

DESERT KNOWLEDGE CRC

The Working Paper Series

Outback Livelihoods

Defining and linking social and economic issues
affecting the health and viability
of Outback regions

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Working Paper

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Sample discussion paper

July 2006

Tom Measham, Yiheyis Maru, Roy Murray-Prior



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1 Introduction

This document is a sample. It is an example that has been developed to demonstrate a concept – the type of product that could emerge from a body of research, were it to be supported for a given timeframe. The date on the front cover is no mistake – the report is a sketch of what a document might look like in 2006 – following two years of funding that followed from a pilot study that finished in 2004. The topic this research is tackling is both complex and challenging – no less than identifying, describing and linking the core social issues affecting sustainability of Outback communities. Understanding, leave alone solving, this suite of complex issues, and their interactions is beyond current social research. To the authors' knowledge, no existing document has come close to this goal. The order is tall and the research team and the funding agencies supporting the work couldn't even imagine what such a project – and its outputs – would involve. Precedents that review social and economic dimensions across Australia are few and characterised by statements such as 'no data available'. This is partly because research and associated funding for social dimensions of environment and sustainability in general are only recently emerging as priorities in a natural resource management context. The Australian Outback represents a context where the connections between social, environmental and economic dimensions are inherently meaningful to those who live there. These connections are fundamental to people's livelihoods – links between farm and family, people and country.

This sample discussion paper represents an indicative map in poorly charted territory, but where people are confident that the issues are inherently important. It is not a work entirely of fiction, nor does it take an unprecedented format. Rather it is more like an extrapolation based on the issues encountered in the pilot study, and the format is adapted from a tangible and widely recognised piece of innovative work – the discussion document that emerged from a series of workshops on defining and managing healthy savannas (Whitehead et al. 2000). This precedent was focussed on the ecology of the savannas, but emphasised the need for further work in the social and economic fields. Such a document does not yet exist, but it may, should the current pilot study lead onto a further stage. Considering the pages before you we ask you not to judge the current document on the breadth of the data, nor on the accuracy of the analysis, for it would certainly disappoint, as it is not even possible to write such a document without first conducting the research. By contrast, judge the document on its ability to illustrate a complex and difficult idea based on a short period of pilot research, for which it has some hope of achieving its purpose.

1.1 The importance of partnerships in Outback areas

The importance of partnerships is obvious to anyone who has lived or worked in Outback areas. One partnership in particular has been fundamental to the development of this research. Individually and together, the Tropical Savanna and Desert Knowledge CRCs play unique roles in Outback Australia in conducting research across environmental, economic and social dimensions of the exploitation, governance and conservation of physical, biological, social, human and financial capital. Both CRCs aspire to developing and conveying systemic and dynamic understandings of the unique characteristics of the remotely settled areas of central and northern Australia. Many of the key characteristics of savannas and arid zone

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regions – particularly social, cultural and economic dimensions – are very similar to each other but stand in significant contrast to most of the rest of Australia. Each CRC represents a further series of partnerships between key players in Outback Australia. The breadth of these partnerships underpinning both CRCs provides a unique set of perspectives on key issues in sustainable management of Outback regions. Both CRCs have a commitment to achieving increasingly integrated understandings of Outback landscapes and regions that will facilitate improved management outcomes. The intention of this project was to expand understanding of the relationships of the ecological and human activity systems of Outback regions (Figure 1), which are different from more densely settled areas. The rationale for this work was that features unique to the Outback need to be considered and understood to assist underpinning regional planning and management in these regions.

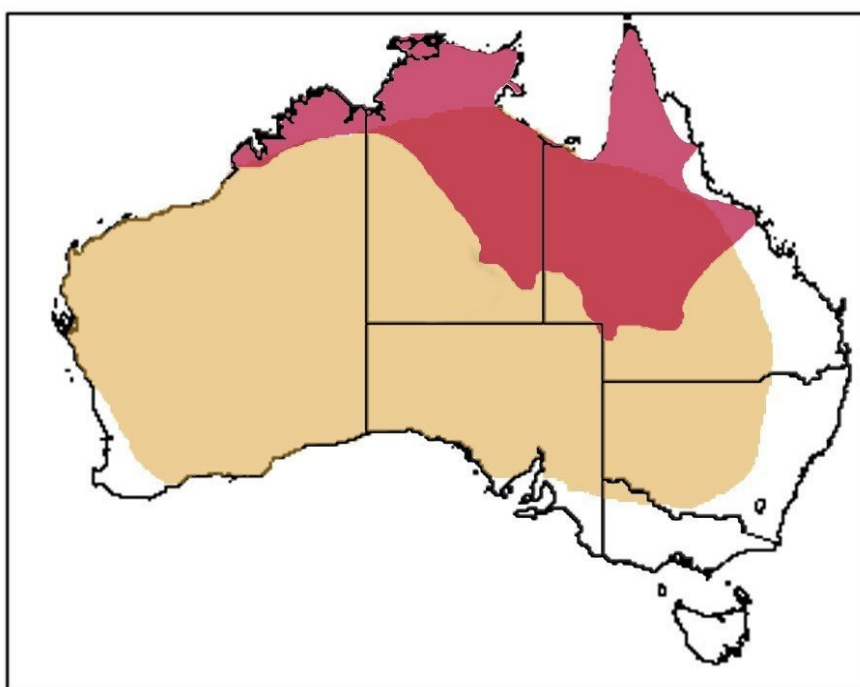


Figure 1: *The focus areas of the TSCRC (red) and DKCRC (yellow) define the location of the Outback*

1.2 A focus on health and livelihoods

The Tropical Savannas CRC has found the concept of human health to be a useful metaphor for representing viable and socially desirable regions (Stafford Smith et al. 2003). Similarly, for Whitehead et al. (2000) the concept of ‘health’ was found to be useful because it provides a way that people can link ecological indicators and principles to something familiar – for example, the metaphor assists us link individual symptoms to broader conditions. As such, human health can be the metaphorical guide for monitoring the socio-economic system of the tropical savannas as it is for ecosystems (Stafford Smith et al. 2003). The relevance of the human health metaphor arises from our own experiences. As individuals we can see the benefit of preventing and curing the causes of ill-health.

Most rural people have to apply their experiential capabilities and conduct a portfolio of activities for a living and as a part of their lifestyle. In the development literature it has long been recognised that the concept of ‘livelihood’ captures what people in a

rural and remote settings do for a living far better than the concept of job or employment (Chambers & Conway 1992; Scoones 1998). A livelihood comprises a group of people with similar ways and means of living (Chambers & Conway 1992). Means of living refers to resources, other tangible assets, and intangible assets such as entitlements.

The concept of livelihood has been developed further as a framework (shown in Figure 2) and been applied to analyse the effects of different sets of activities within natural resource management (Carney 1998; Scoones 1998; UK Department for International Development (DFID) 1999; Woodhouse et al. 2000).

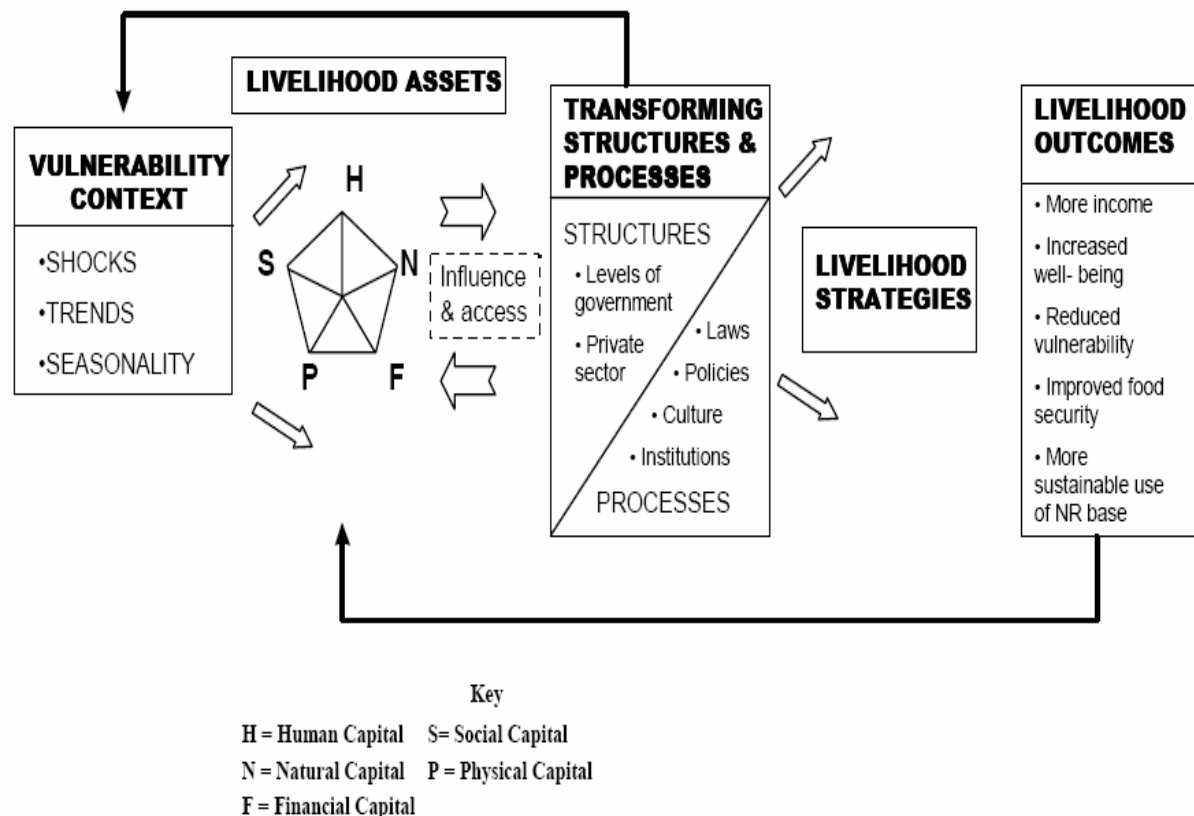


Figure 2: The Rural Livelihood Framework

Source: Carney 1998

The livelihood framework has people, their activities and capital as its core. The type and status of these components makes it useful as:

- Criteria for categorising Outback regions
- A checklist in collecting and analysing data.

For these reasons, it was adopted as the main tool to develop an integrated understanding of Outback regions as social-ecological systems, incorporating social, economic and cultural dimensions to issues such as health.

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1.3 Aims of this research

The broad aim of this research was to improve baseline understanding of issues that affect the viability and vitality of communities in Outback regions of Australia. Initial pilot stages of the project aimed to develop elaborate information platforms that present key indicators of the issues affecting the viability of Outback regions in an interactive format that could be linked to existing products which achieve a similar task for biophysical indicators of sustainability. However, through the course of the pilot research it became clear that there is only a basic understanding of what the issues affecting the viability of Outback regions are, and that we simply didn't have either the understanding or data to develop the products we originally imagined. In the expanded stage of the research from July 2004 the research aimed to generate this baseline understanding by bringing together representatives of the key livelihood groups across Outback Australia to define and describe the key issues that affected them and the perspectives they represented. With the involvement of these people, the research aimed to define a suite of indicators that could assist them track changes in their issues. Rather than choose from a range of 'off-the-shelf' indicators that have been pre-defined through a top-down process, the research aimed to generate these from a grounded process with Outback communities. This was a fundamentally different approach to generating indicators than asking experts to choose a range of well-researched variables which are easily quantified. Rather, the aim was to ask people: How would *you* know if you were more or less viable? The final aim of the research was to synthesise the responses from these workshops into a series of fundamental drivers that are true to the contributions of research participants, yet clear enough to be meaningful across the Outback. This involved seeking to echo a process employed by Whitehead et al (2000) which developed a series of attribute tables from a large workshop of different theorists and practitioners in tropical savannas. The result was a socio-economic equivalent series of attributes which are presented in Section 5 of this discussion paper.

2 Conceptualising health and viability in Outback regions

2.1 What is different about the Outback?

In Australia, programs such as the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality increasingly emphasise a regional approach to natural resource planning and management. Stafford Smith et al. (2003) have shown how interest towards the regional scale is worldwide, driven particularly by the increasing devolution of responsibilities to regions everywhere. Given the much greater research capacity in more heavily populated regions it has been asked why we should focus on Outback regions when we can merely draw on the experiences of other areas. The problem is that there are features of Outback regions which are not shared by the more studied areas of Australia. The most notable of these are low population density, high environmental variability, remoteness from markets and centres of power, and issues affecting Indigenous communities. It is proposed here that a Regional Dynamics Scoping Study conducted by Stafford Smith et al (2003) provides a useful insight into the drivers which make Outback systems unique. These drivers were developed for savanna systems, however, through an initial round of

workshops it was confirmed that they apply equally to the arid zones of southern Australia. Additional considerations include:

1. There are intrinsic biophysical and socio-economic structural constraints on what options are open to different regions. These need to be understood to allow regional communities to be realistic about what they can control or change and where they must design systems to live with these constraints. Particular highlights include environmental variability, externally driven markets, low and mobile populations, the significant Indigenous component of the population, as well as rapidly changing communications technologies and connections to the rest of the world.
2. There are also extrinsic economic forces at work which limit options or demand special design consideration, like changing international market prices, energy costs, labour costs, globalisation, and tendencies towards agglomeration driven by critical mass and economies of scale. Whilst these forces are common to all regions, they play out differently in remote areas in terms of their influence on relative prices, and production costs on the distribution of economic activity (with potential problems of 'fugitive capital'), and in investment strategies intended to affect these relationships. Although agglomeration is driven by economics and markets, it also plays out in policy and in social institutions.
3. By contrast, there are also political trends towards de-centralisation and local empowerment, with the potential for some conflict between demands for cost-effectiveness (agglomeration) and socially desirable outcomes (devolution) if the drivers of each are not understood. Understanding this conflict will steer regions away from some sterile lobbying and enable them to focus on capturing opportunities (where real competitive advantages exist).

Another key issue that characterises Outback Australia concerns the struggle between 'productivist' and 'post-productivist' value systems (Holmes 2002). The former is focussed on traditional economic land uses such as cropping, grazing and mining, whilst the latter focuses on recently recognised values such as biodiversity conservation, cultural heritage and associated tourism. This distinction in values was developed in Europe to conceptualise the changes that have occurred in rural areas during an extended period of urbanisation and decline in rural economic production. Holmes (2002) has shown that changes occurring in the rangelands of Australia are also consistent with this shift in values, but that the two categories of values are not equally distributed throughout the rangelands. In many cases, there has been a struggle between the productive values and the post-productive values which are often outside of the market economy (creating more value and less cash). Drawing on the Stafford Smith et al. (2003) discussion of regional dynamics modelling, it can be argued that the key issue for Outback regions is to balance the impacts of economic development against non-market values. These authors note that the non-market values of regions will be unsustainable if there is no economic future in these areas.

2.2 Why consider issues of Outback viability?

The aim of this research has been to identify and link key social and economic issues affecting the viability of Outback regions. Underlying this has been a value proposition that has evolved throughout the life of the project.

2.2.1 Under representation

The first dimension to the value proposition is the issue of under representation. Most of the attention for natural resource planning has been focussed on more densely settled areas. Furthermore, the further you move away from densely settled areas, the more striking is this imbalance of representation. Consider for example the location of priority regions for the National Action Plan for Salinity and Water Quality (Figure 3). Though focussed on the issues of water and salinity, this Action Plan incorporates a broad range of planning and management initiatives to improve natural resource management in Australia. Whilst some of the priority regions are in Outback areas, they are clustered in the hinterlands around major coastal population centres. As such they are concentrated around the south-eastern corner of the country. This is highlighted by the fact that 70 per cent of Victoria and 60 per cent of New South Wales falls into NAP priority regions, yet only 15 per cent of South Australia, 8 per cent of the Northern Territory and 10 per cent of Western Australia are represented. The percentages only tell part of the story, however, as demonstrated in the Stafford Smith et al. (2003) discussion of savanna regions, the Outback has distinct characteristics and there is a strong risk that the policies and investment decisions affecting Outback regions will be designed based on the problems faced in more densely settled regions, which are better understood based on years of research and more resourced management programs.

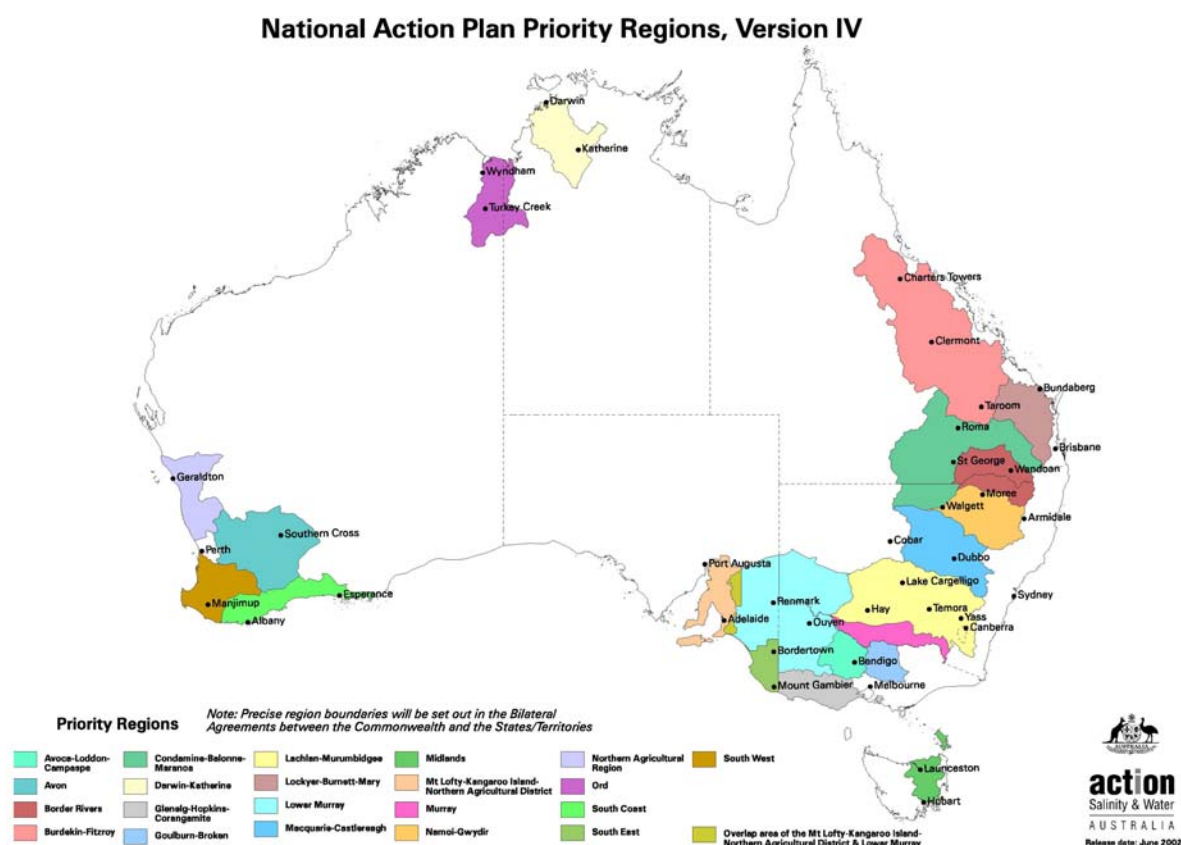


Figure 3: NAP priority regions, 2004

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2.2.2 Accommodating different perspectives

The second major component to the value proposition is that accommodating different understandings of sustainability is fundamental for equitable and effective progress. When considering issues of sustainability, it is important to recognise that no single approach to knowledge is correct. Rather, there exists a multiplicity in understanding including (but not limited to) expert or scientific approaches to knowledge, local Indigenous and community approaches to knowledge, practitioner and extension officer approaches to knowledge, and government approaches to knowledge. All of these approaches to understanding, or ‘knowledge cultures’, are valid and important ways of addressing issues of sustainability, and communicating across them is a challenge for both theory and practice (Brown, 1997). It is important to emphasise that a person’s approach to knowledge affects their perceptions of all other dimensions of sustainability and initiatives to improve it. For example, how one understands the issues affecting the viability of Outback regions dictates the indicators that one might select to measure changes in viability.

2.2.3 A process to compare knowledge and views

Leading on from the second dimension to the value proposition, it is argued here that accommodating differences in approaches to understanding requires a process that enables people to share and compare knowledge and gain insights into other ways of viewing the issues affecting the viability of Outback regions. This is particularly important because as soon as one brings together a group of people to discuss what the issues are in any given region, it becomes quickly apparent that the issues are complex and inter-related and vary according to different perspectives. For this reason, the authors employed a research process that brought together people from diverse backgrounds and viewpoints to put their issues on the table and explore the relationships between them.

2.2.4 An Outback partnership

The final component of the value proposition that formed the rationale for undertaking this project was tied to the belief at the end of a pilot project in 2004 that the Tropical Savannas CRC and the Desert Knowledge CRC were well placed to take this project on together. As discussed in section 1.1, the role of partnerships – a key form of social capital – is crucial in the Outback. From the outset it was clear that the task addressed through this research was a complex and difficult one and not many organisations working alone or together had the capacity to undertake this work. However, concern that such an important task may be relegated to the ‘too hard basket’ reinforced the determination of the Desert Knowledge CRC and the Tropical Savannas to work collaboratively and bring together a unique combination of capacities that could undertake this research.

3 Methodology

In accordance with the value proposition underpinning this work (section 2.2), recent advances in epistemology of community inquiry and regional planning and practical lessons from recent TSCRC work on Ecosystem health have guided the design of the research. These principles emphasise that there are different ways of valuing, knowing and understanding the Outback that needed to be reflected in the methodology.

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3.1 Different ways of valuing Outback regions

Choose any point across the Outback and what for one person may be a grazing area could be for another a wildlife habitat, traditional country, a mine exploration site, and an interesting place for tourists. Therefore the Outback can be divided into a multitude of regions and communities and one of the key tasks of this research was to come up with a meaningful way of dividing the Outback. A major purpose of this project was to inform planning and policy so the choice of research approaches to defining Outback communities necessarily had to take account of planning considerations.

3.2 Different ways of knowing and understanding Outback issues

Emerging theory in regional planning has emphasised that different groups and individuals bring a diversity of backgrounds and perspectives to defining and addressing issues of sustainability. In response to this diversity in understanding, Meppem (1999) proposes a communicative approach, which acknowledges the role of cultural influences and different ways of knowing. In developing this research, our starting point was that there was no single, universal approach to understanding the issues that characterise Outback Australia and that a communicative approach was the best way to engage with representatives from across the Outback to bring their issues to the table and exchange their views with others.

The development of the methods drew on practical lessons from the TSCRC work on Ecosystem health, involving a series of workshops with a broad range of stakeholders. The stakeholders viewed the health of the savannas from several different perspectives and were able to share their understandings and agree on a range of general principles. However, a common problem which arises in such discursive approaches is that communication could be hampered because of differences in communicative competence (Ulrich 1983). Ulrich (1994) has developed a set of questions that allow discussants to overcome the asymmetry of competence. The questions were used in focus group discussions and workshops when deemed necessary.

3.3 Research design

The research methodology used in this project was designed to allow an increasingly deeper understanding of different views, fundamental issues, drivers and indicators of viability and social desirability ('health') of Outback regions. It was recognised that while there were some generic perceptions about what a 'healthy' community is and what would be required to achieve a 'healthy' community, there were also some significantly different views within and across livelihoods and regions.

The research design was confronted with a diversity of perspectives and issues of communities spread over the breadth of the Outback. A systematic way of handling this challenge was developed that involved three sets of methods and a feedback mechanism enmeshed in five stages.

The first set of methods enabled the team to categorise Outback regions based upon some shared properties. The methods included a review of relevant literature, interviews with leading researchers on Outback socio-economic issues, followed by a workshop with a group of researchers on the topic that developed socio-economic and cultural regions of the Outback.

The second set employed techniques that engaged members of the communities on the ground to articulate their views and issues and validate the categories suggested through the first round of methods. This set involved inviting feedback through a series of workshops with representatives of communities followed by a rapid rural appraisal of representative communities.

Once the breadth challenge was dealt with via the first and second set of research methods, the third set was geared to further the depth of understanding through intensive case studies of Outback regions about context specific issues and their systemic relationships with generic drivers. The methods involved were interviews, focus group discussions and participatory systems analysis.

Stages 1 and 2 were concerned with identifying socio-economic regions in the Outback based upon their broader underling social, environmental and economic characteristics. This aim builds on the work of Holmes (1997) who grouped rangeland areas into categories based upon their broad characteristics and suitability to alternative land uses. Some of these categories are strongly linked to geographic regions, while others are tied to communities of interest and communities of practice.

Stage 3 refined the regionalisation framework and laid down a basis for broad exploration of Outback issues and drivers (stage 4) and linkage and depth studies in selected case regions (Stage 5).

3.4 Stage 1. Review of existing regionalisation frameworks

The first stage was to review the various ways that people and organisations have categorised Outback regions that can inform the underlying understanding to be developed through later workshops. For example, Holmes (1997) has defined Outback regions based on land use. Taylor (2003) has identified functional regions based on communities' linkages to a hub centre of services. Stafford Smith et al. (2003) suggests that some characteristics are uniformly shared by Outback regions and other sets of characteristics differ across all these regions.

A review of the logic and purpose for existing regionalisations (e.g. different administrative and development maps, and social health and remoteness atlases) provided some generic criteria for socio-economic and cultural categorisations of the Outback.

3.5 Stage 2. Developing a working understanding of socio-economic regionalisation of Outback Australia

Building on the background understanding developed in Stage 1, a workshop was conducted to bring together researchers with a background in social and economic issues in Outback areas. People such as Taylor and Holmes presented their approaches and the team presented their synthesised understanding of the background material.

3.6 Stage 3. Refining the regionalisation framework and enhancing understanding of its application

The working framework developed in Stage 2 for the different ways of categorising social dimensions was widely circulated. Explicit feedback was obtained on the relevance of the framework to different sets of local issues. People from a range of perspectives and geographic areas were invited to a series of workshops (see example,

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Figure 4). The framework, issues and criteria for categorising the regions were further discussed. The workshops also suggested a range of communities for rapid rural appraisal and others that could serve as intensive case studies.



Figure 4: Example of a Stage 3 Stakeholder workshop, Greenvale, December 2004

3.7 Stage 4: Breadth of coverage through rapid appraisal

Informed by Stage 3, multiple cases were investigated using rapid rural appraisal techniques such as interviews with community points of contact (e.g. local Council representatives, NRM facilitators). To expand on the breadth of coverage and reduce over-consultation syndrome, this stage involved communities and key informants other than those who participated in Stage 3.

3.8 Stage 5: Depth of coverage through case studies

Informed by Stages 3 and 4, a selection of case studies was proposed for further detailed research involving direct engagement with broader members of the community than those participants in Stage 4. In proposing a case study approach, it is always important to identify what a case is. In this research the authors identified that a case is a combination of geographical factors and livelihood factors. As such, a case is essentially concerned with relationships – a case represents the particular combination of livelihoods in a region.

Cases were selected on the basis that:

- 1) They represent a cross-section of the livelihoods identified in Stages 1 to 3,

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- 2) They represent a cross-section of the geographical communities across the two CRCs and institutional boundaries
- 3) Members of the communities were interested in participating in the research
- 4) There were links between the research and pre-existing community planning and management projects in the case study region
- 5) They build on and/or collaborate with other projects of CRC partner organisations.

Based upon these criteria the following case studies were conducted in 2005:

- Planning for healthy country in the upper Burdekin, Qld
- Employment and wellbeing in Anmatjere, N.T
- Fly-in/fly-out mining in WA
- Rethinking livelihoods in Roma, Qld

The purpose of the case studies was to conduct in-depth investigation of underlying issues and analysis of linkages between the drivers identified for the status and trajectories of each case study. The stage made use of focus groups and in-depth interviews (see Figure 5).



Figure 5: In depth interview with a grape farmer, Ti-Tree, Northern Territory 2005

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3.9 Feedback on results of research

Feedback was obtained from research participants and stakeholders. The feedback was on processes and content to improve the theoretical policy and application of project outcomes in the future.

3.9.1 Closing the theoretical loop

The feedback was on the methodological and theoretical implications of the research. Methodologically, participants found the research ambitious but with an effective mix of top-down and bottom-up approaches. The feedback on theoretical implications of the research indicated that Outback regions seemed to suffer increasing determination of their future from the centre than previously thought. This suggested the need for revisiting and conducting research on core–periphery relations between political and economic centres and the remote and rural Outback regions.

3.9.2 Feedback to the policy stakeholders

The research provided a mechanism for providing feedback to the policy makers on the underlying structures of the multiple Outback issues. The rationale behind this was that it would eventually help replace implicit assumptions in future policies that are intended to ‘fix’ issues in the Outback communities, but end up perpetuating underlying problems.

3.9.3 Feedback to case study regions

Feedback was also provided to case study communities on the research. This was partly to confirm the findings of the research, but also designed to assist communities gain a broader perspective by comparing their own experiences with those of other regions.

4 Outcomes from research on categorising communities

The approach taken to categorising communities arose from the investigations undertaken in Stages 1 and 2 of the project. Outback regions were initially categorised at a macro level based on the similarities of their main component livelihoods – for example, regions where the main livelihoods consist of pastoral communities, Indigenous communities and the associated service centres were categorised separately from regions where the main livelihoods were mining communities, pastoral communities, Indigenous communities and their associated service centres. While pastoral, Indigenous and service communities may have some similar issues in both regions, there were different economic and social issues for all where mining was present. This representation has much in common with the categorisation by Holmes based on dominant landuse regions. At another level, the Outback was categorised into functional regions based on use of service communities. At this level differences emerged between livelihoods in their use of service communities, which reflected the nature of their livelihood and the type of services they require – for example, mining in remote regions often relies heavily for its services on the nearest major city, whereas its associated Indigenous communities are dependant on their nearest service communities.

4.1 Geographical communities

A review of background material (Methods Stage 1) and initial workshops with experts (Methods Stage 2) drew attention to Holmes' (1997) regionalisation of rangelands. It is important to emphasise that rangelands – defined as land suitable to extensive livestock grazing – is broadly consistent with the definition of Outback adopted in this research. This provisional regionalisation was largely based on the sum of Holmes' (1997) professional experience of rangeland regions and the issues they face. They represent 'an informed, if intuitive effort at identifying a realistic, operational set of regions for comparative appraisals' (Holmes 1997:9). Drawing comparisons with the shifts from productivism to post-productivism in European agriculture, fundamental to Holmes' (1997) interest was a shift from formerly 'productive' activities, such as pastoral and mining enterprise to 'post-productive' activities such as tourism and Aboriginal resource use (Figures 6 and 7). Based on this he classified 29 rangeland regions into eight classes:

- Pastoral regions
- Remote pastoral regions
- Stressed pastoral regions
- Urban-dominated mining regions
- Urban-dominated amenity regions
- Aboriginal homelands
- Frontier regions
- Unclassified regions

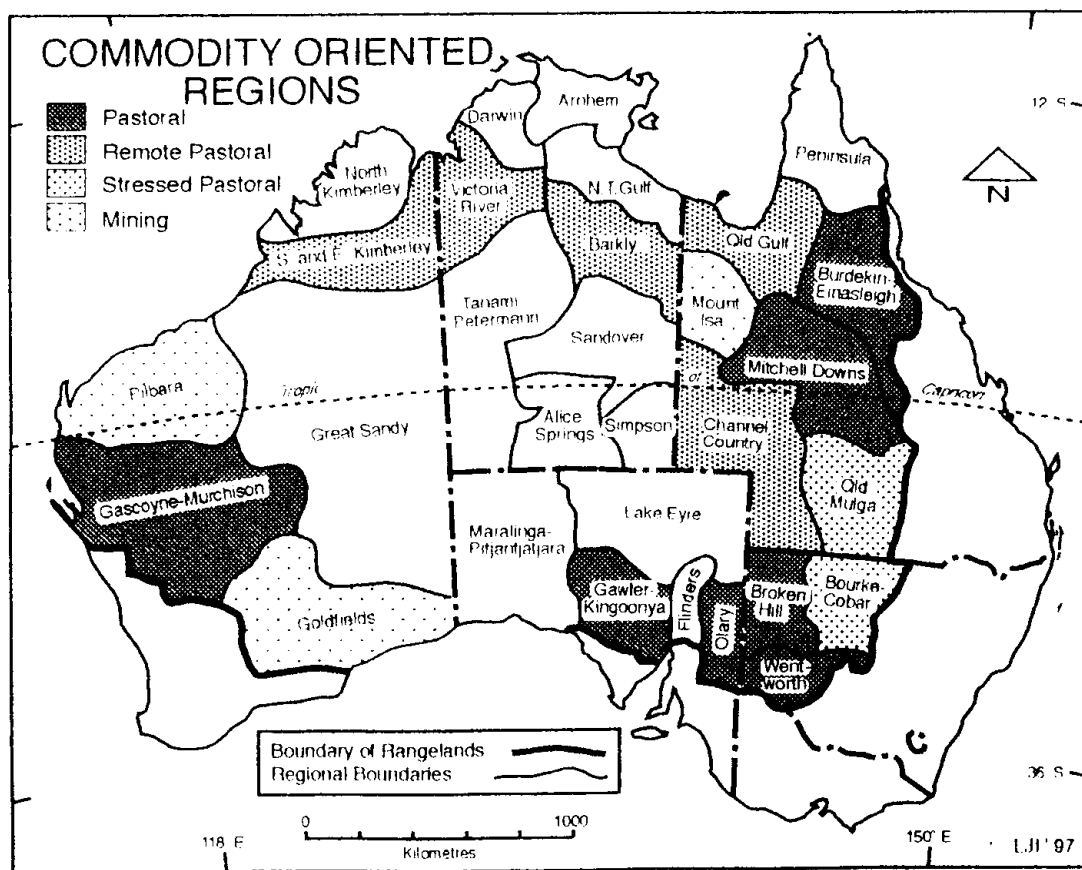


Figure 6: Geographic categorisation of rangeland commodity regions from Holmes (1997)

In 1995 a series of workshops with stakeholders (Methods Stage 3) confirmed the value of Holmes' regionalisation as a suitable overall framework for classifying broad geographic-based regions across the Outback areas. One area where the framework proved to be particularly useful was distinguishing between different types of pastoral regions, and the types of social and economic issues they face. Participants emphasised the distinctions between the social and economic issues faced by family-operated pastoral properties and those faced by large absentee-owned properties operated by professional managers. This fundamental distinction is represented in Holmes' diagram as the difference between 'pastoral regions' and 'remote pastoral regions'. The issues between these two types of regions were markedly different. Consistent with Holmes' (1997) observations, the issues faced by family pastoral operations are broadly concerned with the network of rural roads, telecommunications and links with rural service towns. This latter aspect was a strong focus of the workshop participants who represented pastoral properties that have been passed from one generation to the next. For example, graziers in the upper Burdekin were concerned that changes in commodity prices have influenced the minimum viable area for a productive grazing property. This in turn has made it impossible for many family farms to be divided into viable business units for each offspring interested in carrying on the tradition. As young generations leave the farm to seek alternative sources of economic opportunity in urban areas, the number of school age children is falling close to critical levels required to maintain schools in towns such as Greenvale. The effect of rural population decline is captured in Table 1 which demonstrates the

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decline in youth and increase in aged population for the Northern Statistical Division of Queensland between 1991–2001. The example represented here corresponds to the Burdekin–Einasleigh region however the same phenomenon was reported across all areas which Holmes has grouped under the heading of Pastoral regions. One of the key insights that emerged through the workshop process was that whilst the youth population was generally declining in these regions, the Indigenous youth population was generally increasing, demonstrated in Table 2. This trend has significant implications for the viability and vitality of pastoral regions; principally, that the regions can survive and prosper provided that Indigenous and non-Indigenous communities can work together.

In contrast to the pastoral regions discussed above, the workshops confirmed that the ‘remote pastoral regions’ such as the Channel Country and Barkly Tablelands are characterised by expansive pastoral properties with large contracted workforces that have eliminated the need for rural towns by importing labour and providing services such as healthcare and veterinary specialists at the property level. Workshop participants confirmed a high level of labour mobility amongst several of these properties, such that workers would sign on for given period (a year, or just a mustering period), then move on. The social impacts of these types of arrangements are varied and are strongly linked to broader regional viability. These arrangements tended to reduce the viability of local and regional economies, because services become internalised at the property scale (with the general exception of pubs). An example of an extreme case was the Barkly Tableland, where very few services are provided outside of cattle properties, and it is difficult for people travelling through the area even to get fuel.

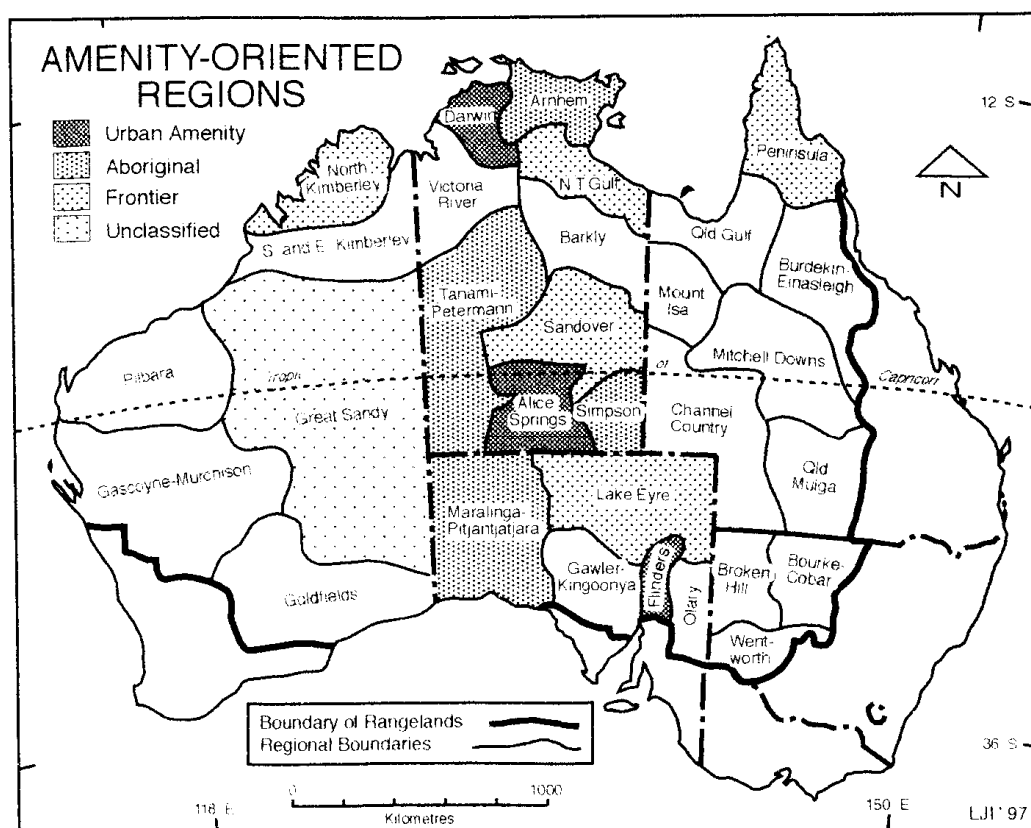


Figure 7: Geographic categorisation of rangeland ‘Amenity’ regions from Holmes (1997)

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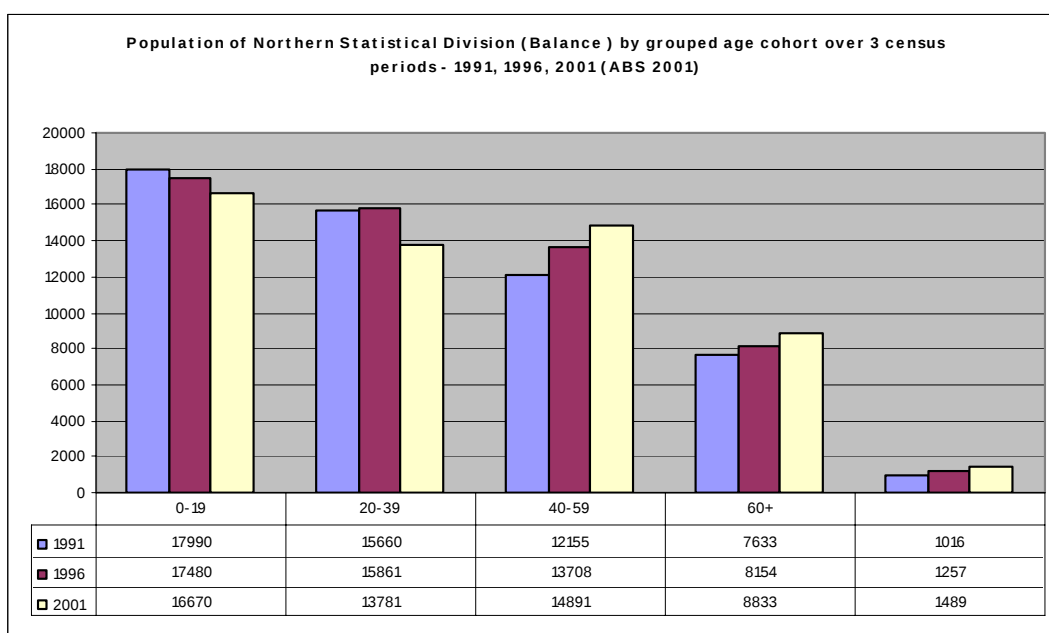


Table 1: Total population change, north Queensland 1991–2001

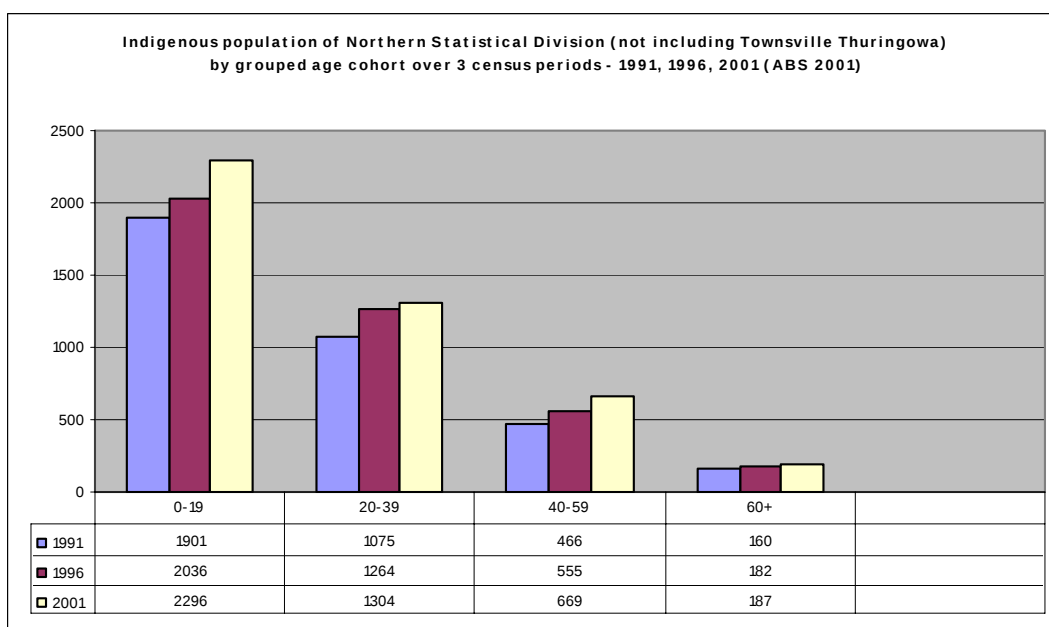


Table 2: Indigenous population change, north Queensland 1991–2001

Workshop participants indicated that these remote pastoral regions have much in common with the autonomous mining operations which also tended towards large contracted workforces and organisation of services at the enterprise level. The difference is that many mining operations have made arrangements with Indigenous stakeholders and other members of rural communities to provide services, employment opportunities and infrastructure to the surrounding settlements. Workshop participants were interested in further exploring how remote stations can play a role in supporting other sectors of the community. For example, remote

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pastoral stations can provide employment opportunities but these are not always suitable for surrounding remote communities which may not have the necessary skills due to factors such as lack of training. This issue is further discussed in Section 5.1

In discussing the various ways to categorise regions relevant to Outback towns, the 'functional region' or 'hinterland' approach seemed to be the most suitable way to understand and categorise the centres, their relationships with surrounding areas and the issues they face. This approach to regionalisation has a long history in geographic theory, and has been found useful in exploring issues of social sustainability in Outback towns (Macgregor 2001). Functional regions can be considered as regions which display functional coherence, and are composed of heterogeneous units such as population centres and the surrounding communities that depend on them. They often represent a pattern of flows of goods, services and people associated with an urban centre and the area it services, known as its hinterland (Taylor 2003). Consistent with Holmes' (1997) geographical regionalisation, the urban centres of Darwin and Alice Springs are particularly prominent as services centres in the Outback, however these centres were major functional centres for areas well outside the areas specified by Holmes. Workshop participants emphasised the significance of Alice Springs as a centre for what can be broadly described as Central Australia, especially the north of South Australia, and the east of Western Australia. Similarly, Darwin was found to be an important centre for most of north Western Australia and parts of northwest Queensland. Analysis of the workshop material corresponded broadly with Taylor's analysis, resulting in several clearly defined Outback functional regions (Figure 8).

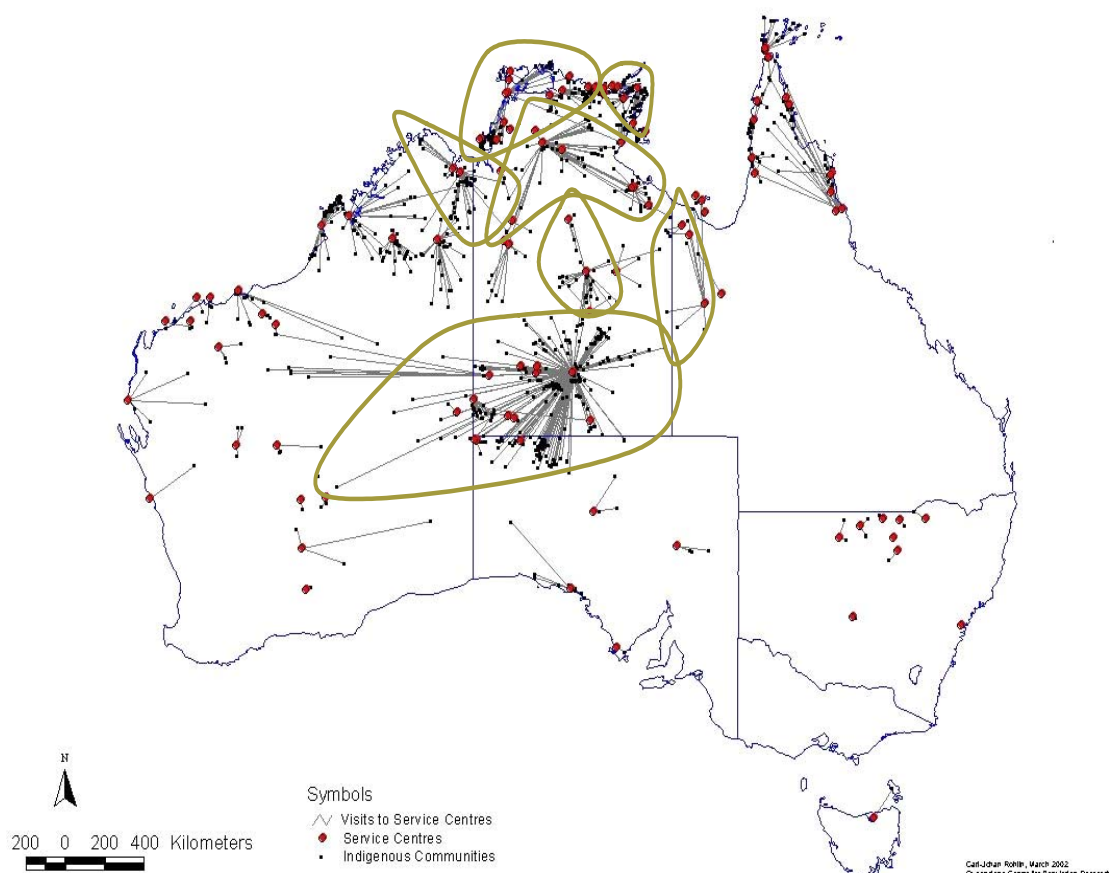


Figure 8: Distance to service centres

Source: Taylor 2003

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4.2 Communities of interest and activity

In addition to geographic communities and functional communities, there are 3 other ways of defining community that proved to be relevant to this research – communities of interest, practice and inquiry. An example of the latter of these is a Cooperative Research Centre which represents a group of individuals and organisations united by their study of a particular phenomenon, such as the sustainable development of tropical savannas. Communities of interest and communities of practice require further explanation and are discussed in Sections 4.4.1 and 4.4.2 respectively. The issue in common amongst communities of inquiry, practice and interest is that they emphasise that groups of people are not always geographically bounded. Moreover, frequently, different types of communities are complex and overlapping, such that individuals are part of multiple communities, as demonstrated in Figure 9.

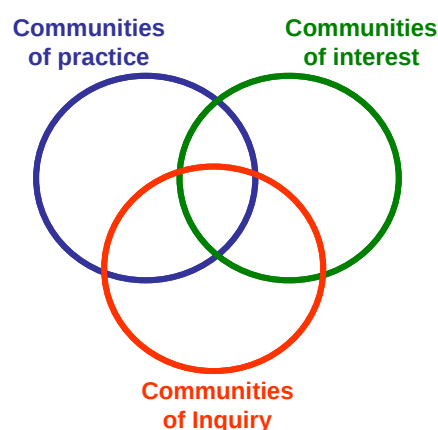


Figure 9: Overlapping types of communities

4.2.1 Communities of interest

The concept of community of interest has attracted considerable interest since the emergence of internet-based virtual communities. There are a number of key elements to a community of interest, but it is essentially made up of the relationships between people with a common purpose or interest in topic. In this research a number of focus groups were held with communities focussed on different interests, and the findings of these focus groups played a key role in identifying the attributes of viable and sustainable regions presented in Section 5. One example of a community of interest is a group of Indigenous people concerned about the employment issues for Indigenous youth in the Outback (Figure 10).

Employment issues for Outback Indigenous communities

Focus groups with Indigenous representatives from a range of geographic regions drew attention to the fact that in many Indigenous communities there was high unemployment. This was found to be the case even in examples where there was an apparent labour shortage in certain sectors. For example, representatives from Normanton shared their concerns that the rise of the tourism sector had failed to deliver jobs to Indigenous people. Rather, people from outside the town were coming to fill the roles created by the increase in this new industry. There were several reasons suggested for this ranging from outright racism to lack of specific skills amongst Indigenous people relevant to the industry.



Figure 10: Focus group: addressing employment issues for Indigenous communities

4.2.2 Communities of practice

Communities of practices are groups of people who share a common concern or activity and seek to improve their practice by learning from each other and comparing experiences (Wenger et al. 2002). There is considerable overlap between the concept of livelihoods and communities of practice. For example, a livelihood group such as pastoralists can be broadly conceptualised as a community of practice in its broadest sense – a group with shared concerns and activities who form technical and political groups to enhance their knowledge and to protect their interests. Whilst there is broad consistency in the concept of livelihood and community of practice, it can be argued that communities of practice tend to be more focussed and tied to a specific activity. A classic community of practice is a group of engineers addressing common problems such as designing a new machine, or information technology user groups for various types of software (Wenger et al. 2002). In the Outback Livelihoods case studies, several communities of practice were encountered, a sample of which is a group focussed on increasing the benefits from tourism to Outback communities (Figure 11).

Increasing Outback benefits from tourism

The second major community of interest that engaged with this work were united by a concern for developing the tourism industry in the Outback, and increasing the benefits to Outback communities from tourism. Workshop participants identified a series of interrelated issues associated with tourism in Outback areas. The first of these was that a considerable amount of the benefit generated through Outback tourism goes to tour developers who are based in capital cities and regional centres

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such as Cairns. This is partly because this is the first point of contact for the tourism market, but also because small Outback tourism operations frequently lack the resources to market themselves effectively. A number of key exceptions provided the workshop participants with lessons for improving the benefits to Outback communities. These included encouraging overnight stays rather than day trips, offering people incentives for direct bookings (bypassing tour agents fees), and the importance of personal connections. Many participants found that the best value tourists were those who were looking to explore their cultural horizons. Rather than drive by bus tours and purchasing gimmick souvenirs, they wanted to walk the land with the Traditional Owners and witness living culture, whether it be through dance performances or interpretive tours; in each case these tourists were seeking direct experience through personal connections.



Figure 11: Focus group: increasing the benefits from Outback tourism

4.3 Case studies

The methods developed for this research proposed four case studies of different types of communities. Two are presented in this sample product. The first of these looks at a geographic region – the upper Burdekin catchment. Though it is a geographic region, it is more than simply a geographic community. In addition to being a geographic community it is an example of how different livelihood communities – grazing, a rural town, an Indigenous community and a mining community – come together in a geographic context. The second case study presented here draws on a suite of mining communities that participated in the research, and their interactions with other livelihood groups across the Outback. It considers the effect of mining

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communities on local economies, including the way much of the wealth that is generated from mining activity is removed from the region, a phenomenon that Holmes (1997) has referred to as the geographic transfer of value. The case studies allowed the research to explore the themes identified in the workshops in greater depth. The findings of the workshops have been used to inform and refine the attributes and indicators presented in Section 5.

4.3.1 Adapting to change in the Upper Burdekin

The upper Burdekin case study began as a pilot study in 2003 and continued until 2005. It involved focus group analysis with 40 people in six sessions, and in-depth interviews with 30 people, 15 of whom participated in follow-up interviews to assist tracking changes over time. Unlike the emphasis on random sampling of quantitative research, qualitative social scientists are interested in several different types of case studies, including studies of typical cases, extreme cases and various other illustrative cases. The Burdekin case study was selected mostly because it was illustrative on two main grounds. The first was that it presented an example of different livelihood groups – graziers, Traditional Owners, miners and rural residents – who came together of their own accord to understand and address issues in common. The second was that it illustrated how these efforts could be represented through intuitional process, in the form of a regional planning under the National Action Plan for Salinity and Water Quality. Early discussions with the community representatives in 2003 identified the value of conducting the Outback Livelihoods case study in parallel to the regional planning process for two principle reasons. The first was that by linking the two processes, the NAP process was tied to broader social and economic issues that provided a context for the regional planning framework. The community wanted to ensure that by investing their time and energy into the planning framework, they were not neglecting issues that may not have been directly addressed by the planning system. As it happened, the planning process turned out to be highly inclusive and strengthened the social capital that already existed within the community, and eroded the fears of some graziers that they risked losing control over their grazing lands by engaging with other stakeholders such as Traditional Owners. The second main reason for engaging with the case study was that it assisted community leaders to trace their progress towards their own goals. This was mostly achieved through repeat interviews with key informants such as representatives of the grazing industry, Indigenous elders and members of the regional planning steering committee.

Another reason why the upper Burdekin represented an interesting case study was because there exists strong consistency in the various physical and cultural boundaries that surround it. Referring to the upper part of the Burdekin catchment, the main boundary is a biophysical one which is relatively easy to express on a map. This biophysical boundary is highly relevant to graziers, who graze cattle on property sizes which vary between 120 and 1000 square kilometres of the extensive native pastures that characterise this ecosystem. The catchment also involves considerable basalt country and volcanic lakes, mostly of minimal use to graziers but of particular conservation value due to the migratory birds that are attracted to the area. The Traditional Owners of the area, the Gugu Badhun people, indicate that their country is highly consistent with the biophysical boundaries, which has facilitated them bringing a cultural dimension to the natural resource planning based upon biophysical boundaries. The consistency of the boundaries facilitated an analysis of the interactions between different ways of knowing the country, partly because all of

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these ways of viewing were present at workshops. These boundaries are shown in Figure 12¹.

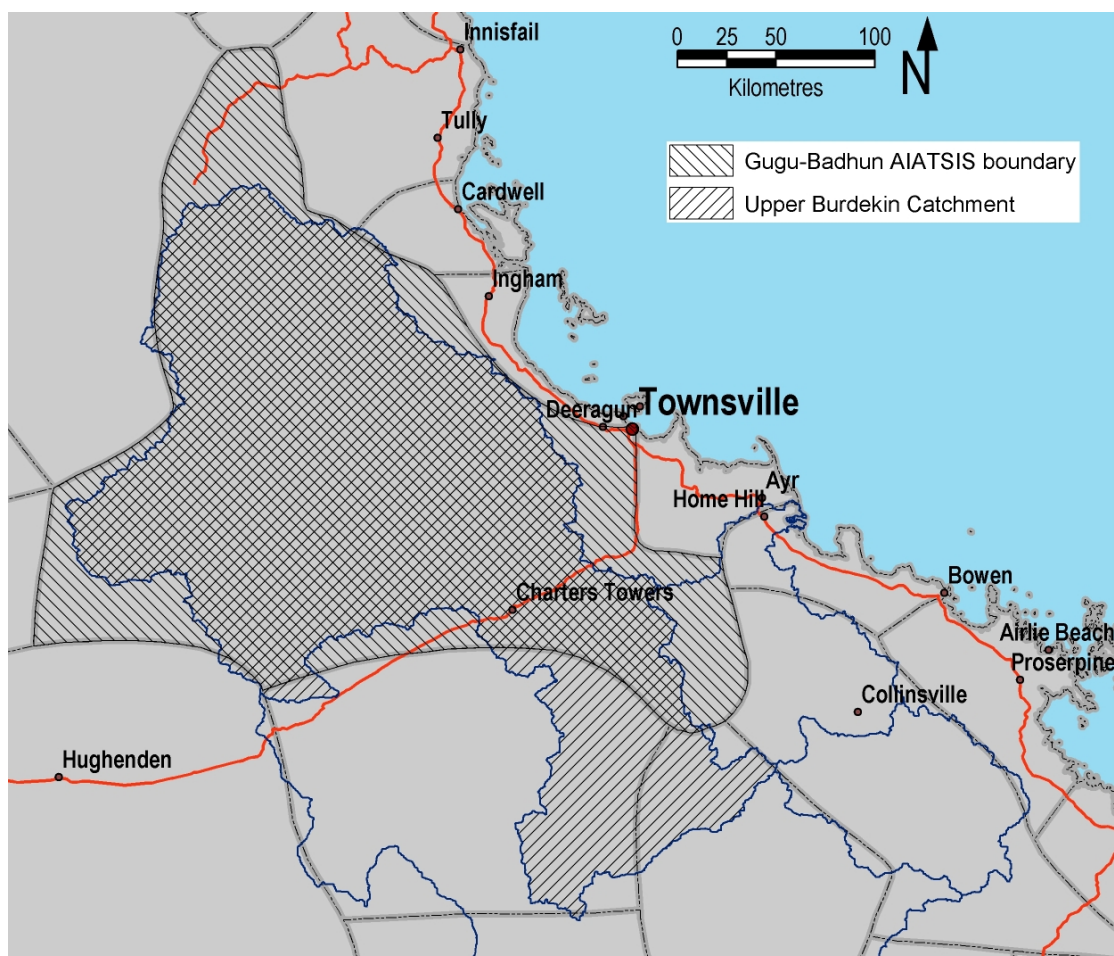


Figure 12: Overlap of Gugu-Badhun AITSIS boundary and upper Burdekin catchment

In exploring regional viability in the upper Burdekin catchment of north Queensland, four main livelihoods were central to the study. The area is a grazing community, constituting mainly family-operated farms with between two and six full-time equivalent staff (inclusive of owner-managers). The graziers who participated in the research were active members of the grazing community (of practice), and focussed on the issues affecting graziers with similar operations. Over-riding all issues was concern over the minimum farm size that represented a viable operation. Affecting this over-arching issue, graziers were concerned about stocking rates and managing debt. In the past, the size of grazing properties in the upper Burdekin has been financially viable but they are concerned that this is changing as land values rise more quickly than the price of beef (Figure 13). To manage their operation effectively, graziers were very wary of anyone else entering their property for any other purpose, and were initially highly resistant to the idea of people coming and going in case they

¹ The AITSIS boundary is used here to define Gugu-Badhun traditional country as it was the only boundary available at time of publication. The Traditional Owners have commenced their own mapping program which in the future may provide a more qualified indication of their country.

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interrupted the movement or confinement of cattle. This issue applied for both tourist operators and Traditional Owners who entered the land for cultural purposes. On one hand the issue seemed to be a pragmatic one concerned with gates being left open (or closed) when they shouldn't be. However through in-depth interviews it became clear that there was a strong psychological dimension to the issue.



Figure 13: Burdekin graziers are concerned about minimal viable property sizes

The graziers who participated in the case study expressed strong concern about people coming and going as being an issue over which they felt they had no control, and which went against their daily business of managing the movement of cattle. This became clear at one point when a participant described a group of tourists as if they were a herd of cattle. He was deeply concerned they would stray around the farm so he insisted on shepherding them through paddocks and avoiding impassable tracks and so on. The experience was enough to put him off engaging with further tourism because he was not prepared to let them on to his property outside of his own direct supervision, and the costs to his own time were not worth the effort. This anecdote, though interesting enough in itself, provided insight into some of the broader issues across different livelihood groups in the area. In particular, it shows the difficulties faced by town residents who were looking to increase the viability of the town by further engaging in tourism. Many town residents did not understand why graziers were resistant to tourism until the issue was raised through a community workshop which brought together different livelihood groups in the upper Burdekin. Also of interest, was that town residents, who previously thought that tourism was the answer to all their concerns, realised that there were many aspects of tourism that they had

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neglected to consider, such as the lack of skills in their community to adequately manage tourism and the costs that tourism bring to the straining infrastructure of their towns.

One of the key issues raised by the residents of Greenvale was access to basic services such as post and banking facilities. The nature of the problem was characterised by the struggle to initiate a Rural Transaction Centre (Figure 14). Members of the Greenvale Progress Association managed to secure a grant to develop this focus point for local service delivery in an otherwise poorly serviced town which is several hundred kilometres away from the regional centre of Townsville and 130 kilometres away from the smaller centre of Charters Towers. Whilst the centre is delivering much needed services to the local community, at the time of research there was insufficient public funding or private investment to employ staff to operate the facility and it relied entirely on volunteer labour. Whilst hopeful that the centre could remain open in the future, if the principal volunteer is unable or unwilling to continue operating the centre it is prone to closure. In systemic terms this can be identified as a key node in a network analysis. Were this node to be removed, the network would collapse. One of the keys to viability to townships such as Greenvale is the increase of Indigenous youth population in Outback regions. The recent arrival of young Gugu Badhun people in the town has been crucial to the success of several projects to increase the vitality and viability of the town, including refurbishing infrastructure such as the community hall and maintaining healthy country through such programs as feral animal control.



Figure 14: Delivering basic services: the Rural Transaction Centre in Greenvale

Underlying most of the issues in Greenvale is the uncertainty of mining livelihoods and associated exploration activity. Because the community has difficulty attracting and retaining young people, many participants were hopeful that new mines could provide employment and attract young people to the town, but there is no certainty that these mines will proceed. The prospects of such operations proceeding are improved by good relations amongst different livelihood groups. An example of this

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was the company of Kigara Zinc which had developed healthy working relationships with the Gugu Badhun Traditional Owners and found that this made negotiating access to the mining leases more straightforward. This was an example of one of the key issues that the upper Burdekin case study demonstrated about the viability and vitality of Outback regions: relationships and social capital. Figure 15 demonstrates that there are some links between the Traditional Owners and the town residents.

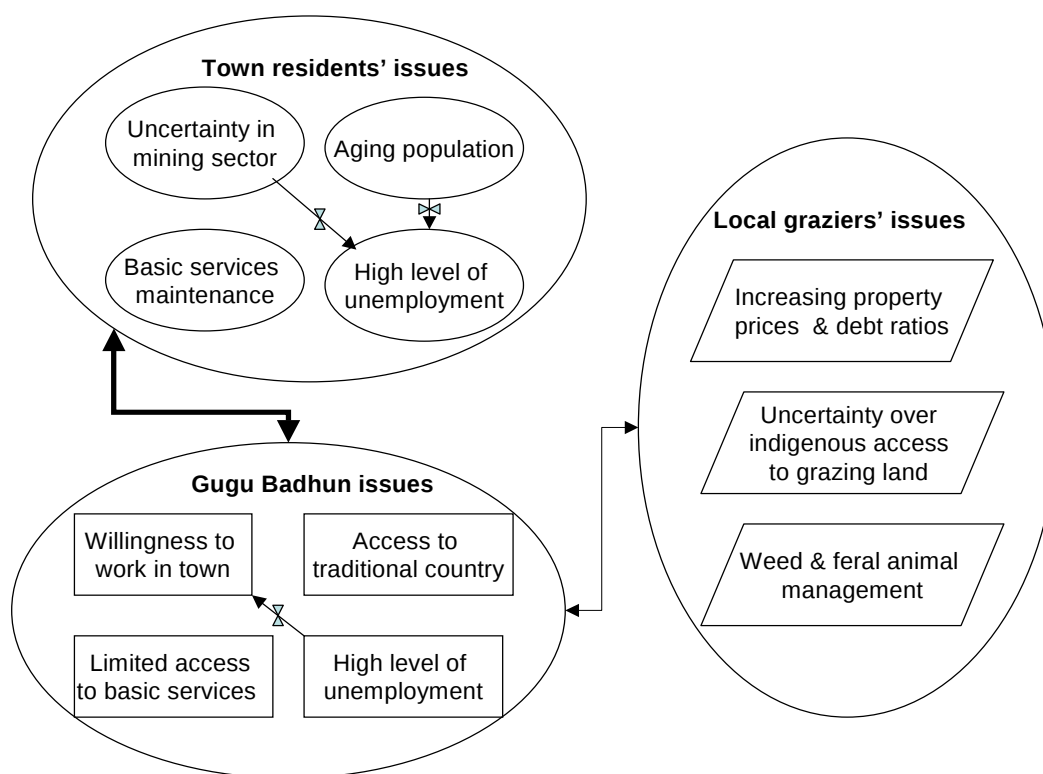


Figure 15: Linkages between livelihood group issues

There are also some linkages between the Traditional Owners and the local graziers, however there are no links between the issues of graziers and town residents. The Gugu Badhun Traditional Owners have expressed a willingness to negotiate arrangements that provide them with access to their traditional country yet continue to allow pastoralists grazing rights to the land. The collaboration between the Traditional Owners and the pastoralists dates back to when the elders worked on the cattle properties as young men, and had generally good relationships with the pastoralists. Many pastoralists are concerned about losing access to their land, however the Traditional Owners believe that some test cases will demonstrate that mutually beneficial arrangements can be developed. Through the Greenvale Progress Association, town residents expressed a willingness to work with Traditional Owners living in the town to address issues such as attracting young people to the area and seeking new forms of employment through the development of tourism. Town residents expressed concern over a lack of collaboration within the town community, and also lack of collaboration between town people and pastoralists.

4.3.2 Mining-based communities

Mining-based communities provided a different context for identifying underling social, environmental and economic characteristics and issues affecting the health of

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Outback regions because of the potential wealth associated with many mining operations. However, this wealth can be a positive and negative for regional communities, because while a mining operation can enhance the wealth of the local community, it is often less functionally dependent on the other livelihoods in the community for its existence. Consequently, its interests often conflict with those of other members of the geographical community in which the mine is situated.

Most mining-based communities consist of three other livelihood groups: grazier, Indigenous, and service community. Hence, apart from the issues faced by each of the four main livelihoods there are the issues generated by the relationships between mining and each of the livelihoods, which can dominate other relationships because of the relative power of the mining companies in these communities.

In the initial exploration and establishment phases, mining companies – in addition to dealing with the normal issues of financing, infrastructure development, workforce recruiting, etc. – need to establish relationships with Indigenous communities associated with native title negotiations and with local service communities. How these relationships are established and handled and the strategies adopted by the company to handle issues such as workforce recruitment (local or outside), workforce housing (local or fly-in/fly-out), services provision (in-house or contracted out) has a big impact on the aspirations, population profile, services, infrastructure, wealth and hence health of the geographical community. In the final stages of mining, planning for shut-down and mine site rehabilitation create additional issues for the other livelihoods to deal with. To understand this process, indicators are needed which assess the short-, medium- and long-term social and economic impacts on the health and viability of communities of the various strategies adopted by mining companies and the interaction of government policies with these strategies.

Pastoralists in mining areas face a different set of circumstances from pastoralists in more traditional areas. Land tenure and access rights for mining are one such set of circumstances which create additional complications. In regions where tenure is leasehold many mining companies buy up pastoral leases which has consequences for the number of neighbours pastoralists have who rely on pastoralism for their income. However, mining companies also provide an opportunity for pastoralists to generate income through contracting their machinery or labour which can be useful in maintaining business viability during industry downturns.

Similarly, service communities can benefit from the extra income generated by the mining operation but have to cope with greater change because of the short- and long-term cycles associated with mines. Most mining operations have a defined life determined by the size of the ore body and consequently are not sustainable in the long-term. In addition, the service communities are vulnerable to fluctuations in world economic cycles, exchange rate fluctuations and their interactions with mineral commodity prices. Communities sometimes have to reinvent themselves following the shut down of mining operations, as was the case for Greenvale.

In summary, because of the major impact of mining on their surrounding communities, there is a greater need for indicators which assist planning to take account of the impact of mining industry fluctuations on their health and viability.

5 Issues and indicators

This section presents a synthesis of the attributes and indicators that emerged from a systems analysis of the workshop material, rapid rural appraisal and case studies.

5.1 Attributes of healthy and viable Outback regions

Systems approaches demonstrate that the health and viability of a region is dependent on a multitude of interrelated factors. The methods employed in this research have shown that whilst many of these attributes vary across time and space, there appears to be a group of higher level attributes that affect sustainability across the Outback. The following groups of issues affected all livelihood groups and communities in the Outback:

- Adequate services
- Access to country
- Ability to manage change
- Clear aspirations
- Effective infrastructure
- Balanced population profile
- Access to basic services
- Access to healthcare.

These attributes were identified through synthesising the issues raised by all representatives at the workshops. Some of these were quite specific – a given problem in a specific industry – yet through exploring these in systems analysis, it was possible to group them into a suite of meta issues, or attributes of healthy and viable regions. In one way or another, they were raised by representatives at all workshops and across all livelihoods. Some of these, such as adequate services, are also issues in urban areas, but the nature of these issues in the Outback is distinct. This is demonstrated by a recent report on access to health care in rural and urban areas (Department of Health 2005), which compared the access to emergency treatment in 17 Local Government Areas around Australia. Whilst neither position is desirable, there is a considerable distinction between queuing for several hours for emergency treatment in a local urban hospital and not having access to the treatment at all in your region. One of these attributes is discussed in detail in Section 5.1.1 for the purposes of the sample product.

5.1.1 Spectrum of employment opportunities

One of the key issues that emerged through the workshop process was employment. It was found that employment was a multi-faceted or ‘wicked’ Outback issue that affected Outback communities in different ways from urban communities. It is also important to emphasise that this issue is structurally linked to other key variables affecting Outback communities and particularly Indigenous and rural towns Livelihoods groups. This is one of the key systemic relationships which we have termed the triangle of Outback decline (see Figure 16). For example, the research process revealed numerous cases of both unemployment and labour shortage in the same community. In trying to understand this, a systems approach revealed that in many cases there can be a labour shortage in an Outback community but the resident

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population may not have the necessary skills, or compatible work culture to fill these roles. In other cases, local people may not find job appealing or may be judged, or there may be an alternative workforce such as travelling back packers, or fly-in/fly-out workers. An example of the systemic relationships associated with Outback unemployment is presented in Figure 17.

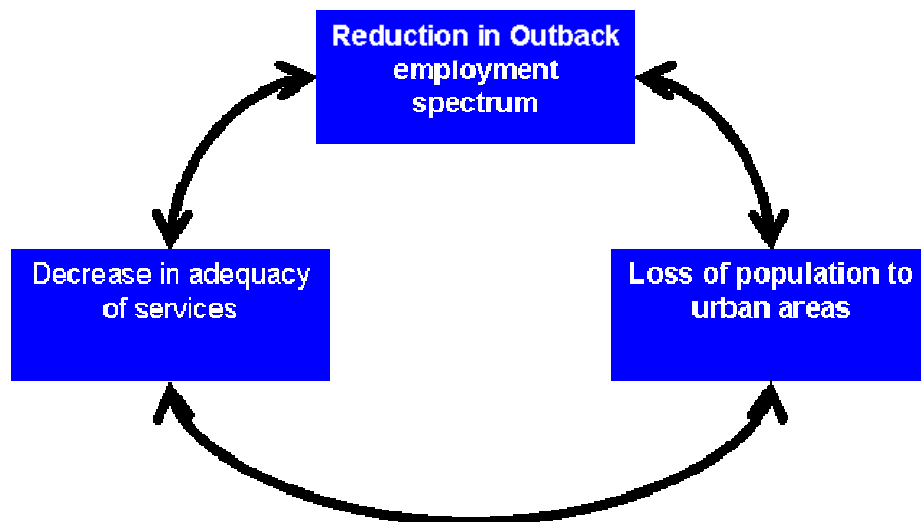
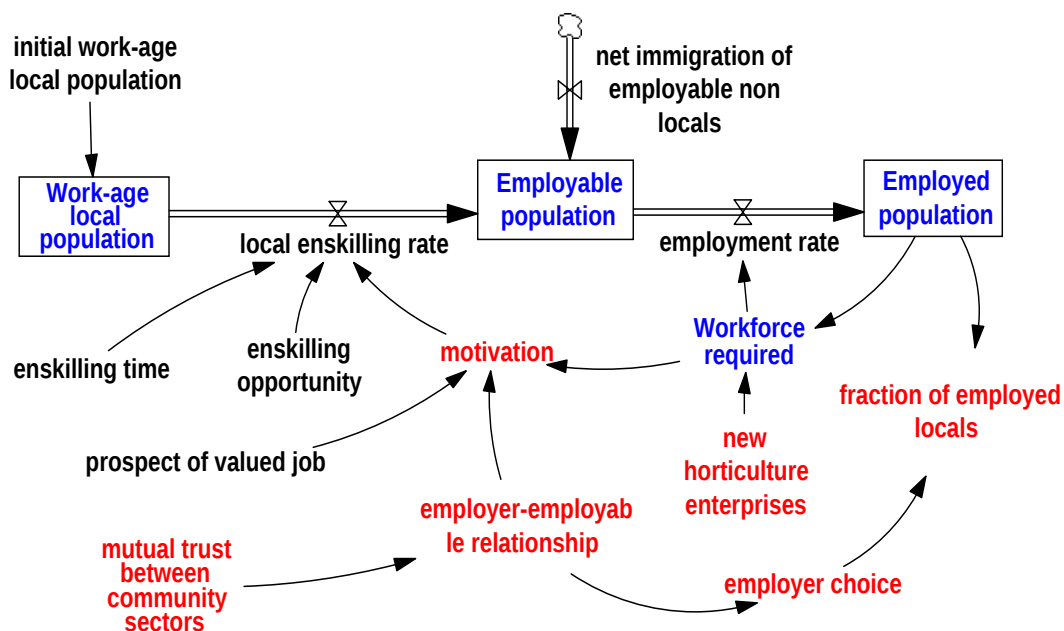


Figure 16: The triangle of Outback decline: employment, population and services



A systems model of employment dynamics in Ti Tree Table-Grape industry

Figure 17: Systems diagram of Outback employment issues

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5.2 Sample workshop output tables

The following Livelihoods groupings were developed based on the methods identified in Section 3. Consistent with the Livelihoods approach to understanding sustainability, these groupings represent more than simply land uses – they represent groups based on shared interests, practices and ways of knowing. It is important to emphasise that the groupings are not mutually exclusive. Many participants represented more than one Livelihood Group. For example, some mining representatives were also residents of rural towns, and some Indigenous representative were also pastoralists. Rather than distinct categories of people, the workshops reported on the attributes of sustainability for each livelihood, an analysis process which closely followed the way that Whitehead et al. (2000) identified attributes of savanna health for different groups of stakeholders through a series of workshops in 1999.

Table 3: Summary of main attributes

Attributes	Livelihood Groups			
	Pastoral	Indigenous	Mining	Outback Towns
Access to Country	√	√	√	√
Ability to manage change	√	√	√	√
Clear aspirations	√	√	√	√
Effective infrastructure	√	√	√	√
Balanced population profile	√	√	√	√
Access to basic services	√	√	√	√
Access to healthcare	√	√	√	√
Spectrum of employment		√		√
Functional and effective business networks	√			√
Commitment to place	√	√		√
Viable property size	√			
Certainty of tenure	√	√	√	
Sample attribute		√	√	
Sample attribute			√	
Sample attribute	√			√

Source: Maru et al. 2005

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Table 4: Sample attributes and indicators of Outback town livelihoods

	Scale		
Livelihood Group	Community	Region	Outback
Outback Town Residents	Alternative employment opportunities	Spectrum of employment opportunities	
Collective vision: “Vibrant, growing community”	Number of business functional units	Trends in employment	
	Functional and effective social and business networks		Multiple functional and effective business networks
	Horizontal network association density		Horizontal and vertical network association density
	Commitment to place		
	Intention to stay	Net regional migration	Net migration
	Maintaining basic services		
	Presence of : education, health and banking sectors	Doctors per 1000 people Enrolments of school age children Banks per 1000 people	Year 12 completion rates Hospital beds per 1000
Ability to manage change			
	Resilient institutions – number of effective interactions between sections of the community	Government support for community learning	

Key

Attributes

Indicators

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Table 5: Sample attributes and indicators of Outback pastoral livelihoods

	Scale		
Livelihood Group	Community	Region	Outback
Pastoral Livelihoods	Certainty of tenure		
Collective vision: “Sustained Production and Sustaining families”	Duration of planning timeframe (per property in years)	Sample Region Indicator	Sample Outback Indicator
	Commitment to place		
	Intention to stay	Net regional migration	Net migration
	Sample Attribute	Sample Attribute	Sample Attribute
	Sample indicator	Sample indicator	Sample indicator
	Sample attribute		
	Sample Indicator		
	Viable property size		
	Sample Indicator		Sample Indicator

Key

Attributes

Indicators

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Table 6: Sample attributes and indicators of Traditional Owner livelihoods

	Scale		
Livelihood Group	Community	Region	Outback
Traditional Owner Livelihoods	Access to country		
Collective vision: “People are healthy and country is looked after”	Type of tenure/access agreement	Sample Region Indicator	Sample Outback Indicator
	People are healthy		
	Instances of diseases	other Health statistics	
	Sample Attribute	Sample Attribute	Sample Attribute
	Sample indicator	Sample indicator	Sample indicator
	Sample Attribute		
	Sample indicator		Sample indicator
	Key		
Attributes			
Indicators			

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Table 7: Sample attributes and indicators of mining livelihoods

	Scale		
Livelihood Group	Community	Region	Outback
Mining Livelihoods	Access to land		
Collective vision: “Sustainable production through partnerships”	Sample Community Indicator	Sample Region Indicator	Sample Outback Indicator
	Sample Attribute		Sample Attribute
	Sample Indicator		Sample Indicator
	Sample Attribute		
	Sample Indicator	Sample Indicator	Sample Indicator
	Sample Attribute	Sample Attribute	Sample Attribute
	Sample Indicator	Sample Indicator	Sample Indicator
	Sample Attribute		
	Sample Indicator		Sample Indicator
Key			
Attributes			
Indicators			

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6 Conclusions and implications for policy

It is very difficult to write the implications for a piece of work that has not yet begun. If it were easy to come up with implications prior to the work then there is no task for research. However, we have developed some hypotheses that may serve as possible implications of the research.

6.1 Complex issues are not solved though reactive solutions

In initial discussions with policy developers attending workshops, it became clear that institutions have a perceived (and sometimes real) need to act quickly. Whilst in theory, policy making is a rational and carefully considered process, in practice there is a strong tendency to jump from an inadequate understanding of the problem to a rapidly formed response. Systems thinking has demonstrated that it is necessary to understand the underlying structural causes if we want to avoid the problem in the future. Using the health metaphor that underpinned the workshop process, one participant expressed it thus: “If we treat a problem based on symptoms alone we’ll end up visiting that patient again”. This issue was frequently discussed in the workshops because many of the participants were under pressure from administrative processes or ministers to produce a policy on the issue of the day by the end of the week. The problem is confounded by the lack of adequate information.

6.2 Addressing the lack of information

One of the underlying issues that led to the development of this work was the lack of social and economic information to underpin policy and make investment decisions affecting Outback regions. The difficulties in addressing this issue are not to be underestimated. This research has identified attributes and indicators of the core social drivers affecting Outback regions, however, there is a scarcity of data on most of these. The authors emphasise the strong need to improve this situation through supporting future programs that collect data on these issues. Some of these attributes are easily quantified, and in some cases considerable steps have been taken towards this process. For example, various data currently exists on employment and health demographics. But there is a clear lack of data that aids understanding of *why* employment trends are as they are – such as data on the value systems and work requirements of employers and the unemployed in Outback areas. Much of this data is not easy to quantify, and is more appropriately captured through qualitative techniques, such as commitment to place. These attributes require different approaches to the way we collect data in Australia.

6.3 Practical insights for continued discussion

This document is a sample discussion paper and has been designed partly to report on a research process, but more importantly to continue the dialogue that began with workshops and case studies and that continues in the workplaces of research participants and interested public. To stimulate and encourage this dialogue the authors would like to conclude with a group of practical issues, raised through the workshops that can lead to possible ways to improve the vitality and vitality of Outback regions. These are:

1. Considering arrangements for large pastoral corporations to improve infrastructure and services to surrounding communities, in a similar way that some mining companies do to communities surrounding mine sites
2. Exploring the role of 'local brokers' to improve access to government programs at the local scale in Outback regions
3. Expanding the Rural Transaction Centres to more Outback towns and considering extending the range of services provided through this vehicle
4. Recognising and researching the role of local business serving as network hubs for Outback communities, such as general stores. In many cases these businesses serve a function in holding a community together. Finding ways to keep these network hubs functional may play an important role in avoiding the collapse of communities.
5. Researching ways to improve the resilience of local communities by identifying and recognising key individuals (community champions) who serve as hubs and who increase the viability of regional communities but are prone to burn-out due to over commitment
6. Researching ways to improve the resilience of local communities by identifying and recognising key places (such as post offices) that serve as hubs and that play a key role in the viability of regional communities
7. Trials reported in the workshops have shown how local Indigenous people and non-Indigenous farmers can work together on NRM programs such as feral animal control
8. The trials described in point 7 currently are not sufficiently recognised by policy makers for their value in terms of building skills amongst Indigenous people and generating social capital between Indigenous and non-Indigenous people
9. Further research has to be directed in establishing and replacing some of the causations associated with drivers and issues of the Outback.

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8 Appendix 1 workshop details

Below is a sample list of workshop participants.

Participants written in italics are fictitious names listed only for the purposes of illustration.

Name	Representing
Janelle Allison	Centre for Rural and Regional Innovation, Queensland
Rod Appelgate	Northern Territory Department of Infrastructure, Planning and Environment
Henry Atkinson	Lynd Landcare Group
Jennifer Awberry	Queensland Department of Natural Resources Mines and Energy
Peter Bahr	Grazier, Greenvale Station
Jim Binney	Queensland Department of Natural Resource Mines and Energy
<i>Iva Brownfield</i>	Landcare Coordinator, WA Wheatfields
Brian Burkett	Queensland Department of Communities
Yvonne Cadet James	School of Indigenous Studies, James Cook University
Jerry Callope	Karboyick Aboriginal Health Service, Normanton
Vanessa Chewings	CSIRO Sustainable Ecosystems
Greg Cock	Primary Industries and Resources, South Australia
Karen Cody	Department of Agriculture, Fisheries and Forestry Australia
<i>Maria Costanzo</i>	Tango Station
Stuart Cowell	Australian Bush Heritage Fund
Allan Dale	Queensland Department of Natural Resources Mines and Energy
David Dolman	Centre for Appropriate Technology
Gordon Duff	Tropical Savannas CRC
Megan Edwards	Capacity Building program, Environment Australia
<i>Des Ertman</i>	Arid Land Management, Primary Industries and Resources, South Australia
<i>Pip Farmer</i>	Western Queensland Citrus Growers Association
<i>Joy Fisher</i>	NT Outback Fishing Tours
Steve Fisher	Centre For Appropriate Technology
Bunug Galaminda	Northern Land Council
John Geddes	Kurtijar Aboriginal Corporation
Rolf Gerritsen	NT Department of Chief Minister

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Harry Gertz	Gugu Badhun Traditional Owner
Noel Gertz	Burdekin Dry Tropics Board
Romy Greiner	CSIRO Sustainable Ecosystems
Noelene Gross	Northern Gulf Resource Management Group
<i>Penny Grower</i>	Central Australia Regional Economic Development Board
John Guenther	Charles Darwin University
Graham Hendersen	Kigara Zinc
Kellie Hill	Ngaanyatjarra Land Council
Sue Jones	Normanton Shire Council
Bob Karfs	Northern Territory Department of Infrastructure, Planning and Environment
<i>Rose Lamb</i>	WA Sheep farmers Association
John Ludwig	Tropical Savannas CRC
Yiheyis Maru	CSIRO Sustainable Ecosystems, Alice Springs
Kelvin Mathews	Anmatjere Council
<i>Bill Mayor</i>	Sampletown Shire Council
Murray McGregor	Curtin University of Technology
Tom Measham	CSIRO Sustainable Ecosystems
Sue Middleton	Avon Catchment Board
Joe Morrison	Northern Aboriginal and Islander Land and Sea Management Alliance
<i>Ann Officer</i>	Western Division, NSW Department of Agriculture
Roy Murray-Prior	Curtin University of Technology
Anthony Petrick	Central Land Council
Tony Rayner	Queensland Department of Primary Industries
<i>Will Prophet</i>	Stanbank Pastoral Company
<i>Sam Pulstaff</i>	WA Department of Conservation and Land Management
<i>Bill Riter</i>	Department of Premier and Cabinet, SA
<i>Torr Rizemman</i>	Kimberley Tourism Promotions Bureau
Helen Ross	University of Queensland
Alice Roughley	Social and Institutional Research Program, Land and Water Australia
Penny Scott	NAP and NHT Program, Environment Australia
<i>Polly Seewriter</i>	NT Chief Minister's Department
Bob Sheppard	Queensland Department of Primary Industries
Damien Sheppard	Agriculture Western Australia
Peter Simpson	NT Parks and Wildlife
Adam Sincock	Australian Bureau of Statistics

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Carl Smith	University of Queensland
Kirk Smith	Burdekin Dry Tropics Board
Mark Stafford Smith	Desert Knowledge CRC
Anne Stapleton	Mareeba Shire Council
Ailsa Snider	Gugu Badhun Traditional Owners
Jeanette Stanley	Queensland Department of Natural Resource Mines and Energy
<i>Richard Venture</i>	Kimberley Diamonds Company
Tom Vigilante	Kimberley Land Council
Marie Vitelli	Dalrymple Landcare Coordinator
<i>Bernard Vyser</i>	NT Bushfire Council
Dean Watson	Northern Territory Grapes
Trevor Webb	Bureau of Rural Sciences
Peter Whitehead	Charles Darwin University
Blair Wood	National Land and Water Resource Audit
Brian Wyatt	Goldfields Land and Sea Council
Dean Yibarbuk	Bawinanga Aboriginal Corporation