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Lessons and best practice of landholder collaboration for landscape-scale conservation and production

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Abstract:

Tensions between production and natural resource management objectives, often perceived as mutually opposing, are increasing as technological, political, social changes and climatic variability continue to shape Australian rural landscapes. This paper explores enablers and barriers for landholder collaboration to bridge this gap, and to facilitate transitioning to new industries. Through key informant interviews we identified nine central themes that need be considered for enhanced understanding of the complexities and contextual nature of landholder collaboration. These include models of collaboration; the role of government and funding; the role of industry; the role of education; marketing strategies; the importance of social cohesion; community involvement; succession of collaboration; and integrating production and conservation. Social analysis of key informants provided lessons to address barriers for achieving desired outcomes within past and present models of landholder collaboration.

Our findings suggest that when transitioning to new industries on a landscape-based scale:

- a) A one-size-fits-all approach to collaboration is inappropriate due to the highly contextualised nature of elements that make or break attempts to collaborate.
- b) The complexity of the topic affects the role of government and industry on the effectiveness and potential of outcomes generated through collaboration.
- c) Education and communication through common language are key enabling factors for the success of cohesive landholder groups.

Potential enablers to collaboration between actors at the landscape scale included: social cohesion and generation of relationships based on trust, as was the role of whole community involvement in providing support structures and generating environments conducive to effective collaboration. Themes of ownership, leadership and motivation fuelled by common interest were highlighted as key stabilising factors that contributed to the resilience of groups to survive internal and external shocks. Finally, models that demonstrated the integration of production and conservation initiatives were suggested as providing the best chance for successful cross-property collaboration.

Keywords:

Stewardship; adaptive management; sustainable livelihood, landscape management, conservation, production, socio-economic analysis.

Introduction

All too often in rural landscapes, a tension exists between production and natural resource management objectives that are dichotomised as mutually opposing. Faced with the pressures of a changing climate, dwindling government support, resource degradation and economic uncertainty, this tension between production and conservation can become even more pronounced and challenge the resilience of these complex adaptive agro-environmental systems; the former being fed by negative cycles of landholder vulnerability, and a compromised ability to implement sustainable land management practices.

Models that strongly integrate both production and conservation initiatives are uncommon in the Australian landscape; the development of these integrated models could improve the viability and attractiveness of collaborative enterprises. Hence, this paper explores the nature of past and present collaboration in rural landscapes. Specific objectives are to:

- a) Identify examples of cross-property landscape-scale collaboration that integrate production and conservation;
- b) Identify key factors influencing landholder collaboration, including barriers to collaboration, enabling factors and opportunities for further collaboration.

Method

Theoretical underpinning

Exploring the complexity inherent to the nature of landholder collaboration while considering the abovementioned research aim and objectives, required the adoption a qualitative micro-ethnographic approach, complemented by grounded theory as the primary theoretical underpinning informing the research. Participatory Action Research (PAR) was used to inform data collection and analysis of results; it was deemed suitable given the approach treats stakeholders as co-producers of knowledge and it considers that 'communities themselves have the ability to develop solutions to their problems' (Black *et al*, 2000).

Methodological framework and interviewee base

Critical literature review appraised the way in which knowledge relating to landholder collaboration has been constructed, helping to fine tune the questionnaire for the semi-structured interviews.

NSW Central Tablelands and Central West were selected as the study area; twenty key informants were identified through a snowballing method. Initial interviews were conducted in person during the Mudgee Small Farm Field Days in July 2016, and subsequent interviews occurred over the phone. Interviews were audio-recorded and averaged one hour, and included informal conversation to generate a qualitative data set. Key emergent themes were identified after transcriptions, and coded for analysis using NVivo qualitative data analysis Software (QSR International, 2015)

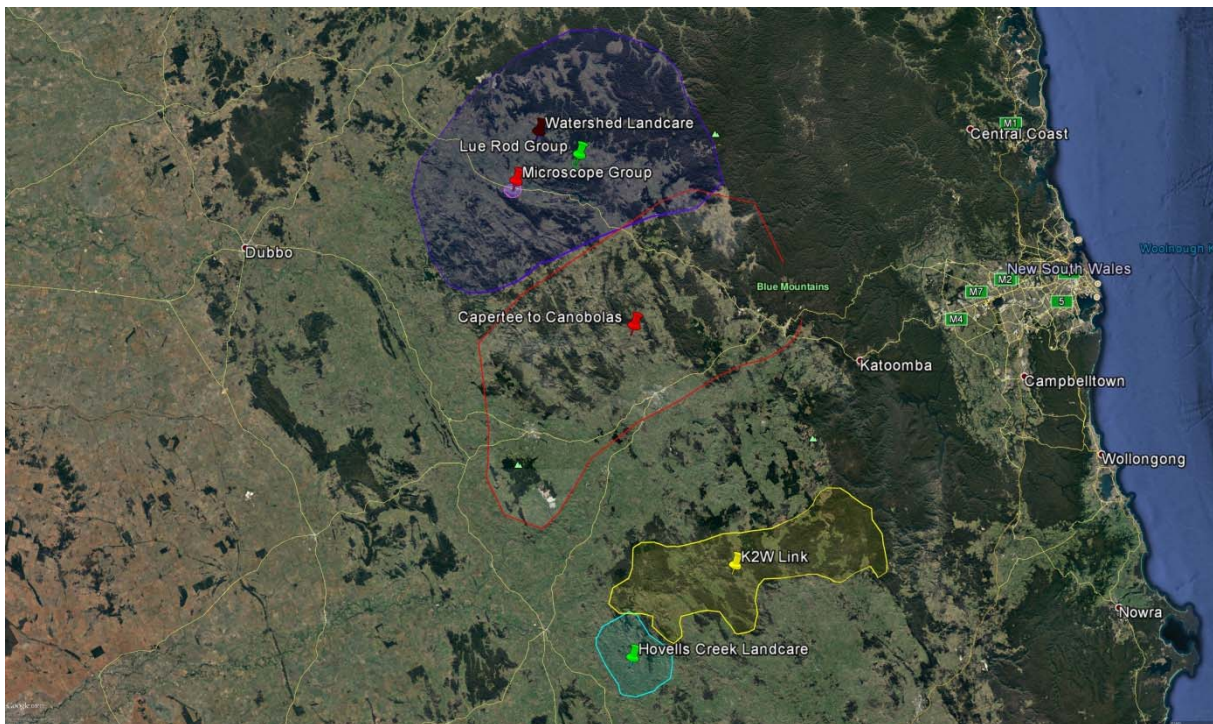


Figure 1: Google Earth overview of the NSW Central Tablelands and Central West including partner organisations that collaborate with the research.

Results

Interviewee base

While there is some overlap between the interviewees they broadly fall into three categories in terms of approach to collaboration; government or industry-funded facilitators (8), landholders directly involved in groups (8) and researchers or influencers in this area (5). Pfeiffer (2016) includes a description and analysis of each of these categories. Collaborative activities included livestock grazing, cropping, native grassland management, conservation planning and game meat production.

Factors influencing landholder collaboration

Table 1 presents the key factors influencing landholder collaboration emerging from the analysis of the interviews, and associated elements.

Table 1: Key factors influencing the nature of landholder collaboration and associated elements

Factor	Elements
Models of collaboration	<ul style="list-style-type: none">• Flexibility• Becoming formalised

	<ul style="list-style-type: none"> • Transferability
Government and funding	<ul style="list-style-type: none"> • Shifting government presence in the landscape • Landholder view of government • Funding provision for groups • Funding as an incentive or barrier for collaboration • Impact of funding on extension
Industry	<ul style="list-style-type: none"> • Impacts of standards • Effect of lack of industry support
Education	<ul style="list-style-type: none"> • Education as a catalyst for collaboration • Education as a group stabilising factor • Access to education
Marketing Strategies	<ul style="list-style-type: none"> • Speaking landholders' language and appealing to their values
Social Cohesion	<ul style="list-style-type: none"> • Social cohesion as a catalyst for collaboration • Social cohesion enable group success • Community benefits • Relationship between extension and landholders
Community involvement	<ul style="list-style-type: none"> • Meeting places • Demographics • Whole-community support
Succession of collaboration	<ul style="list-style-type: none"> • Group resilience to shocks • Leadership • Cycles of activity¹ • Diversification
Integration of production and conservation	<ul style="list-style-type: none"> • Economic viability • Mutual benefit • Integration for extension strategy

Discussion

Major barriers for collaboration

Experiences of the key informants highlighted several major barriers to the successful achievement of cross-property collaboration. Several issues confront rural culture, including periods of persistent drought, other market and production risks, climate change, lack of protected industry and in some cases established markets as well as volatility in market prices. This has aggravated a nation-wide trend in rural decline that has compromised the social capital of many rural subcultures, particularly considering the vast and relatively little populated nature of Australian rural landscapes.

Furthermore, shifts in government policy over the decades have seen previous models of community-based NRM replaced by a new neoliberal approach that champions free market principles and policies focused on devolution, private property rights and privatisation of public services (Tennent & Lockie, 2013; Higgins *et al*, 2014). Following from this, the results of this research speak of the constantly evolving nature of governmental presence within, and influence on, rural landscapes that has dislocated many landholder's expectations and support structures, contributing to a culture of dissatisfaction and distrust of top-down initiatives to implement change in land management. This climate of change raises both challenges and opportunities for the role of cooperation to build resilience in rural landscapes, and indeed flags the need for grassroots innovation to rebuild social capital in these areas.

Key informants also noted the limitations imposed by funding criteria on natural resource and land management initiatives, as well as the difficulties placed on extension officers to achieve landholder engagement, with top-down prescriptions as result. As in prior research (Wyborn *et al*, 2013), landholders felt generally isolated from the decision-making process, leading to disengagement of many landholders despite the best efforts of passionate extension staff as described by several of the key informants. This suggests that the opportunity is there for grass-roots generated cross-property collaboration to transcend existing power structures and develop strong, autonomous landholder relationships for mutual benefit both environmentally and economically.

¹ Many examples of collaborative groups demonstrated that despite the best intentions, rates of group activity would ebb and flow depending on several factors including relevance of current issues, available opportunities.

Time and cost were also identified by the majority of key informants as major barriers to landholder participation in collaborative activities. Prior research (Coutts, 2013) acknowledges the significant financial cost and risk often associated with collaborative action and that for landholders to engage, the expected benefits must outweigh the costs; as well participation in integrated collaboration models often comes down to a business decision where the bottom line is informed by the attainability of viable commercial return (Ampt & Baumber, 2006). Our results suggest that integrating production-focused with natural resource oriented management provides the best opportunity for successful long-term landholder collaboration as well as for the achievement of ecosystem resilience through landscape-scale connectivity, a conclusion shared by Sheppard *et al* (2010).

Opportunities and enablers of cross-property collaboration

Cohesiveness of integration is central to a discussion on integrating different landuses across multiple tenures. Our findings advocate for the development of communication avenues between multiple stakeholders including government, industry and producers in the landscape. This would help to enhance understanding of natural resources as multifunctional, and aid the implementation of cooperative multiple resource use across shared landscapes. Again, this presents an opportunity for landscape-scale collaboration to generate contextualised, case by case management goals that are flexible and resilient to change.

The results speak of the constant recreation of rural landscapes where traditional networks of ownership and communication are being rearranged, with the rising dominance of commercial agriculture on one side and lifestyle blocks on the other, threatening the dominance of the family farm as a key landmark. Activities and priorities of stakeholders such as industry and corporate bodies in the rural landscape were described by key informants as often contrary to conservation and NRM values of others. Different stakeholders values and perceptions regarding the value of biodiversity and assumptions regarding stewardship responsibilities suggest a potential for the development new channels of communication and education to align shared values with shared purpose, as advised by Rickenbach *et al* (2011) and Tennant & Lockie (2013).

Experiences of collaboration described by several key stakeholders highlighted the need to bridge the knowledge gap that currently fuels tension amongst rural stakeholder groups. Our results point to the need for bespoke communication messages through grassroots ownership, co-production of knowledge and participatory action, similarly to recommendations of Lawrence *et al* (2007).

Conclusions

Our results make a strong case for the important role that landholder collaboration has in generating production and conservation solutions to landscape-scale issues in Australia. Key findings point to the idea that a one-size-fits-all approach to collaboration is inappropriate due to the highly contextualised nature of elements that make or break attempts to collaborate. The complexity of the topic was also highlighted through discussion on the effect and role of government and industry on the effectiveness and potential of outcomes generated through collaboration. Furthermore, both education and communication through common language were identified as key enabling factors for the success of cohesive landholder groups.

Social cohesion, generation of relationships based on trust, whole community involvement are essential enablers and generators of environments conducive to effective collaboration. Themes of ownership, leadership and motivation fuelled by common interest were identified as key stabilising factors that contributed to the resilience of groups to survive internal and external shocks. Finally, models that demonstrated the integration of production and conservation initiatives were suggested as providing the best chance for success.

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