combining an industry development extension package with a sub catchment NRM approach', *Extension Farming Systems*, vol. 5, no. 1, pp. 219–223.
- Hillman, M & Howitt, R 2008, 'Institutional change in natural resource management in New South Wales: sustaining capacity and justice', *Local Environment*, vol. 13, no. 1, pp. 55–66.
- Lachapelle, PR, McCool, SF & Patterson, ME 2003, 'Barriers to effective natural resource planning in a "Messy" world', *Society & Natural Resources*, vol. 16, no. 6, 473–490.
- Lane, MB & Robinson, CJ 2009, 'Institutional complexity and environmental management: the challenge of integration and the promise of large-scale collaboration', *Australasian Journal of Environmental Management*, vol. 16, pp. 16–24.
- Larson, S, Measham, TG & Williams, LJ 2010, 'Remotely engaged? Towards a framework for monitoring the success of stakeholder engagement in remote regions', *Journal of Environmental Planning and Management*, vol. 53, no. 7, pp. 827–845.
- Layder, D 1998, *Sociological practice: linking theory and social research*, Sage, London, Thousand Oaks, CA.

- Margerum, RD & Whittall, D 2004, 'The challenges and implications of collaborative management on a river basin scale', *Journal of Environmental Planning and Management*, vol. 47, no. 3, pp. 409–429.
- Mayers, J & Vermeulen, S 2005, *Stakeholder influence mapping*, Power tools series, International Institute for Environment and Development, London, UK.
- McAlpine, CA, Heyenga, H, Taylor, B, Peterson, A & McDonald, G 2007, 'Regional planning in Queensland's rangelands: challenges and prospects for biodiversity conservation', *Geographical Research*, vol. 45, no. 1, pp. 27–42.
- MCMA (Murrumbidgee Catchment Management Authority) 2011, 'Planning Commences for Clean Water in the Upper Murrumbidgee Catchment', Murrumbidgee Catchment Management Authority, viewed 13 August 2011 <http://www.murrumbidgee.cma.nsw.gov.au/media/media-releases/media_releases/pages/actions_for_clean_water.aspx>.
- Newig, J Günther, D & Pahl-Wostl, C 2010, 'Synapses in the network: learning in governance networks in the context of environmental management', *Ecology and Society*, vol. 15, no. 4, p. 24.
- Patton, M 2002, *Qualitative research and evaluation methods*, 3rd ed., Sage, Thousand Oaks, CA.
- Prager, K 2010, 'Local and regional partnerships in natural resource management: the challenge of bridging institutional levels', *Environmental Management*, vol. 46, pp. 711–724.
- Prell, C, Hubacek, K Reed, M & Liat, R 2010, 'Competing structure, competing views: the role of formal and informal social structures in shaping stakeholder perceptions', *Ecology and Society*, vol. 15, no. 4, p. 34.
- Robins, L & Dovers, S 2007, 'Community-based NRM boards of management: are they up to the task?' *Australasian Journal of Environmental Management*, vol. 14, pp. 111–122.
- Robins, L & Kanowski, P 2011, 'Crying for Our Country: eight ways in which 'Caring for Our Country' has undermined Australia's regional model for natural resource management', *Australasian Journal of Environmental Management*, vol. 18, no. 2, pp.88–108.
- Ross, A & Dovers, S 2008, 'Making the Harder Yards: environmental policy integration in Australia', *The Australian Journal of Public Administration*, vol. 67, no. 3, pp. 245–260.
- Ryan, S, Broderick, K, Sneddon, Y & Andrews, K 2010, *Australia's NRM governance system: foundations and principles for meeting future challenges*, Australian Regional NRM Chairs, Canberra.
- Wallis, PJ & Ison, RL 2011, 'Appreciating institutional complexity in water governance dynamics: a case from the Murray-Darling Basin, Australia', *Water Resources Management*, vol. 25, pp. 4081–4097.
- Wasserman, S & Faust, K 1994, *Social network analysis: methods and applications*, Cambridge University Press, New York, Cambridge, UK.
- Wondollock, JM & Yaffee, SL 2000, *Making collaboration work: lessons from innovation in natural resource management*, Island Press, Covelo, Washington, DC.