

BEYOND THE AGRICULTURAL PARADIGM IN REGIONAL AND RURAL AUSTRALIA: BUILDING CAPACITY TO CREATE A PREFERRED FUTURE

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ABSTRACT

Regional and rural Australia is undergoing significant change. Among the drivers for change are: (1) an emerging *discourse on nature* that challenges the agricultural centric view which has dominated regional and rural Australia; (2) *transforming agricultural landscapes*, which are increasingly multifunctional and complex; and (3) a search for a *contemporary bush identity* which is relevant and inclusive and which accommodates the diversity of views about rural Australia. The paper describes two illustrative initiatives: the Australian Landcare Management System (ALMS); and the Roma Bush Gardens Project (RBG). These initiatives have been developed to assist individuals and communities to learn – to develop awareness and understanding of the dimensions of change now effecting significant impact on rural landscapes. These initiatives provide examples of the basis to chart a new course, and to create and build individual and broader community capacity to enable regional communities to engage strategically with change and to consider an ‘unknown’ or new future through the promotion of environmental and educational learnings.

INTRODUCTION

The shift to a knowledge economy (see also Walker-Gibbs, this issue) in Australia, as in most industrialised economies, brings with it challenges and adaptations. For regional and rural Australia, in which agriculture has been the dominant activity and economic mainstay, there is a particular tension. The issues are more acute because alongside the need to adjust to a knowledge economy is a growing awareness of and a conscious need for economic, social and environmental sustainability (see also Hartley and Harreveld, this issue). There is a shift from the production-oriented paradigm to a sustainability paradigm (Rural Enablers, 2003). The needs of ‘the environment’ pose particular challenges for Australia and especially for regional and rural areas that have been strongly dominated by agricultural and pastoral activities but where a significant proportion of natural resources are located.

Australia is a very old and dry continent and has evolved quite differently from northern hemisphere landmasses (Douglas, 2000). The continents of the northern

hemisphere have newer, more fertile soils and greater seasonality, and the major ecological driver has been competition. By contrast, Australia has evolved slowly towards a drier continent, losing soil vitality in which nevertheless many species of biota have survived and thrived through symbiotic relationships. Douglas continues:

We now have a whole series of localised ecosystems [,] each with its own superb symmetry of function. Co-operation, rather than competition, is a primary selection factor. (n.p.)

Douglas points to the evolution of robust Australian species but fragile interdependent ecosystems that support these species. For communities of people to survive and thrive in this harsh environment, they will need to follow strategically the ecological example of cooperation – the cooperation within a community so that its members can compete globally.

Yet the last 200 years are characterised by a pattern and process of European settlement in which the perceptions of and attitude towards the Australian landscapes were based on northern hemisphere experiences. Learnings from Indigenous Australians (see also Hartley and Smyth & Down, this issue) were largely ignored, resulting in a disjuncture between the environment and landscape and the agricultural and pastoral practices within them. This was a culture of rapid development where the underpinning aim was transforming and dominating the landscape for that purpose. Sustainability has emerged only recently as an aim. There was little early knowledge of or interest in appropriate approaches and capacities that would not only be harmonious with these peculiarly Australian landscapes but also provide longer term and responsive sustainability for regional and rural Australia.

The culture of rapid development based on limited understanding of effects and impacts is now under challenge. Agriculture contributes a declining percentage of gross domestic product. In a country where around 88% of the population live on the eastern and southwestern seaboard, fewer have intimate knowledge of rural Australia but more are demanding better resources management and a shift towards a view of rural Australia that satisfies the many and varied needs of all Australians (Rural Enablers, 2003). In a strategic response to this dilemma, there is a growing awareness of the multifunctionality of landscape, and that land is not there solely for agriculture or pastoral use (Barr, 2003). Furthermore, calls for sustainability, value added production systems and quality control require farmers and populations in regional and rural Australia whose work supports natural resources management and agriculture to be

knowledge workers drawing now on knowledge, risk management and awareness of global markets and innovation (see also Walker-Gibbs, Smyth & Down and Fullerton, Danaher, Moriarty & Danaher, this issue) rather than on physical input into land management (Douglas, Gleeson & Turner, 2002).

CHANGING THE MINDSET: REFRAMING REGIONAL AND RURAL AUSTRALIA

The challenges being faced in rural landscapes require significant cultural change. The challenge is a universal one and rural Australia is uniquely placed to make an important contribution to facilitating such a change through the promotion of particular kinds of education and learning opportunities – opportunities which might fall outside traditional formal education.

In the first instance, we argue the need to reframe rural Australia. However, we propose a framework that goes beyond sustainability and that consists of four themes or dimensions along which change will need to occur. The four themes are:

- reading country, which portrays a contemporary, emerging, 'Landcare' culture (Landcare is the Australian community-based program developed to encourage farmers to manage production sustainably) in how Australian land and landscapes are now viewed and valued. The value of reading country lies in the opportunity that it affords to understand better the functional symmetry in ecosystems and to respond better to land and water capability, thereby redefining the relationships between people and land, even where those relationships may be multiple and contested
- endogenous community development (see also Smyth & Down, this issue), which seeks consciously to build and revitalise communities through internal cooperation which supports innovation and builds resilience (see also Hartley, this issue)
- stewardship and sustainability, where potentially conflicting issues of natural resource management, husbandry, green development and multifunctionality of land and water are confronted to foster economic, social and environmental cooperation and
- livelihoods, a strand which adds value to many currently disparate threads of economic activity. It is a body of work capable of weaving together art, tourism, natural resource management, education, training, value added production systems and information technology (Campbell, 1996, p. 13).

The framework therefore includes several themes, each of which affords a more contemporary view of rural Australia and of sustainability. These themes provide a basis upon which to create learning environments and opportunities for capacity building (see also Smyth & Down, this issue) needed to underpin the agile responsiveness to change required in regional and rural areas. Figure 1 outlines the components of the framework:

Reading Country	Endogenous Community Development	Stewardship and Sustainability	Livelihoods
<p>In reading country, the emerging ethos is towards living with the landscape and within its capabilities; to know it better; to appreciate its functional symmetry; <i>to be able to read it.</i></p>	<p>Community development is about change and adaptation. In the recent shift to grassroots, bottom up community development, much of the emphasis is upon endogenous change – that which seeks to grow the resources from within the community.</p>	<p>This strand challenges Australians to look to sustainability and to understand better the fragility of Australian ecosystems. It is an alternative view that seeks to manage the landscape as if we are here to stay. It is a shift from a mostly exploitative culture to a deepening relationship with land and a more caring/conserving view.</p>	<p>The concept of livelihoods recognises that a community may be ‘rich’ in a range of resources including social capital, human capital, cultural capital and environmental capital. Livelihoods are a process by which communities construct a diverse portfolio of activities, skills and social support capabilities to ensure sustainability and resilience (Hussein & Nelson, 1998).</p>

Figure 1: A contemporary alternative framework for regional and rural Australia

The strength of the framework sketched here is that it seeks to connect to resources at local, national and international levels. By deepening and widening the possibilities that might be considered in and for rural Australia, we confront the pessimistic outlook and associated dilemmas for rural Australia that do not seem capable of being turned around by a narrower view of the sustainability concept alone. We provide some indication of the dimensions along which attitudinal and practice change needs to occur for a sustainable future. The framework offers a vision of a vibrant and diverse rural Australia relevant to the 21st century but it will remain a dream without fundamental

changes. It is generally well accepted that initiatives such as Landcare have made significant and valuable contributions to the development of capacity in rural communities. Certainly the platform of community participation makes it a uniquely Australian contribution to the global sustainability toolkit (Campbell, 2003).

But there is a need for more such tools and learning experiences. Two current initiatives that draw on the new framework for rural Australia are outlined in the next section. Both initiatives are informed by Landcare but acknowledge the need to move beyond it. One, the Australian Landcare Management System (ALMS), widens the perspective beyond sustainability, stewardship and community engagement to deal with the broader issues of reading country and the relationship between people and land, yet seeks to do so conscious of the need for better and more appropriate livelihoods. The other, the Roma Bush Gardens Project (RBG), is based on a local community Landcare initiative but seeks to broaden the level of engagement so that many more Australians can read country in a setting which is contemporary and which acknowledges the tensions surrounding the multifunctionality of the issues of land and water in Australia.

Both these initiatives demonstrate the potential effectiveness of community-based learning. Both are about learning and building new skills and capabilities to adapt to and bring about change within a complex set of often competing interests (such as sustainability, livelihoods, Indigenous knowledge and community participation).

CAPACITY BUILDING FOR CHANGE AND CONFRONTING THE UNKNOWN

The previous section outlined a framework that provides the basis for the cultural change needed to guide rural Australia into an unknown future. The underlying theme is sustainability and resonates broadly with the wider community and scientific view about the future of rural Australia (Rural Enablers, 2003; Webb & Curtis, 2002). Yet, despite the broad acceptance of sustainability, the dimensions of change outlined above represent a profound refocusing and encounter with persistent resistance (Campbell, 2003; Rural Enablers, 2003; see also Hartley, this issue). This resistance implies a need to enhance and grow the capacity within individuals and communities to adjust to, and indeed forge strategic, innovative and agile responses appropriate for, rural Australia. There is also a need for tools and techniques that enable individuals and communities to shape a sustainable future in a context and emerging mindset which feels both 'unknown' and alien. Today's farmer, for example, is both a knowledge worker focused

on ideas and a manager focused on people and work. As Douglas, Gleeson and Turner (2002) state:

The knowledge worker farmer needs a habit of continual learning. And the knowledge worker farmer needs to be supported by programs that promote creativity and diversity....[I]n short a knowledge worker farmer needs to be enabled [,] not managed. The knowledge era is not so much about an old and new economy as it is about new ways of doing old things. (p. 3)

While Douglas, Gleeson and Turner (2002) focus upon the farmer (only one component of the workforce in regional and rural Australia) as an emerging knowledge worker, their concerns resonate strongly with an Organisation for Economic Cooperation and Development (OECD) focus on a broader role for learning in the knowledge era. The emergence of a learning society is well articulated (Longworth, 1999; Lundvall & Johnson, 1994), whereby knowledge is identified as the key resource and learning the key process (Yarnit, 2000). In regions and economies that have successfully adjusted to change, learning has been a key ingredient of success; often the learning is less about formal knowledge and more about tacit and local knowledge (Cooke & Morgan, 1998). Learning-centred approaches now challenge traditional approaches to education and information/ technology transfer now has an explicit focus on problem solving and adult and action learning cycles (Ison, High, Blackmore & Cerf, 2000). New learning-centred approaches are reflexive, small scale, project driven, collaborative and convergent and they seek to build lifelong learning attributes (Allison & Nystrom, 2002; Landry & Matarasso, 1998; see also Harreveld, this issue).

Capacity can be conceptualised as the "skills and ability...[that] individuals and communities need to adopt new and innovative management approaches, and to adapt to changing conditions" (Webb & Curtis, 2002, p. 3). Broadly the elements of capacity include human capital (see also Hartley, this issue), produced economic capital (see also Harreveld, this issue) and social capital (see also Harreveld and Smyth & Down, this issue). The building of capacity has the added benefit of developing these forms of capital within an individual and also within communities (Rural Enablers, 2003; Webb & Curtis, 2002). While there is broad acceptance as to the value of capacity and the need to build capacity, the concept of 'capacity building' remains complex and under researched (Rural Enablers, 2003) and highly contentious. Capacity building goes well beyond the extension of technical expertise to enhance genuine community engagement

in all aspects of learning and includes: (1) awareness; (2) information and technology; (3) skills and training; and (4) facilitation and support.

The Australian Landcare Management System (ALMS)

The *National Land and Water Resources Audit 2002-2007* (Land & Water Australia, 2002) reveals a picture of Australia that is not pretty. Despite the efforts by individuals, by the Landcare movement, by catchment management and through major programs to halt degradation and biodiversity loss, progress is limited and inadequate. Strategies, priorities and targets are being identified at catchment (the drainage area or river basin) and sub-catchment scales. However, it is unresolved how these will be linked to farm and paddock scales of management – a necessity for achieving outcomes. ALMS provides the missing link between farm and catchment scales of management, and it provides also a management mechanism that goes beyond government initiated programs. Through ALMS, soils, water and vegetation are managed holistically at multiple scales and in a way that serves the aspirations of landholders, who are the key to achieving outcomes. This approach is encapsulated in Figure 2:

Characteristics:	Delivery context for ALMS:	Features to achieve wide voluntary uptake:	ALMS then provides a sound basis for:
<p>ALMS is based on Environmental Management System (EMS) ISO 14001 (an externally audited management system with a continuous improvement cycle). Landholders would substantiate to the auditor that their management included:</p> <ul style="list-style-type: none"> • A consideration of catchment/regional natural resource management 	<p>Improved environmental performance beginning with land managers systematically reducing adverse impacts and monitoring environmental condition, down to paddock scale.</p> <p>It is then taken from enterprise to landscape management through catchment linkages. Through the property-to-catchment linkage, the targets for</p>	<p>ALMS/EMS is delivered as a desired and popular farm information tool which is simple to use in daily management. ALMS/EMS provides a natural resources monitoring and recording capacity that relates to production. A full range of 'drivers' is identified and activated, not least of which are market benefits. This activity is 'badged' through a</p>	<p>Generating better management information and applying it in a continuous improvement cycle. Providing recognition and reward for land managers and their enterprises. Substantiation of improved environmental management by industry and individuals. Assisting to meet trade and market access requirements for farm products.</p>

<p>priorities and targets;</p> <ul style="list-style-type: none"> • Support for biodiversity conservation; • Natural resource monitoring; • Information exchange between the farm enterprise and the relevant catchment management body; • Evidence of the landholder's commitment to continuous improvement in environmental management. 	<p>salinity, soil condition, water quality and biodiversity are addressed while landholders are supported in achieving their management aspirations. The EMS has sufficient rigour to deliver outcomes and engender public and market place confidence, enabling recognition benefits for participants.</p>	<p>single name and promoted widely so the Australian public is enthusiastic about the concept and recognises the land managers' efforts.</p>	<p>Initiating an ongoing improvement in environmental management at all scales. There is emerging support for ALMS to be developed and adopted across Australia as a nationally recognised framework for improved natural resource management. The aim is to create a national membership-based movement of participating landholders.</p>
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Figure 2: Characteristics of the Australian Landcare Management System (ALMS)

The Roma Bush Gardens Project (RBG)

In their recommendations in the *Blueprint for a National Water Plan*, the Wentworth Group of Concerned Scientists (2003) stressed the need for new approaches to the management of natural resources: located in the bush, by the bush, informed by good science. To this we add good design. An Australian bush garden is a composition of local plant communities designed to inform visitors of the variety, type and beauty of Australian native flora in their local setting.

The proposal *At the Crossroads: Reading Country* takes the ideas from the RBG further and expands the concept to engage with broader learning objectives and more members of community. The innovation of the project proposal is that good science, design, local community know-how and Landcare management will intersect to create a series of compelling, educational and enjoyable journeys and experiences within the bush garden setting. However, it also lifts the experience beyond the bush garden. Visitors may engage in any or all of these experiences and so learn about how to read country by seeing and experiencing the functional ecosystem symmetries. The critical issue is to design and create landscape

experiences that are entertaining, educational, contemporary, innovative and timeless. The initiative has the potential to invigorate an enchantment with rural Australia, which will not only have meaning for many Australians, but also inform and enrich awareness of contemporary and pressing issues.

The *At the Crossroads: Reading Country* project builds on the efforts of an innovative local Landcare group in Roma in southwestern Queensland. In 1998, as an outcome of the National Landcare Conference hosted in Roma, a group was formed to establish the Roma Bush Gardens (RBG) Association. The gardens comprise all the plant/soil communities from this bioregion and are located on the old Railway Dam Reserve site. Stage 1, involving planning and planting, has been completed. In September 2003, a collaborative project with the Queensland University of Technology's Landscape Architecture Program students and staff, the University of Queensland's Centre for Rural and Regional Innovation (CRRI-Q) and local Landcare groups highlighted the potential for a new and contemporary concept of reading country using the bush garden as the stage. This project provides the impetus for this process to begin the Roma Bush Garden Project as a prototype for an innovative network of community-based bush gardens.

It is time to live with our landscapes, to accept and understand the land and water regimes of old but fragile ecosystems and respond appropriately. These gardens will enable local communities both to learn and to teach others how to read country better and to bring a more informed view in relation to future landscape management and future livelihoods. The project has parallels with the Eden Project in Cornwall in the United Kingdom. The Eden Project is a much larger experience but its core vision is to engage people in the real stories of husbandry and stewardship (Smit, 2003). It represents a next generation of botanic garden/conservatory relevant to the needs of a 21st century learning society. It engages people and creates excitement and the desire to explore through a critical mix of stories, science, fun, education, art and sculpture – a fine creative line among science centre, theme park and botanic garden. In essence, this project seeks to begin the development of a contemporary engagement with the Australian landscape.

CONCLUSION: BUILDING CAPACITY TO FACE AN UNKNOWN FUTURE

In this paper, we argue the need for community-based learning experiences that enable more Australians to engage with the current production and sustainability dilemmas and

issues facing regional and rural Australia. Despite significant efforts and funding, resistance arises from conflict between a well-entrenched culture of development and productivity (Campbell, 2003) and a broader community expectation of sustainability. This is a global trend but the pressure is more expressly felt in Australia. With Landcare, Australia developed a community-based tool which helped transform the ideas and perceptions of farmers with regard to their land management practices. But there is also a need to educate the broader community and to widen and deepen the awareness of land management issues and change perceptions of the Australian ecosystem if lasting change and transformation (see also Harreveld, Smyth & Down and Fullerton, Danaher, Moriarty & Danaher, this issue) are to occur.

If this challenge is to be met, we argue for: (1) an alternative framework which better reflects and encompasses the range of activities and land uses in regional and rural Australia beyond agriculture and a narrow view of sustainability; and (2) new and innovative learning experiences which address the change which needs to occur. ALMS and RBG are recent examples of these kinds of initiatives.

Regional and rural Australia is more than agriculture. Sustainability and natural resources management have posed serious questions about past land management practices and rural livelihoods. Change will need to occur across several dimensions. We argue that initiatives which afford opportunities to learn and reflect about change will need to engage with these dimensions of change. Figure 3 outlines how the two initiatives outlined in this paper afford opportunities for individuals and communities to learn and develop an awareness and understanding to equip them to adapt to change and engage with ideas for new futures (see also Walker-Gibbs and Smyth & Down, this issue) in and for regional and rural Australia:

	Reading Country	Endogenous Community Development	Stewardship and Sustainability	Livelihoods
Australian Landcare Management System (ALMS)	Builds an understanding of ecology (soil, water, biota – the general health and the interrelationships of these) so that production is	Links to local Landcare and catchment groups and an established platform of community participation. Based on voluntary	Develops capacity for environmental management which reduces impacts and monitors and evaluates change and improvement. Enables the	Facilitates skills whereby soils, water and vegetation are managed holistically at multiple scales that serve the aspirations of farmers, giving

	<p>optimised while biodiversity is conserved.</p> <p>Shifts the prism from enterprise to landscape management.</p> <p>Develops skills to adopt a desired and popular farm information tool – simple to use daily for environmental management.</p>	involvement.	<p>development of productive capital linked to local catchment goals and objectives.</p> <p>Links to national goals in biodiversity and salinity and water quality.</p> <p>Enables certification of improved environmental management.</p>	<p>low impact production.</p> <p>Wider community awareness and understanding (capacity) and recognition of ALMS and ‘badging’ of products emanating from well-managed land.</p>
Roma Bush Gardens Project (RBG)	<p>A contemporary layout of Australian bush species which enables people (local and visitors) to learn.</p> <p>By integrating local Indigenous people and perspectives, affords opportunities for people to develop new people–land relationships.</p> <p>Shifts perceptions of landscape.</p> <p>Draws on a variety of media to communicate the stories and thus engages and enables more Australians.</p>	<p>Developed by a local Landcare group on a platform of community participation.</p> <p>A facility that seeks to facilitate learning in a fun way.</p>	<p>It has key components which link to and create awareness of local and regional sustainability issues. These include vegetation management, salinity and water quality.</p> <p>Invites a broader population to participate in and develop capabilities in and awareness of stewardship.</p>	<p>Demonstrates in a practical and ‘hands-on’ fashion multifunctionality and layers of use of the landscape.</p> <p>The facility is not only a botanical garden, but also an ecosystem, a recreational place, a tourist destination, a local resource for school children and a place for others to volunteer skills and learn.</p>

Figure 3: Innovative ways to build capacity to face an unknown future in regional and rural Australia

For example, the RBG initiative and the profiling of regional vegetation provide an opportunity for local and non-local visitors to learn more of this regional ecosystem. As visitors move around the different plant communities, the signage, the stories and the land management practices used to construct the site provide an educational experience but in an informal environmental setting. This is the long-term goal of the Reading Country project. We see the bush gardens experience as a community learning opportunity which parallels that provided through the Landcare program for farmers.

However, beyond the opportunity to read country and learn more of sustainable land practices, the focus on regional species and local production is designed to stimulate consideration about the kinds of livelihoods best suited to the rural Australian landscapes. The project seeks to engage the wider community in discussion and reflection about the future of rural Australia across a range of dimensions because sustainability has economic, social and environmental impacts.

In the development and trialling of these activities, some key learnings can be identified. First, the alternative framework comprising four strands of work is a useful starting point, in that it extends and widens the view of issues to be faced in regional and rural Australia. Each of the initiatives demonstrates the complexity of the attitudinal and practice change needed. The initiatives point to the value of this framework in enabling capacity development and learning across several spheres of influence and activity. By shifting the emphasis away from a narrow understanding of 'sustainability' and rural *per se*, and by identifying several dimensions along which change needs to occur, we create a space for many more Australians to gain an understanding of current issues in regional and rural Australia and to play a role in charting its future.

Second, the initiatives highlight the need for a matching response from government. Both the initiatives described are fundamentally located within communities and based on community engagement. Their long-term success will depend not so much on the community response and whether sufficient capacity has been gained for sustainability but rather on whether the institutional frameworks are in place to support longevity. We argue for wider community education and awareness about the issues being faced in regional and rural Australia.

Third and finally, the experience of these initiatives demonstrates the usefulness of practically-based activities with a learning focus that engage local populations in taking charge of their future. The lesson is not so much about getting communities to recognise and accept change but rather about giving them the practical, interesting and innovative

experiences and tools and techniques which enable them to adapt to change, and even to benefit from it. 15 years ago, Landcare charted a quite radical new course for Australian land management and in so doing it has changed the face of many parts of regional and rural Australia. Landcare was about peer group learning; it was adult-centred and about change from within rather than imposed upon. It was a practical, community-based learning initiative. The lesson from Landcare is that a simple and practical idea can make a difference and build significant capacity across communities. It is time now to take hold of the Landcare learnings and to use that momentum to develop other tools and techniques to build capacity for renewed confidence in the regional and rural areas of Australia, and thereby to engage the communities in those areas.

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