

DESERT KNOWLEDGE CRC

Outback livelihoods: employment,
sustainable livelihoods and
development in Anmatjere region,
central Australia

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Abbreviations/Acronyms

ABS	Australian Bureau of Statistics
ALT	Aboriginal Land Trust
CDEP	Community Development Employment Program
CDU	Charles Darwin University
Centrefarm	Centrefarm Aboriginal Horticulture Ltd
CGC	Community Government Council
CLC	Central Land Council
‘Council’	Anmatjere Community Government Council (part of Central Desert Shire Council from July 2008)
DEWR	Australian Government Department of Employment and Workplace Relations (Department of Employment, Education and Workplace Relations)
DPIFM	Northern Territory Government Department of Primary Industries, Fisheries and Mining (Department of Resources – Primary Industry, Fisheries and Resources)
FTE	Full-time equivalent (employment)
GA	Greening Australia
ILC	Indigenous Land Corporation
NT	Northern Territory
NRETAS	Northern Territory Government Department of Natural Resources, Environment, the Arts and Sport
SLF	Sustainable Livelihoods Framework
RTO	Registered Training Organisation
UK DFID	United Kingdom Department for International Development
VET	Vocational Education and Training

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Summary

This report focuses on issues important for the sustainability and development of the Anmatjere region of central Australia and for the livelihoods of its people. People from the region and other stakeholders had raised the issue of participation in paid employment as a key to the future of the region. We studied local people's participation in paid employment, and the factors that affect this participation, in the context of their livelihoods, all the other activities they pursue, and their aspirations. We interviewed 72 people in four of the region's settlements, all adjacent to the Stuart Highway, and in nearby localities, and we conducted focus groups and a workshop to further develop and test analysis.

We used the sustainable livelihoods framework to structure the interviews and analysis. The framework encourages consideration of the many diverse factors that impact on people's livelihoods, rather than only focusing on immediate factors that constrain or facilitate people's entry into jobs, such as transport or skills. A sustainable livelihood should build people's capability: their ability to lead lives they have reason to value and to make substantive choices about their values and the course of their lives.

The Anmatjere region, which in general terms comprises the Anmatjere Ward of Central Desert Shire, is diverse economically. The regional population of 1350 people is 86% Aboriginal. Anmatyerr is the main language spoken in the region. The youthful Aboriginal population has markedly lower incomes and school education levels than the non-Aboriginal population. Cattle grazing is the most extensive land use. There is also a small horticultural industry, a substantial government/community services sector, several roadhouses servicing travellers, a small tourism sector, Aboriginal commercial production of art/craft and bush foods, mining exploration and a proposed new mine.

Local employment is important to building local assets from the external investments into the region, particularly through mining, horticulture and government services. However, to be sustainable, development of a local labour force needs to be set against the capability and aspirations of local people.

The livelihoods of Aboriginal and non-Aboriginal people show strong contrasts. Both groups tend to see their livelihoods as attached to place, that is to their location in Anmatjere region. However, while non-Aboriginal people in the region are either employers or employed in mainstream jobs, many Aboriginal people in the region are unemployed. They tend to engage in multiple livelihood activities, which may include employment, especially in the community services sector. Generally they have a core emphasis on family life, cultural and creative activities, and engagement with traditional country, such as through hunting.

The lifestyle that the region affords is important to the non-Aboriginal people of the region, though work-related tasks are also important to them, and their stresses are often related to heavy demands from their employment or business. Their options and opportunities are often constrained by underdeveloped infrastructure and difficulties in securing employees. Their aspirations are varied but tend to focus on career or retirement.

Many Aboriginal people's aspirations for themselves are also job related, and they aspire for their children to have good education and jobs. They express desire for a more cautious approach to development of the region than non-Aboriginal residents, particularly its impact on their culture and ways of living. There is a strong aspiration among Aboriginal people to engage more with customary cultural activities and with the development of their homelands/outstations. This would sit comfortably with their aspiration for more jobs only if there were a strong labour market for this kind of work, which is not the case. Their own engagement in paid work activities tends to be opportunistic, with rapid switching between jobs and conflicting demands on time from other activities. Rapid switching is promoted by seasonality and the short-term nature of paid work and training opportunities. The paid work activities they undertake commonly also involve other people from their kinship network, with family members also playing an important role in fostering their entry into employment or other activities.

Five interrelated variables can account for the employment, or lack of employment, of local people in Anmatjere region. These are:

- **Availability:** the number of jobs in the region. Aboriginal and non-Aboriginal people tend to have different views of job availability, reflecting the different information that they hold. There are relatively few jobs that engage the cultural knowledge and bush skills of Aboriginal people, which helps to account for why Aboriginal people consider there to be few jobs.
- **Suitability:** the assessments that an unemployed person makes of the fit between their own circumstances and a particular job, and that an employer makes of the fit between a prospective employee and the requirements of the job. There are considerable mismatches and tensions between workplace norms and Aboriginal cultural norms. These lead employers and potential Aboriginal employees to deem each other as unsuitable.
- **Accessibility:** the distance between an employee and an available job. This has both physical dimensions (e.g. transport) and social dimensions (notably whether employers and prospective employees know each other or have ways of connecting with each other). Social accessibility is low because there are relatively few intersections between the social networks of Aboriginal and non-Aboriginal people in the region. Regional infrastructure is also poor, restricting physical accessibility to jobs.
- **Capacity:** the skills, fitness and time required for a prospective employee to do a job. Aboriginal people in the region, especially older people, tend to have a large range of skills acquired from the diverse livelihood activities they have engaged in over their lives but do not have very high-level skills in any one occupational area.
- **Motivation:** the urge or drive that a person has to be employed, which is related to the benefits they perceive they would get from the job relative to the costs. Motivation may derive from income or from non-monetary factors such as loyalty to a boss. It is reduced by the seasonal or temporary nature of many jobs, by demand-sharing behaviours and a general lack of consumer dependency among Aboriginal people.

Within the region some public sector employers have established procedures that account for Aboriginal cultural norms, as well as engendering performance and accountability to the employer or funding body. These had relatively high Aboriginal employment. For most private sector employers, it is very costly to adapt workplace norms to Aboriginal culture or vice versa. They have few networks, information, support or experience for this adaptation, and business requirements allow little flexibility. The pastoral industry has been able to accommodate Aboriginal norms and networks more than other private sector employers, probably due to relationships fostered through shared long-term experience, sense of place and authority for land management.

Three clusters of factors were identified in the research as important to Aboriginal people of the region getting a job and staying in a job: knowledge and understanding, role models, and accommodating Aboriginal and non-Aboriginal ways of doing things through ‘two laws, one set of rules: working together’.

Aspects of the sustainable livelihoods framework that have a critical impact on employment and other dimensions of livelihoods in the region are institutions and social capital. Some institutions, both formal and informal, function to bridge between Aboriginal culture and mainstream workplace culture or the formal institutions of government. These include mining and other land use agreements concluded by Aboriginal people; work programs incorporating authoritative cultural direction for younger Aboriginal people in natural resource management, including water management, work readiness training and labour contracting approaches in horticulture; and adaptations to workplace culture to fit Aboriginal cultural norms, such as through group work. Such bridging institutions need to be further developed and supported for the long term if they are to be effective in helping to span the differences between workplace and Aboriginal cultures in the region.

The social capital of the region is characterised by dense bonding networks, such as among Aboriginal kinship groups. Brokers between these dense bonding networks, such as Aboriginal community leaders and long-term staff, both Aboriginal and non-Aboriginal, of community organisations are in a position to have most influence for social and cultural change because they have wider access to information and resources. Yet the demands and stresses on brokers to help others, to share resources, or otherwise to conform to the norms of their own group, can be excessive, leading readily to stress and burnout. Demand-sharing norms of Aboriginal culture, representing the livelihood strategy of ‘claiming’, can be particularly stressful for people in broker roles, especially in combination with alcohol abuse in their community.

The mix of livelihood strategies of Aboriginal people in the region has led to Aboriginal society in the region being resilient; that is, it has a strong capacity to experience shocks and stresses and changes while retaining essentially the same function and structure. However, it now has characteristics of a ‘rigidity trap’ in which people lack substantive options to do things differently, even where they recognise change as desirable. This, together with attenuation of the once integrated relationship between Aboriginal society, economy and environment, presents considerable challenges for the resilience and sustainability in the social-ecological system of the region.

Future actions to enhance resilience and sustainability in the region and its livelihoods need to address factors that are important for sustainable development in any desert regions (local capacity and innovation, flexibility and diversity), and for increased adaptability to manage resilience (making effective use of all available assets, leadership, social networks and trust). Actions for promoting knowledge and understanding would put a focus on livelihood activities based around education, including engaging local knowledge systems and intercultural understandings. Role models who show capacity to operate across the ‘cultural divide’ in the region should be recognised and supported.

It is important to use the opportunity of external investment into the region from mining and horticultural developments to build human and social capital, and the capacity of communities generally, in reciprocity for the draw down of the region’s natural capital entailed in the operation of these industries. Policies for regional development need to promote both mainstream jobs and other livelihood activities that local Aboriginal people value doing. Long-term and consistent investment will be needed in tailored training to develop skills required for jobs coupled with practical, family-based support to Aboriginal people who are managing transitions into work. Recognising and promoting the value of activities that are closely associated with Aboriginal identity, particularly caring for family and country, is also essential and can play a substantial role in improving social wellbeing and sustainability of the region.

1. Introduction

1.1 Aim

‘Outback livelihoods in Anmatjere region’ is a research project that is focused on local issues that are important for the sustainability and development of the Anmatjere region (see Figure 1.1) and its future. It has aimed to understand the relationships between the livelihoods of people in the Anmatjere region and opportunities for regional development, particularly through local employment.

The sustainability of outback communities is affected by complex and challenging social, environmental and economic factors. The connections between these social, environmental and economic dimensions are fundamental to the livelihoods of people who live in remote regions: links between people and country, farm and family mean a lot to these people. Yet efforts to examine what these connections mean for sustainability are often frustrated by lack of data. Information may be available on one industry sector, one social or environmental issue or one economic opportunity rather than helping understand the connections and interconnections between issues and opportunities (Measham et al. 2006). This research project has set out to take a broader view that can help to understand these connections.

The project developed from a scoping study in 2004–2005. Stakeholders consulted at that time included some residents of Aboriginal settlements, representatives of the Anmatjere Community Government Council (Anmatjere CGC) and Centrefarm, some pastoralists and horticulturalists and staff of various government agencies responsible for development and service provision. The Anmatjere CGC specifically requested that the research focus on understanding how Aboriginal people view employment opportunities and constraints in the region. This key local issue has significance for sustainable regional development. People consulted at that time said that a strong future for the region depends on making stronger pathways between the paid work that is available in the region (such as in the expanding horticulture industry) and the many people in the region who do not participate, or participate only very occasionally, in paid employment.

Research in the project focused on the following questions through the lens of the sustainable livelihoods framework (see Sections 1.4 and 1.5):

- How do the different people in the region see their current livelihoods and economic development opportunities?
- What are the aspirations of people in the region, related to their livelihoods, and more broadly?
- What affects local people’s access to employment and other livelihood opportunities?
- How could local people have better access to the opportunities in the region?
- How are the different opportunities, and access to these opportunities, linked with the wellbeing of local people and regional sustainability?

1.2 The Anmatjere region

We use the term ‘Anmatjere region’ to refer generally to lands and people centred on the small town of Ti Tree, 200 km north of Alice Springs. The region includes a number of Aboriginal settlements that were serviced by the Anmatjere CGC at the time of fieldwork in 2007 plus adjoining pastoral and horticultural lands and roadhouse communities (see Figure 1.1). The Anmatjere region has been defined in various ways under administrative and governance structures, as summarised in Appendix 1, and most recently as the Anmatjere Ward of Central Desert Shire (established July 2008).

Anmatjere region may be considered as the area where most Anmatyerr¹-speaking people live, and where they are the traditional landowners. However, not all the Aboriginal people living in the Anmatjere Ward are Anmatyerr speakers (see Table 2.2). Further, some of the traditional country of Anmatyerr-speaking people is outside this area and some Anmatyerr speakers live in other places, not on their traditional lands. The latter has long been the case, as Young (1987) describes in recounting the colonial and pastoral history of the region and the adaptive strategies used by its Aboriginal people to maintain the spiritual care and custodianship of their lands during that period.

Within the region, we conducted field work in four settlements along the Stuart Highway: Ti Tree, Pmara Jutunta (Six Mile), Alyuen and Wilora, and in a small number of nearby pastoral and horticultural areas (see Figure 1.1). The information and findings in this study therefore relate most directly to these settlements and localities.

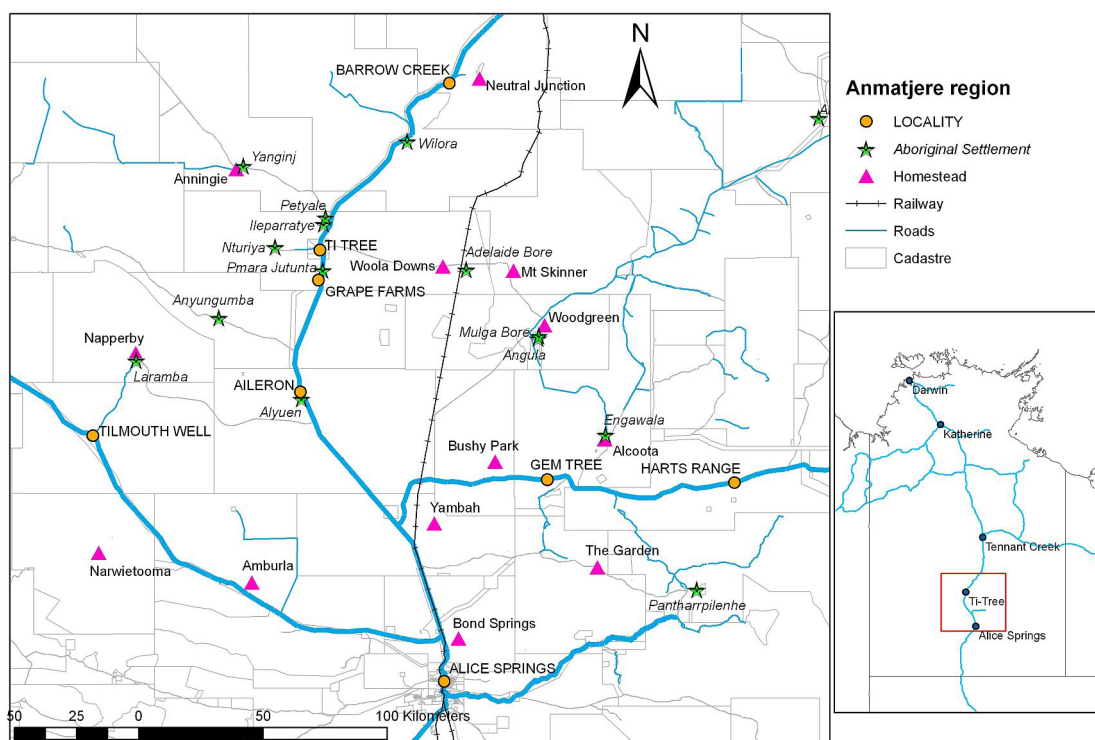


Figure 1.1: Anmatjere region – settlements and localities

1.3 Methods

Field data collection aimed to investigate the research questions (Section 1.1) by exploring the perspectives, experiences and aspirations of people who live and/or work in the region, as part of their livelihoods in the region, and their access to employment opportunities. Data collection was constrained by a comparatively short period available for field work and budget limitations. In the main data collection phase (between August and December 2007) we interviewed 72 people who lived either in the settlements of Alyuen, Ti Tree, Pmara Jutunta (6 Mile) and Wilora or in various other nearby localities. The detail of the sampling strategy and analytical methods are presented in Appendix 2. The demographic profile of the interviewees matched the demographics of the population of Anmatjere CGC

¹ Following common usage, we use ‘Anmatyerr’ as the spelling for the language name and Anmatjere for the region.

area to a reasonable extent (see Appendix 2: Figure 7.2 and Figure 7.3). Analysis was undertaken with the assistance of nVivo software. This aided the identification of themes in the data and the analysis of similarities and differences between themes or issues presented by Aboriginal and non-Aboriginal interviewees.

In December 2007, we conducted two focus group discussions with Aboriginal men and women in Ti Tree to explore issues emerging in our preliminary analysis. The research also benefited from our interaction with members of the pastoral community from the region and further afield at a field day held on Napperby Station and at Tilmouth Well roadhouse in November 2007 as part of the Desert Knowledge CRC 21st Century Pastoralism project. In this report we have also drawn on research undertaken by Centrefarm Aboriginal Horticulture Ltd (Centrefarm) on Aboriginal employment and employment opportunities in the region.

In August 2008 we further tested our analysis in a workshop of Anmatjere graduates from Centrefarm pre-vocational training and agency staff working on employment and regional development issues. The aim of the workshop was to test the factors that we had identified as important from analysis of interview and focus group data. The discussions focused on participants' views of factors that affect people getting a job and staying in a job. Participants identified the action areas discussed in Sections 5.3 and 5.7.

We also analysed the transcripts from interviews and workshops by developing a model of the region's semantic knowledge network, that is, the key concepts that people talked about and the relationships between these key concepts. The methods for that analysis and main findings are presented in Alexandridis et al. (2009). A summary of methods and findings of the semantic knowledge network is presented in Section 4.16. Semantic network analysis has some advantages in that it helps to make sure that the subjective viewpoint of the researcher does not influence which of the ideas, concepts or experiences that people have talked about in interviews or discussions are given prominence in the researcher's analysis. However, it is also limited by the nature of the data available for analysis. The two analytical methods return different kinds of results, so it is not possible to closely compare the findings that they generated. However, the findings are in broad agreement.

We acknowledge limitations in the research data and analysis. Those that we are aware of relate to:

- The diversity of the region's population, which means that there is a need to be cautious in generalising from a sample of 72 people.
- Most of the interviews were carried out in settlements on or close to the Stuart Highway. Issues that are particular to other settlements are not covered.
- The interviews were 'one-off' and represent a snapshot in time. Repeat interviews or more in-depth conversations would undoubtedly have generated more detailed responses to some questions and aided our understanding, particularly if longer-term relationships were established between the research team and the interviewees.
- For most Aboriginal interviewees, English was a second or third language. Together with cross-cultural differences in world view, this contributed to difficulties discussing abstract concepts and personal aspirations. We benefited from the services of community research assistants. Nevertheless we acknowledge limitations in the approach compared to what might be achieved with greater time spent in relationship building and data collection and use of ethnographic or participatory action research methods.
- The sample size has allowed us to comment on similarities and differences in view between Aboriginal and non-Aboriginal interviewees, but was not sufficiently large to meaningfully analyse similarities and differences within these groups such as from gender, age or employment status.

1.4 Jobs and livelihoods

Livelihood ‘expresses the idea of individuals and groups striving to make a living, attempting to meet their various consumption and economic necessities, coping with uncertainties, responding to new opportunities and choosing between different value positions’ (Long 1997, quoted in De Haan & Zoomers 2003: 351). Internationally, research and practice has developed the ‘sustainable livelihood approach’ as a way of thinking about and planning for development holistically (Carney 2002). Our use of the term ‘livelihood’ in this research project draws from this international experience.

In standard policy frameworks, jobs may be envisaged as an outcome in themselves, or else (increasingly) as a proxy indicator of the outcome of ‘a good life’ that can be readily measured. For example, strategic change indicators tracked to monitor progress in government action towards overcoming Aboriginal and Torres Strait Islander disadvantage include employment, self employment and engagement in enterprise (SCRGSP 2007). The outcomes sought from government action encompass improved wealth creation and economic sustainability, safe family and community environments and positive child development. Labour force participation and unemployment are among a small group of readily measurable headline indicators tracked for progress to these outcomes. They are selected because:

Being employed leads to improved income for families and communities (which in turn has a positive influence on health and the education of children). It also enhances self-esteem, increases opportunities for self development, influences interaction at the family and community levels and reduces social alienation.

(SCRGSP 2007: 3.39)

However, policy directed at improving Aboriginal employment outcomes has had little substantial impact, according to Hunter’s (2004) statistical analysis of national trends since the mid 1990s. He notes the lack of engagement of Aboriginal youth with employment as particularly problematic, and the need for a quantum shift in education outcomes for the situation to change markedly. Such challenges are exacerbated in remote desert regions, where local labour markets are often not well developed and where Aboriginal people’s residence and mobility are typically more responsive to attachments to family, culture and traditional land than to the prospect of employment.

Further, the positive relationship between employment and health noted above from Australian policy frameworks for overcoming Aboriginal disadvantage (SCRGSP 2007) does not necessarily hold among remote Aboriginal people. Control over one’s own life and its converse – uncertainty and associated stressors – have an underlying fundamental role in determining health outcomes (WHO 2008) as well as in effective community development practice (Hunt 2005). However, control over one’s life is not necessarily correlated with employment and education among minority peoples because their value systems are different from those of the groups that have a dominant influence on the economy and the design and delivery of education (WHO 2008).

The livelihoods approach promotes understanding of the many factors that affect health, wellbeing, culture and care of family as well as employment and other sources of cash income. It also engages with people’s motivations and aspirations. In the livelihoods approach a job can be considered as a strategy through which a person pursues aspirations for the kind of life they aspire to. The outcome that the sustainable livelihoods approach is ultimately concerned with is what Nobel Laureate Amartya Sen has termed ‘capability’. Sen (1997: 1959) defines capability as ‘the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have’ (and see Sen 1992, 1999). This sense of control that people have over their lives is a powerful determinant of people’s health and wellbeing.

In rural areas, where the sustainable livelihoods approach developed internationally, people's lives are often very different from those of people in cities. Often rural people don't have one full-time job. Instead, employment is often one of many strategies that rural people engage in to help them get food and shelter, earn cash income and look after family. For these reasons it is useful to think of a livelihood as a much broader construct than a job or business enterprise. For example, the livelihood activities or strategies that people are involved in might include looking after family, old people and children; and doing art and creative activity; not just regular work for wages.

While employment can be seen as an outcome from a livelihood system, it can alternatively be seen as a strategy people use to achieve their higher order aspirations which may be expressed as health and wellbeing, strong family, or expanded opportunity or choice about life directions. The livelihoods approach also recognises that environmental outcomes such as good natural resource condition are important to the overall quality of people's lives, as well any direct impact such factors have on income. The approach recognises that people draw on diverse assets and use multiple strategies to provide for their needs, and that the strategies available to them are determined by social, political, ecological and other factors in the broader environment (Davies et al. 2008).

If people's livelihoods are to be sustainable, they need to be generating outcomes for their health, wellbeing and income as well as using resources sustainably. A livelihood is said to be sustainable 'when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Davies et al. 2008: 56 and see Chambers & Conway 1992, Scoones 1998). This conceptualisation suggests a sustainable livelihood is not necessarily a fixed or unchanging way of doing things. Rather it exhibits 'resilience' in that it provides people with the means to withstand shocks to their way of life, to anticipate and plan for the future, and to adapt and transform (see Folke et al. 2002, Walker et al. 2002, Resilience Alliance n.d.). People have a resilient livelihood system if they are able, through such strategies, to resist shocks and stresses from whatever source and continue or resume a way of life that they value, or a changed way of life that brings outcomes that they value. For their livelihoods to also be sustainable, people's interaction with ecosystems also needs to sustain, over time, the flow of services that ecosystems provide for human wellbeing.

While the livelihoods approach has mainly been applied to the circumstances of poor or disadvantaged rural people internationally, it is much more widely applicable. Different terminology, such as 'lifestyle', tends to be used for the same concepts in developed economies (Institute of Development Studies 2008). Nevertheless, the notion that that poor people, or indeed remote Aboriginal people, have 'livelihoods' whereas other people have 'jobs' or 'businesses', should be resisted (Singh & Gilman 1999). An example of such a tendency in the remote Aboriginal context is where Scambury (2009: 185) notes that livelihoods 'are reliant on networks of relatedness of people to kin and country' and 'are described generally as a range of activities associated with the customary sector'. We consider that the livelihoods approach risks losing its analytical power if positioned in this kind of dichotomy with employment or other market engagement.

Scambury (2009) also notes that (customary) livelihood activities in remote Aboriginal contexts 'derive forms of value that are not reducible to an economic analysis' and 'yield definitive constructions of personal and group identity' (2009: 185). However, such observations have clear parallels among employed people in non-Aboriginal society who draw from their sense of place, family, social networks and their non-work activities as well as their jobs to construct their identities and aspirations. Again, there is a risk of the livelihoods approach losing analytical power if it is taken to apply only to situations where norms from customary place-based cultures are strong. Indeed, greater use of the livelihoods approach across Australian society could potentially help broaden the planning focus of governments from economic development to the wellbeing of people, as various recent commentators have argued is necessary (e.g. Marks & Shah 2004, Costanza et al. 2007, Hamilton et al. n.d.).

1.5 The sustainable livelihoods framework

This research project uses the sustainable livelihoods framework as a way to think about and analyse the factors that impact on the livelihoods of people in Anmatjere region, and the sustainability of those livelihoods. Figure 1.2 shows the sustainable livelihood framework as it was developed by international development practice and presented by the Centre for Appropriate Technology, Alice Springs (Centre for Appropriate Technology n.d.). Figure 1.3 shows a generic diagram that identifies key factors and relationships important to consideration of livelihoods and their sustainability. The framework provides a way of thinking about the factors that impact positively or negatively on an individual or a group of people (household, family, community) developing and maintaining sustainable livelihoods.

The framework identifies that people use assets to generate livelihood outcomes (such as income, wellbeing and dignity) through various strategies. We categorise assets using a common ‘five capitals model’ incorporating social, human, natural, financial and physical assets. Innovative alternate categorisations are also possible and valid, such as the desert Aboriginal assets framework (law, land, language, skin and kinship) (LaFlamme 2007, LaFlamme 2010) which responds to the world views of Warlpiri (Pawu-Kurlpurlurnu et al. 2008) and other desert Aboriginal peoples. Outcomes from sustainable livelihoods (see Section 1.4) build assets. Depletion of assets is an alternative scenario where livelihoods are unsustainable.

‘Institutions’ (in Figure 1.3) or ‘transforming structures and processes’ (in Figure 1.2) or simply ‘rules’, determine what livelihood strategies or activities are available to people. Institutions include the rules and norms established by government or by people within their community organisations, often called formal institutions, and those norms or ‘ways of doing things’ that are embedded in the culture of communities or families, often called informal institutions. Institutions also impact on the risks or vulnerability context that people encounter in their lives. As Ostrom comments (2005: 1):

The opportunities and constraints individuals face in any particular situation, the information they obtain, the benefits they obtain or are excluded from, and how they reason about the situation are all affected by the rules or absence of rules that structure the situation.

Risks include any factors that potentially impact on people’s assets, such as extreme weather events, climate change, illness, or changes in government policy or programs. Such shocks and stresses can negatively impact on factors such as community services, or individual people’s health, income and income security. A substantial literature identifies seven strategies that people, globally, use in various combinations to cope with shocks and stresses to their livelihoods (see Table 1).

Table 1.1: Generic livelihood strategies for coping with shocks and stresses

Livelihood strategy	Meaning
stint	Consuming less during, or in anticipation of, shocks and stresses
hoard	Storing food and other assets against anticipated future shocks
protect	Protect the asset base (land, water, livestock, seed, social capital, etc) during stressful times, so it can be drawn on for recovery
deplete	Running down stores of food, and selling assets
diversify	Trying out into new food sources, engaging in new work activities
claim	Making claim on relatives, patrons or the government; calling in debts; appealing to reciprocity and good will; begging; political action
move	Disperse family and assets, migrate for food or for work.

Source: Chambers & Conway 1992: 11

Institutions may be effective at managing or ameliorating the risk to people’s livelihoods, or not. Different people in a society or locality typically experience different impact from institutions. Lack of congruence between powerful institutions and the world view of particular social groups typically manifests in social divisions and wealth disparities such as characterise many remote regions, including Anmatjere region and the rest of central Australia (Mitchell et al. 2005).

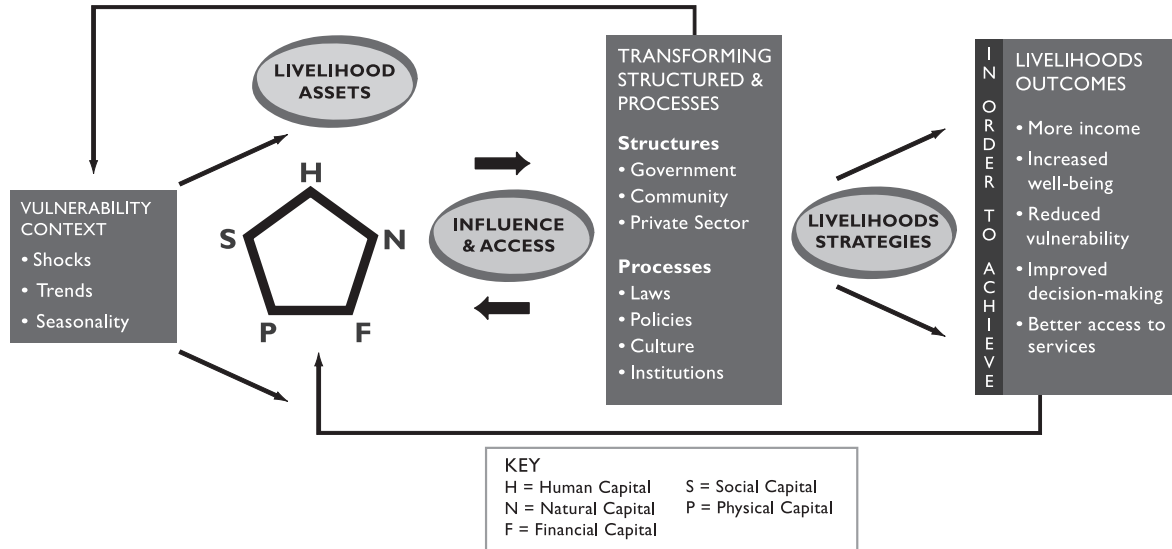


Figure 1.2: UK DFID Sustainable Livelihoods Framework

Source: Centre for Appropriate Technology n.d., UK DFID (United Kingdom Department for International Development) 1999–2001

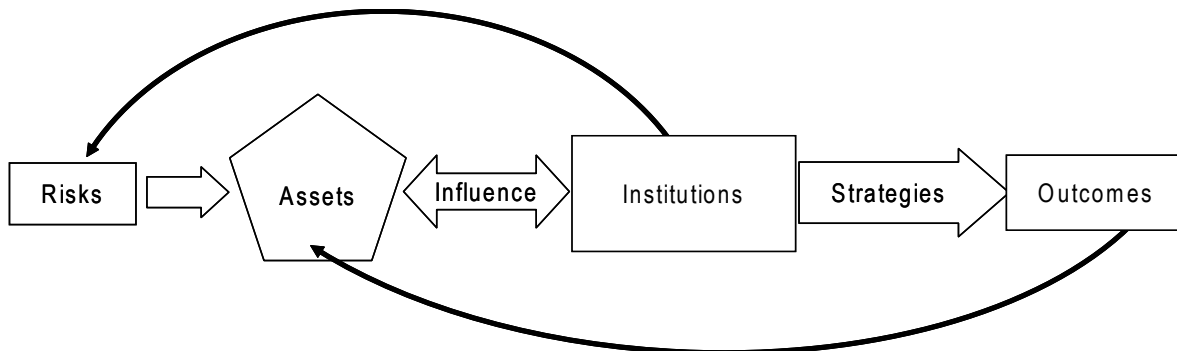


Figure 1.3: Generic Sustainable Livelihoods Framework

Source: Davies et al. 2008

2. Demography of Anmatjere region

Some key characteristics of the population of Anmatjere region are described here. The data show marked disparities between the majority Aboriginal population and other residents in age profile, income, education and engagement with labour market, which highlight the challenges of sustainable regional development. Sanders (2009) also presents a simple statistical profile of most of the region's population, those living in the Anmatjere CGC area, and draws attention to some of the changes apparent from ABS time series data.

2.1 Data sources

Unless otherwise indicated, data presented in this section are sourced from Australian Bureau of Statistics (ABS) Census 2006 data accessed online via CData 2006 for combinations of census collector districts that make up the region. ABS Indigenous profiles are used, using the data sets for Aboriginal persons and non-Indigenous persons, for enumerations based on people's place of usual residence. The relevant collection district reference numbers are shown in Table 2.1. The Anmatjere CGC area had a threefold status in the Census geography for the 2006 Census: as an Indigenous Area, a Local Government Area and a Statistical Local Area. Data for Anmatjere CGC area do not, however, include the pastoral, horticultural and roadhouse communities now included in Anmatjere Ward of Central Desert Shire. These have been added to the Anmatjere CGC population in this section, where suitable data have been available.

Data totals may not always agree for various items in this section that are drawn from ABS census data since small random adjustments are made by ABS to census data items that relate to very small numbers of people. This is done in order to protect confidentiality. The value and reliability of the data as a whole is not affected by these adjustments but they do mean that the data are not exact and should not be relied on for precision (ABS 2006a).

2.2 Population size

About 1350 people live in Anmatjere region. The 2006 Census counted 1108 people whose place of usual residence is in the region (see Table 2.1). Population estimates from the FaHCSIA CHINS 2006 data set, included in Table 2.1, provide alternate, often higher, estimates of the resident population of some places. Our estimate of 1350 for the regional population is based on the 2006 Census data adjusted using ABS calculations of how many people were undercounted in the 2006 census in Anmatjere CGC area and adjoining horticultural lands, and population growth since 2006 (see ABS 2007a). ABS data show that the population of the Anmatjere CGC area grew by an average 3.2% annually between the 2001 and 2006 censuses, the eleventh fastest growth rate of the 37 local government regions that existed in the Northern Territory up to July 2008 (ABS 2008a, 2008b). Census data suggest the region's population is significantly lower than what is reported in the Anmatjere region 'Masterplan' (Anmatjere Masterplan Steering Committee 2002). The Masterplan indicated a population of 1720 people in 2002.²

The vast majority of the region's population (86%) are Aboriginal people. The proportion of Aboriginal people varies between settlements in the region as shown in Table 2.1 and Figure 2.1. It is lowest on the pastoral and horticultural lands and in Ti Tree township. In the other settlements, non-Aboriginal people are essentially in staff roles in government or service organisations.

² The Masterplan also included Yuelamu (with an estimated population of 280 people) to give a total estimate of 2000 people in the region it covered.

Table 2.1: Population and Aboriginality of Anmatjere region, enumerated in Census 2006 at place of usual residence

Settlements and localities [census collection district number]	Population (2006 Census)	% Aboriginal (2006 Census)	Reported usual settlement population (CHINS 2006)
Wilora [7031123]	96	100%	138
Ti Tree [7031120]	151	68%	?
Ahakeye ALT (including Pmara Jutunta, Nturiya & Ti Tree Horticultural area) [7031111]	258	97%	305
Laramba [7031122]	241	96%	297
Alyuen [7031135]	16	100%	<50
Engawala [7031124]	183	81%	151
Mulga Bore, Angula [7031128]	80	100%	?
Pastoral stations, Pine Hill horticulture areas, Aileron, Tilmouth Well [7031110, 7031128]	83	31%	N/A
Total for Anmatjere region	1108	86%	

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128). A further three collection districts in the region had no residents at the time of the 2006 census and are not included in this table. They are 7031132 Anyangumba; 7031133 Anningie (both within Anmatjere CGC Indigenous Area and Statistical Local Area); and 7031114 in Hansen Bal. Indigenous Locality of Tanami Indigenous Area.

CHINS 2006 data set from FaHCSIA DR2235; Estimated resident populations (>6 mths residence or intended residence) of discrete Indigenous communities, including non-Indigenous residents, as reported by a key informant. Methodology considered by ABS to be less reliable than Census. Items marked ? are not reported here due to data ambiguities.

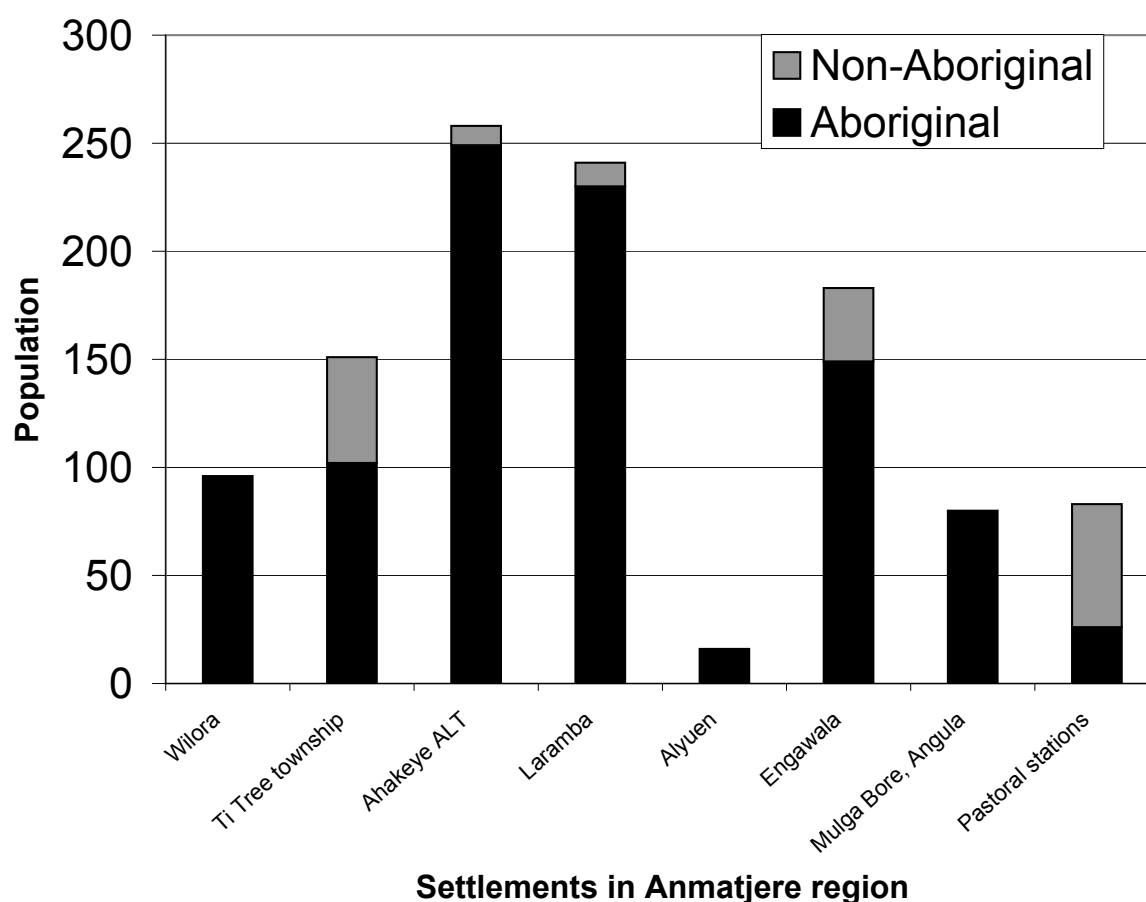


Figure 2.1: Population of settlements and lands in Anmatjere region

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

2.3 Languages

The region is linguistically diverse. Anmatyerr is the main language spoke in the region: about half the people of the region speak Anmatyerr at home (Table 2.2). English is spoken at home by 18% of all people and by 4% of Aboriginal people. Warlpiri and Arrernte are the other two main languages spoken at home. The majority of Aboriginal people (82%) are recorded in the 2006 census as speaking English well or very well, with 11% not speaking English well or at all.

Table 2.2: Languages spoken at home in Anmatjere region

Language	Number of speakers	% of population
Anmatyerr	595	54%
English	200	18%
Warlpiri	122	11%
Arrernte	121	11%
Kaytetye	27	2%
Other	40	4%

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

2.4 Age

As Figure 2.2 shows, the age distribution for the Aboriginal population of the region is heavily skewed to younger people, reflecting high birth rate and a high proportion of people dying young. The non-Aboriginal population is dominated by working-age adults with a slight gender bias towards men. The gender of the non-Aboriginal population is slightly biased towards males both in the total population (males 53%, females, 47%) and among the working age population (males 54%, females 47% aged 20–59 years). Among Aboriginal people the situation is reversed, with a bias to females in the total population (males 48%, females 52%) and the working age population (males 45%, females 55% aged 20–49 years³). The most marked bias is among 20–29 year old Aboriginal people, of whom only 41% are male.

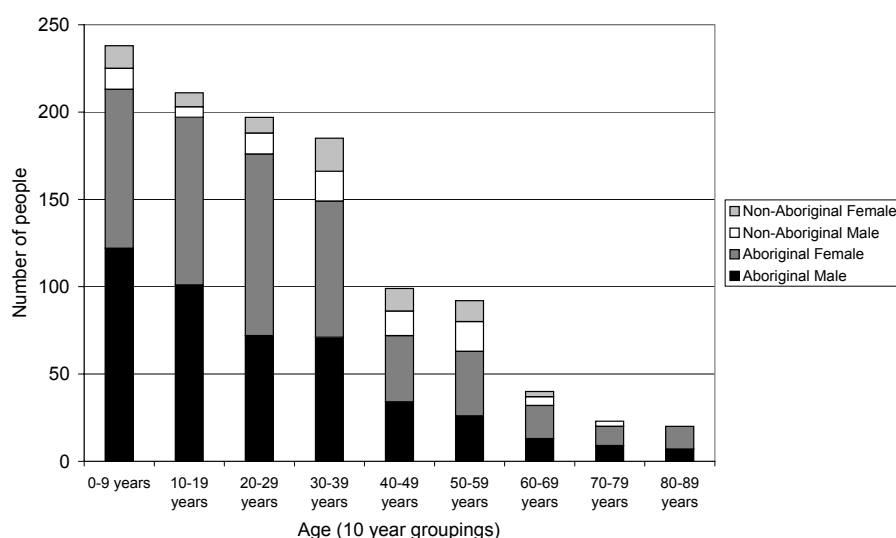


Figure 2.2: Age distribution of people in Anmatjere region by Aboriginality

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

³ For the indicative upper age limit of the working age population, we have here selected a lower age for Aboriginal people (49 years) compared to non-Aboriginal people (59 years), in recognition of prevailing shorter life expectancies for Aboriginal people.

2.5 Education

Most Aboriginal people in the region have school education to year 8 and a significant number have never been to school (Figure 2.3). Thirty-three percent of non-Aboriginal people aged 15 years and over had completed year 12, compared with only 5% of Aboriginal people. Fifty-eight non-Aboriginal people and 136 Aboriginal people aged 15 years and over were recorded in the 2006 census as having a non-school qualification. Inadequate information was provided by census respondents to enable the qualification level of 85 of these Aboriginal people to be described, while 45 said they had a Certificate-level qualification. A third of these non-Aboriginal people had a Certificate-level qualification, and 50% held either a Bachelor degree or a Diploma.

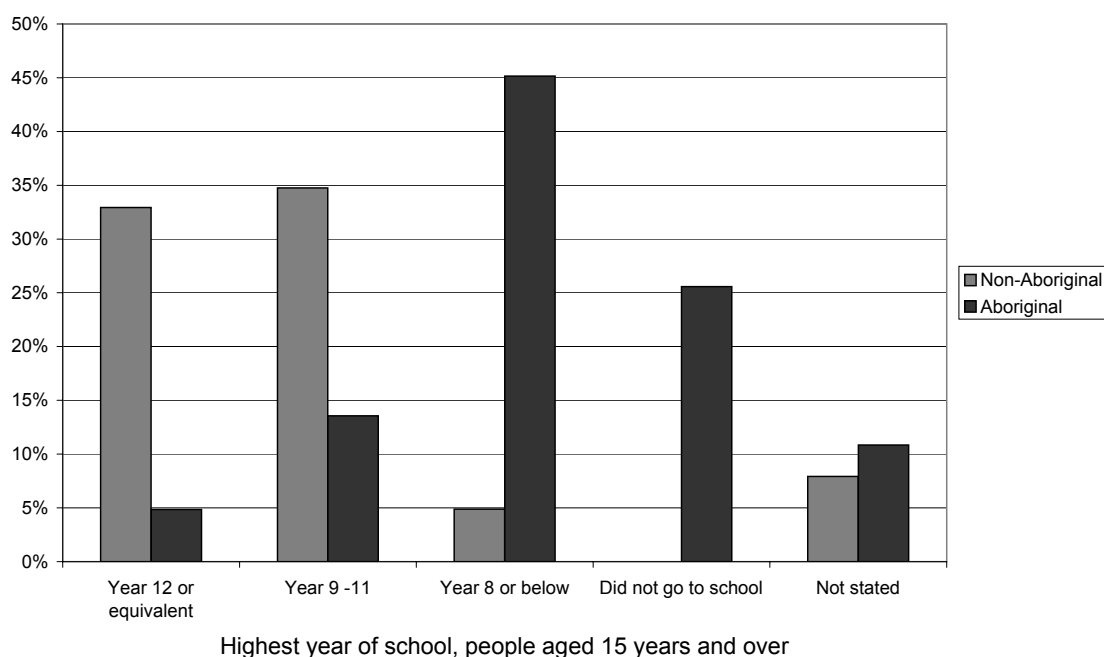


Figure 2.3: School education levels in Anmatjere region by Aboriginality for people aged 15 years and over, 2006

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

2.6 Caring for other people and volunteering

A quarter of the non-Aboriginal population and half the Aboriginal population aged 15 years and over care for children (their own and/or other people's). The proportion who have responsibility for childcare is lowest among non-Aboriginal men (19%), and highest among Aboriginal women (57%).

Twelve percent of Aboriginal people aged 15 years and over provide assistance to someone with a disability (10% of men, 13% of women). No non-Aboriginal people provide such assistance.

Sixty-five percent of non-Aboriginal people and 75% of Aboriginal people aged 15 years and over do some unpaid domestic work. Among Aboriginal people this workload is more gender balanced than it is among non-Aboriginal people: sixty-one percent of non-Aboriginal women and only 26% of non-Aboriginal men do more than 5 hours a week. A higher proportion of Aboriginal people (38%) than non-Aboriginal people (23%) do less than 5 hours unpaid domestic work a week.

Sixteen percent of non-Aboriginal people and 6% of Aboriginal people aged 15 years and over do voluntary work for an organisation or group.

2.7 Labour force and employment

Census data show clearly that Aboriginal and non-Aboriginal people of the region have markedly different patterns of participation in the labour force and employment. The census derives statistics for the size of the labour force from answers that people provide to a number of census questions covering their employment status and other factors (ABS 2006b). People in the labour force are those who are employed and those who are unemployed and are available for work. The ABS defines employed people as those over 15 years who had worked for one hour or more during the census week in a job or business or farm, or who had a job but were not at work during the census week. Unemployed people are defined as those aged 15 years and over who, while not employed during the census week, had actively sought full-time or part-time work, or were starting a new job within four weeks (ABS 2006b).

At the time of the 2006 census, 88% of the non-Aboriginal people in Anmatjere region aged 15 and over were employed, the majority of them full time (Figure 2.4). Ten percent were not in the labour force; that is, they were not employed and not actively looking for work. In contrast, the 2006 census records 31% of Aboriginal people in Anmatjere region as being in the labour force and 61% as not in the labour force. Labour force status was not recorded in the census for a further 8% (Figure 2.5). Of the 626 Aboriginal people aged 15 years and over, only 26% were employed, the majority of them part time. Five percent were unemployed and looking for either part-time or full-time work. The 2006 census enumerated 108 Aboriginal people in the settlements that were then represented by Anmatjere CGC⁴ whose main job was via CDEP (ABS Custom Data). This indicates that more than 70% of the 146 employed Aboriginal people included in Figure 2.5 were employed via CDEP.

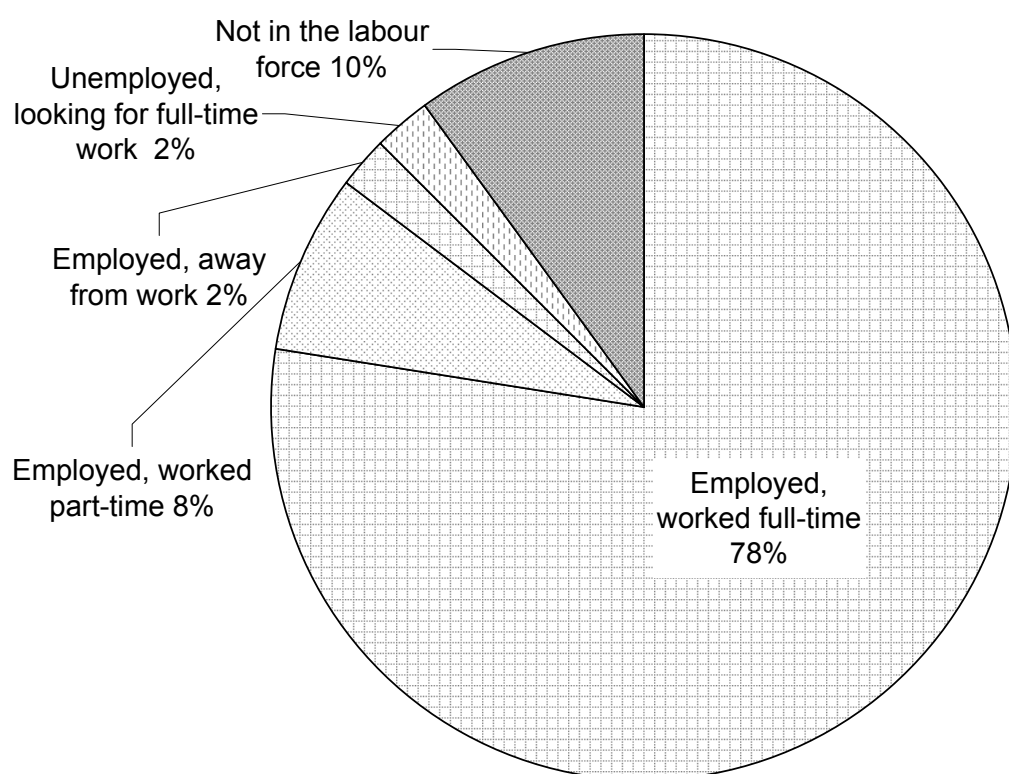


Figure 2.4: Labour force status of non-Aboriginal people 15 years and over in Anmatjere region, 2006

Note: 129 people

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

⁴ These settlements do not include Mulga Bore/Angula, whose population is included in Figure 2.5.

Compared to the national average labour force participation rate for Australia, which has trended upwards from 62.8% in May 1999 to 65.1% in November 2008 (ABS 2008c), the Aboriginal labour force participation in Anmatjere region is very low and the non-Aboriginal rate, at 90%, is very high. The former is comparable to the average Aboriginal labour force participation rate recorded in Census 2006 for the ABS Apatula Indigenous Region, which includes Anmatjere region (30%) (ABS 2007b), and somewhat lower than the rate for all of very remote NT (36%) (ABS 2008c). Within the region, Sanders (2009) notes an increase in labour market participation by Aboriginal people between the 2001 and 2006 censuses, a marked growth in CDEP employment and in Aboriginal unemployment, and a fall in Aboriginal employment. However, as he also points out (pers. comm. 2008) the situation is quite volatile, influenced by progressive changes in policy requirements that Aboriginal people actively seek work rather than by a socially relevant distinction between ‘unemployment’ and ‘not in labour force’.

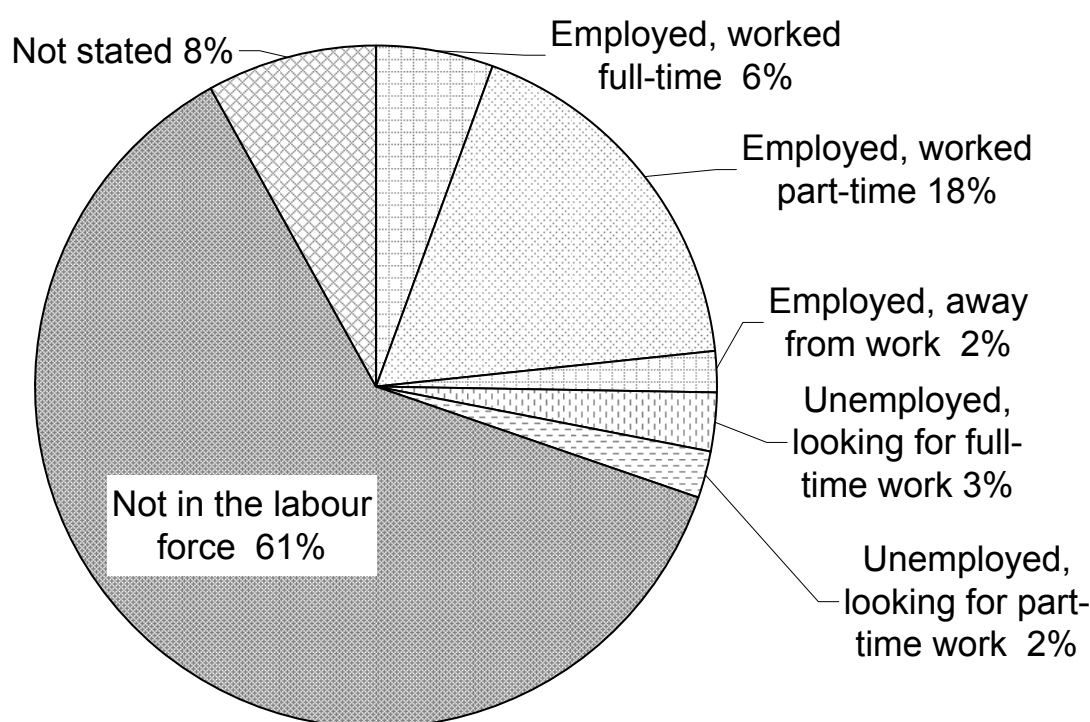


Figure 2.5: Labour force status of Aboriginal people 15 years and over in Anmatjere region, 2006

Note: 626 people

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128).

2.8 Income

There is marked disparity in income between Aboriginal and non-Aboriginal populations of the region (Figure 2.6), as there is Australia-wide; Aboriginal incomes are highest in major cities and lowest in very remote Australia, which includes Anmatjere region. However, non-Aboriginal incomes are highest in very remote Australia. A significant determinant is the marked difference in labour force participation rate between Aboriginal and non-Aboriginal populations and the greater non-Aboriginal employment in higher paid professional and managerial roles. Low individual incomes also reflect the youth of the Aboriginal population since incomes of young adults (aged 15–24 years) are lower than other age groups, in both Aboriginal and non-Aboriginal populations, and there is a higher proportion of people in this age group in the Aboriginal population.

The median weekly income of Aboriginal individuals aged 15 years and over living in the Anmatjere CGC area was \$213. As Table 2.3 shows, this is very slightly more than that of the Aboriginal population in the ABS Apatula Indigenous Region of southern NT, which like Anmatjere is also classed as ‘very remote’. Incomes of Aboriginal people in Anmatjere are nearly 25% less than that of all Aboriginal and Torres Strait Islander people in Australia. They are only 46% of the median weekly individual income of all Australians. The impact of employment on income is apparent in the last two rows of Table 2.3. Whereas the median income of all Aboriginal and Torres Strait Islander people Australia wide is 40% less than that of all Australians (\$278 compared to \$466), among employed people this gap narrows to 20% (\$702 compared to \$884).

Also from Table 2.3, median household weekly income for Aboriginal households in Anmatjere CGC area is only 10% less than the average of all Aboriginal and Torres Strait Islander households in Australia (\$710 compared to \$791). This smaller gap, compared to individual incomes, may reflect relatively greater overcrowding (and hence probability of several income sources) among Anmatjere households (ABS 2007c, 2007d, 2007e, 2007f, 2007g, 2008d).

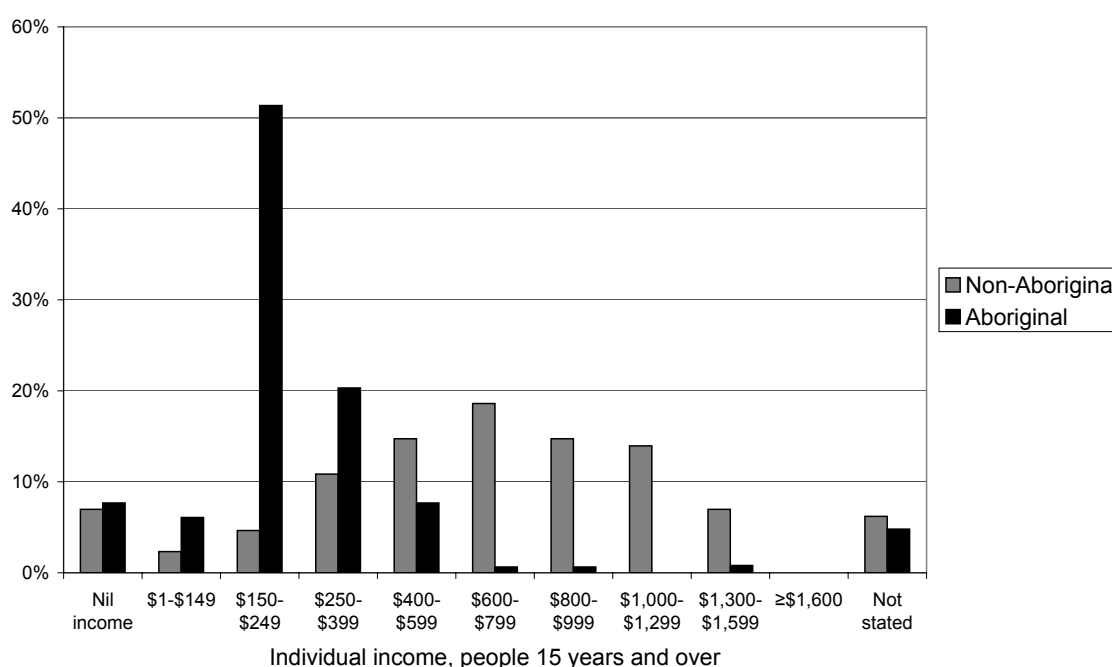


Figure 2.6: Individual income in Anmatjere region by Aboriginality (people aged 15 years and over)

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128, 7031114).

Table 2.3: Comparison of median incomes between Anmatjere CGC area, very remote NT and Australia

	Median individual income (people 15 years and over)		Median household income	
	Indigenous persons	All residents	Indigenous residents	All residents
Anmatjere CGC*	\$213	\$223	\$710	\$865
Apatula ABS Indigenous Region	\$207	n/a	\$764	n/a
Very remote NT	n/a	\$231	n/a	\$1038
Australia	\$278	\$466	\$791	\$1027
Australia – employed people	\$702	\$884		

*88% of population is Aboriginal. Anmatjere CGC area does not include the pastoral, horticultural and roadhouse communities of Anmatjere region.

Sources: ABS 2007c, 2007d, 2007e, 2007f, 2007g, 2008d

2.9 Socio-economic indices

ABS socio-economic indices provide relative measures of the socio-economic status of regions and localities in Australia. Anmatjere CGC is in the first (lowest) decile in Australia on the ABS indices of relative socio-economic advantage and disadvantage (IRSAD), and education and occupation (IEO). This highlights its disadvantage and the consequent challenges for regional economic development and sustainability.

Adjoining pastoral and horticultural areas (Census CD 7031110) are slightly less disadvantaged, scoring in the third decile of the IRSAD. They are, however, in the seventh decile of the IEO. Ti Tree also scores much higher in the IEO (sixth decile) than it does in the IRSAD (second decile). These relatively higher IEO scores can be attributed to the higher levels of education and occupation-related skills in these areas and low unemployment compared to the average for Anmatjere CGC. The lower scoring on the IRSAD (greater disadvantage) is probably because the IRSAD takes income into account, while the IEO does not (ABS 2008e, 2008f). It reflects the fact that average incomes, even in Ti Tree and the pastoral and horticultural areas, are below the Australian average (see Section 2.8). Comparison with the IRSAD scores for 2001 indicates the situation was similar, although compared to the Australian average, Ti Tree township was relatively less disadvantaged in 2001 than in 2006, and the adjoining pastoral and horticultural areas were relatively more disadvantaged.

3. Industries and employment in Anmatjere region

The major industry sectors in Anmatjere region are horticulture, pastoralism and government and community services. Mining exploration is active and the first significant mining operation in the region (near Aileron) is in early development. Highway settlements play a key role in providing services for tourism and transport industries. Art, bush foods, and management of natural and cultural resources are smaller-scale industries.

Cattle grazing is the most extensive land use in the region, as indicated by the extent of pastoral lease tenure (see Figure 3.1). Horticulture is an established land use on a relatively small scale (Figure 3.2). The government and community services sector includes various schools, medical clinics, police, Night Patrol, municipal services and aged care facilities, among others.

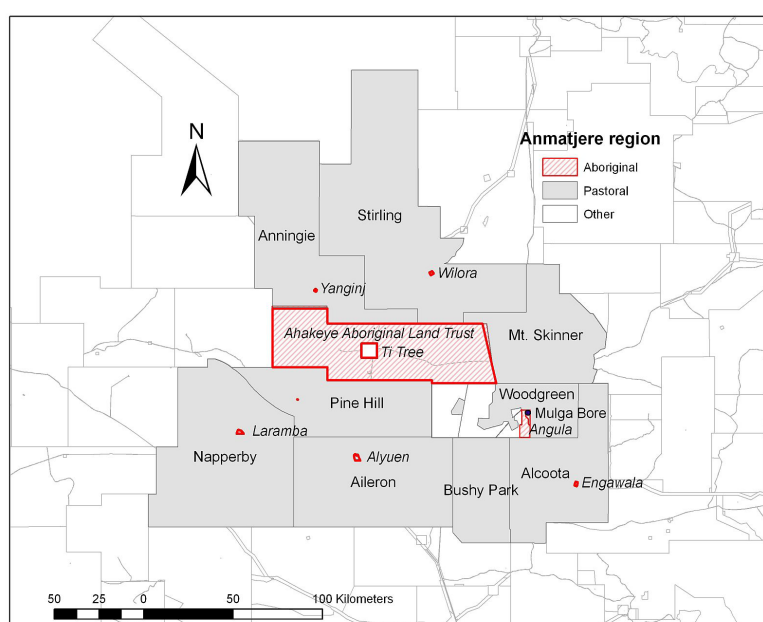


Figure 3.1: Anmatjere region land tenure

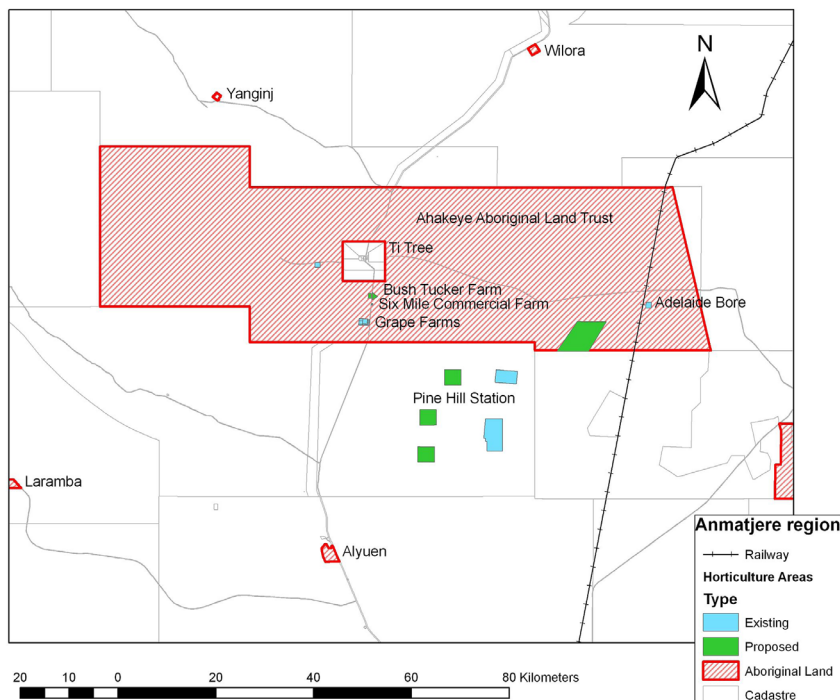


Figure 3.2: Horticultural areas

Source: Centrefarm Aboriginal Horticulture Ltd (2007) and NRETAS data sets

The 2006 census recorded the industry of employment for 270 people in Anmatjere region, as shown in Figure 3.3. The data do not distinguish between part-time and full-time employment. Horticultural and pastoral industries (agriculture, fishing and forestry in Figure 3.3) are the largest employers of non-Aboriginal people. For Aboriginal people, the largest employment is in government and community service industries (public administration and safety, education and training, and health care and social assistance in Figure 3.3) and ‘other services’. The relatively large number of Aboriginal people shown in the census as working in retail trade are almost all at one settlement, Laramba.



Figure 3.3: Industry of employment of employed people in Anmatjere region, 2006

Source: Australian Bureau of Statistics (2006) CData06, Person count on Place of usual residence and Indigenous status for CDs in Anmatjere CGC Indigenous Area (7031123, 7031120, 7031111, 7031122, 7031135, 7031124, 7031132, 7031133) and in Hanson Bal. Indigenous Locality (7031110, 7031128). Industries with no employment shown in the Census 2006 are not included in the graph.

In describing current and future employment opportunities in the region’s industries, we have also drawn on information and analysis on current and forecast jobs from Centrefarm (pers. comm. 2008). Centrefarm research established the number of full-time equivalent (FTE) jobs in various industry sectors and the number of those positions held by Aboriginal people in November 2007 (see Figure 3.4). This is not a complete analysis of employment in the region: it includes skilled positions such as health worker and teaching assistant, mechanical maintenance and catering as well as semi-skilled and labouring or low skill work. However, it does not include managerial and professional positions.

It is not possible to directly compare the data in Figure 3.3 and Figure 3.4 as the methods of data collection are quite different, as well as the description of industry sectors and the time of data collection. Nevertheless, there is an apparent discrepancy between the two data sets in that Figure 3.4 shows more than 140 FTE jobs existed in 2007 in horticulture and pastoral sectors, whereas Figure 3.3 shows only 50 people had actually worked (either part time or full time) in Agriculture, Forestry and Fishing (including horticulture and pastoralism) in the week before Census night (8 August 2006). One reason for the discrepancy is that Figure 3.3 only shows people who stated in the census that the Anmatjere region was their usual place of residence. People who were in the region because of seasonal or short-term work are likely to have indicated other places as their usual place of residence. Other reasons also relate to seasonality of demand. The FTE jobs shown in Figure 3.4 are often actually comprised of a number of seasonal tasks. In horticulture much of this work is in picking crops, between October and December, and would not have been captured by the Census on 8 August 2006. In spite of these factors, the discrepancies between the two data sets in primary industry employment suggest further investigation of labour market demand and closer examination of its seasonality is warranted.

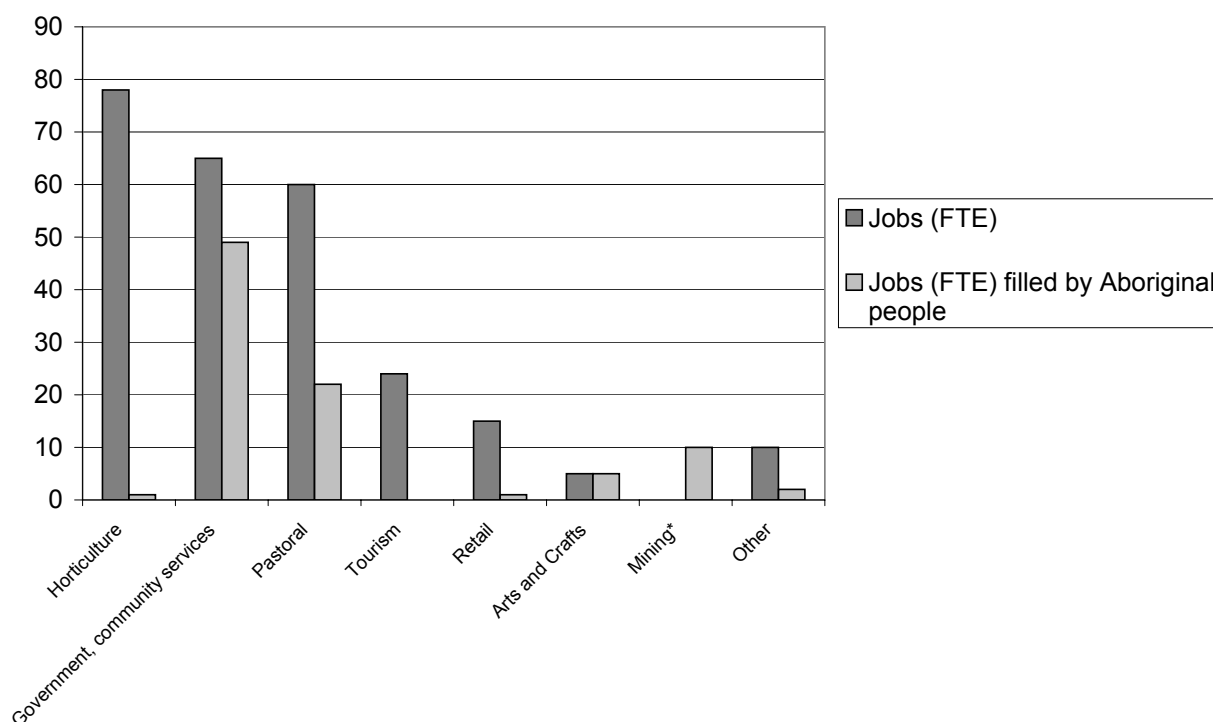


Figure 3.4: FTE jobs by industry in Anmatjere region, excluding managerial and professional jobs, November 2007

Source: Centrefarm pers. comm. 2008; Data from Centrefarm employment survey and analysis, November 2007

* Mining jobs shown are the FTEs in Newmont Tanami operations filled by Aboriginal people resident in Anmatjere region.

3.1 Horticulture

Horticulture began in Anmatjere region in 1975 when Ian Dahlenberg established Ti Tree farm on an excision from Ti Tree Station (marked as ‘Grape Farms’ on Figure 3.5). In 1988 the Northern Territory government established the nine hectare Ti Tree Research Farm at this same location to support research and development of crops with commercial potential. In recent years it has also been used as a horticultural training facility for Aboriginal people (NTDPIFM 2006). The Ti Tree area is the main table grape growing area in the NT. Mangoes, melons and other crops are also commercially grown in the region. Production of grapes amounted to more than \$20 million annually in 2000–01 and has recently been more modest, at \$5–\$7 million annually.

Planning documents reviewed for Anmatjere region (see Appendix 6) suggest that there are significant opportunities for further development of horticulture. These opportunities are driven by:

- the availability of reliable water: the Ti Tree Basin aquifer underlies Ti Tree, the south-eastern part of the Ahakeye Aboriginal Land Trust (ALT), Pine Hill pastoral lease and some adjacent pastoral lease and Crown land to the south (see Figure 3.5)
- the desert climate, allowing crop production outside the seasons of other Australian horticultural regions
- the activities of Centrefarm Aboriginal Horticulture Ltd in facilitating access to horticultural opportunities in Anmatjere region.

Planning documents also indicate factors that limit realisation of horticultural opportunities: lack of a skilled workforce, costs of water extraction, distance to major markets and cost of transport. In 2007/08 a number of existing horticultural operations have been on the market and/or in ‘caretaker’ mode (John Childs, NRETAS pers. comm. 2009) Sourcing suitable labour has proved difficult for some operators (Chlanda 2004) and seasonal workers, such as fruit pickers from southern Australia, have been imported to the region to meet horticultural industry demand. The cost of generating power used in the horticultural enterprises (such as for pumping water) and transport costs also constrain industry expansion, with greater impact anticipated as fuel prices increase (Centrefarm pers. comm. 2008).

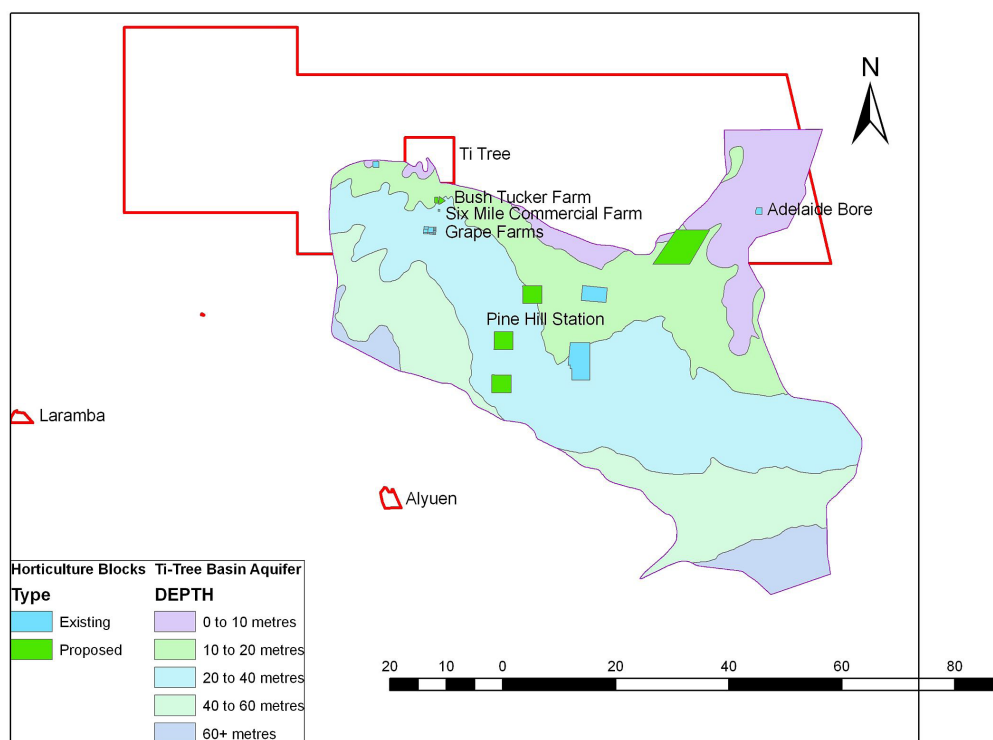


Figure 3.5: Ti Tree Basin aquifer

Source: Centrefarm Aboriginal Horticulture Ltd (2007) and NRETAS data sets

Centrefarm Aboriginal Horticulture Limited is a company established in August 2002 by the Central Land Council (CLC) and Aboriginal landowners to assist in developing horticulture enterprises on Aboriginal land (Central Land Council 2007). The initiative emerged from an Aboriginal Horticulture Strategy developed by CLC with Indigenous Land Corporation (ILC) in 1999. The strategy found that Aboriginal landowners had a strong interest in developing commercial horticulture, and identified a number of areas of Aboriginal land with commercial horticultural potential, as well as several suitable crops. The strategy proposed a joint venture model with long-term lease arrangements to develop commercial horticulture, with a priority on Aboriginal training and employment outcomes. The strategy also identified a range of potential funding sources (Central Land Council 2007).

Centrefarm's program includes facilitating agreements with the Aboriginal owners of the Ahakeye ALT land and native title holders of pastoral lands, notably Pine Hill Station, securing planning approvals and organising water licences to allow establishment of new horticultural areas on these lands. Figures 3.2 and 3.5 show existing and proposed new horticultural areas. These include commercial farms, a community bush tucker farm near Pmara Jutunta, and a training farm at Adelaide Bore/Woola. Centrefarm facilitated the leasing of Aboriginal land and attracted a commercial grower to establish a new farm growing watermelons at Ali Curung, to the north of Anmatjere region. Production started in 2008 (Land Rights News 2008) after a four-year negotiation and approval process for the commercial lease, water licensing and bores (Allan Cooney, Centrefarm, pers. comm. November 2008).

Centrefarm forecasts 252 FTE jobs will be available in horticulture in the region in 2013 on an optimistic scenario that depends on securing investors and operators for the various horticultural proposed blocks indicated in Figure 3.2. This is based on a labour requirement for each 100 hectares in horticultural production of 16 FTE jobs for watermelons, and 20 for grapes, mangoes and other crops (Centrefarm pers. comm. 2008).

Aboriginal employment in the industry is currently very low (see Figure 3.4). Anmatjere CGC started to undertake grape pruning contracts using CDEP labour in 2007 and this labour pool approach was continued by Centrefarm in 2008 in conjunction with delivery of Certificate 2 in Rural Operations and mentoring of trainees. For Centrefarm this is a strategy to address the limitations that lack of a local skilled labour force puts on the attractiveness of horticulture to investors, and hence on realising Aboriginal traditional owners' aspirations to build economic opportunity from their land and water assets.

3.2 Pastoral industry

The pastoral industry is well established in Anmatjere region and Aboriginal people play an important role as pastoral station workers (see Figure 3.4). However, similar to other regions of Australia (Josif, Ashley et al. 2009), Aboriginal people are a minority of the workforce on pastoral stations. The industry has not employed large numbers of Aboriginal people for several decades. The number of station jobs has decreased during that time, due to changed management practices. Aboriginal people are also involved in the cattle industry as owners of the Puraiya Cattle Company, which became the leasehold owners of the former Ti Tree Station in 1976 after the station was purchased at the end of 1975 by the Aboriginal Land Fund Commission. The station has provided training and employment, and assisted local people to develop political skills, but has not provided economic independence (Stuart Phillipot in Chlanda & Finnane 2001). Planning documents reviewed for the region, summarised in Appendix 6, indicate that Aboriginal people have a strong background in and aspirations for cattle station work, and that there is some potential for more Aboriginal land to be brought into pastoral production in the region. However, the economic potential of such activities is low relative to the large Aboriginal population of the region.

3.3 Government/community services

Governments, including Commonwealth, Territory and local government are significant employers. Government agencies and service providers have been able to achieve well above majority Aboriginal employment, albeit mostly in lower-skilled jobs (see Figure 3.4). The employment scoping study undertaken in 2005 by the Local Government Association of the Northern Territory for the Australian Government Department of Employment and Workplace Relations (LGANT 2006) found that Aboriginal people filled 19 of the 46 government sector positions in Ti Tree (including positions in the Council, health clinic, police and school, and excluding CDEP positions). In addition, CDEP workers were providing a range of important community services, including housing, administration, workshop, sport and recreation, farming, fencing, rubbish collection, night patrol, library, aged care and child care, each funded by Council or a different Territory or Commonwealth Government agency (LGANT 2006). Because of different data collection methods, the LGANT data from 2005 are not directly comparable with the Centrefarm data from 2007 (Figure 3.3) which show relatively more jobs in this sector. Centrefarm data also capture the initial impact of the roll-out of a 2007 Australian Government budget commitment (FaHCSIA 2007, Garden 2007) for the establishment of additional jobs in government services such as health and education to replace CDEP positions. Aboriginal women are prominent in these work areas, and many of these jobs were awarded to women.

3.4 Mining

Planning documents reviewed for Anmatjere region (see Appendix 6) make very little mention of mining. Yet almost all of the region is subject to mining exploration licences or licence applications (see Figure 3.6). The Granites mine and processing plant operated by Newmont approximately 700 km north-west of Ti Tree has large numbers of jobs available to Aboriginal people and in November 2007 was employing 10 people from the Anmatjere region (see Figure 3.4)

Arafura Resources Limited has significant interests focused on development of rare earths and phosphate mining at Nolans Bore, west of Aileron. The Nolans Bore speciality metals project was at pre-feasibility stage in 2008, including environmental assessment, for an open-cut mine with a 20-year operational life producing rare earths and phosphate with small amounts of uranium and thorium. Transport options involve road transport to a proposed new railway siding. Full production is expected from 2013. Development of the mine is proposed to involve a community benefits strategy, an Indigenous Employment Strategy and measures to manage risks to the natural environment and heritage values (GHD and Arafura Resources Ltd 2008). Centrefarm research forecasts jobs for Aboriginal people from the Nolans Bore mine at 30 in 2009, 100 in 2010 and 150 from 2011 (Centrefarm pers. comm. 2008).

3.5 Retail

Grocery and fuel requirements of residents and visitors are serviced by roadhouse stores (Aileron, Ti Tree, Tilmouth Well); stores run by pastoral stations (Napperby and Stirling, the latter one day a week only); community-owned stores at Laramba and Engawala; and a store operated as part of the Mango Farm in the Ti Tree horticultural area. Stores typically also sell some clothing and kitchen items and sometimes entertainment and whitegoods. Roadhouses are licensed to sell alcohol. Aileron Roadhouse has a takeaway liquor licence and the Mango Farm sells its own bottled mango liquors.

As at December 2008 most stores were registered to allow Aboriginal residents to buy food and other basic items through the Australian Government income management scheme. A new store, larger than any others in the region, opened at Ti Tree in early 2009 in the premises formerly occupied by an art gallery following sale of that business.

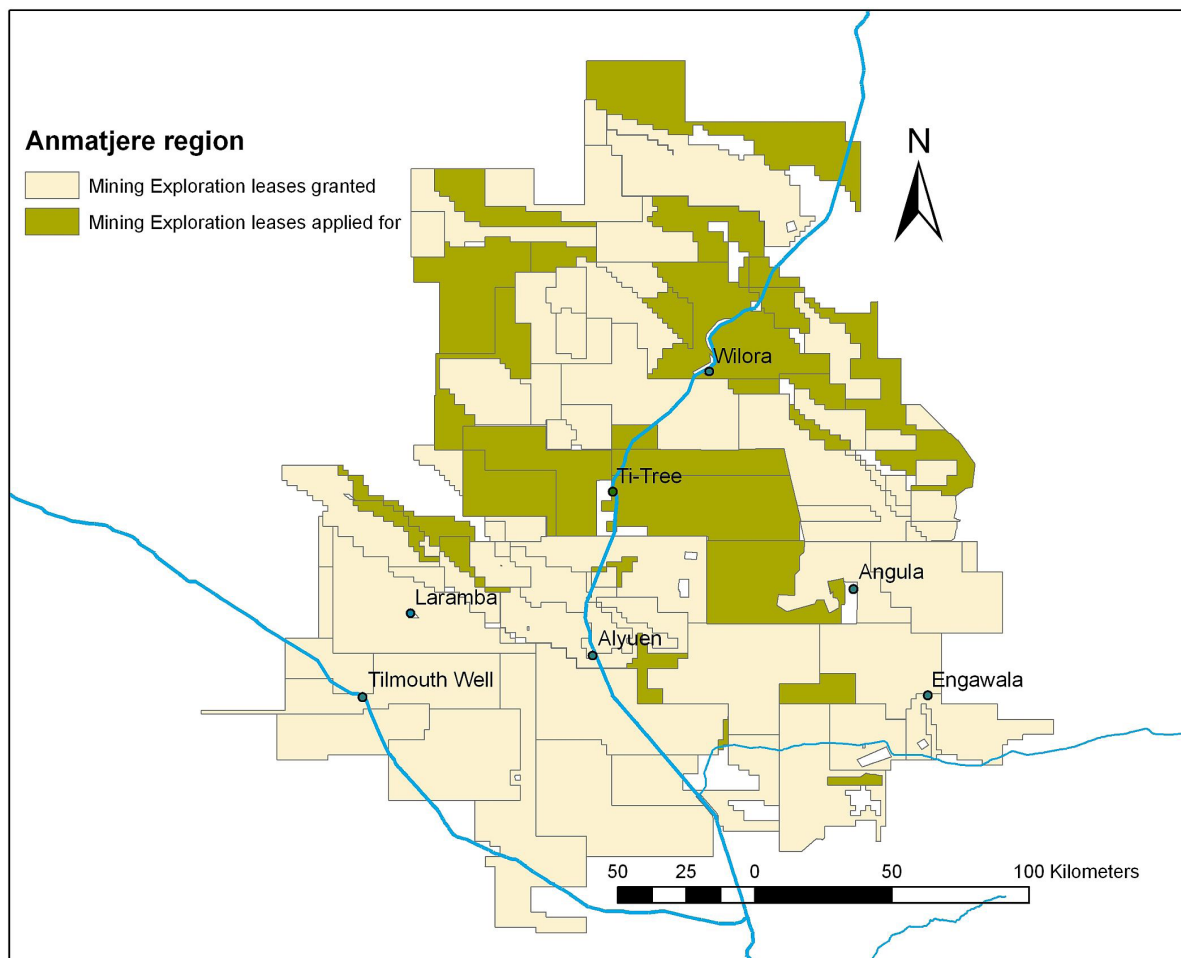


Figure 3.6: Minerals exploration licences and applications

Source: Data from NT DPIFM October 2007, pers. comm.

3.6 Minor industries

3.6.1 Natural and cultural resource management

Aboriginal involvement in formal paid natural and cultural resource management work in Anmatjere has been currently limited but is set to increase. In 2005 the Anmatjere CGC employed several people through CDEP to perform landcare work as well as rubbish collection (LGANT 2006). The CLC has been developing an Anmatjere Ranger Group, with 10 FTE jobs in natural and cultural resource management by 2010, and training provided to a higher number, drawing on funding through the Commonwealth–NT Bilateral Agreement on Indigenous Affairs Healthy Country, Healthy People schedule (Mitch Jones, CLC Land Management, pers. comm. 2007–08). The Working on Country program of the Australian Government Department of the Environment, Heritage, Water and the Arts is a further important funding source.

Outstation resource agencies and other CDEP providers have been important hosts and employers in the emergence of the Aboriginal land management sector in northern Australia (Putnis et al. 2007, Sithole et al. 2008). Policy uncertainty around the future of CDEP since mid 2007 has meant there is no obvious local ‘host’ organisation for community rangers in the Anmatjere region, who are instead being employed directly by CLC.

Recent research in the Anmatyerr Kwatye (cultural values of water) project identified pathways towards increased engagement of Aboriginal people in cultural and natural resource management in the region through improved inter-cultural awareness and stronger partnerships, skills and institutional arrangements for managing resources. This action research project found that a key to incorporation of Aboriginal values of water in a cross-cultural management system is employment of Aboriginal people who are aware of water planning processes and skilled in water management issues and in communication in partnership projects on their traditional lands (Rea & Anmatjerr Water Project Team 2008).

Anmatjere young people engaged as trainee research workers in this project from 2005 to 2007 were selected with strong input from authoritative traditional owners and worked under 'cultural direction' (Rea & Messner 2008). Among other things they participated in some ad hoc training for water bore monitoring, later continued with women's participation under a Natural Heritage Trust grant. A trial bore monitoring contract has been proposed, through the NT Department of Natural Resources, Environment, the Arts and Sport (NRETAS). Aboriginal ranger groups have picked up considerable contracting work from NRETAS park management programs in recent years, particularly in national parks west of Alice Springs. However, in contrast, bore monitoring is a relatively small periodic task that could only provide a reasonable income for those engaged in it if other compatible tasks were included in a contract. The opportunities for doing so through NRETAS are quite limited in the Anmatjere region (Childs 2009).

Together with Charles Darwin University (CDU) Alice Springs campus and CLC, Greening Australia (GA) has also been engaged with Aboriginal people in capacity building and on-ground work in natural resource management in the Anmatjere region. GA also engages with pastoralists in protection of key conservation areas on pastoral stations. On-ground works to protect natural and cultural resources frequently involve fencing, adding to horticultural and pastoral demand for fencing capability in the region.

In addition to the above, traditional owners of the region are engaged during mining exploration in heritage survey work and associated activities under the terms of agreements negotiated by CLC. The work is part of management of the impact of exploration and mining on Aboriginal rights and interests.

3.6.2 Tourism

Tourism in the region centres around the roadhouses at Ti Tree and Aileron, providing accommodation, fuel and food to travellers on the highway between Alice Springs and Darwin. Hence it is closely associated with the retail sector. Other tourism-related activities in the region include a caravan park, store, fossicking tours at Gemtree, a small shop in the Ti Tree horticulture area catering in part to tourists, and an Aboriginal art outlet at Aileron. There may be opportunities for cultural tourism, in particular in the self-drive market, and employment of rangers and tour guides. However, this depends largely on Anmatjere people's interest in engaging with tourists on this level.

3.6.3 Bush foods

In recent years the Anmatjere region has been the primary supplier of desert raisins (*Solanum centrale*, akatyerre) to the bush foods industry. Two traders have operated in the region, purchasing bush-harvested akatyerre from Aboriginal harvesters, consolidating product and selling it mainly to manufacturers of sauces and chutneys (Ryder, Walsh et al. 2009). Desert raisin abundance depends to a large degree on recent rains as well as land use and land management practices, including burning. However, lack of major rains since 2001/2002 and of suitable burning regimes has drastically reduced production in recent years. This has driven interest in horticultural production in the region, including a community bush tucker farm proposed near Pmara Jutunta as part of Centrefarm's horticultural development planning.

Commercial bush harvest of plant foods, which also includes Acacia seed and other products, provides one of the few examples of market engagement by Aboriginal people in desert regions that has developed with no government or agency subsidy or support. This is likely due to the nature of the economic activity, which draws on the unique assets of the harvesters and fulfils some of their aspirations. Aboriginal women have the skills, knowledge and tools necessary to harvest, they have personal contacts with traders or wholesalers, and the terms of trade are clear and straightforward. Bush harvest also appeals to a range of motivating factors for Aboriginal women in addition to the financial returns: harvesters can choose where they work, when, with whom, and for how long; and they can combine harvesting with other activities such as teaching children about country (Davies 2007, Ryder et al. 2009).

3.6.4 Art

Aboriginal people in the Anmatjere region are actively involved in making art, particularly painting. In this region, art production is another example of Aboriginal engagement with the market economy occurring largely independently of agency or government support. There is no community-owned art centre or outlet in the region, and there is little documented information about how the art market operates or its value. However, its importance is indicated by the fact that almost every retail outlet in the region stocks some art. In 2007/08, two had a large art component (the gallery/café/shop at Ti Tree⁵, and an art gallery at Aileron). Elsewhere in central Australia, Aboriginal women harvesters of bush foods for commercial markets have been observed to engage in art production when harvest conditions are poor (Fiona Walsh, CSIRO, pers. comm. 2008) and this can also be expected to be the case in the Anmatjere region.

Average earnings for Aboriginal artists are undoubtedly highly variable. Nationally they have been estimated at only about \$1500 per year on average for each artist, and the industry as a whole is valued at between \$100 and \$500 million. As well as its economic value the industry provides social and cultural benefits: promoting health and wellbeing, social cohesion, strong sense of identity, cultural maintenance and local independence (Parliament of Australia. SSCECITA 2007).

3.7 Training and employment programs

Our review of planning documents for the region and interviews for the 2004 scoping study (see Appendix 6) identified a widespread assumption that training is the key to Aboriginal people succeeding in getting the jobs that are available or foreshadowed in the region. However, there are other potentially significant constraining factors that were not identified in planning documents, such as childcare facilities, transport, health, housing and substance abuse/addiction. In the scoping study for this research employers were found to require persistence to mentor and support Aboriginal people in employment and to build 'job fitness'. In spite of difficulties, goodwill and strategies/ideas for an optimistic future combining local labour with local business outcomes were found to be prevalent in the region.

The Australian Government Community Development Employment Program (CDEP) has a long-standing presence in some settlements in Anmatjere region, such as Laramba and Engawala. Policy for CDEP has increasingly directed its efforts towards linking people into paid employment outside the scheme. Centrefarm has fostered further training and employment transition activities, particularly directed at private sector opportunities in the region. These initiatives are discussed below.

3.7.1 CDEP – community development or employment?

CDEP was introduced to remote Australia by the Commonwealth Government as a pilot program in 1977 in response to the extension of social security to Aboriginal people living in remote communities where there was often little mainstream employment (Sanders 2004). The scheme was popular in

⁵ Closed in late 2008.

Aboriginal settlements and expanded quite rapidly during the 1980s after earlier budgetary and administrative problems had been worked through (Sanders & Morphy 2001). It was endorsed by the landmark Miller report of 1985, a review of Aboriginal employment and training programs, as being one program that could support customary food production and similar economic activities. As such, it originally recognised that the aspirations of remote Aboriginal people were place based, with poorly developed labour markets and strong culturally motivated obligations that did not fit well into a jobs model (Dockery & Milsom 2007: 17).

The scheme was established in response to requests from remote Aboriginal people as an alternative to unemployment benefit, which were considered to have adverse social impacts. In administrative terms it considered participants to be part-time and generally low-paid workers. In central Australia, CDEP has been the primary source of employment for Aboriginal men (Mitchell, Pearce et al. 2005). However from 1999 CDEP came to increasingly resemble a social security measure as participants were accorded peripheral social security entitlements (Sanders 2001).

Over time, policy-makers' expectations of CDEP's role have changed. CDEP was originally designed to provide Aboriginal people and groups with significant autonomy and opportunities to exercise authority over their affairs (Rowse 2001). Up until 1997 the emphasis in policy was on the opportunities it provided for voluntary engagement in community-managed activities that support community development and cultural maintenance (Dockery & Milsom 2007). The program allowed locally managed CDEP projects to set objectives, make plans to achieve them, and determine how their workforce would be deployed (Rowse 2001). However, evaluation of CDEP has always used the same indicator as mainstream labour market programs, that is, employment rate. Measures to evaluate community development and cultural maintenance outcomes were never developed (Dockery & Milsom 2007). Since the late 1990s, government policies have tended to view CDEP as a mechanism for 'transitioning' people into mainstream employment, rather than for community development, and the scheme has been criticised where it has been unable to effect this 'transition' in places with labour markets (Sanders 2004).

The scale of CDEP management has also progressively shifted from schemes based in a discrete locality or group of outstations and managed by a local committee, to 'corporatised schemes' that operate in a number of settlements across a large region. In recent years contracts to operate each scheme have been established through Australian Government tender processes (Misko 2004, Sanders 2007). Enhanced managerial capacity in the larger corporatised schemes has been seen as offering some new opportunities, such as the establishment of contract labour pools and negotiations with mining operators to meet their labour needs (Mitchell, Pearce et al. 2005).

Criticisms of CDEP (e.g. Mitchell et al. 2005, Morphy et al. 2007) include that it:

- can disguise unemployment among Aboriginal people
- receives less funding than other initiatives for long-term unemployed people
- has not often lead to 'mainstream' employment outcomes
- maintains Aboriginal people in a 'poverty trap' of low income and low expectations
- has not fostered effective linkages to training
- represents an unjustifiable subsidy for government services where CDEP participants are hosted out to service delivery jobs (e.g. in health clinics, schools). This acts as a disincentive for these service sectors to develop equitable employment and career development opportunities for local Aboriginal people.

The latter criticism was addressed through an Australian Government 2007 budget commitment of \$97.2m nationally (net \$61.3m) to transform 825 CDEP positions into paid jobs by expanding non-CDEP job opportunities in these services (FaHCSIA 2007, Garden 2007).

3.7.2 CDEP in Anmatjere region

Anmatjere CGC became the CDEP provider for its region in 2006 (Sanders & Holcombe 2008). Previously, separate CDEP schemes had operated in Laramba and Engawala, and Anmatjere CGC had hosted some CDEP participants as part of its workforce (Sanders & Holcombe 2008). Anmatjere CGC developed horticultural training, secured and completed (on a delayed schedule) a commercial contract from one grape farm for the men's CDEP horticultural team, and attracted interest from other farms in contract services. As noted above, in 2007 new non-CDEP jobs were created in Anmatjere region in government service sectors, and additional local Aboriginal people were employed in health, aged care and education as a result.

The Northern Territory Emergency Response, promulgated by the then Prime Minister and the then Minister for Families, Community Services and Indigenous Affairs from June 2007, included transition arrangements to end the CDEP program in Northern Territory by the end of 2007–08. During our fieldwork period, CDEP workers were laid off when this news arrived, so that they could use up their leave entitlements. The program started up again when the Australian Government reinstated it on a short-term rolling basis. Institutional changes being implemented in Anmatjere region during the main fieldwork period in late 2007 included introduction of Work for the Dole programs, quarantining of 50% of people's social security incomes for expenditure on food and essential household items, and lifting of 'remote area exemptions' that had previously relaxed the requirements for unemployed people to search for jobs. Further changes to CDEP policies were introduced in 2008–09.

3.7.3 Training for rural industries

In 2008 training was organised by Centrefarm for 12 Anmatjere men using facilities at Ti Tree research farm in an extension of the approach developed by Anmatjere CGC for CDEP engagement with horticulture, and with a training program and case management approach based on that used by Newmont at its Tanami operations (Centrefarm pers. comm. 2008). The Centrefarm program was directed at pre-vocational and Certificate 2 training in Rural Operations to meet the needs for the jobs at these skill levels that are expected to develop in the region, particularly in horticulture and mining. Further training of this nature was offered by Central Desert Training in 2009 using Ti Tree Research Farm facilities.

Establishment of a live-in training centre or hub, including a managed horticultural area, is proposed at Adelaide Bore at a cost of \$1.4m (including capital costs as well as 2008–09 operational costs for administration, training support material and training delivery) (Centrefarm Aboriginal Horticulture Ltd 2007; pers. comm. 2007, 2008). Figure 3.7 shows the forecast funding sources that would combine to resource the proposed Adelaide Bore training hub and its operation. The diagram indicates nine potential contributing funding sources, four deriving from Australian Government programs and two from NT Government sources.

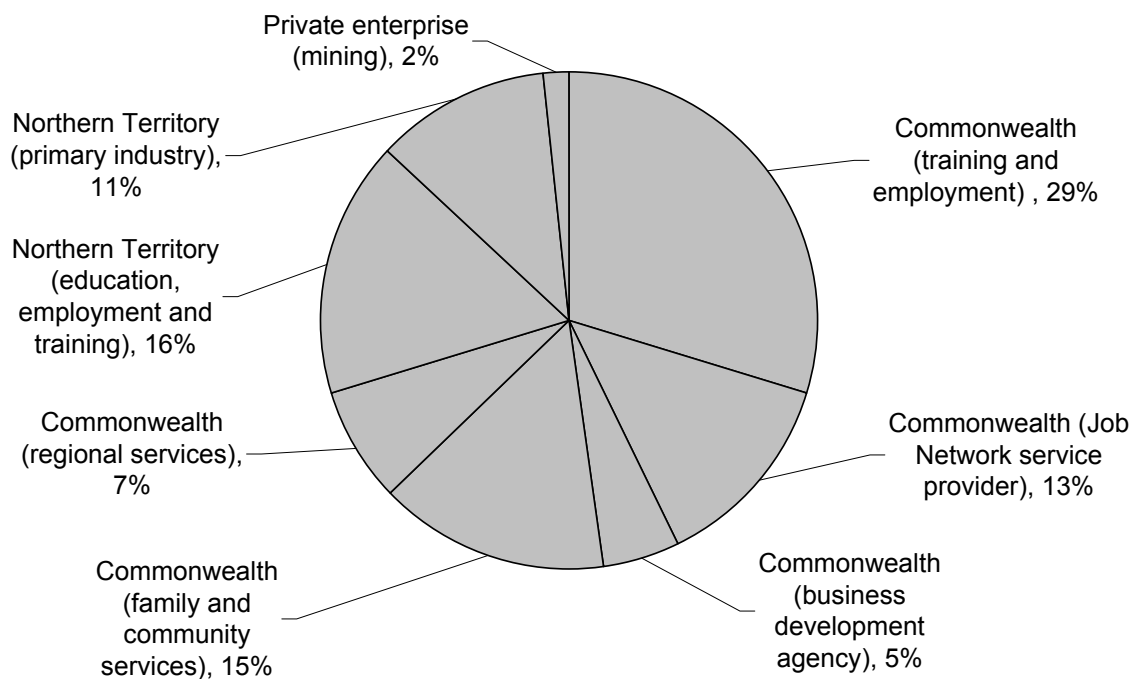


Figure 3.7: Total funding sought from various potential funding sources for Adelaide Bore training facility proportion

Source: Centrefarm pers. comm. 2008

The complexity of sourcing the budget requirements for the Centrefarm training hub suggests that available programs do not work together easily to meet the training needs of regions such as Anmatjere, where high Aboriginal unemployment combines with high and growing demand for labour. This suggestion is borne out by other analyses at national level and regionally, reviewed below.

The House of Representatives Standing Committee on Agriculture Fisheries and Forestry (Parliament of Australia HRSCAFF 2007) noted that a national skills shortage for rural industries highlighted the need to make better use of available human resources. However, the committee found that:

- the training system requires Registered Training Organisations (RTOs) to be focused more on their own needs than on the needs of rural industries or training clients.
- this ‘provider focus’ is a consequence of government funding formulas that fail to account for the high unit cost of rural training and that lead RTOs to focus on high volume/low-cost training offerings.
- the focus in rural training should be on skills, not qualifications: the training system needs to be much more flexible in order to meet the needs of rural industry.

The analysis by Young et al. (2007) of education and training across desert Australia found that Vocational Education and Training (VET) participation has not been providing Aboriginal people with pathways from learning to work or to further education. They established that Aboriginal settlements in desert Australia are more disadvantaged in this respect than those in other remote or rural regions and that there is a significant misalignment between the content and delivery models for VET and the situation of desert Aboriginal people. Training investments, they found, must be changed to engage directly with the types of livelihoods and economic opportunities emerging in different parts of desert Australia.

In a national review of previous research Miller (2005) identified seven key factors that support the outcomes that Aboriginal people aspire to from VET education, including skills for self-development, employment, community development and self-determination. The factors are community ownership and involvement; incorporation of cultural identity, knowledge and values; the establishment of ‘true’ partnerships; flexibility in course design, content and delivery; quality staff and committed advocacy;

extensive student support services including in literacy and financial support, and realistic funding that considers location and other requirements. Rea et al. (2008) concur with these findings based on their experience in initiating training through a research project on managing the cultural values of water in Anmatjere region.

Recent research for tourism planning in central Australia also found that employers prefer a flexible approach, whether the trainees are Aboriginal or not. Because of cost, attrition rates and shortage of trainees, employers were reluctant to take on apprentices. They prefer on-the-job training and mentoring, starting with pre-employment familiarisation during middle school years (Friedel & Chewings 2008: 14).

4. Findings and analysis

4.1 Introduction

Our field research focused on how local people in the Anmatjere region view and pursue their livelihoods, through a range of activities including through paid work. The structure of this section largely follows the various elements of the Sustainable Livelihoods Framework (SLF) (see Section 1.5), which was also used to guide the development of interview questions. Interviewees' responses relevant to various aspects of the SLF are summarised and discussed here. At the end of each sub-section findings that emerge from the data and that may be applicable across the region are summarised.

To introduce these data, we first present some 'pen portraits' of people from the region who participated in this research (see Box 4.1). These aim to give a sense of the people we interviewed, their diverse experiences, life circumstances, livelihood strategies and aspirations. The people in these 'pen portraits' are fictional, created by selecting information from interviews with a number of people.

Box 4.1 People and livelihoods of Anmatjere region: pen portraits

Note: the following are fictional characters, each based on information from interviews with a number of people.

Sabine is 16 years old and left boarding school in Alice Springs after Year 9. She lives with two aunts and doesn't have a paid job or receive Centrelink payments, although she has a meeting scheduled soon with the local Centrelink office. She helps look after her sister's children and her grandparents sometimes. She spends a lot of time watching movies on pay television. In the future she would like to visit her sister who lives in Katherine, and find a job, although she thinks there are not many jobs for her locally.

William is 24 years old and has recently started working at the clinic as a health worker. He was born in Alice Springs and attended primary school in Ti Tree before going to Yirara College in Alice Springs until Year 9. He lives with his uncle and aunt. He sometimes visits Alice Springs for short periods. He plays football and any other kind of sport and often travels to sports carnivals in the region. Previously he has worked mustering and loading cattle from the local Aboriginal-owned cattle station, as a ranger cleaning out waterholes and taking researchers around country, and at Kings Creek Resort doing maintenance and landscaping jobs. He has also done stockman's training courses and a certificate course in health. William is the drummer in a local rock band currently practising hard for an upcoming carnival in a distant settlement. He also helps people with fixing cars using parts from wrecks. He regularly goes hunting, for example for emu, kangaroo, perentie, echidna and turkey.

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Josie is 32 years old and has four children all aged under 10. She lives in a house with her husband, children, and her sister and sister's children. The house is old, with floors and walls that are difficult to clean, but Josie enjoys living there with her extended family. She attended primary school in Ti Tree, and lived on an outstation until her children got to school age. Then the family moved to a bigger community so the children could attend the nearby school. She often visits family in Laramba. She wants her children to get a proper education, at college or university, and a proper job when they grow up, like in a clinic, in the hospital, or as a police aide. Josie herself has trouble reading and writing and has never had a paid job, and is not confident speaking English. She does shopping in Alice Springs or at the shop at Ti Tree Farm to get fruit and vegetables and keep the kids healthy. She also goes with other women collecting bushtucker, including green bush beans, yalke, sugarbag, and bush yams.

Christo is 48 and manages a grape farm near Ti Tree that is owned by an Adelaide-based horticultural company. His wife works as a contract cleaner in Ti Tree – there is plenty of work. The pair moved to the region 15 years ago. Christo employs large numbers of workers for short periods during the year for picking, pruning and planting. Almost all the workers are itinerant horticultural workers travelling from interstate and living on-site; many are recent immigrants to Australia and some are backpackers. Obtaining and housing these workers is an ongoing worry, as are fluctuations in fruit prices. Christo works long hours, managing the fertilising and irrigation infrastructure throughout the year and supervising the picking. He enjoys a few beers to relax each evening. Christo plans to stay a few more years before semi-retiring comfortably in South Australia where he grew up and where his son now lives with a young family.

Des is 52 years old and spends a lot of time cleaning up around the community and picking up rubbish. He does not currently have a paid job. He has numerous health problems and often needs to visit the clinic, half an hour away. He says that a long time ago he used to drink a lot, but he stopped drinking when he became a Christian. Des doesn't have a car and spends considerable time in finding lifts to go buy food or pick up his Centrelink cheque from a nearby community. He sees his children and grandchildren as the future, and tries to send them to school each day and teach them to listen and respect: 'We are showing them today, to look after the community.'

Maisie is 60 and lives in a small house with poor kitchen and bathroom facilities, with her son and daughter-in-law and their children. When she was younger she worked as a ringer in the Top End. She often visits people in Engawala and goes to Alice Springs occasionally. She often looks after and cooks for her eleven grandchildren. She also does paintings and makes necklaces from gumnuts to sell at the local retail outlet. She often goes collecting bushtucker and in good harvest years collects Akatyerre (fruit of *Solanum centrale*, desert raisin) to sell to traders from Alice Springs. She wants her grandkids to go to school and learn properly, look after themselves when they grow up, get a job and look after their families.

4.1.1 Emerging finding 1

People of Anmatjere region are very diverse in terms of their personal circumstances, family structure, interests and livelihood activities.

4.2 Connection to place and mobility

The Aboriginal people we interviewed have a strong sense of the Anmatjere region as home and choose to stay in the region. Table 4.1 shows that almost all (98%) Aboriginal interviewees identified settlements in the Anmatjere region as home. Among non-Aboriginal interviewees, 60% also call a place in the region 'home' (see Table 4.1). As shown in Figure 4.1, most Aboriginal interviewees also stated that they intend to stay in the region for the long term. About half the non-Aboriginal interviewees aspire to stay in the region for the long term and half plan to leave.

Table 4.1: Interviewees' responses about where they call home

Identity	No. of responses	Location of place called home	
		in Anmatjere region	Outside Anmatjere region
Aboriginal	49	48 (98%)	1 (2%)
Non-Aboriginal	22	13 (60%)	9 (41%)
Total	71	61 (86%)	10 (14%)

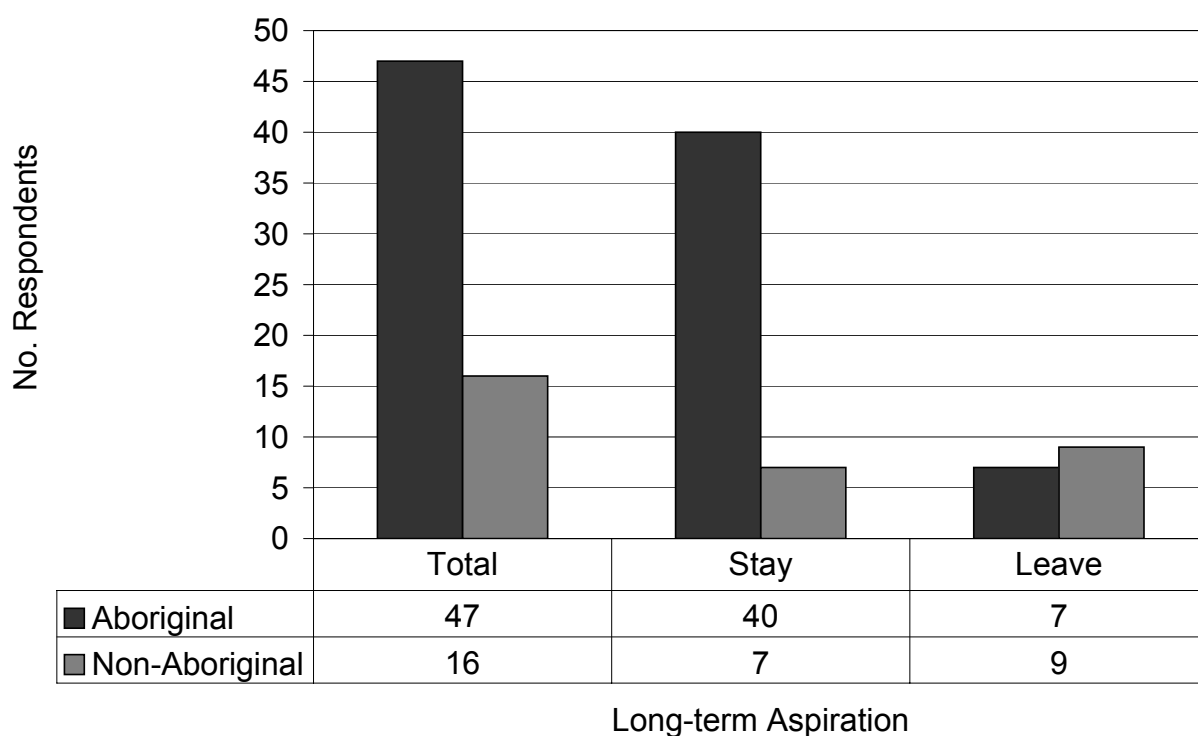


Figure 4.1: Interviewees' aspiration to leave or stay in the Anmatjere region

Both Aboriginal and non-Aboriginal interviewees are quite mobile, but their patterns of mobility are different. As Table 4.2 shows, Aboriginal interviewees move largely within Anmatjere region and between the region and Alice Springs, the nearest major service centre. Most travel by Aboriginal interviewees is short term. Based on consistent findings of earlier research in the region and elsewhere in remote Australia (Young & Doohan 1989, Memmott et al. 2006), we assume it follows close social networks, that is, visits to relatives and friends, as well as regional events such as sports games and carnivals. Compared with Aboriginal interviewees, non-Aboriginal interviewees travel less within the region. They travel about the same amount between the region and Alice Springs, and travel much more to other areas outside central Australia.

Table 4.2: Interviewee's recollection of short and long time visits to places

Identity	No. of responses	Travelled and stayed in			
		settlements within Anmatjere region	nearest major service centre (Alice Springs)	adjacent regions	other areas
Aboriginal	69	28 (41%)	25 (36%)	5 (7%)	11 (16%)
Non-Aboriginal	28	4 (14%)	9 (32%)	1 (4%)	14 (50%)
Total	97	32 (33%)	34 (35%)	6 (6%)	25 (26%)

4.2.1 Emerging finding 2

Aboriginal people have a strong commitment to living in the region. There is also a core group of non-Aboriginal people who are committed to living in the region. This provides a sound basis for engaging people in enhanced sustainability of livelihoods and sustainable regional development, as well as a basis for the development of shared activities and understandings between long-term residents.

4.3 Culture

By ‘culture’, we mean the attitudes, values, norms or ways of doing things, and ‘know how’ that a group of people share. However, the interview proforma did not specify what we meant by ‘culture’. Hence responses to the interview question about the strength of culture reflect people’s own interpretations of the term. We expect most interviewees were thinking about ‘classical’ Aboriginal culture, including rights and responsibilities to kin, land and the spiritual world, associated knowledge and creative manifestations in songs, ceremony, dance and painting.

Most Aboriginal interviewees described culture in the Anmatjere region as strong (Figure 4.2). Some interviewees stated that culture is now less strong than in the past. Elders and other adults shared a concern about the lack of cultural interest and understanding among Aboriginal youth. Relatively few non-Aboriginal people (n=11) responded to this question in interviews. Those that did tended to see culture as less strong than the Aboriginal interviewees did.

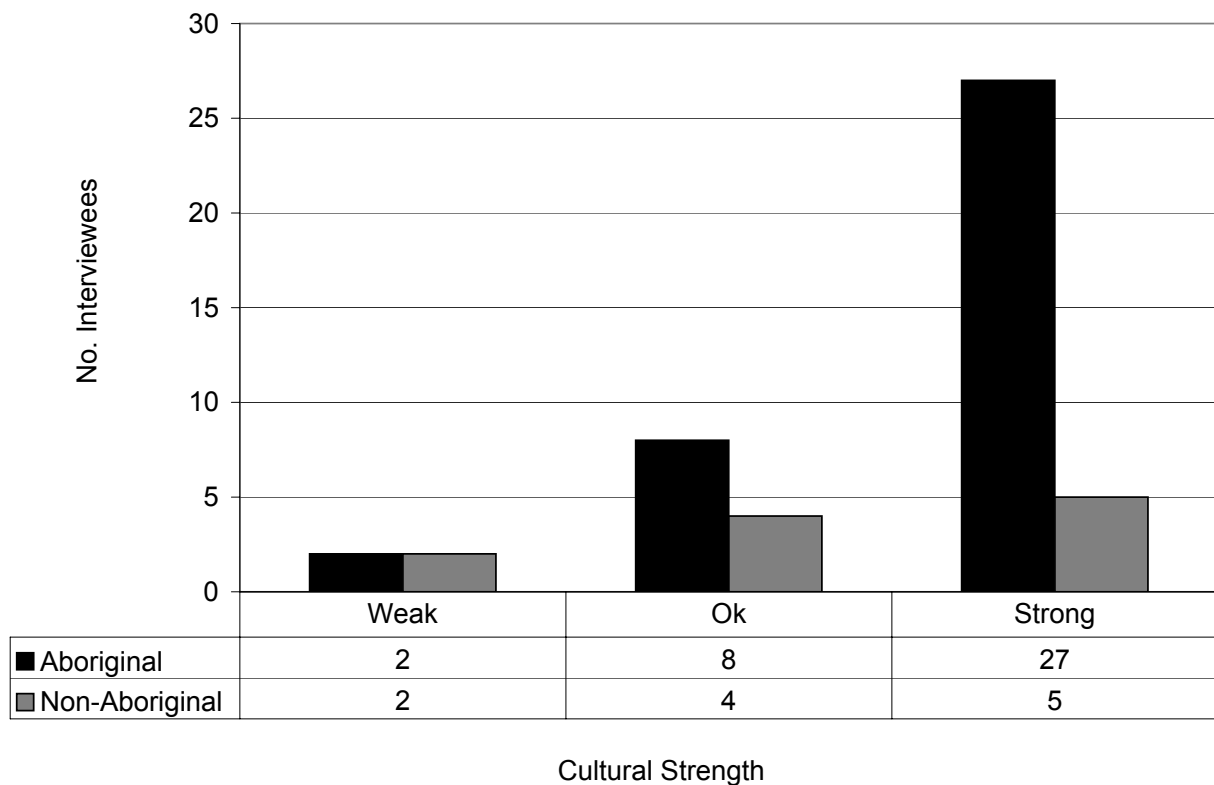


Figure 4.2: Perceptions of the strength of culture in Anmatjere region

Strong Aboriginal culture underpins shared norms that influence perceptions of gender appropriateness of livelihood activities, responsibilities to family and land, reciprocities and obligations about sharing. The excerpts from interviews and focus group discussions in Box 4.2 illustrate how interviewees perceived the influence of these kinds of cultural norms on different aspects of their livelihoods.

Box 4.2: Cultural norms influencing Aboriginal livelihood activities

Gender appropriateness

Men are more hands on, doing work like lifting; females are more literacy, office work and stuff. You wouldn't see guys sitting in the office doing work, you'd be the odd one out. Community social behaviour you can see very easily. A lot of people do know how to do stuff. Gender appropriateness plays a big part.

The person who does my job needs to be an Aboriginal and a man.

Yes, only men can take men out bush. Some work only a man can do like cutting trees to make boomerangs. I learn what the old men do.

There's men's side and women's side [in workplace task division].

Usually men don't even go into women's centre, only if we have a party. They just cut grass and collect rubbish.

Skin group

We're not allowed to have workers who have wrong skin; got to make sure workers are okay to work with each other and with clients ... [for example] on the food-run certain workers are not allowed to give certain people food. The workers let you know.

Family demands and responsibilities

An Aboriginal person from this settlement could not do this job because it conflicts with other demands and culture of family obligations.

Sharing obligations and reciprocities

That's how it is. We share things together. We ask each other for help.

They just do it as a favour, for family, as a family group, that's the way we are, that's our culture. We always share things.

[We] share money with family. Family is working together if you're sharing money. I can't let my family down. Kinship obligations make me give my money. I decide if it's a good reason or not.

Aboriginal cultural norms such as sharing and providing support to relatives are at times very stretched because reciprocity cannot be achieved given the prevailing disparity between the few who have access to income generating activities, literacy and other resources, and the many who do not. For example, Aboriginal people who undertake paid work and adhere to cultural norms of acquiescence to relative's demands to share their income may end up financially little better off than their non-working counterparts, at least in the short term. Furthermore, a paid worker who in the course of their work has access to valuable items such as vehicles and equipment may experience demands from relatives to share those items. Apart from the personal hassle of dealing with ongoing requests, the worker must balance the risk of social ostracism if they refuse against the risk of jeopardising their ongoing employment if they acquiesce. Some interviewees talked about how norms for sharing impact on them, and how they manage the demands placed on them by relatives.

[There is] a lot of family humbug⁶: 'get this one for me first'.

People say 'you're my brother, you have to give me stuff'. I just say 'no'. People blackmail me constantly. They say 'give me money, I'm your Mum, I'm your Dad'. I say 'no'. No one else in my community that I know says 'no'. People take advantage of others.

[Humbugging is] really hard, you can't say 'no'. You've got to be really strong. I used to pay all [the family's] bills, years ago, 15 years ago. I had to put my foot down. Now I say 'If it's really important, you mob can call me. Not for little things'.

⁶ 'Humbug' is an Aboriginal English word very commonly used in central Australia to describe unreasonable or incessant demands, particularly from relatives.

‘Sorry business’ (Aboriginal funerary practices) are another cultural norm commonly mentioned by interviewees. As the following quote suggests it can be a strong driver of mobility and, while important to maintaining family responsibilities, can disrupt people’s other livelihood activities.

Sorry business is a big problem, people are travelling further and there are more deaths ... Sorry business means that they will go away to Lake Nash or wherever for weeks.

4.3.1 Emerging finding 3

Aboriginal people have relatively strong cultural norms that establish how people can interact with each other, and the gender appropriateness of activities. Aboriginal people also maintain and adapt cultural norms of sharing, reciprocity and support. However, these norms are in tension because of pressures from inside and outside Aboriginal society. Pressures from inside arise because of the high expectation for sharing put on the few people with relatively higher incomes, literacy and other skills and resources. Pressures from outside arise because of the very different norms that Aboriginal people are expected by others to follow, such as the norms of the work place.

4.4 Natural assets

Natural assets such as water, land and wildlife underpin many livelihood activities. As shown in Figure 4.3, about 36 (~72%) interviewees perceive the natural assets of the region as in a good state and there is little difference between the perceptions of Aboriginal and non-Aboriginal interviewees.

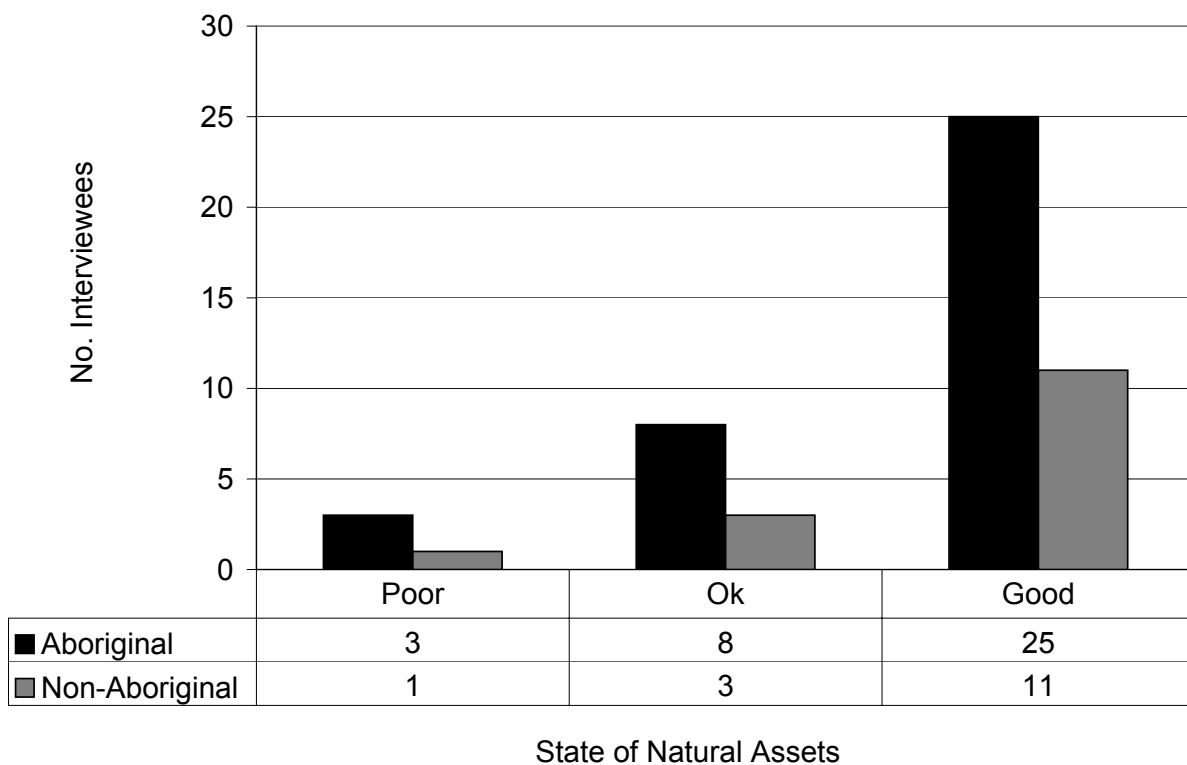


Figure 4.3: Perceptions of the state of natural assets in Anmatjere region

Aboriginal interviewees recognise the need for caring for country in customary ways, as well as for improving the local living environment through planting trees in and around settlements. Of the 33 Aboriginal interviewees who responded to a question about their responsibilities for care of country, 26 (~79%) said that they do have such responsibilities. Of the 39 Aboriginal interviewees who responded to a question about their aspirations for their country and for local places, 19 (~48%) said they aspire to look after country in the future. A shift in values may be a reason why the number of Aboriginal

interviewees aspiring to look after country is less than the number who report currently having these responsibilities. Alternatively, people may be discouraged by the kinds of barriers to looking after country that are identified in this quote:

[We] would like to do looking after country e.g. burning. But [we] can't because of the cattle, it's a pastoral station ... We would like to do burning – there's lots of scrub – [but there are also] lots of cattle around and therefore hard to burn. All we want to do is sometimes burning, good for vegetation.

With widespread dependence among Aboriginal locals on social security payments (see Figure 4.5) and the importation of most consumer goods, Aboriginal livelihoods are to a large degree decoupled from local natural resources. That said, Aboriginal people in Anmatjere continue to hunt and gather bush resources for recreation, and supplementary food and fuel (see Figure 4.9, where bush tucker collection is the fourth most common activity nominated by Aboriginal interviewees). Some are also involved in gathering bush foods for commercial outlets (see Section 3.6.3).

Both subsistence and commercial production from natural resources are typically organised within family units, which helps younger people to learn from experienced adults. However, elders have concerns with declining interest among the youth for such social learning. This may be a result of livelihoods which are increasingly less dependent on natural resources.

Among non-Aboriginal interviewees, seven noted water shortage and allocation problems, while another six identified the unique abundance of water in the region as a resource that will attract further business and employment to the region.

4.4.1 Emerging finding 4

Many Aboriginal people in the region speak of a sense of responsibility to look after country. However, there are some indications that motivation to look after country is in decline. Improved access to country or other incentives may redress this.

4.5 Social assets

Social assets (or social capital) manifests in the structure of relations between individuals and among groups of people. It is collectively owned capital that can be drawn upon by people (Bourdieu 1986). Social capital is the complement to human capital. Together they explain how some people do better than others in achieving their aspirations. Social capital explains this relative success as due to some people having a larger set of relationships or connections with other people (Burt 2005: 4).

Networks, or ties between people, are the fundamental structures of social capital. These are generated and maintained through transfers of information or goods or support and assistance between people (McAllister et al. 2008). Sharing behaviour among Aboriginal people is an example of these transfers. While people can in theory be linked in a network by either trust or mistrust (McAllister et al. 2008: 168), our emphasis here is on networks of trust among people.

People interviewed for this research were asked to assess, in general terms, the state and importance of social assets in Anmatjere region. We found no difference between Aboriginal and non-Aboriginal interviewees' assessment that social assets are important to their livelihoods. An example of how social assets are important is that employed Aboriginal interviewees frequently mentioned being 'picked' (chosen) for their employment, as discussed in Section 4.15.1 below.

We found a small difference between Aboriginal and non-Aboriginal interviewees' perceptions of the current strength of social assets. A slightly lower proportion of Aboriginal people see the social assets of the region as strong (see Figure 4.4). However, although this difference is statistically significant, it needs to be noted that interviewees would have interpreted the question in a variety of ways. In discussion around this question, some interviewees noted a recent improvement in social relations

among Aboriginal people and between Aboriginal and non-Aboriginal locals. It was also stated that fighting still arises among and within Aboriginal families. This was usually attributed to drinking, but other causes even included quarrels between children.

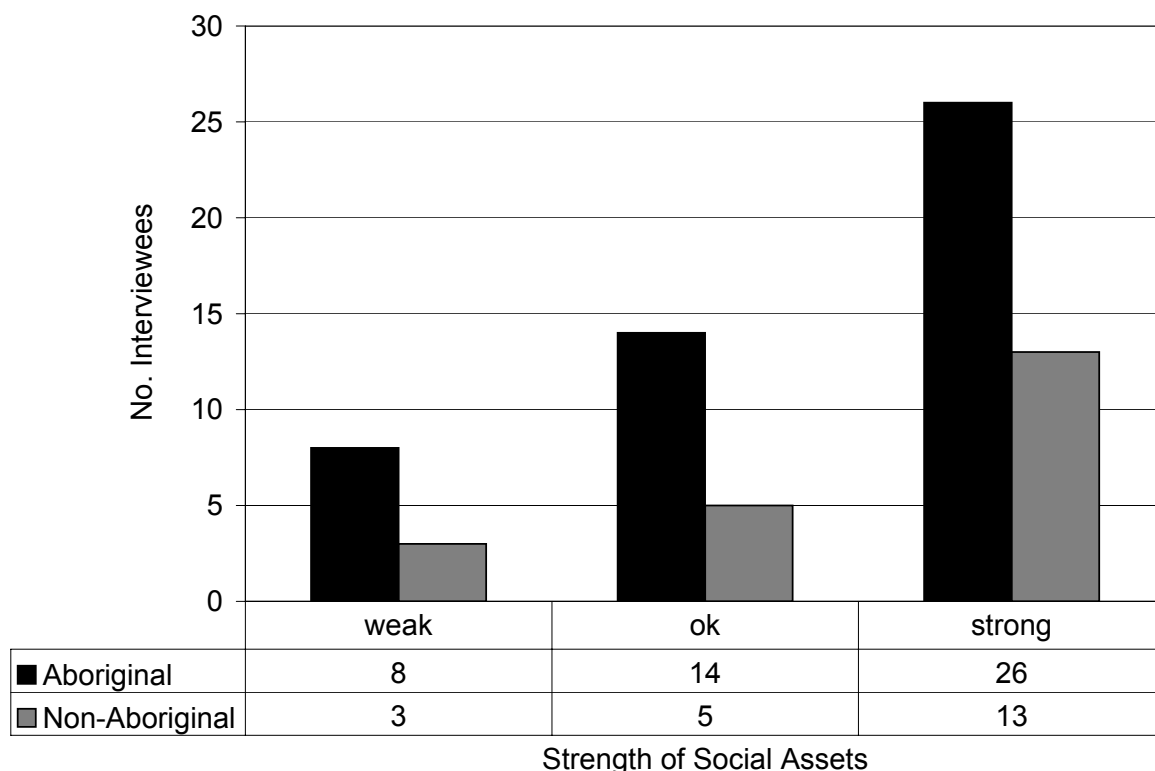


Figure 4.4: Perception of the strength of social assets in Anmatjere region

4.5.1 Emerging finding 5

Social networks are important to the livelihoods of everyone in the region. Dense social networks among kinship and estate-based groups of Aboriginal people provide a strong cultural base and source of identity. They support people with information and resources.

4.6 Financial assets

Interviewees assessed their financial assets as being significantly less strong than other assets. Our questions on this topic were mostly directed at income.

Figure 4.5 shows the income sources of Aboriginal and non-Aboriginal interviewees. A number of interviewees reported more than one income source and all of these sources are included in Figure 4.5. A higher proportion of non-Aboriginal people are employed full time or in business than non-Aboriginal people, while a higher proportion of Aboriginal people work part time or seasonally, earn income through ‘supplementary activities’ (including art work, commercial bush harvest, interpreting fees and sitting fees for committees, etc) or get money through ‘other’ activities (including from family or through card games). About 40% of the Aboriginal interviewees with full-time work as a major income source are also involved in supplementary activities. Eighty-one percent (17/21) of the Aboriginal interviewees who have income from supplementary activities also reported ‘other’ income, mainly through card games (which of course also commonly lead to loss of income). Three of the four non-Aboriginal interviewees who receive social security payments also get income from supplementary activities.

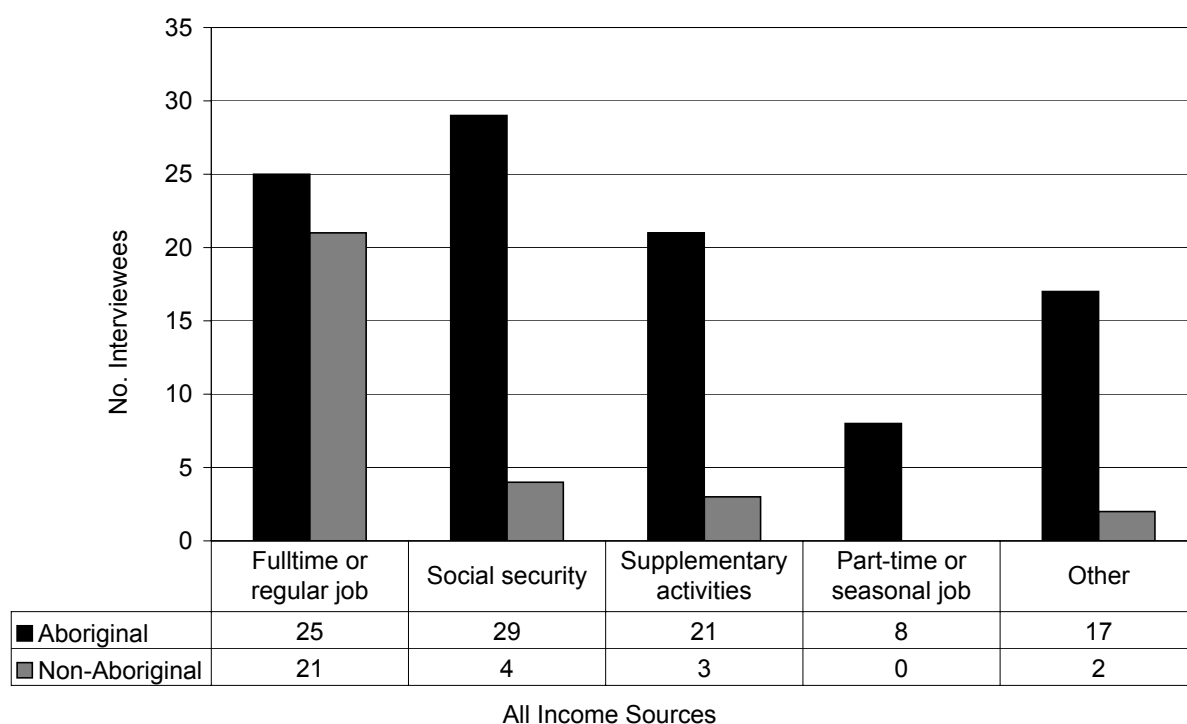


Figure 4.5: Income sources of Aboriginal and non-Aboriginal interviewees

We have grouped interviewees into three categories of relative reliability of their main income source. These are shown in Figure 4.6 and are defined as follows:

- ‘Reliable’ sources include investment, royalties, their own business, regular ongoing employment (outside CDEP), and social security payments.
- ‘Somewhat reliable’ sources include seasonal jobs and CDEP positions. CDEP is included here (rather than in the ‘reliable’ category) because of uncertainty about its future due to the policy changes that had been announced just before the fieldwork period. Income from seasonal work, such as in horticulture or pastoralism, is also included here, given uncertainties about seasonal conditions or employer demand.
- ‘Unreliable’ sources include getting money from family and card games.

Figure 4.6 shows that all non-Aboriginal people who responded to this question had reliable income sources from jobs, businesses and/or investments. In contrast, 36 (~75%) of 48 Aboriginal interviewees who responded to this question had ‘reliable’ income sources. Social security payments are the main income source of 21 (58%) of these interviewees. For adults of working age, this income source is becoming less reliable given policy changes that make payments contingent on the fulfilment of job search or other compliance requirements. There is an increased risk of people being cut off social security for failing to meet such requirements (see Section 4.13.1).

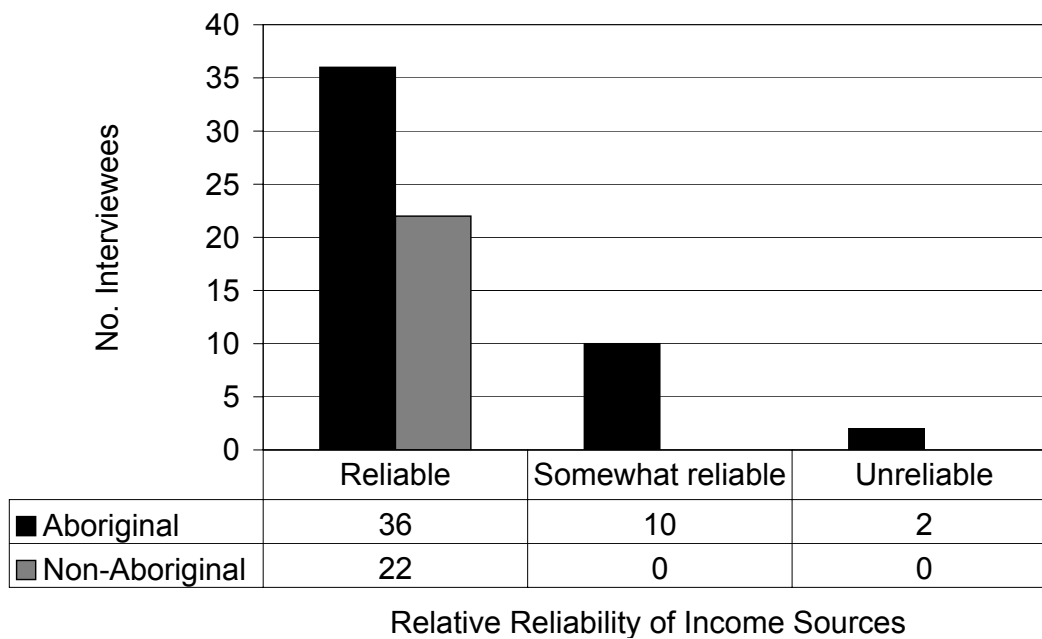


Figure 4.6: Relative reliability of income sources of Aboriginal and non-Aboriginal interviewees

4.6.1 Emerging finding 6

Most Aboriginal people have relatively reliable incomes, but income levels are low since they are mostly from social security. Social security and CDEP incomes are also becoming less reliable due to policy changes. In contrast non-Aboriginal people in the region tend to have reliable and relatively higher incomes, based on regular paid employment.

4.7 Physical assets

Interviewees raised a number of concerns about housing, including scarcity of workplace accommodation and transport for potential employees, and about transport and other infrastructure. Lack of accommodation and serviced land may also restrict opportunities for new enterprise development.

Housing shortages or the substandard nature of housing were identified by 41% of Aboriginal and 36% of non-Aboriginal interviewees. These Aboriginal interviewees described most existing dwellings as old and lacking one or more basic facilities.

Figure 4.7 compares the household sizes of the Aboriginal and non-Aboriginal interviewees. Far fewer Aboriginal interviewees lived in small households than did non-Aboriginal interviewees (58% vs 96%). More Aboriginal interviewees reported medium (29% vs 5%) and large (13% vs 0%) household sizes than did non-Aboriginal interviewees. The large size of households reported by many of the Aboriginal interviewees would be exacerbated by occasional influxes of visiting relatives, given Aboriginal mobility patterns. Some interviewees commented specifically on overcrowding.

We need new houses, more maintenance; there are families here with six kids living in a two-room house with no proper kitchen.

We need more housing here, [and in] Creek camp [in Ti Tree]... can be 20 people in one house.

We need new houses. These ones were built when we were kids. My house is just one big room. I need a good house.

In wet times it floods here, we need sand around the houses. Some houses don't have toilets. Some are no good, got no carpet, no cupboards.

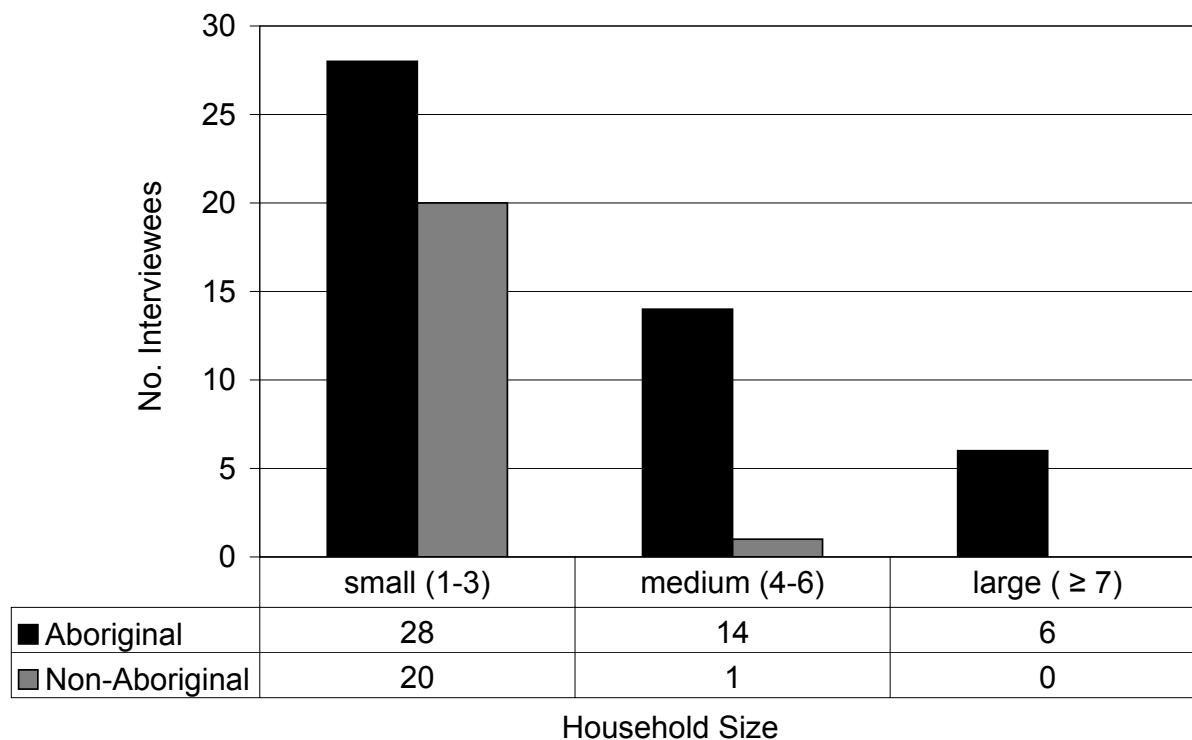


Figure 4.7: Household sizes of Aboriginal and non-Aboriginal interviewees

Current shortages of and future needs for power for the different industries (horticulture, mining and tourism) were expressed by eight (36%) of the non-Aboriginal interviewees. The shortage of communication facilities such as telephone, internet and fax was mentioned by very few Aboriginal and non-Aboriginal interviewees.

Around a third of both Aboriginal and non-Aboriginal interviewees expressed dissatisfaction with transport facilities and connecting roads in the region. The major concern expressed by Aboriginal interviewees was the shortage of transport facilities (such as private cars and public buses), while non-Aboriginal interviewees were mostly concerned with the low standard of connecting roads.

Views on water availability varied widely among interviewees. Three Aboriginal interviewees identified water shortage as a problem, which was influenced by a severe domestic water supply problem affecting Alyuen and a few other households at the time of data collection. Non-Aboriginal interviewees' comments about water related more to use for primary industry rather than to domestic supplies, and are covered in Section 4.4.

4.7.1 Emerging finding 7

Poor housing among Aboriginal people is prevalent and is likely to impact adversely on health, education and employment outcomes. Accommodation is also in short supply more generally in the region. Poor transport and roads make access to country, other settlements and workplaces difficult, especially for those who do not have access to a motor vehicle.

4.8 Human assets

Human assets include knowledge, skills, motivation, commitment and willingness to learn as well as health and fitness.

Formal education levels are very low among Anmatjere Aboriginal people (see Section 2.5). Almost all of those interviewed reported that they attended school to a level that would normally be associated with the achievement of functional numeracy and literacy. However, among remote Aboriginal people literacy and numeracy is generally far lower than school level attainment would suggest. For example, a recent qualitative study of adult literacy in the neighbouring Sandover River region found that less than half of the adults surveyed were assessed as competent at even a basic literacy level (Kral & Falk 2004). In Anmatjere region, the fieldwork story recounted in Box 4.3 indicates that there is demand from Aboriginal people for better literacy and for tools that literate people can use to help others learn.

Box 4.3: Activity cards as literacy tools

We used labelled picture cards showing different types of jobs and other activities to assist with the interview process. The cards were created for two purposes. Firstly, the use of cards could assist with clear communication; secondly, they could make the interview process more interactive by encouraging further conversation about each activity. Each card had a picture of an activity, such as art or childcare, with a one-word description in large capital letters underneath the picture. The cards were a simple and effective means to engage the interviewees and provided a consistent interview process. The cards were A5 size and laminated, making them easy to handle and durable with subject matter directly relevant to the lives of the residents.

After one of the interviews, the cards were left at a settlement by mistake. During the next visit, the research team saw a group of local Aboriginal people sitting under a tree looking at the cards and talking. One woman said she was teaching the other people to read using these cards. Members of the group asked to keep the cards so they could use them for learning, such as by pinning them up on the walls inside their houses. The cards were a useful and interactive tool during the interview process and this story also showed the value they had to some people who wanted to improve their functional literacy.

Low English literacy affects people's ability to understand and control the factors external to the Aboriginal domain that affect their lives.

Whitefella mob come, people talk and use hard words. A coupla words, have a big meaning, and they don't explain it properly.

Low English language proficiency and literacy also hinders job search strategies, including enquiring about jobs or making oneself visible for potential employers.

Aboriginal people whose English and literacy is not strong seek help from more literate relatives when they need to interact with government services and non-Aboriginal employers. Customary norms of reciprocity and sharing resources underpin their expectation that relatives will support them. Some Aboriginal interviewees with high levels of English literacy have stated how this demand can be excessive and disruptive.

People always ask me to do forms, etc. I say 'I'm not an agent' but I do their forms and fax them. Some people lack English and understanding. Visitors come and use big words, old people 'say what you mean?' People have to look around for us when visitors come, to help to translate, responsibility. We have to keep talking. If you don't have anybody to talk you get nothing. [Another community resident] talks a lot too, and he only gets CDEP [i.e. not proper recognition for his role].

Interviews with non-Aboriginal people identified that many saw low literacy and numeracy and poor English language competence as significant barriers to employment of Aboriginal people. For example, one pointed out the importance of safety in all mining operations, which relies on literate employees.

People in Anmatjere region rate the importance and state of traditional knowledge and customary skills highly. These human assets do not afford easy pathways to earning income other than through art and bush food collection. Hunting and gathering skills are very widely exercised, are based on an extensive traditional ecological knowledge and experience, and provide a locally available nutritious food source (largely for family consumption, rather than for sale).

Other traditional knowledge and customary skills are related to caring for country, such as use of fire to maintain and promote bush food production. However, there are limited avenues for Anmatjere people to apply these human assets in existing industries. For example, pastoral production on much of the land in the region limits access and opportunities for Aboriginal fire management. Customary activities are not counted as ‘work’ by government, so Anmatjere people are not able to use their participation in such activities as part of the ‘work test’ requirements for social security eligibility, even though they may consider them to be highly productive, engaging and educational activities.

While most teenage interviewees have limited or no skills for paid work, other interviewees, both Aboriginal and non-Aboriginal, perceived themselves as having multiple practical skills. People have developed hands-on skills, such as mechanics and fencing, informally, through experience. Aboriginal interviewees noted that many Aboriginal people have uncertified skills as mechanics which are used to help others, thus satisfying social demand for the service. Interviewees indicated that these hands-on skills are valued highly by others.

Sometimes people want a job but they are told they need to do a certificate or training. But often they can do it or learn on the job. If you learn on the job, then there is someone on your side, you pick it up easy. Hard out in town sitting down doing paperwork. Some people here can hardly read but they have the skills for work, they've been working on stations, they can weld and do fencing.

A lot of these people are five-star mechanics. We could start art, tourism businesses. Have a garage.

Health and fitness was not specifically explored in the field data collection, but poor health and fitness was noted by employers as impacting on Aboriginal people’s capacity for employment (see Section 4.13.2).

4.8.1 Emerging finding 8

Traditional knowledge and customary skills are strong in the region, but poorly connected into income-earning opportunities. Low literacy and English language skill limit Aboriginal people’s use of job search methods that are common in mainstream society. Given that all private sector employers, and most other ‘bosses’ are non-Aboriginal, low literacy and English restrict Aboriginal people’s capacity to enquire about jobs or promote themselves to potential employers.

4.9 Activities

We asked interviewees about the activities, or livelihood strategies, that they are involved in, or have been involved in. The question did not distinguish between activities they undertake as part of a job or business and the other things they do in their lives. This reflects our intention of considering the whole of people’s lives and aspirations, not only those directly relevant to paid work. Other parts of the interview proforma asked more directly about experiences with work.

Many interviewees, especially Aboriginal people, are involved in multiple and diverse activities. As shown in Figure 4.8, the proportion of Aboriginal interviewees reporting involvement in multiple activities is significantly higher than that of non-Aboriginal interviewees (92% vs 36%), while a much smaller proportion of Aboriginal interviewees are involved in only a few activities (8% vs 64%).

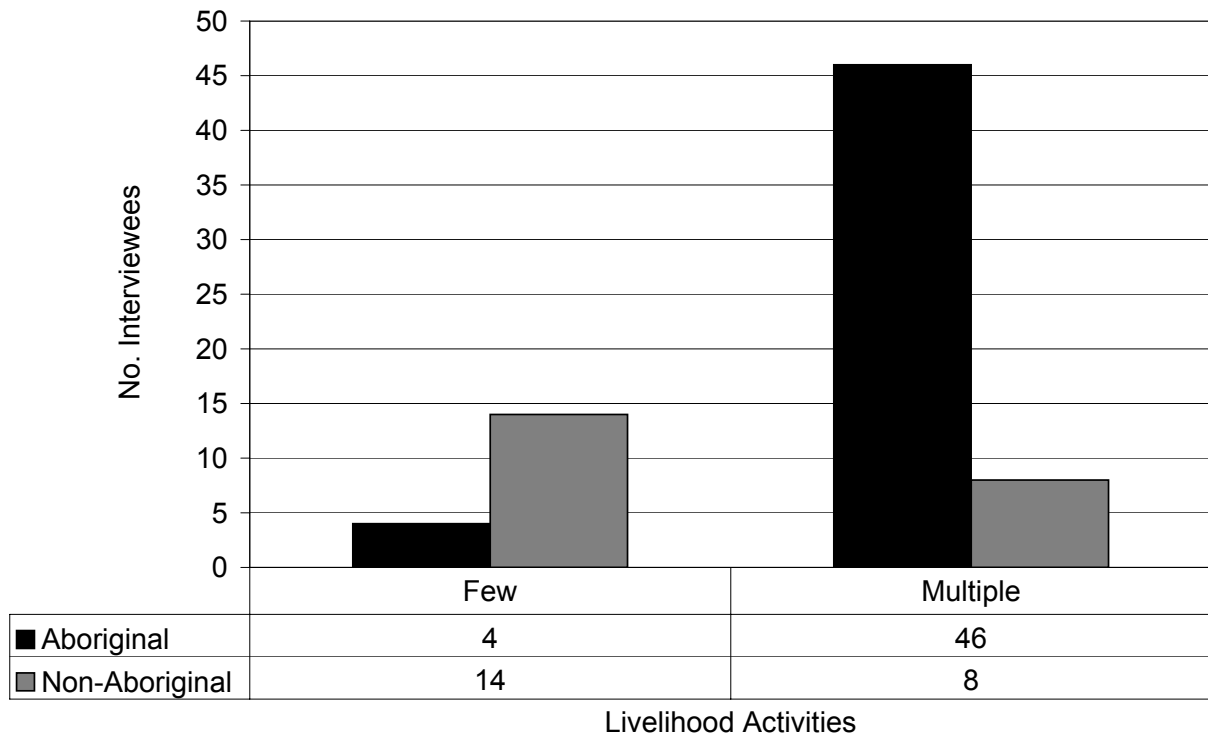


Figure 4.8: Number of livelihood activities undertaken by Aboriginal and non-Aboriginal interviewees

The activities that Aboriginal and non-Aboriginal interviewees undertake tend to be different (see Figures 4.9 and 4.10). Cooking, cleaning and looking after kids are the activities that the highest numbers of Aboriginal interviewees said they engage in, undoubtedly reflecting large family sizes and the high proportion of children in the population. Bush tucker (including hunting for food and recreation) and participation in ceremony were almost as prevalent, followed by sport and looking after old people. Significantly smaller proportions of non-Aboriginal interviewees engage in all these activities. Gardening, art, ‘trees and plants’ (including grapes) and training are activities that a relatively high proportion of both Aboriginal and non-Aboriginal interviewees said they participate in or have participated in. In the case of ‘gardening’, this reflects CDEP engagement with training and work in the horticulture. During 2007, shortly before field work, teams of Anmatjere Aboriginal men and women had been recently involved in horticulture as part of a CDEP-DPIFM program, the men training and working in grape vine pruning, and the women engaged in growing Akatyerre (*Solanum centrale*, desert raisin) and vegetables.

The diversity of activities undertaken in the region (Figures 4.9 and 4.10) in part reflects the fact that the interview question was asking for a ‘whole of life’ response. The diversity of activities is also likely to be partly a response to the seasonal and/or temporary nature of available jobs in the pastoral and horticultural industries, and to the impact of seasonality on activities such as sport, bush tucker/hunting and ceremony (see Figure 4.11 and Box 4.4). Many of the interviewees have an ‘adaptive resume’ showing varied employment in a number of different roles or industries.

Among the people we interviewed, women were more likely than men to be outside the labour force, that is, not employed or looking for work (48% of female interviewees and 13% of male interviewees). However, women with young children are neither more nor less likely to be in paid employment (see Table 4.3).

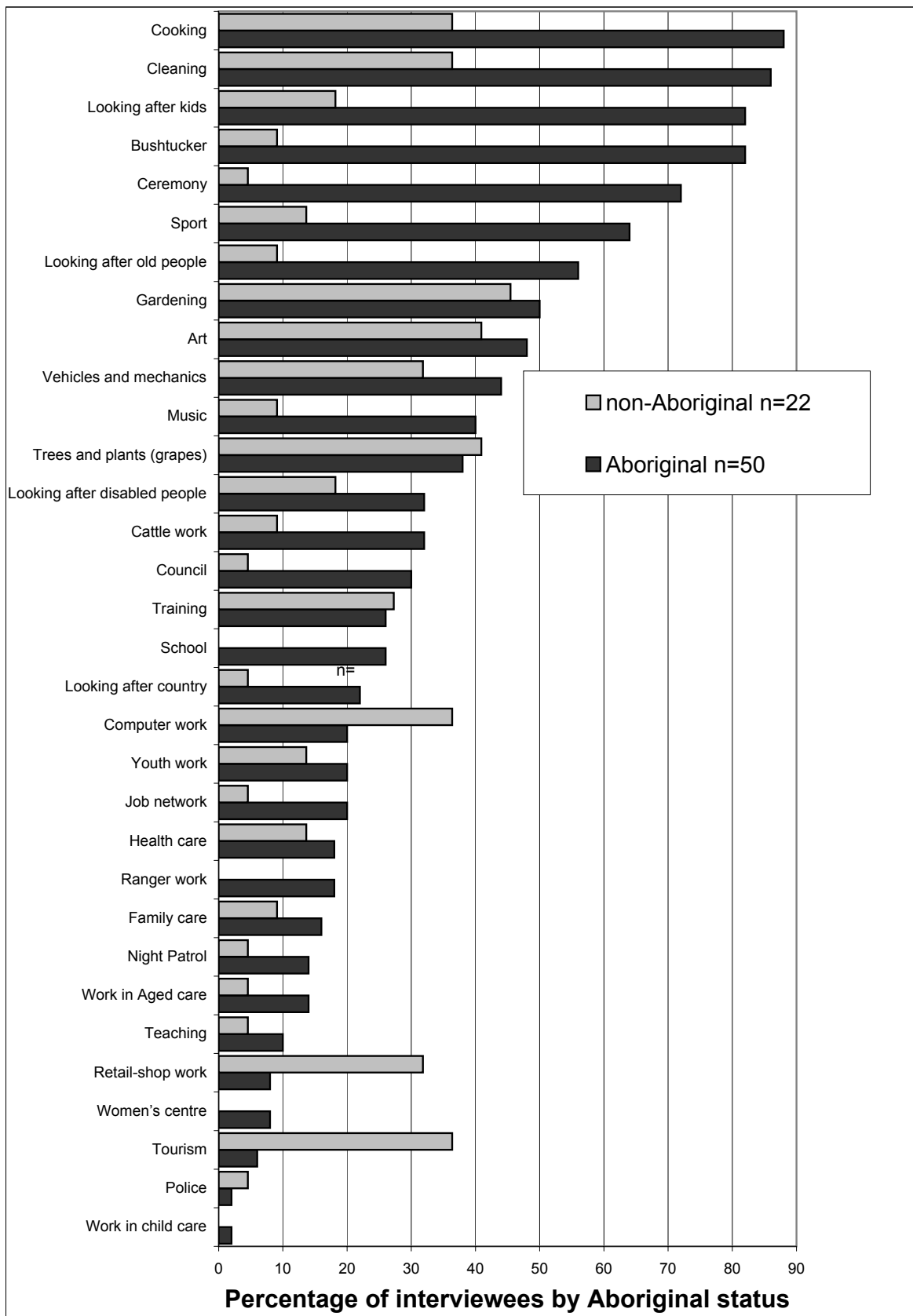


Figure 4.9: Percentage of interviewees participating in different activities, by Aboriginality, and rank order of Aboriginal participation

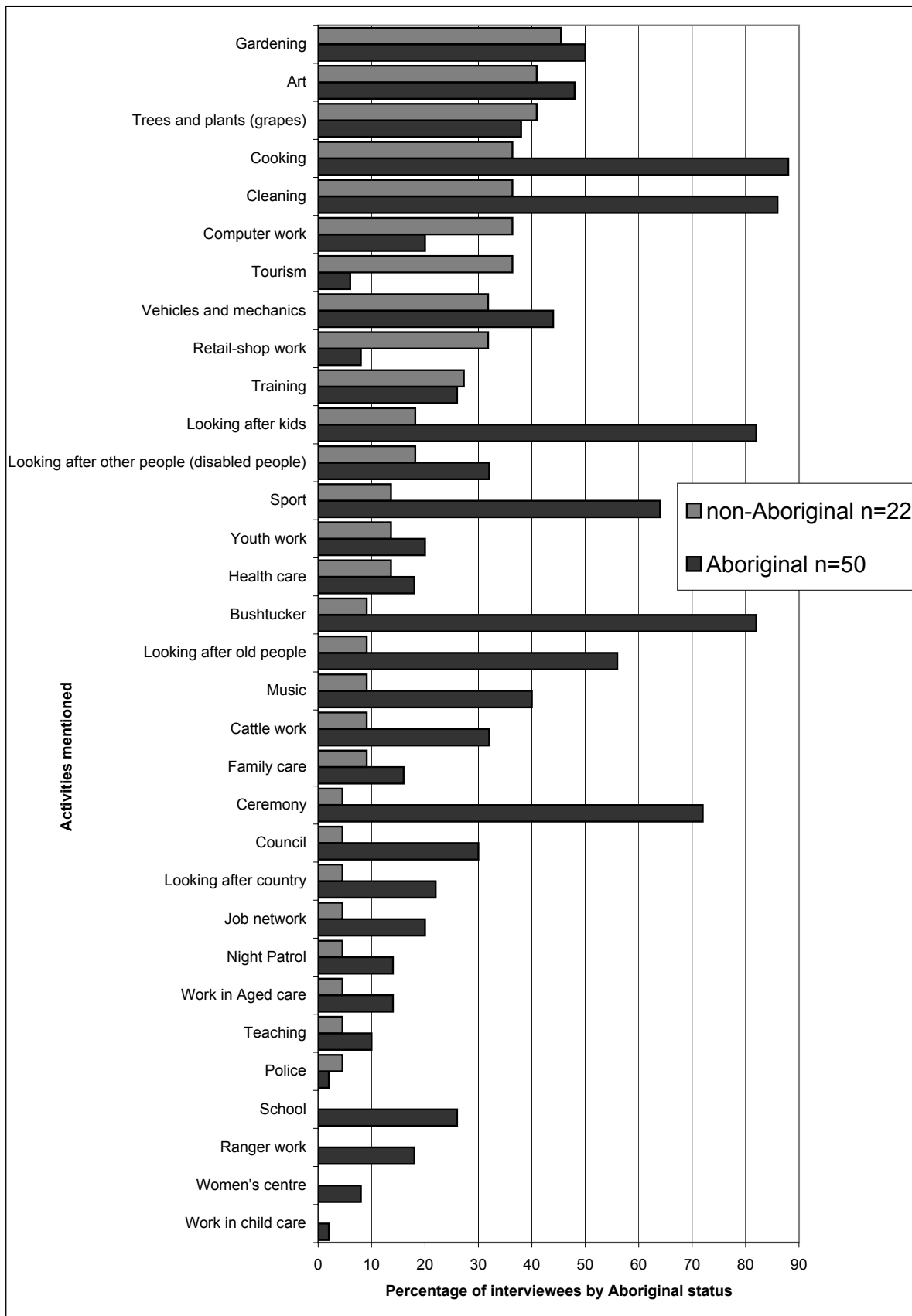


Figure 4.10: Percentage of interviewees participating in different activities, by Aboriginality, and rank order of non-Aboriginal participation

The extent of gender bias in the activities that Aboriginal interviewees said they undertake is summarised in Table 4.4. A similar analysis was not feasible for non-Aboriginal interviewees as the number of women was very small (n=5). For most of the activities that more than 20% of Aboriginal interviewees said they undertake (see Figure 4.9), responses indicate less than 10% bias to either male or female participation. Exceptions with a strong bias ($\geq 40\%$) to male participation were vehicles and mechanics, trees and plants (grapes) and cattle work (Table 4.4). There was a smaller bias to male participation for ceremony, council and youth work. The only activity with a strong bias to female participation was art and a smaller bias is apparent for family care, cooking and some job roles.

There is a clear difference between Aboriginal and non-Aboriginal interviewees in the activities they nominated as the ‘most important’ activity they participate in (see Table 4.5). Most non-Aboriginal interviewees nominated a business or job-related activity, particularly horticulture (i.e. ‘trees and plants [grapes]’ in Figures 4.9 and 4.10) and tourism. However, the biggest clusters of Aboriginal responses were for family care activities (looking after kids, cooking) and sport.

The interviews did not attempt to establish the amount of time that interviewees engage in various activities. However, we can expect that this will vary widely. Aboriginal interviewees’ responses did indicate patterns of frequent switching among jobs that were sometimes seen as low-status with no clear career path or else that conflicted with family, sport or cultural activities. Some interviewees said that commitments to caring activities (particularly children and old people) had been a constraint to participation in income generating activities.

Interviewees gave various reasons for changing their main or most important activity. The three most important reasons for change were:

- being dissatisfied and tired
- seeking new experiences and opportunities
- illness and social problems such as through alcohol use/abuse.

Seasonal activities in the Anmatjere region

Month	January	February	March	April	May	June	July	August	September	October	November	December
Horticulture												
Bushtucker												
Sport												
Tourism												
Ceremony												
Month	January	February	March	April	May	June	July	August	September	October	November	December

Key: Shaded cells represent interviewee nominations of that activity in each month. N=71

Note that this table only includes activities that interviewees nominated as seasonal and specified timing for.

Figure 4.11: Seasonal activities in the Anmatjere region

Box 4.4: Seasonality of employment in the horticultural industry

The horticultural industry in the Ti Tree region is highly seasonal. Grapes are the primary product. The grape farms carry a skeleton staff all year round, and employ large numbers of people periodically for pruning, picking, etc. These times of peak employment in the horticulture industry are approximated below:

June–October: Pruning and thinning

November–December: Picking

Another smaller industry is melon farming. Approximate peak employment times and related horticultural activity are shown below.

January: Preparing ground

February–May: Planting

October–December: Picking

Table 4.3: Child care responsibilities of female interviewees who are in full-time employment or not in labour force

Child care responsibilities of female interviewees (Aboriginal and non-Aboriginal)	In full-time employment (n=13)	Not in labour force (n=13)
Children <8 years old	3	2
Children at home ≥8 years old	2	3
Children have left home	4	4
No children	4	4

Table 4.4: Gender bias in all activities that Aboriginal interviewees undertake

	Male bias (28 interviewees)	Female bias (22 interviewees)
Bias ≥40%	• Vehicles & mechanics; Trees & plants(grapes); Cattle work	• Art
Bias ≥20%<40%	• Ceremony; Council; Night patrol	• Family care
Bias ≥10%<20%	• Youth work; Job Network; Ranger work	• Cooking; Looking after kids; Work in aged care; Teaching; Women's centre

Table 4.5: Activities nominated as 'most important', by number of interviewees and Aboriginality

Activities nominated as most important	Aboriginal interviewees (n=50)	Non-Aboriginal interviewees (n=22)
By 5–8 people	• Looking after kids	• Horticulture
By 3–4 people	• Aged care, Sport, Ranger work, Cooking	• Tourism
By 1–2 people	• Horticulture, Office work, Teaching, Radio, Night patrol, Looking after old people, Job Network, Family, Cattle work, Women's centre, Vehicles and mechanics, Ceremony, Cleaning, Council, Going to town, Hairdressing, Heavy machinery operation, Keeping the community clean, Making necklaces from the bean tree, Mining and exploration, Organising payment of employees, Picking up rubbish, Public safety, Retail shop work, Running men's culture camps	• Office work, Pets, Job Network, Cattle work, Spending time with Aboriginal people, Retail shop work, Public safety, Organising payment of employees, Art, Building faith

4.9.1 Emerging finding 9

While both Aboriginal and non-Aboriginal people undertake diverse activities, income earning activities are more prominent in the lifestyles of non-Aboriginal people. Seasonality and pluri-activity (multiple livelihood activities) are at the heart of the lifestyle of many Aboriginal people. They are extensively involved in cultural activities (bush tucker, art, music, ceremony), caring for people and country, and with vehicles and mechanics. Pathways into income earning opportunities in these sectors can be expected to be relatively attractive to Aboriginal people because they fit to skills, motivation and interests. The strength of communal activities among Aboriginal people (e.g. bush tucker, ceremonies, looking after kids and old people) indicates the importance of these to the capability of many people in the region. The likelihood of new or enhanced livelihood activities is low if they conflict substantially with these current activities.

Engagement by many Aboriginal people in paid activities tends to be opportunistic. Many income earning activities are seasonal, and thus short term, which reinforces that opportunism. Rapid changing between jobs is apparent and may be promoted by work roles that do not engage inherent Aboriginal motivation and by conflicting demands for time from family care activities, obligations to ceremony, and sport. Social problems (e.g. related to alcohol abuse) also promote opportunistic rather than planned interactions with paid work.

4.10 Outcomes for wellbeing

We asked interviewees about outcomes from their ‘main job’ or, for people not in the labour force, their ‘most important or time consuming activity’. The responses can only be interpreted very broadly, because of the different personal circumstances of interviewees and associated uncertainty about whether their response relates to what they consider to be their ‘most important activity’ or, alternatively, to the activity that takes most of their time.

4.10.1 Enjoyment or stress?

We asked interviewees if they find their main job or activity ‘enjoyable’ or ‘stressful’ or ‘both’. Responses varied with identity, labour force status and gender. We also asked what makes that job or activity enjoyable or stressful.

Aboriginal interviewees were more likely than non-Aboriginal interviewees to say their main job or activity is enjoyable. Seventy percent (33/47) of the Aboriginal interviewees enjoyed their main job or activity compared to only 55% (11/20) of non-Aboriginal interviewees. Most interviewees who were unemployed or not in the labour force described their most important or time consuming activity as enjoyable. Six interviewees said their main job or activity is stressful. Five of these are people in full-time paid work. Fewer female than male interviewees considered their main job or activity to be stressful.

We grouped interviewees’ reasons for their main job or activity being enjoyable into categories: income, lifestyle, relationships and social life, telling stories, caring for others, nature of the job, and facilities available. Where two or more factors were mentioned in a response, we assigned it to two or more categories.

Aboriginal interviewees’ responses were most frequently assigned to the following three categories:

1. relationships and social life
2. nature of the job/activity
3. caring for others

Non-Aboriginal interviewees' responses were most frequently assigned to the following three categories:

1. lifestyle
2. relationships and social life
3. nature of the job/activity

'Income' was not often given by either Aboriginal or non-Aboriginal interviewees as a reason for their jobs being enjoyable or stressful. In their responses, only Aboriginal interviewees mentioned 'sharing stories' or the facilities available to them in their jobs.

Most reasons given by Aboriginal interviewees for their main job or activity being stressful relate to family demands, domestic issues and substance abuse, whereas most reasons given by non-Aboriginal interviewees relate to heavy work demands on time and effort, and dealings with others.

4.10.2 Results for interviewees from main job or activity

We asked interviewees about the 'results' from their main job or activity; that is, what they get out of their main job or activity. We also asked how these results help them to care for themselves, for their family and the area/region where they live or their 'country'. We created broad categories for the combined responses to these two questions and analysed differences in the responses according to Aboriginality and gender.

'Income' is the most frequently stated result from main job or activity for both Aboriginal and non-Aboriginal interviewees (54% of Aboriginal responses and 48% non-Aboriginal response with no gender bias). Among Aboriginal interviewees, the second most frequent response category is 'fulfilling caring responsibilities' [to family and/or country] (41% of responses). Among non-Aboriginal people it was 'preferred lifestyle' (41% of responses). The next most frequent response category was 'learning and knowledge sharing'.

Among women, 'fulfilling caring responsibility' (39%) was almost as important as 'income' (42%). Among men, 'income' (59%) was a far more common response category than 'fulfilling caring responsibilities' (27%).

Aboriginal people may be frequently characterised by others as not being 'driven by money'. Nevertheless, some employers in the region have observed changes of behaviour when Aboriginal staff get used to having a steady income from a job, and become increasingly materialistic.

4.10.3 Emerging finding 10

Most people said they get enjoyment from the main things that they do. The nature of the job/activity and associated personal relationships and social life are important to the enjoyment that comes from the main jobs or activities of both Aboriginal and non-Aboriginal people. For non-Aboriginal people there is also commonly stress associated with their main job, whereas for Aboriginal people stress is associated with family demands and other domestic issues. People identify income as an important outcome from working but it is generally not what makes their job enjoyable. Income is closely associated with people's capacity to care for family and/or the area where they live, especially among women.

4.11 Aspirations

We obtained information about aspirations for themselves, their family and the local and regional area from 38 Aboriginal and 18 non-Aboriginal interviewees. These aspirations are described below.

4.11.1 Aspirations for self

The two aspirations for themselves that Aboriginal interviewees articulated most frequently (78% of the Aboriginal interviewees who responded to this question) were:

1. to have further training and find a new or be promoted in their current job
2. to continue working in current job.

The three aspirations for themselves that most non-Aboriginal interviewees articulated most frequently (84% of the non-Aboriginal interviewees who responded to this question) were:

1. to retire, travel and enjoy life
2. to start or expand business
3. to continue education and start a new job.

4.11.2 Aspirations for children and grandchildren

Among Aboriginal interviewees the two most frequently articulated aspirations for children and grandchildren were related to:

1. acquiring proper practical and relevant education, leading to
2. job opportunities and decent jobs in their country/home area.

Together these aspirations accounted for 90% (n=35) of the responses by Aboriginal interviewees who responded to this question. A number of Aboriginal people had gone away from the region for schooling, and felt they would also like their children to go to school out of the region: to Yirara College (Alice Springs) or Kormilda College (Darwin).

Among non-Aboriginal interviewees aspirations for children and grandchildren were related to:

1. job opportunities and decent wages (62%, n=10)
2. happiness and wellbeing (38%, n=6).

4.11.3 Aspirations for local places and the region

Most Aboriginal interviewees aspired to look after and use country for hunting and gathering and to contribute to building up their settlements and outstations. Most of the 11 interviewees who did not know or did not express their aspiration for the region were Aboriginal people, including all three young and unemployed Aboriginal interviewees. Many Aboriginal and some non-Aboriginal interviewees aspired for improved infrastructure and more housing but expressed the need for caution in developing industries aimed at economic growth. Both Aboriginal and non-Aboriginal interviewees aspired to more job opportunities and the maintenance of a good and distinctive 'outback' lifestyle.

Forty Aboriginal interviewees expressed their aspirations for the region. The three most frequently articulated Aboriginal aspirations were:

1. increased caring for country and cultural livelihood practices (48%, n=19)
2. building up outstations and settlements (25%, n=10)
3. no development or cautious development of industries such as horticulture, mining and tourism (13%, n=13%).

Twenty-one non-Aboriginal interviewees expressed their aspiration for the region. These aspirations were:

1. land and infrastructure development (38%, n=8)
2. development of industries (24%, n=5)
3. more job opportunities (14%, n=3).

Interviews also revealed strong expectations of future employment opportunities in mining, particularly for young people. This may have been a consequence of recent meetings held by mining companies and the CLC where the costs and benefits of mining for Aboriginal people have been discussed. Interviews also indicate Aboriginal people's expectations of future income from mining royalty equivalents in the future and a range of views about whether mining should be approved.

4.11.4 Emerging finding 11

Aspirations for decent job opportunities for their children provide strong common ground between Aboriginal and non-Aboriginal interviewees. The biggest point of difference between Aboriginal and non-Aboriginal interviewees is in relation to aspirations for the region. Aboriginal interviewees had strong aspirations for increased caring for country and cultural livelihood practices (notwithstanding a possible trend to reduced responsibilities to care for country, see Section 4.4). However, the strongest group of aspirations for the region among non-Aboriginal interviewees is for land and infrastructure development. In contrast, some Aboriginal people want no development or a quite cautious approach.

4.12 Trends and vulnerabilities

We asked interviewees about what they thought might happen in the short and medium term that might affect their current livelihood activities. A few things stand out from the responses:

- Most Aboriginal people expected to stay in the region, either doing the same things they are doing now or else retired or in a new job.
- Some Aboriginal interviewees (14%, n=7) responded that they 'do not know' what would happen in the future in relation to the things that they now do in their lives.
- Comments from some interviewees, both Aboriginal and non-Aboriginal, expressed uncertainty about how changes to government institutions would affect their lives (see below). Non-Aboriginal people working in the public sector were looking to other opportunities outside the region.
- Only one of five horticulturalists was optimistic about their future in their current business and the prospects for growth. Others planned to sell or at least make substantial changes. Some thought that the local industry would benefit in the long term from water shortages in south eastern Australia, but were not planning to stick it out, expecting to sell or retire. The uncertainty was not shared by horticultural workers, who mostly saw their work continuing.

4.12.1 Emerging finding 12

Changes to government institutions, including local government, raise uncertainties for both Aboriginal and non-Aboriginal people. However, overall, the region's non-Aboriginal people seem to have a greater sense of vulnerability and uncertainty about the future than Aboriginal people. There is a lack of optimism among horticulturalists which contrasts with planning documents reviewed for this project (see Appendix 6) that often mention strong opportunities for this sector.

4.13 Institutions

Institutions can be rules, norms or accepted ways of behaving, legislation, policies, or strategies that are shared by a group of people. Formal institutions include those of the Northern Territory and Australian Governments – legislation, policy and procedures – and also the rules from constitutions and policies of local organisations. Norms or expected ways of behaving are informal institutions. They can be distinctive to particular contexts, groups of people or cultures. People develop these different kinds of institutions in order to facilitate cooperation towards collective goals, whether expressed or implied, at different scales of organisation, from family to the nation as a whole.

Interviewees spoke most directly about the role of institutions in their livelihoods in relation to the formal rules applied by government for access to social security income, the norms that are important in workplaces, and the operations of local government (that is, the former Anmatjere Community Government Council) and other local organisations. Interviewee's perceptions of these formal and informal institutions are described below. Other important informal institutions in the region manifest through the norms of Aboriginal culture (see Section 4.3) and strategies to build and engage social assets (see Section 4.5)

4.13.1 Formal institutions – government and social security

Fieldwork for the study was undertaken at a time of great change in long standing formal institutions of government that impact on Anmatjere people. Winding up of Anmatjere CGC and CDEP was timetabled to occur the following year. The Australian Government had been progressively lifting the exemptions for unemployed Aboriginal people living in remote areas, including Anmatjere region, from requirements to show they were looking for work. The Australian Government's NT Emergency Response had commenced a few months earlier, and was progressively imposing compulsory income management for Aboriginal social security recipients across the Northern Territory, although this had not yet been implemented in Anmatjere region. Indeed, when we were first talking to community leaders about our proposed fieldwork for this project in mid 2007, some said they really wanted to talk to us about the issues going on in their lives because there were a lot of changes happening without any real opportunity for them to express their views.

The following quote illustrates some of the concern and uncertainty that changes in formal institutions raised for Aboriginal interviewees:

We have to keep on changing, different rules, the way we live. The rules are now changing, and the laws we have to obey, how we have to live and work ... See these rules change, and the whole system you know. We'll never be resting in peace. How can we live a normal life? Rules changing overnight ... We want simple rules to live by, so that it's easy. We hear too many stories, too many stories on the media, from the paper, or information ... we want something that will make life better, you know. Just something simple.

Non-Aboriginal interviewees who commented on such issues were most concerned about change being driven from outside the region that did not engage with their own experience and ideas about how government might operate better in the region.

Many specific comments from Aboriginal interviewees about their interaction with government institutions were about processes in which Centrelink, which pays social security entitlements, plays a significant role. For example:

I missed the forms for youth allowance. They might put in my big money soon. I've got to go to Centrelink [in Ti Tree] today ... Two women came from Alice Springs and they told me to go back today.

With the lifting of 'remote area exemptions', as noted above, these processes required that, for the first time in this region, unemployed people engage with government-appointed employment brokers and work experience providers and satisfy rules about job search or training strategies, or risk losing their entitlement to social security income. Such rules are designed to motivate and equip people to work or search for jobs. However, comments from interviewees, particularly young Aboriginal people, strongly suggest that they are ineffective. Rather than changing their behaviour and making their entitlement to social security or earned income more secure, a number of unemployed interviewees said they would become more reliant on other people for income. Some young Aboriginal interviewees said they expect to be 'on and off Centrelink'.

[In the next five years] I might be on Centrelink sometimes then sometimes not.

Such interviewees did not see this as a risk. They commented confidently that they would get money from other people and would also ‘collect bushtucker’. One young woman interviewed reported having no cash income, apparently because she had chosen not to, or had been unable to, meet the obligations imposed by Centrelink.

I just borrow money, don't get Centrelink. Only get money from job or borrowing ... from family here and in Laramba, partner.

Another Aboriginal interviewee described many young women living off their parent's social security or wage income and doing nothing to earn money or retain a social security payment.

The interviews provided some examples of employed Aboriginal people from outside the Anmatjere region who had secured jobs within the region through a standard application process. However, we found no examples of local Anmatjere people who reported securing a job through this kind of conventional application and selection process. Reporting to Centrelink or completing its forms was mentioned as a way of getting future employment but only by young unemployed Aboriginal interviewees who said that if they wanted a job they would:

Talk to Centrelink officer in the Council.

Go to Centrelink and get forms together.

Similarly only two Aboriginal people mentioned Job Network providers as somewhere they would go for assistance:

They're trying to put me for work – I have to see [the Job Network provider]. They need a lot of young people for job. They want young people to work for money.

[I'm] meant to work with [Job Network provider] to get work but [they] can't find me work. That's OK by me. [They are] no good.

When talking about where they would go for assistance, the region's employers did not mention Job Network providers or other government programs for Aboriginal labour market engagement as being a way to secure seasonal workers. Anmatjere CGC was mentioned occasionally.

Anmatjere Council is pretty good. We try to employ people through them. They are very helpful.

Pastoral station owners indicated they had little knowledge of the programs that government has put in place through its Job Network agents to promote Aboriginal employment. Although some of the assistance they had heard was on offer for Aboriginal employees, such as boots and swags, were attractive as incentives, pastoralists were suspicious as they had no experience with such employment assistance and had not met the people involved with implementing these programs.

4.13.2 Informal institutions – workplace culture and norms

Institutions that give rise to expectations about behaviours have a powerful impact on how people engage with employment. Such institutions may be formal, stated rules or norms that are implied and might never be directly spoken about.

A number of workplace norms can be inferred from the comments made by non-Aboriginal interviewees who are private sector employers when they described factors that make it difficult for them as constraints in employing local Aboriginal people. These implied norms are set out in Table 4.6. They underpin employers' expectations of patterns of behaviour in the workplace. Generally such workplace norms are important to employers for efficiency, occupational health and safety requirements or other requirements of employers for their operations and aspirations. These norms are very different from the norms that operate in Aboriginal homes and communities, such as interdependence and sharing,

and engagement in diverse activities (see also Sections 4.3 and 4.9). Interviewees' comments about employment of local Aboriginal people also indicate the impact of the human assets of health, literacy, initiative and other skills (see also Section 4.8) in establishing a clash with workplace norms.

Interviewees noted the tendency among Aboriginal people to want to work as part of a group. This is very different from a workplace norm that expects autonomous activity by workers (Table 4.6). A group mode for Aboriginal workers had been provided for in the region in CDEP activities and in horticultural contracting by Anmatjere CGC during 2007. It is also common in training courses. The preference for group work noted among Aboriginal employees may be because it helps to buffer the risks of them doing the wrong thing in a working environment whose norms are unfamiliar. For Aboriginal employees, group work may provide for a microcosm of shared norms for internal communication and mutual support, as well as cooperation for interpreting language, learning new tasks and expressing needs to employers. This would help members of the group overcome shyness or fear of making mistakes in unfamiliar situations.

Table 4.6: Workplace norms implied by private sector employees' comments about employment of local Aboriginal people

Comments from private sector employer interviewees about employment of local Aboriginal people	Implied workplace norm* (after Crawford & Ostrom 2005)
Aboriginal people will not come to work alone; they need to be in a group	A worker must be able to operate autonomously in the workplace.
Poor functional literacy and numeracy is a barrier to employment	A worker must be able to operate autonomously in the workplace, including for tasks that require functional literacy/numeracy.
Aboriginal people need retraining every day and won't take the initiative	A worker must take initiative in relation to their work responsibilities.
Lack of endurance/capacity to sustain and complete the hard work required in horticulture industry	A worker must work a full shift
Aboriginal people can only be expected to work from 8 am – 12 pm, being unable to work long hours for a variety of reasons	A worker must work a full shift
Lack of desire or motivation to work	A worker must be self-motivated
In employing Aboriginal people, the employer may have to spend extra time giving support and 'hassling' employees to get people to attend punctually	A worker must be self-motivated, self-reliant, organised and punctual

Aboriginal interviewees noted differences in the norms between different workplaces and bosses. Some government and community work environments were considered to be good, for example because specific procedures were in place for employees to secure leave for family and cultural reasons including 'sorry business' in a way that did not impact on work colleagues and the discharge of job responsibilities. Aboriginal interviewees also spoke warmly of some workplaces where they had enjoyed the social environment. They nominated aspects of the day-to-day interaction with other workers and their boss as some of things they particularly enjoyed about paid employment.

Where there is a big clash between Aboriginal and workplace norms and culture, it impacts on the motivation of Aboriginal people for employment in that workplace, leading to Aboriginal employees having stronger loyalty to family and community or ceremonial responsibilities than to the employer. This makes local Aboriginal employment a costly option for employers, impacting on their motivation to engage local Aboriginal people.

Some interviewees spoke of the challenge to employers of negotiating Aboriginal cultural norms in the workplace. They observed that people and organisations with a longer history of employing Aboriginal people have often worked out effective strategies, for example to deal with sorry business and family pressures and managing access to resources, through experience and trial and error. One interviewee

pointed out the lack of a good ‘guide’ or reliable source of information to assist employers who work with or would like to employ Aboriginal people. Another noted that often employers have expectations of the ‘lifeskills’ of all employees, such as being able to accept responsibilities, be punctual, understand hygiene and diet, and that Aboriginal people in the Anmatjere region may not have had the opportunity or need to develop such habits. Some employed and employer interviewees focused on particular workplace norms as the advice they would give others who wanted to be in their own position. One Aboriginal interviewee said others should ‘show some pride in [their] appearance’ while one non-Aboriginal interviewee said, ‘Be punctual, reliable and have work ethics.’

4.13.3 The operations of local organisations

When asked to talk about what is good or strong in their community, interviewees most commonly mentioned ‘council’ (i.e. the former Anmatjere CGC at the time of field data collection). The council stood out as an organisation that was seen by both Aboriginal and non-Aboriginal interviewees as doing a good job because it was responsive, helpful and able to provide equipment and a workforce to get things done. Only three people made negative comments about council. The perceptions of council’s way of operating volunteered by interviewees are summarised in Figure 4.12. Local health clinics and schools were also mentioned by some interviewees as strong and supportive of the community.

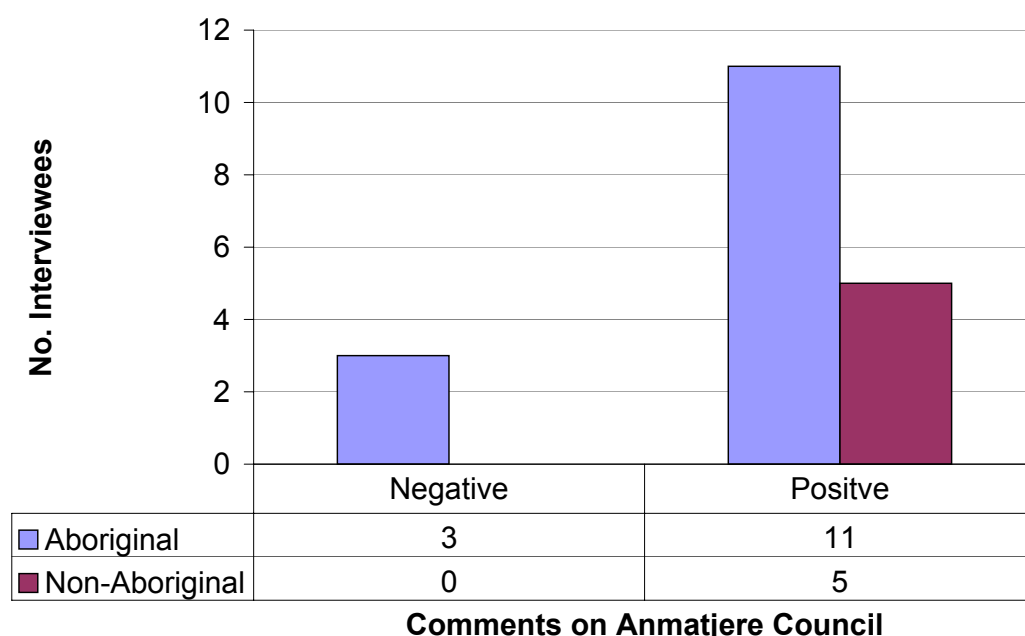


Figure 4.12: Perceptions of Aboriginal and non-Aboriginal interviewees of the former Anmatjere CGC’s way of operating

4.13.4 Emerging finding 13

Changes in government rules designed to motivate stronger Aboriginal engagement with employment opportunities are not having the desired impact, at least among younger Aboriginal people. Often they seem to be promoting increased reliance on family/kinship social networks. There are poor linkages between private sector employers and government institutions designed to promote Aboriginal employment.

Some of the norms of workplace culture clash with those of local Aboriginal culture. This can be expected to play a significant role among multiple factors that contribute to high levels of Aboriginal unemployment in the region. Group work by Aboriginal people may provide for a microcosm of shared norms that buffers the impact of such clashes.

Within the region local organisations are widely seen as operating effectively to support the local community’s needs.

4.14 Constraints on sustainable livelihoods

For people's livelihoods to be sustainable, they need to be able to withstand shocks and stresses. Various shocks and stresses have different impacts on different people in Anmatjere region. For example, market fluctuations and difficulties in procuring labour impact particularly on mining and horticulture, while consecutive low rainfall years impact particularly on pastoralists and Aboriginal people who harvest desert raisin. Changes in government policy impact particularly on Aboriginal families because of their high rate of dependence on government sources for income. Our analysis here of constraints on sustainable livelihoods, and analysis of enablers for sustainable livelihoods (Section 4.15), focuses on employment because of the importance of this issue in the vulnerability context of many people in the region. The strong theme of jobs among the aspirations of Aboriginal people in the region (Section 4.11) may reflect their acknowledgement of this vulnerability.

Many Aboriginal interviewees perceived a shortage of jobs as the problem. They said:

[There are] not that many jobs [on grape farms]. Just picking, pruners, harvesters ... planting trees. Not a lot, I don't think so. Bit of mechanics.

[Young people] wait too long, when they go to Jobshop, they have to wait too long, two months, two or three months, four months. It takes too long. 'Cos there aren't any jobs available. It takes too long.

[I can't get a job as a teacher here because] they already have someone here working at the school. Back home our school had 64 kids [which meant more jobs].

There are only a few jobs.

No jobs and juggling childcare [makes it hard].

And the following Aboriginal interviewees did not see jobs being available beyond the government/community services sector or CDEP:

Employment of Aboriginal people is very good here. The council, aged care, school, health clinic, all employ Aboriginal people. We need more jobs but what can you do?

No jobs here. [There are] no jobs at Anmatjere [CGC] because CDEP is finished.

These views are contrary to those suggested by employers and some other stakeholders that there is a strong and growing labour market in the region. This indicates differences between two groups in human assets (e.g. knowledge and understanding of what jobs are or may become available, particularly in the private sector, and skills required for particular jobs), social assets (e.g. networks with employers) and physical assets (e.g. car ownership or access for travelling to jobs).

Some saw the challenge of childcare as needing additional resources, especially for employed mothers. For example:

Family look after kids. And someone else might be doing something else, busy, and working a job. Why can't we set up a system where family, especially mothers, can just go and work [and] leave their kids? Don't have to worry about [the kids].

Others saw reliance on other family members for childcare as appropriate and workable:

[I'd tell them:] Get your mother to give you a hand.

[New mothers can] get their mother or grandmother. My mother-in-law is here, she helps her with the kids.

Alcohol abuse and associated fighting and criminal incidents were widely identified by both Aboriginal and non-Aboriginal interviewees as problems and constraints on the capacity of local Aboriginal people to obtain and maintain employment. These activities are also associated with high engagement with the law and justice system, and some Aboriginal interviewees said they were unable to progress in their job aspirations because they had a criminal record or did not meet the requirements or a police check.

At the school there are two jobs waiting. We've gotta find a good person with no bad record [from] stealing things ... someone from [here].

Interviewees rarely talked about 'drinking' directly. For example, it was hardly ever mentioned by interviewees as something that they spent time doing (see Section 4.9). However, some Aboriginal interviewees indicated by gestures that it was the cause of problems. As well as saying that it had a serious impact on motivation for employment, some interviewees commented on more general harmful impacts that alcohol abuse is having on individuals, family and community. One presented his vision of 'retirement' in saying that when he turned 40, he would join the group of local people who are 'drinking, full time'.

4.14.1 Emerging finding 14

Many of the region's Aboriginal people do not think there are many jobs, indicating that they do not know about the work opportunities that exist, that these jobs are not accessible to them, or that the clash with their own norms leads them to judge the jobs as unsuitable, including because they would impact on time spent on other activities.

The challenges Aboriginal people face in securing employment are also intertwined with those of addressing alcohol use and abuse in communities.

4.15 Enablers for sustainable livelihoods

As noted above (Section 4.14), we focus here on factors that enable local Aboriginal people to get jobs and retain jobs because of the strong aspirations for such outcomes that people expressed. Insights into how interviewees perceive enablers for employment came from questions that asked interviewees to talk about the advice they would give to others who wanted to participate in the same livelihood activity, job, or business as them.

The advice from non-Aboriginal interviewees varied a lot according to the type of the sector the interviewees were involved in. Those in horticulture advised that others should pay attention to issues of ground water allocation and consult the NT Department of Primary Industry, Fisheries and Mines (DPIFM, now called Department of Resources) at Ti Tree. Tourism advice was to work out a business plan, get your staffing and numbers right, concentrate on people skills and relationships, and attend to cleanliness. In the mining sector, faced with a labour shortage, advice was to hire labour out of Tennant Creek.

Aboriginal interviewees' advice was less dependent on sector, and more concerned with engaging and extending social networks. It is discussed below.

4.15.1 Engaging social networks for job pathways

Some local Aboriginal people who were employed in government/community service sector described being 'picked' or 'invited' into their job. One elder said that the way to encourage people into work was to have local Aboriginal people working as supervisors at the council. Then those supervisors should ask the unemployed people to work.

Employed Aboriginal interviewees said they would counsel unemployed people who asked for advice on how to get a job as follows:

Turn up at 7.30 in the morning and [that person] will introduce him to the supervisor.

They should come along, they can ask someone.

Tell them to talk to supervisor or boss.

See me and I will introduce them to key people.

Come [here] and talk with me and I'll talk to the boss.

Go talk to [this person] or [that person].

Need to get picked by [that person].

I'd invite him. Maybe just join him in, start work. Someone's working: someone might ask you, [then] you can start. That's what everybody does. Someone invites you.

The comments indicate that employed Aboriginal interviewees see social networks as the key to getting employment. Some said that they would willingly help others by facilitating contacts with supervisors or they would directly invite job seekers to come and start work. Further, some interviewees pointed out that the strong employment record from particular families in some work places showed the effectiveness of this process.

Pastoral employers from the broader central Australian region also told us stories in the course of this research that indicate the significant role of social networks in their engagement of Aboriginal seasonal workers. One spoke of contacting a particular elder in the neighbouring Aboriginal settlement who would then tell younger men that they were needed for work, and who would tend to hold the young workers accountable if they did not do the job well. Another said that his regular Aboriginal employee would find a substitute if he was not available to work. One other employer, speaking of the challenges of engaging seasonal labour in the region, spoke to his need for 'one initial contact person who you could go to, to organise local workers – maybe a local person, some sort of leader.'

4.15.2 Volunteering and being noticed

Employed Aboriginal people also recommended that others should volunteer for tasks as a pathway to paid work, and should be forthright about registering their interest in work.

[For housing job] ask them to join the housing mob, just go there and help.

We can put them on wages if they really work.

Just go in to the interpreting service office and sign in.

Go in and do an introduction.

Just start on 8 am to 12 pm [i.e. start by working part time]. I used to do that and come back here and help this mob. Signed my timesheet 8–12.

In discussing starting points for getting a job, several Aboriginal people mentioned 'picking up rubbish'. For example, one Aboriginal interviewee commented that unemployed Aboriginal people should:

Do something, such as pick up rubbish and rake, instead of sit around at the pub.

Rubbish removal is probably the most high profile work in settlements. At the time of project fieldwork it was typically done by male CDEP workers. However, it is work that is accessible to most residents since it does not require a high level of skill, and motivation is enhanced by being part of a work 'gang'. Some Aboriginal interviewees indicated their tacit understanding that those people who 'pick up rubbish' around their settlement are more likely to get 'picked' by non-Aboriginal staff for other work or other responsible roles. We infer that these interviewees see 'picking up rubbish' as important in non-Aboriginal culture and a way that Aboriginal people can demonstrate they have a cross-cultural understanding and are suitable for employment opportunities or representational roles.

4.15.3 Effective training

Many interviewees said they would advise others who want to do what they are doing to develop their skills. Nevertheless, Aboriginal interviewees rarely talked about training courses. When they talked about learning new skills they would commonly say that 'elders will teach me' or that someone that they know would be able to help them directly.

He taught me to paint. I used to sit next to him and watch. Young people should sit and watch. [They should] learn what to do from old people.

Another common response was that other people ‘should come and talk with me and I will show them’. This person-to-person method of learning, which is strongly linked to traditional methods, also serves to establish and reinforce social networks and associated obligations. Outcomes that interviewees expected from this kind of training ranged from overcoming shyness and speaking English better, to becoming qualified for a particular work role.

On-the-job training and co-learning were also training strategies mentioned by employed Aboriginal people during interviews when they commented on the advice they would give to others. They said:

Improve English language and literacy skills.

I would ask: Have you done the training? Can you talk to someone if they come here? [i.e. not shy].

[I'd] just say, just go for it! [I'd} teach them something they'd done before.

We could train each other!

Do observations, work alongside an Aboriginal fully trained qualified teacher.

When she's comfortable with supervising, I'll start teaching her my coordinator role, I'll show her the reports and the paperwork. It might take two or three years. She might do training in Darwin at [training provider] for Certificate 3.

Formal training (through a Registered Training Organisation such as Batchelor Institute, Charles Darwin University or the Centre for Appropriate Technology) was rarely raised by interviewees as the way to improve skills or realise aspirations, although there are some examples:

Tell them to go to school to speak, read and write.

I'd try to ask them, what they want to do in life. Get them trained up. Ring someone in town; they could see someone, see what might happen with their training. Can get on-the-job training here.

Would tell [them] to talk to the [organisation's] staff; get [training organisation] people to enrol her. There are new apprenticeships going around here now. Training in mechanics.

Non-Aboriginal interviewees tended to have a stronger focus on education. Some said:

Go to university ... if Aboriginal, start out as a health worker and go from there.

For this job the only thing that's really critical is no criminal record and some education.

4.15.4 'Two ways'

Working effectively across cultures requires understanding and respect for different social norms, and effective negotiation skills. Interviewees noted the importance of understanding both Aboriginal and non-Aboriginal culture and ways of doing things:

I just want people [in this region] to be strong in beliefs and cultural practices and be strong in white society – to be in two worlds. Some people are too much in the Aboriginal world, others too much in white culture ... That's the big missing link up here. People need to understand both worlds. Two-way learning.

Aboriginal interviewees stated that it is hard to speak ‘two ways’ and few claimed to do so. Some talked about their personal strategies for operating between Aboriginal and non-Aboriginal domains.

I've got my two worlds. [At home] I switch off and go back to my world. People see you as an outsider if you don't [i.e. if you act like the clinic worker at home]. I can't tell older people what to do. I've got to hold off from saying stuff, some people don't go out and see the world like I do. It's important so that you don't put yourself in a place where people judge you.

If I have [family problems] I come to [work], I put my [work] hat on and take my home hat off. When I go home I take my [work] hat off and put my home hat on. That's how I get on: it stresses you out if you wear two hats.

4.15.5 Emerging finding 15

Social networks, rather than standard job search strategies, are seen by Anmatjere people as providing pathways to jobs. Engagement in a diverse portfolio of activities and patterns of short-term switching between jobs and other activities, especially among Aboriginal people, maintain social networks and enable these to operate in ‘inviting’ or ‘picking’ people into jobs.

There are significant challenges for people of Anmatjere region in working ‘two ways’ that a broad and flexible approach to training might help to address. Effective training is likely to encompass mechanisms that Aboriginal people nominate as effective: one-on-one learning and mentoring, co-learning, and on-the-job learning.

4.16 Semantic knowledge networks

Semantic network modelling is a way of analysing the concepts that people used in interviews and discussions. These ‘concepts’ may be tangible things (such as ‘food’ or ‘CDEP’) or they may be more abstract (such as ‘role’ or ‘knowledge’). Each concept is an actual word or phrase that people from the region used in project interviews and discussions. We used a computer-based analysis to identify the most common concepts that people used and how these were used in conjunction with other concepts. From these data, computer analysis developed a network model of the statistical relationship between different concepts. This network represents the way that the people who were involved in the research were thinking about the region and their livelihoods in the region. We used this technique to make a collective view, drawing on all the project interviews and focus group discussions. Hence the resulting semantic network does not identify differences between individuals or between different types of people.

The semantic network model reveals some key characteristics of overall importance in the way people of the region think about their region and their livelihoods (see also Alexandridis et al. 2009).

- Five key concepts are responsible for the character of the region. These are (a) the sense, function and purpose of the regional community as a collective entity; (b) ways of doing things, which are associated with local Aboriginal cultures; (c) the suite of activities that are undertaken by the region’s people as part of their livelihoods (Section 4.9); (d) the presence and enabling role that the council (then Anmatjere CGC) plays in negotiating emergence of livelihoods at the collective social level; (e) the central role of family as a key actor in livelihoods of the region’s people.
- The collective understanding of the region’s residents about livelihood and employment is highly coherent. That is, the many diverse concepts that various different people mentioned are all closely knitted together. The modelling also showed that this coherence depends on only six key concepts: family; Anmatjere (region), (livelihood) activities, cattle (grazing), the dominant extensive land use; and opportunity. In the network model these concepts are all closely connected to each other except for opportunity. This indicates that when people talked about opportunities, they did not relate these to the other key concepts that people saw as important to livelihoods and jobs. It suggests a strong mismatch between the way that people relate to their region now, and what they see as opportunities for their future.
- The connectivity between the concepts of income, government, council, ways of doing things and community is the foundation for the current social structure of the region. This echoes the dependence of many people on government, through social security payments for income and through community services funding. The connectivity between these concepts indicates there is a risk that change in the region, which might reduce some of this dependency, will also fracture positive elements of the region’s social structure.

5. Discussion

In this section we focus on the implications of our data analysis and emerging findings for options about sustainable livelihoods in Anmatjere region; that is, livelihood systems that generate health and wellbeing for people without degrading people's stock of assets. The research has found that, while people of the region are very diverse, there are some clear differences between the livelihoods of most Aboriginal people and most non-Aboriginal people. Some gender contrasts are also apparent, though this has not been a main focus of our analysis. Similar analysis on the basis of age might also reveal clear differences but the small age-cohort sample size for this study has not allowed such analysis.

Most Aboriginal people live in the region because they consider the region, or a particular place in the region, is their home. They feel a strong sense of place: attachment or belonging to the region and to other people of the region. Aboriginal people of the region tend to engage in multiple livelihood activities. These may include employment, especially in the community services sector. Generally they have a core emphasis on family life, cultural and creative activities, and engagement with traditional country, such as through hunting.

Most non-Aboriginal people are in the region for work, though for many this is a long-term commitment. They tend to be in paid employment or running businesses. Work-related tasks are important to them. Their options and opportunities are often constrained by underdeveloped infrastructure and difficulties in securing employees. The lifestyle that the region affords is important to them, though their stresses are often related to heavy demands from their employment or business. Aspirations are varied but tend to focus on career or retirement.

Many Aboriginal people's aspirations for themselves are also job related, and they aspire for their children to have good education and jobs. Further, there is a strong aspiration among Aboriginal people to engage more with customary cultural activities and with the development of their homelands/outstations. This sits comfortably with their aspiration for more jobs only if there is a strong labour market for this kind of work, which is not the case. Their own engagement in paid work activities tends to be opportunistic, with rapid switching between jobs and conflicting demands on time from other activities. Rapid switching is promoted by seasonality and the short-term nature of paid work and training opportunities. The paid work activities they undertake commonly also involve other people from their kinship network.

In analysing livelihoods in Anmatjere region, we are seeking to understand what might be characterised as a 'poverty trap' and to identify factors that may help shift the region and the livelihoods of its people to a healthier state. Poverty traps exist where self-reinforcing mechanisms cause poverty and social inequity to be perpetuated (Bowles et al. 2006). Given the existence of these mechanisms, the view that any individual can escape poverty through their own effort and determination is misguided.

Poverty cannot be solely assessed by the amount of material wealth. Rather, it is a lack of 'human capability' (Sen 1997), meaning the lack of ability that people have to lead lives they have reason to value and enhance the substantive choices they have. Low income, poor education and health all contribute to a widespread lack of human capability in the region, particularly among Aboriginal people. They also contribute to a lack of human capacity (skills, knowledge, etc) among Aboriginal people for mainstream employment, even though their knowledge and skills related to Aboriginal cultural practices may be strong. The current poor health of Anmatjere region's social and economic systems is indicated by the substantial inequities in income between Aboriginal and non-Aboriginal populations of the region and between regional populations and the averages for Australia (see Section 2.9). Globally, this kind of relative inequity in income is strongly associated with poor human health and with social tensions, or lack of social cohesion (Wilkinson 1996, 2005). Relative inequity has a more powerful impact on wellbeing than absolute poverty.

While a lack of human capacity limits the substantive choices available to Aboriginal people of the region, our findings also indicate that Aboriginal people of the region are optimistic and speak of enjoying their lives, notwithstanding frustration and sadness about some dimensions. Hence a lack of ‘human capability’ in the region should not be overstated. Given this situation, the situation of the region is better characterised as being in a ‘rigidity’ trap than a ‘poverty trap’ as explained below (see Section 5.6.3)

Employment is the most common approach for Australian families/households to move out of poverty. As noted above, employment is an aspiration that is widely shared among Aboriginal and non-Aboriginal people of the region, as well as governments. Hence we begin our discussion by examining generic variables that account for the employment, or lack of employment, of local people in the region. We then relate these factors to the sustainable livelihoods framework and to action areas identified by local people as important to people getting a job and staying in a job. Institutions (formal rules, laws and politics and informal norms) and social assets (relationships, networks) are highlighted as particularly important elements in this analysis, and their nature is discussed in theory and in relation to the region.

Broader questions of regional sustainability are then considered in this discussion, taking account of principles for sustainable development in desert regions and questions of resilience. We discuss how action areas identified as important for local employment might be operationalised in approaches to sustainability for livelihoods and the region. Finally we reflect on our use of the sustainable livelihoods framework in this research and its value.

5.1 Connecting people and jobs in Anmatjere region

Five interrelated variables that can account for the employment, or lack of employment, of local people in Anmatjere region are:

- **Availability:** the number of jobs in the region
- **Suitability:** the assessments that an unemployed person makes of the fit between their own circumstances and a particular job, and that an employer makes of the fit between a prospective employee and the requirements of the job
- **Accessibility:** the distance between an employee and an available job. This has both physical dimensions (e.g. transport) and social dimensions (notably whether employers and prospective employees know each other or have ways of connecting with each other).
- **Capacity:** the skills, fitness and time required for a prospective employee to do a job.
- **Motivation:** the urge or drive that a person has to be employed, which is related to the benefits they perceive they would get from the job relative to the costs.

The ‘emerging findings’ developed and reported in Section 4 have strong implications for each of these five variables, as summarised in Table 5.1. In the case of job availability, and also capacity, the emerging findings highlight the relative lack of jobs that engage diverse Aboriginal skills. This helps to account for Aboriginal perceptions that there are few jobs in the region. For job suitability, the emerging findings highlight mismatches and tensions between workplace norms and Aboriginal cultural norms. These lead potential employees and employers to deem each other as unsuitable. The emerging findings also indicate that gaps in social networks and poor regional infrastructure are significant factors in reducing the accessibility of jobs. All these factors contribute to low motivation among many Aboriginal people of the region to engage in paid work. The relevance of the emerging findings to each of these five variables is discussed further below.

Table 5.1: Implications of emerging findings on interconnected variables that are important for connecting people to jobs in Anmatjere region

		Implications for requirements for people to connect with jobs				
Emerging Finding No	Summary features of emerging findings (from Section 4)	Availability	Suitability	Accessibility	Capacity	Motivation
1	Diversity of the regional population	Available jobs do not match the diversity of knowledge, skills and circumstances of people in the region				
2	Strong commitment to living in the region	Job growth needs to keep pace with population growth		Many people are unlikely to move to other areas for work	Limited opportunities in the region for education and training	
3, 5	Strong Aboriginal cultural norms and dense social networks		Tension with workplace norms	Few networks with employers	Cultural skills are not highly valued in available jobs	Motivation is low for paid work compared to spending time with family
4	Sense of responsibility to look after country	Few jobs in 'caring for country'				
6	Aboriginal income levels are low and becoming less reliable		People may be forced to reassess the suitability of available jobs			People's motivation to get a job may increase, or else their reliance on family may increase
7	Poor housing, transport and roads			Difficult to travel to jobs	Reduces people's ability to engage with work, build skills	Difficult to maintain workplace norms
8	Strong traditional knowledge and skills but low literacy and English	Few jobs engage traditional knowledge	Affects employer's assessment of a person's suitability	Limits social networks between unemployed Aboriginal people and employers	Most jobs require some level of literacy and English communication	
9	Seasonality and plurality of Aboriginal livelihood activities		Time commitment required for fulltime work conflicts with other activities		Aboriginal people have diverse skills and tend not to have highly specialised skills for particular jobs	People's enthusiasm often comes from the diversity of their activities
10	Most people in the region enjoy what they do					Motivation might be higher if more jobs involved the kinds of activities that Aboriginal people do in caring for family and country
11	Aboriginal people have a more cautious approach to development than non-Aboriginal people	Aboriginal people may not support development just because it brings jobs	Attitudes to development may influence Aboriginal assessment of suitability of particular jobs	Social networks between Aboriginal people and employers need to be built in conjunction with development planning	Human capacity building is needed in conjunction with development of physical capital	
12	Vulnerability and uncertainty about the future affects both Aboriginal and non-Aboriginal people	Horticultural and mining jobs are vulnerable to markets; government jobs are vulnerable to policy change.				Motivation is often low when people have little sense of control over their future
13, 14	Clash of norms between workplace and Aboriginal cultures	Aboriginal people think there are few jobs	People assess potential jobs or potential employees as unsuitable because of clash of norms	Clash is reflected in separate dense social networks of employers/workers and unemployed Aboriginal people	Relatively few Aboriginal people understand workplace norms; alcohol abuse reduces capacity to comply with workplace norms	Aboriginal people's unfamiliarity with workplace norms reduces motivation to engage in work
15	Working 'two ways'	Would improve information flow about available jobs	Would promote mutual understandings about suitability	Enhanced social networks would provide better pathways to jobs	Both Aboriginal and employer capacity need to be addressed	Likely to increase motivation among Aboriginal people

5.1.1 Availability

It is clear that different people have different perceptions of how many jobs are available in the region. In particular, Aboriginal people consider that there are fewer available jobs than do employers and other stakeholders such as government agencies. These differences in perception reflect the different information held by different people in the region. Information asymmetries are perpetuated by the relative lack of linkages between employers and prospective local employees. There are few ways for employers and prospective employees to efficiently share information about job availability. For example, we observed there was no active or established labour pool contractor engaging local people, and little information sharing between settlements.

5.1.2 Suitability

The assessments of employers and prospective employees about each other's 'suitability' are strongly influenced by culture and by the norms (ways of behaving, or informal institutions) that are embedded in culture. Gender and age also affect assessments of suitability. Further, work roles that a young person may consider suitable may be assessed quite differently by an older person. This is a particularly pertinent issue because many Aboriginal people in the region have a pattern of employment that has developed from quick cycling through successive jobs at base level or as trainees. Our data do not permit a fine-grained analysis of all the factors affecting suitability. Discussion of the issue here focuses on differences between Aboriginal and workplace cultures.

Just as non-Aboriginal people need to learn about Aboriginal cultural protocols in order to know how they should behave in Aboriginal cultural domains, so unemployed Aboriginal people need to learn the protocols of 'workplace culture' in order to know how to behave in a workplace. Operating to workplace norms requires employees to take on a particular set of habits, usually including regularity, punctuality, dress code, personal hygiene, sobriety and cordial, cooperative relationships with work colleagues and customers. While some such norms are typically spelled out by employers, others are embedded in workplace culture and may well be unspoken. When rules and norms are unfamiliar, people face the risk of unwittingly breaking them. Differences between cultural norms thus create significant stresses and challenges for employers and prospective Aboriginal employees.

For example, the workplace norm that dictates reliable attendance can clash with the Aboriginal cultural norm that dictates being with family members for 'sorry business' after a death. Absences in these circumstances may occur with no warning, and may extend for many days or weeks. Due to past experience of the costs to business from such disruptions, some employers consider local Aboriginal people as simply unsuitable as employees. However, other employers have been able to develop systems to accommodate these absences (discussed further in Section 5.4.3). Employers' capacity to do so is in part determined by their creativity and willingness to adapt and also by the nature of their business, since this influences the cost to the employer of such absences.

Public sector and community service employers in the region tend to have established procedures that allow them to accommodate Aboriginal cultural norms such as sorry business while maintaining capacity to get the job done. These workplaces tended to have relatively high Aboriginal employment.

Private sector employers typically find it very costly to adapt the requirements of their workplace to Aboriginal cultural norms such as sorry business. Most have few networks, information, support or experience for this adaptation and the nature of their business may mean economic losses are high if tasks are delayed, for example, during pruning or harvest of horticultural crops. Hence private sector employers may readily judge local Aboriginal people to be unsuitable for jobs they have available. Mirroring this, Aboriginal people may readily assess jobs as unsuitable if they consider work conditions to be too hard, or of a low standard or if they interpret behaviours of employers and workmates as discriminatory or racist. As a result of such factors, private sector employers tend to have low Aboriginal employment. The pastoral industry is an exception to some extent. It is likely that shared

long-term experiences and sense of place help to bridge between workplace and Aboriginal cultures in this industry.

Other factors influencing Aboriginal assessments of job suitability are the customary relationships, rights and responsibilities that Aboriginal people, as individuals and as kinship groups, have to their traditional estates. These are relatively strong in Anmatjere region, as indicated by nearly 80% of the Aboriginal people interviewed reporting that they have responsibilities towards caring for country (Section 4.4). Notably, a job may be dismissed as unsuitable by an individual if it is in a location where they do not have clear authority or permission under Aboriginal cultural norms to be or to work. Traditional owners and custodians may have customary authority to choose workers for jobs that are available on their traditional estates. Aboriginal people may also judge a job as suitable or not depending on their kinship with the other Aboriginal people they will be working with.

5.1.3 Accessibility

Accessibility refers to physical and social distance between prospective employees and jobs that are available and deemed suitable. Physical distance refers to transport requirements and travel involved to go to work. Social distance relates to how job seekers and employers interact.

This research has not engaged closely with issues of physical accessibility for work. Clearly, it is important that people have the means to travel easily to their workplace. Nevertheless, we suggest that social factors are more significant determinants of accessibility in this region than physical factors.

As the discussion above on ‘suitability’ illustrates, employers and unemployed Aboriginal people tend to operate in different socio-cultural environments. We have found that social relationships are engaged by Aboriginal people of the region and by some employers to ‘pick’, invite and mentor individuals into work. This indicates adaptation of Aboriginal customary norms of kinship to workplace environments. However, the potential impact of this practice is limited because the social networks linking employers and unemployed Aboriginal people tend to be poorly developed. Aboriginal people of the region access their social networks of relatives and friends to get work but, as Hunter (2004) notes, they are often relying on people who are also unemployed or in low-paid and low-status jobs rather than in positions of influence.

5.1.4 Capacity

Aboriginal people in Anmatjere have strong traditional and local knowledge and bush skills. However, these skills are not well exercised in paid work. Income earning opportunities through customary or modified customary activities (including art, music, bush tucker collection and community ranger work) are currently underdeveloped in the region. Yet such activities could be expected to engage Aboriginal cultural knowledge and skills and motivation, and strengthen confidence and identity more strongly than unfamiliar workplace duties. They also promote people’s sense of control over their lives and address psycho-social determinants of health (Campbell et al. 2008).

Aboriginal people in the region, especially older people, tend to have a large range of skills acquired from the diversity of livelihood activities they have engaged in over their lives. This displays a capacity to engage in unfamiliar work, but suggests barriers to longer-term ongoing engagement. It also indicates that they would not have developed very high-level skills in any one occupational area.

Literacy and communication are basic skills required for many jobs. Lack of functional literacy and English language communication skills restrict many Aboriginal people’s options in searching for and securing employment. Most labour work requires physical fitness. Extremely poor health, short life expectancies and high rates of alcoholism are factors that reduce many people’s capacity for employment, especially in very physically demanding work such as some horticulture and pastoral industry tasks. Time spent in caring for family, particularly children and old people, can also limit people’s capacity to engage in paid work.

5.1.5 Motivation

Aboriginal people have a poor reputation with some employers who consider them to have low motivation for work and a poor work ethic. The factors discussed above, particularly the clash between cultural norms and workplace norms, help to account for such attitudes.

For people to be motivated to work in a job, the benefits they get from the job must be greater than the costs they incur. The low engagement with employment by Aboriginal people in Anmatjere region indicates that the benefits they perceive from work are less than the costs. Financial costs include the costs of searching for a job, plus foregone social security income, and they may include foregone income from supplementary activities such as art and card games because people lack time to engage in these. Child care and transport costs are also pertinent. The social costs of working include the reduced time available to spend with family and engage in customary activities.

The seasonal and temporary nature of many of the current jobs in Anmatjere affects the costs and benefits of working in a job. It can compromise effective engagement with workplace culture, and provide only transitory benefits to individuals in terms of extended social networks and the contribution of the work environment to self esteem and identity. Short-term jobs also increase the burden of learning new norms and rules at each new workplace. Moving in and out of work can be disruptive to people's engagement in other activities that are important to them. Such factors work against unemployed Aboriginal people developing strong motivation to work in an available job.

Monetary income and its flow-on benefits for individual autonomy, security and choice of lifestyle are important, though not exclusive, reasons why most people work. The benefit to Aboriginal people in Anmatjere region from monetary income is less than that for many other Australians because money tends to be readily dispersed within kinship networks through 'demand sharing' behaviours (see Section 5.5) while security is widely seen to be a function of those social networks, rather than of material wealth. Peterson (2005: 13) concludes that 'demand-sharing' is a disincentive to employment, and a significant reason for low engagement by Aboriginal people in central Australia with the workforce. It operates against the accumulation of material wealth by individuals. However, where Aboriginal people do have a specific need for money that is unattainable through reliance on low social security incomes, such as purchase of a motor vehicle, they may engage in 'target working' (Peterson 2005: 11). This purpose provides a motivation to work and mechanism to resist, at least temporarily, the demands of relatives to share money.

'Target working' would contribute to the pattern of short-term engagements with employment that characterise the region's Aboriginal population. However, target working is likely to be a less effective strategy where piece work rates are paid, as for many horticultural tasks. High earnings require a fast work pace, which can be difficult for people who move in and out of the workplace and are not experienced in and fit for the tasks required.

Non-monetary benefits can be strong motivators for many people to work. Loyalty or a sense of personal relationship and obligation to a boss can be very important to Aboriginal people (Myers 1991). However, benefits such as respect and status through doing a socially valued role or the challenges of developing new knowledge and skills can be hard to sustain in low-skill or low-income jobs. Peterson (2005: 13) comments, in relation to Aboriginal motivation to work in low-skill jobs at Yulara resort, that selling their labour at the bottom of the market is only likely to become attractive to Aboriginal people if all other alternatives to securing a living are closed off. In Anmatjere region people without an income from work or even from social security look to family and to hunting as alternatives to secure their living. To motivate them, working in a job needs to be more attractive and accessible than these other options.

5.2 Impact of employment variables on sustainable livelihoods

The five interrelated variables discussed above impact on the key factors and relationships that are important to consideration of livelihoods and their sustainability and that are represented in the sustainable livelihoods framework. Figure 5.1 shows these relationships.

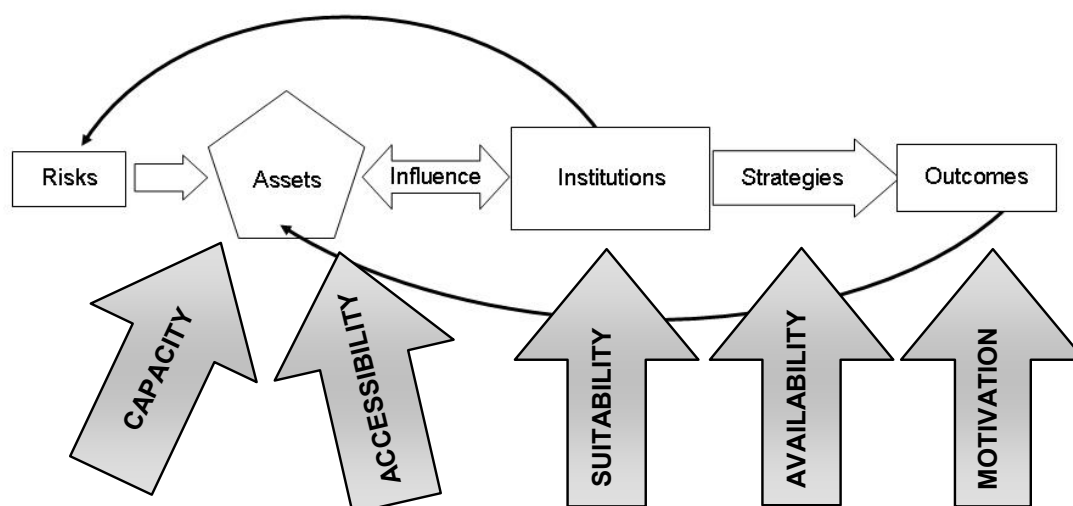


Figure 5.1: Main impacts on sustainable livelihoods of variables that account for employment or lack of employment

Availability of jobs impacts most directly on the livelihood strategies that Aboriginal people apply. As noted above, availability is not simply a question of whether jobs exist. It is related to assessments by both prospective Aboriginal employees and employers of suitability. Mismatches between the informal institutions of workplace norms and rules and the norms of Aboriginal culture have a considerable impact on assessments of suitability. Hence suitability is shown in Figure 5.1 as impacting most directly on institutions (i.e. norms or ‘rules’).

Accessibility, both social and physical, is an employment variable that is closely related to assets. Physical dimensions of accessibility are related to physical and financial assets: the availability of transport, roads, childcare and housing. Where these are available to people, they are ‘assets’ that can be drawn on to engage in employment or other livelihood strategies. The social dimensions of accessibility that this research has found to be important in Aboriginal job search strategies are related to social assets, or social capital, which is a property of the relationships that people have with others, as discussed further below.

Capacity is an employment variable that is also closely related to assets, specifically human assets: skills, knowledge, knowhow, health and fitness.

Motivation is an employment variable that is most closely related to outcomes from livelihood systems. As the feedback arrow from ‘outcomes’ to ‘assets’ in the sustainable livelihood framework indicates, the outcomes that people secure from their livelihood strategies feed back to build (or deplete) people’s assets. Motivation, the will and enthusiasm to do something new, or to keep on doing something familiar, is a critical ingredient for people to build their assets. Motivation can be expected to be highest when people are building their ‘capability’, or their ability to live lives they have reason to value (see Section 1.4). ‘Meaningful’ employment is a commonly used phrase in central Australia, with

this connotation. As indicated by the location of ‘influence’ in the sustainable livelihoods framework, between assets and institutions, the nature and strength of people’s assets determines what influence they can have on institutions.

Under the impact of the variables described above, the outcome for whether an individual gets a job or stays in a job is determined by their own agency, that is, their own actions in job search and employment-related behaviours. This is determined by how that individual ascribes value and meaning to things such as employment status and income, with substantial differences among individuals apparent from our findings. Value and meaning is determined by the structures of Aboriginal culture, workplace cultures, and mainstream Australian cultures more generally, as the collective social norms or rules that these cultures establish influence individual assessments of value and meaning.

5.3 Action areas for getting a job and staying in a job

Three clusters of factors that affect people getting a job and staying in a job were identified at a project workshop of Aboriginal people from the region who were employed or who had recently completed prevocational training, and representatives of agencies working in training, employment and project management in Anmatjere region. Workshop participants talked about how employment has interacted with other things that are important in their lives. They gave a name to each cluster of factors (see sub-headings below) as a summary of issues that they considered need to be addressed through action in order to promote Aboriginal employment. These action areas are:

5.3.1 Knowledge and understanding

‘Knowledge and understanding’ captured the need to work to people’s strengths and engage in life-long learning. Participants recognised that learning needs to be much broader than training courses, and also that training courses were poorly targeted to skills that are in demand, such as machinery operation. Participants commented that family background shapes people’s outlook and this could be very narrow. Aboriginal participants expressed a need to ‘catch up’ on understanding how broader society and economy operates as well as information on workplaces; welfare dependency had meant they had ‘lost time’ for knowledge and understanding. More learning was also seen to be required in relation to Aboriginal bush knowledge and traditional land management responsibilities. This should engage Aboriginal networks and include peer-to-peer learning. In general, education – broadly defined – was seen as a key to getting a job, and staying in a job.

5.3.2 Role models

Role models were seen as important to Aboriginal people of the region getting a job and staying in a job. Participants said that influential role models come from community leadership which can be achieved through elected positions, voluntary work and cultural responsibilities, as well as through paid work. Role models have a good balance between work life and out of work life. They are reliable and they don’t drink, or they may have ‘a few beers on the weekend’. People’s motivations to be role models include doing something good for family, helping others who have given help, and ‘proving yourself’. Persistence is very important for role models. Role models need their families to be strong to help them manage stress, so respect and support from others for the families of role models is important.

5.3.3 Two laws, one set of rules: working together

Participants discussed the importance of everyone having the choice to live a life that makes them happy and that they enjoy. This requires that the two laws in the region (from government and from Aboriginal culture) make one set of rules for working together. Problems for this aspiration are caused by change that is too fast, and decisions made from outside that impact on the control local people have over their lives. There is a real need for decision makers to listen to local Aboriginal people first if the needs of the economy, employment and regional development are to be addressed. Participants discussed

examples of how employers fit work requirements around non-Aboriginal seasonal events such as Christmas, Easter and the Finke Desert Race weekend in Alice Springs. The same kind of consideration is needed for Aboriginal cultural times to get one set of rules for working together. Participants also thought that infrastructure issues that impact on Aboriginal employment would get better recognition if there were good processes for working together. These include childcare, transport to workplaces, and housing.

These three action areas impact across the five interacting variables that are discussed above and, similarly, each factor also has a relationship to particular parts of the sustainable livelihoods framework, as indicated in Figure 5.2. ‘Knowledge and understanding’ relates to assets: to human capital and also to social capital, because relationships between people (social capital) are a very important way that knowledge spreads and that understanding is built. ‘Role models’ can be thought of as outcomes of livelihood systems, the kinds of outcomes that participants at this project workshop would like to see more of. ‘Two laws, one set of rules working together’ relates particularly to the institutions area of the sustainable livelihoods framework. It is what enables ‘role models’ to emerge, as well as having other benefits for social cohesion and employment. For example, assessments by employers and prospective Aboriginal employees of each other’s ‘suitability’ will be increased where both groups have ways to understand and accommodate each other’s cultural norms. The more knowledge and understanding that people have, the more they can impact on getting good systems for working together across two laws.

Two recurring themes in the above discussion – institutions, and social capital – are particularly important to people’s capacity to adapt and transform (Walker et al. 2006). We discuss these themes further below, in theory and in relation to livelihoods in Anmatjere region and regional sustainability.

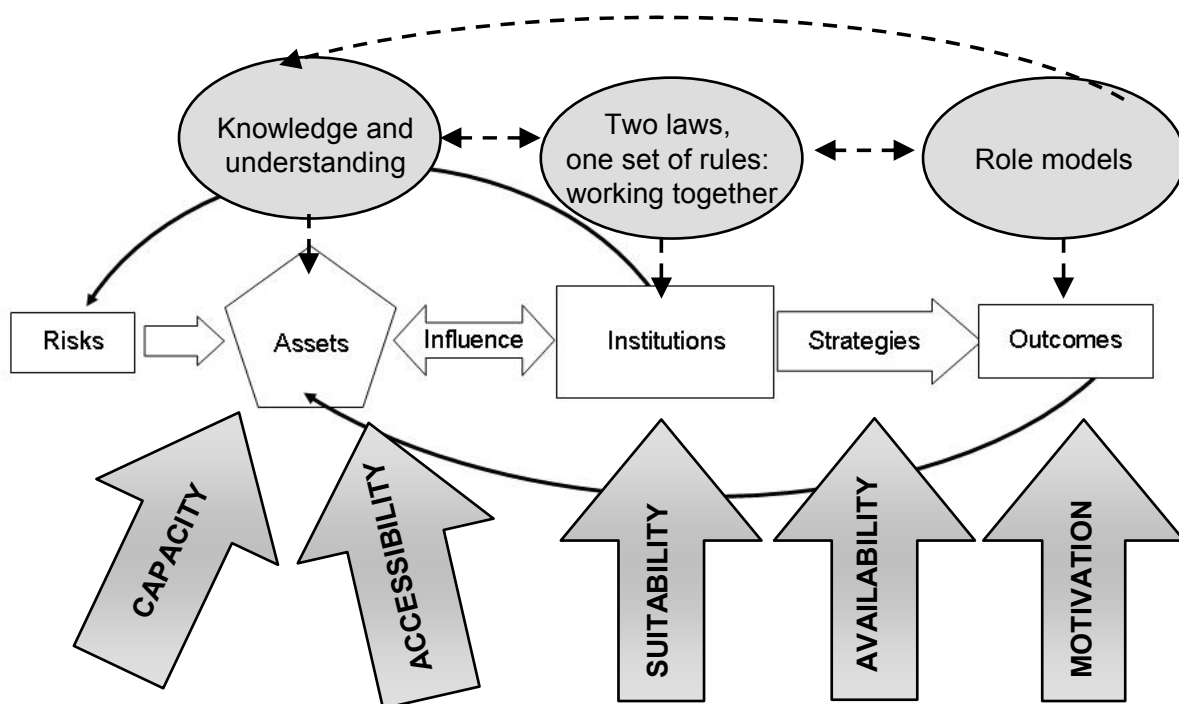


Figure 5.2: Impact of identified action areas on sustainable livelihoods

5.4 Institutions and institutional change

Desert people are faced with enormous social and ecological uncertainty as a result, ultimately, of variable rainfall (Stafford Smith 2008). This heightens the key role for institutions in promoting collective action and helping people manage uncertainty. Institutions regularise people's patterns of behaviour and actions. A key role of institutions is to promote cooperative collective behaviour (Ostrom 2005). This requires people to share institutions; that is, to have the same understanding of what is and is not appropriate behaviour. People who share institutions know what to expect from interaction with each other and the surrounding environment. They share regularised routines and ways of behaving that provide predictability and what Giddens (1984) refers to as 'ontological security'. In this way institutions assist people to manage uncertainties, whether these arise from social relations or from their interactions with the natural environment (Johnson 1997, Leach et al. 1999, Maru 2000).

Institutions may be formal, such as legislation, policy and procedures of the Northern Territory and Australian Governments. Consequences for not complying with formal institutions may include fines, jail or restricted access to government services.

Other important institutions are informal. These are norms or expected ways of behaving that are often not written down. They include culturally based protocols for establishing and maintaining relationships with other people, and the ways that people are expected by others in their social group to behave at work, at home or in various other situations. People who do not comply with such protocols and expectations face consequences such as ostracism or shaming or exclusion from a social group. Informal institutions are thus very important in establishing and maintaining trust between people.

Findings from this research have shown that the existence of two sets of informal institutions – the norms of the workplace and Aboriginal culture – has a strong impact on the connection, or lack of connections, between people and jobs in Anmatjere region. The ability of individual people to meet the requirements of these informal institutions determines their perceptions of availability and suitability of employment/employees, and also the availability of other livelihood strategies such as art or family-based childcare. The tension between workplace and Aboriginal cultural institutions indicates that the region's people do not have a strong shared foundation for cooperative collective action.

If institutions are to be effective and relevant in people's lives, people need to be able to collectively evolve or change them in response to changing circumstances, opportunities and risks. That is, institutions need to be adaptive. Issues of institutional change in the region, and the influence that the region's people have on this, are discussed below.

5.4.1 Change in formal institutions

Formal institutions of government have a major role in the lives of Aboriginal people in the Anmatjere region. This is because high dependence on government sources for income and major assets such as housing makes the Aboriginal population particularly vulnerable to changes in government policy over which they have little influence. For such reasons Moran et al. found that the sustainable livelihoods framework needs to be redrawn to portray the pervasive impact of government on the opportunities and constraints for Engawala community's livelihoods (Moran et al. 2007) (see also Section 5.8) However, we did not find it necessary to redraw the framework. For our purposes the significant role of government in the livelihoods of some of the region's people could be effectively addressed by analysis of the role of formal institutions in livelihoods.

Significant changes to formal institutions were underway in the region during the period of this study, as a result of the NT Emergency Response, establishment of Central Desert Shire Council, changes to CDEP and the transfer of various servicing responsibilities between the Australian and Territory

Governments. Disquiet about the changes, confusion and disengagement expressed by some of the region's people indicated that far from helping to manage the impact of uncertainty on local people's livelihoods, formal institutions were exacerbating uncertainties.

Such changes to formal institutions do not depend on the cooperation or compliance of particular groups of local people for their existence as long as there is a broad consensus of the majority of society and confidence in political leadership. Anmatjere people are invariably a small and distant voice in the processes that formulate the legislation and policies that the Australian and Northern Territory Governments apply to the region. Feedback to legislators and policy makers on the operation of these institutions in Anmatjere region is also limited. This restricts the capacity of these institutions to be adaptive to the positive or negative impacts or outcomes that they generate in the region. As Moran and Elvin (2009) discuss, this situation is widespread in remote Australia.

People from the region have had comparatively greater influence over local- and regional- scale formal institutions than they have over legislation and territory or national policy. Examples are the operational rules that were made by Anmatjere CGC and its role as CDEP provider (to mid 2008); inputs to the revision of the Ti Tree Region Water Resource Strategy (NTDIPE 2002) through the Anmatjere Kwatye project (Rea & Anmatjerr Water Project Team 2008); and land-use agreements governing mining and horticulture. In our research we found that the region's people were quite confident in the capacity of local and regional organisations to make effective operational rules. In particular our field work, shortly before the Anmatjere CGC was amalgamated as part of Central Desert Shire Council, found a widespread view in the region that the Anmatjere CGC was doing 'a good job'. Its central role in the region's character and for collective social action was also highlighted by our semantic network analysis. Sanders and Holcombe (2008) also comment on Anmatjere CGC's track record of working 'quite well'. The challenge for Central Desert Shire Council and its local Advisory Boards in developing a similar level of confidence and trust are magnified because the Shire Council has responsibilities for all the residents of the region, compared to Anmatjere CGC's responsibilities, which were restricted to Aboriginal residents and Ti Tree township residents. Important factors in addressing such challenges are respect for the balance between localism (where trust and accountability can develop) and regionalism (where efficiencies may be achieved) (Sanders & Holcombe 2008) and principles that will promote adaptive governance, such as subsidiarity, accountability and connectivity (Moran & Elvin 2009).

5.4.2 Change in informal institutions

Informal institutions are often more important in governing people's behaviour than formal institutions. They are also typically more difficult to change or slower to change, being embedded in 'culture'. Our focus in this section is on change in the informal institutions of Aboriginal culture though, as discussed above (Section 5.1.2), changes in other cultures such as workplace culture are also important to the region's future and its livelihoods.

Aboriginal culture in Anmatjere region has well-developed informal institutions. These include 'rules', such as which people have responsibilities to look after others, and 'demand sharing' practices in which people provide money or food to others when asked (see Section 5.5) They also include rights and responsibilities that Aboriginal people might characterise as being part of customary law. Such institutions are important in the decisions that Aboriginal people make about their livelihood strategies.

Culture is maintained by people's actions to enforce cultural norms or expected ways of behaving. Individuals may be censured in various ways by others – their elders, family or peers – for behaving in ways that are not consistent with cultural norms. Censure may involve telling people off, teasing, ostracism or fighting. Aboriginal people may also explain illness, accident or misfortune that they or others experience as the consequences of not complying with Aboriginal cultural norms. People's

experiences and beliefs about the material consequences of their non-compliant actions are powerful factors in promoting behaviour that complies with cultural norms. In such ways people learn and reinforce accepted ways of behaving for various social situations.

Aboriginal people will often remark, as some did during the project's fieldwork, that 'our culture never changes', contrasting this to frequent changes in legislation and government policy. Nevertheless we observe that Aboriginal culture has changed over time, and continues to do so, adapting to and shaping to a changing social, political and economic environment.⁷ Aboriginal culture of the region includes a number of norms that have developed relatively recently, and that have a major influence on Aboriginal people's capacity to adapt to workplace culture. Football, for example, involves weekend travel to other places for games and requires strong discipline and efficient transport for players and spectators to accommodate the time required without cutting into a standard working week.

The capacity of the region's Aboriginal people to adapt their culture to new circumstances, as in their engagement with football, helps to explain the important role that Aboriginal culture continues to play in their lives and identities of Aboriginal people of the region. Complementing this adaptive capacity are cultural restraints on 'too much change' that come from respect for customary law and its spiritual basis. As Abel et al. (2006) also observe, these have undoubtedly been important to the survival of Aboriginal culture in spite of the social, economic and ecological changes brought by colonisation.

However, the process of cultural adaptation has had some significant downsides for Aboriginal people and for social cohesion in the region, particularly through alcohol use and abuse. Sutton (2001) gives examples of how Aboriginal people are acculturated to see alcoholism and the family violence that often accompanies it as normal ways of behaving. He concludes that it is important for Aboriginal people to 'rethink' at least some aspects of their culture, while acknowledging the difficulties of people actually doing this from their 'insider' view. The norms associated with alcohol presents particular challenges for Aboriginal people adapting to workplace cultures. Habitual binge drinking normalises patterns of behaviour that are quite inconsistent with workplace norms and that have adverse impacts on non-drinkers through alcohol-related violence, noise and demands for money for drinking, or the need to resolve financial or other crises that have arisen as a consequence of people paying undue attention to drinking. Any strategies to support change and adaptation in Aboriginal culture for better match with workplace cultures, or for other community development goals, need to specifically address alcohol abuse. They also need to engage consciously with the meanings that Aboriginal people ascribe to 'work'.

Remote Aboriginal people's conceptions of the meaning of 'work' are different to those of non-Aboriginal people. In a fine-grained analysis of concepts of 'work' among Western Arrernte people, Austin-Broos (2006) notes a distinction between 'working for' and 'work' in their contemporary language. Western Arrernte usages of the terms 'working for' and 'looking after' are both embedded in servicing the social obligations of relatedness (Austin-Broos 2006). It is this relatedness, rather than the career narratives prevalent among most other Australians, that accords identity, security and wellbeing to Western Arrernte people. The difference echoes that between pre-industrial and industrial societies globally. In the former the 'economy' does not have a distinctive place but is integrated with social relations (i.e. a 'moral economy') whereas in industrial societies the separation is so complete that 'the market' has taken on a life of its own. The changes in informal institutions of Aboriginal culture to engage effectively with workplace culture, such as differentiation of roles and a different orientation to time, are changes that many other cultures have progressively made over recent centuries (Pareek 1976).

Because of the separation between economy and social relations in modern society compared to classical Aboriginal societies, the concepts of 'work' and of 'working for' are commonly in conflict for remote Aboriginal people as Musharbash (2001) found at Yuendumu, Austin-Broos (2003, 2006)

⁷ We recognise that often Aboriginal people who make comments about their culture not changing are thinking about some deep underlying principles rather than about the many changes to Aboriginal ways of living that have come through, for example, housing, modes of transport, school, store food and alcohol.

among Western Arrernte, and McRae-Williams (2008) at Ngukurr. For example, ‘working for’ carries the expectation of Aboriginal cultural norms that ‘bosses’ will ‘look after’ employees, such as by meeting their requests for sharing personal resources (i.e. ‘loans’, ‘humbug’ or ‘demand-sharing’, see below, Section 5.5). Faced with bosses who refuse such demands, Aboriginal people disengage from their paid work roles. They choose to invest value in ‘working for’ relatives, rather than the uncertain and ambiguous outcomes from ‘work’ for a ‘boss’. Among the reasons why Aboriginal employment in Anmatjere region is higher in community and government services than it is in horticulture or retail services may be that these former industries provide relatively greater capacity for Aboriginal people to reconcile ‘work’ and ‘working for’, such as by assisting relatives with access to services, and talking up for relatives in decision-making processes. As Austin-Broos (2006) indicates, where Aboriginal people cannot readily make such reconciliations, they will invest in the more assured outcomes of ‘working for’ relations and the circulation economy it supports, rather than the uncertain and ambiguous outcomes of ‘work’.

The current engagement of Anmatjere Aboriginal people in customary activities (care of people and country, hunting and cultural expression through art and music), and their aspirations to continue to do so, are indicative that these activities continue to be valued and meaningful. In contemporary parlance, such activities have been termed ‘working on country’. They extend far beyond physical ‘on-ground’ actions to encompass maintenance of self-identity and spiritual order (Povinelli 1992, Baker et al. 2001). Such activities are typically undertaken by Aboriginal people in groups interspersed with learning, socialising and sharing. That Aboriginal people in Anmatjere region continue to express such preferences in relation to paid work echoes the continuing relevance of social relationships in their engagement with employment.

However, the customary relationship in Aboriginal culture between ‘work’ and ‘working on country’ also has a more fundamental significance. As Austin Broos comments, the Aboriginal social order is founded on integration between economic production through ‘work on country’ and customary systems of relationship between people, places and ritual knowledge. However, this has now broken down to a great extent, and the economic foundation for social relatedness no longer exists (Austin-Broos 2006). The circulation of cash and commodities generated from social security and periodic paid work to support relatedness thus has no underpinning standard of meaning and value. Austin-Broos (2006) considers that it is this disconnect that is driving collapse in customary norms for social authority. She suggests that appeal of the wider world of consumer goods will be what fosters change in Western Arrernte institutions, compelling people to invest value in commodities and cash, rather than only in the relationships they sustain. Such changes in value will be necessarily accompanied by changes in informal institutions of Anmatjere Aboriginal culture that sustain relationships. They will be facilitated by attention to the styles of engagement with work that Aboriginal people find as appealing. We have found that this attention is being facilitated in Anmatjere region through a number of ‘bridging institutions’.

5.4.3 The role of bridging institutions

Some institutions in the region function to bridge between Aboriginal culture and mainstream workplace culture, or the formal institutions of government. One example is rules developed by employers within particular workplaces. For example, systems in some of the region’s workplace to provide for cultural requirements of Aboriginal people to be absent for cultural reasons such as sorry business; use of cultural authority structures to engage Aboriginal people into available work, as some pastoralists do; and employment of an onsite Aboriginal elder/mentor as Newmont does in its Tanami operations (Collier et al. 2007). Other examples are formal institutions such as the statutory agreement-making processes between Aboriginal traditional owners and others who seek to operate on land in the region.

The processes established under the Aboriginal Land Rights (NT) Act 1976 (Cwlth) and the Native Title Act 1993 (Cwlth) provide a requirement and a framework for negotiation between the Aboriginal traditional owners and their agents, and people who seek approval to mine or other new property rights. The strong voice that Aboriginal people can have in agreement making provides a mechanism for them to seek employment and economic development outcomes for their people (O’Faircheallaigh & Corbett 2005). This has driven innovation in how firms construct and implement employment strategies, to enhance their chances of achieving these outcomes. Examples of success include significant increases in Aboriginal employment by some mining companies through commitments to tailored Aboriginal employment, including training and mentoring (Ross 2004, Tiplady & Barclay 2007). In the region, the inclusion of Aboriginal employment quotas or other benefits for traditional owners in horticulture and mining developments reflect the significant role of these agreement-making processes as bridging institutions.

Other examples of bridging institutions are innovations by local organisations to put in place styles of engagement with work that have resonance with Aboriginal cultural institutions, as summarised below:

- The initiatives started by Anmatjere CGC in 2006 with in-kind support of NT Department of Resources (then Department of Primary Industry, Fisheries and Mines) to train a horticultural contracting team established under the auspices of their Department of Education, Employment and Workplace Relations (then Department of Employment and Workplace Relations) contract for CDEP provision. Strong mentorship, a group approach to work, and on-the-job training all draw on features of the Aboriginal cultural environment for work and apply them in a mainstream work context.
- The development, through the Anmatjere Kwatye project, of work and training programs that worked under Aboriginal cultural direction and applied systems from a workplace culture of computers to document and communicate about cultural values, traditional knowledge and management requirements for water resources skills and knowledge (Rea & Messner 2008).
- The development in the region of community ranger program under the auspices of Central Land Council, engaging younger Aboriginal people in ways mandated by culturally authoritative Aboriginal people that build identity knowledge of country and skills in customary activities while also applying workplace cultural rules around OH&S, management of equipment and a focus on outcomes.
- The training hub proposed to be established by Centrefarm, which was operating in interim form in 2008, and through central Desert Training in 2009. Prevocational training emphasises trainees’ understanding of workplace norms rather than only focusing on skills development, and a system of close mentorship is proposed to support trainees in learning to operate effectively in the workplace culture (Allan Cooney, Centrefarm, pers. comm. 2008; Graham Klinghorn, Rural Studies Trainer from Central Desert Training Pty Ltd, pers. comm. 2009).
- Proposals by Centrefarm in 2007–08 to develop a labour contract pool from which work teams could be contracted for their services. Bridging institutions here include a team work system, providing group identity and a social environment for peer-to-peer learning by trainees. The prospect of multiple contract teams would provide a mechanism to switch to alternative labour resources when one team or some of its members are not able to work because of commitments to cultural activities (Allan Cooney, Centrefarm, pers. comm. 2008).

Such bridging institutions highlight that organisations operating in the region are innovative in conceiving of initiatives that have potential to bridge between workplace and Aboriginal cultures. Implementation often depends on there being sufficient flexibility in the deeper level formal institutions that determine the functions of these regional organisations and, often, their budgets.

5.5 Social assets – relationships, networks

As noted above (Section 5.4.2) investment in relationships is a feature of Aboriginal societies. Rather than build up physical or financial assets, Aboriginal people tend to invest in relationships (Sansom 1980, Peterson 1993). Relationships are also a key mechanism for livelihood security for many other

peoples, and they form the basis of the concept of social capital. Social capital ‘captures the idea that social bonds and norms are important for people and communities’ (Pretty 2003: 1918). There is a close relationship between social capital and informal institutions given that people who have strong social relationships tend to have shared ways of doing things.

Three types of social capital are now commonly recognised by analysts: bonding, bridging and linking social capital (Woolcock & Narayan 2000, Stones & Hughes 2003). Bonding social capital is reflected in strong ties among immediate family and friends. These ties are what people use to ‘get by’ in their daily lives. Frequent interaction results in people having implicit understanding of how other people in their immediate circle of family and friends will behave: they have a shared culture or way of doing things through commonality of norms (informal institutions). Bridging social capital is manifest in ties outside a person’s own social group, which may be known as ‘weak ties’ because they are activated less often. Through bridging social capital, people get information and resources outside their own immediate circle of family and close friends. This is important for people in accessing new ideas or opportunities. Linking social capital is similar to bridging social capital except that it involves ‘vertical relationships’ between a person and other people in authority or positions of power, such as with agencies that are external to a community. These assist people to access information and other resources (Hunter 2004).

Aboriginal societies such as that in Anmatjere region tend to have strong bonding social capital stemming from family and kinship ties. This means there is strong trust and mutual support among the society’s members, and that cultural norms and rules such as reciprocity and sharing and maintenance of customary law are perpetuated. However, such societies cannot be viewed as a homogenous social network with close ties between all Aboriginal people. Family relationships and customary law are important determinants of the basic structures of Aboriginal social networks. They are primary determinants of who shares information, material goods or other resources with whom. Myers (1991) notes that among Pintubi people these networks that develop are not fixed, such as by blood relationships, but develop over a person’s lifetime such that ‘as a person grows older, the field of those considered to be relatives increases in breadth and complexity’ (p.163). Other influences that shape Aboriginal social networks include where people live, their relationships with people who live in the same settlement, and who plays sport together or shares in other activities. Kinship ties plus these other influences lead to Aboriginal societies being characterised by multiple dense clusters of closely connected people (‘dense bonding networks’, Figure 5.3). Gerritsen and Straton (2006) term these ‘primary trust networks’ and advocate their use to reduce transaction costs and promote effective engagement between service providers and Aboriginal people.

These ‘dense bonding networks’ are constituted and reconstituted by the actions of individuals in commanding and reallocating material resources. This is often termed ‘sharing’ or, because it is not simply motivated by generosity, ‘demand sharing’. These are deeply embedded social practices through which Aboriginal people establish, test and maintain their relationships with others (Peterson 1993, 2005). Peterson and Taylor (2003) characterise this sharing as having a ‘central constitutive role’ in the Aboriginal ‘moral economy’, which is characterised by ‘the allocation of resources to the reproduction of social relationships at the cost of profit maximisation and immediate personal benefit’ (Peterson & Taylor 2003: 106). Aboriginal kinship networks, like any dense social network, exert a strong influence on individuals to conform to group norms, which include these practices and which tend not to include working in a job. This moral economy operates to restrict accumulation of material wealth and the consumer dependency that is an important factor in keeping many other people tied to the labour market.

While some non-Aboriginal people are closely connected into Aboriginal social networks, through marriage or work roles, they are relatively few in number in remote Australia. In other words, ‘bridging social capital’ between Aboriginal and non-Aboriginal domains is relatively sparse (‘sparse bridging’ Figure 5.3). As a result, marked differences in culture between Aboriginal and non-Aboriginal people are perpetuated not only in Anmatjere region but, to a greater or lesser extent, throughout Australia.

People’s access to opportunity can be limited when all their main relationships are to other people inside a very densely clustered social network. In such cases, people do not have ready access to information or resources from outside their group. At an extreme, homogenous closed networks can generate self-reinforcing social enclaves (Putnam 1993). Closed groups can readily harbour ‘social bads’ such as alcohol abuse, humbugging and family violence. Group members can readily come to see these as a ‘normal’ part of their way of life if they have few outside relationships or reference points. As noted above (Section 5.4.2), this situation characterises aspects of the contemporary culture of Aboriginal people.

5.5.1 Brokers and social change

Social network theory holds that where social networks are characterised by dense clusters of relationships, the people who have the most influence for social and cultural change are those few people, termed ‘brokers’, who have relationships that span two or more of these dense clusters (Burt 2005). The role of brokers is shown diagrammatically in Figure 5.3.

Brokers have relatively higher amounts of bridging and linking social capital than others from their own group. As a result they have access to a wider variety of information and resources than people whose only strong relationships are within their own group. Brokers can thus be in a powerful position even though ‘power’ may not be their motivation for building their outside relationships.

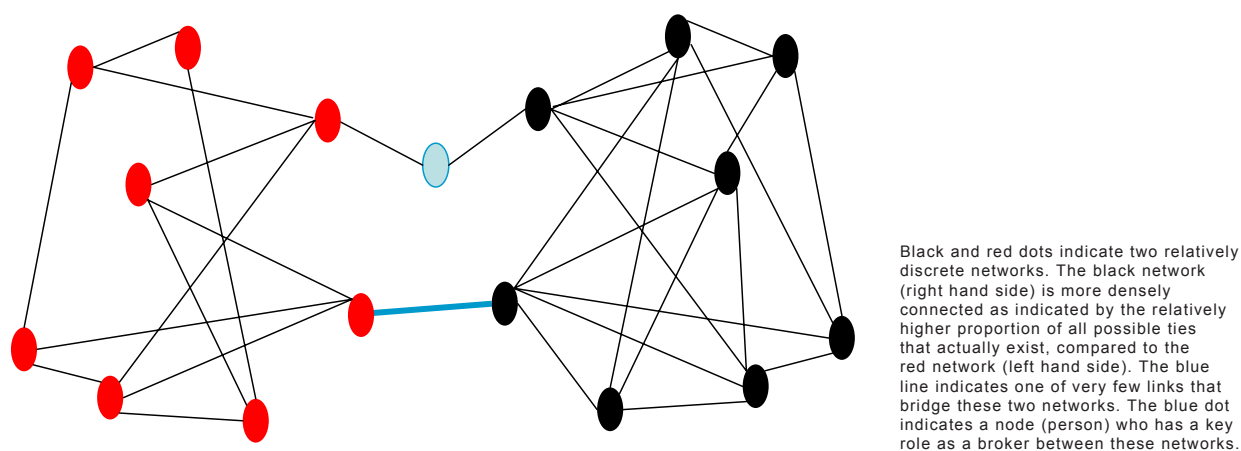


Figure 5.3: Dense bonding networks, sparse bridging and brokers

Social theory suggests that brokers are more likely to be innovators, with creative ideas and strategies to implement them, because they are drawing on information from a wider variety of sources. They may attract respect and recognition from other people both within and outside their own group for the leadership role that they have: they may be seen as ‘role models’. Conversely, they are also at risk of being shamed, distrusted or punished by their own group for behaving in a way that is different to its norms. This can constrain the creativity or autonomy of ‘brokers’ (and all other group members). An example is the strong social expectation among kinship groups that was noted in the research to attend ceremony and funerals, notwithstanding work commitments. Requests for money or help with understanding documents or government processes are other examples that were encountered in project research where individual Aboriginal people in broker roles were in effect expected to confirm their

loyalty to their kinship group. Among Pintubi people, Myers (1991) notes that putting oneself forward and taking responsibility is an important privilege of adulthood but is fraught with danger. To avoid ostracism, it needs to be done in a way that does not threaten the equality and autonomy of others in the group.

Through these kinds of mechanisms members of a social group protect their own ways of doing things, the trust among the members and their capacity to cooperate. This perpetuates the group's 'closure' – the distinctive identity of the group that is a result of its relatively closed social network (Burt 2005). Internationally such pressures from kinship networks have been identified as a significant generator of poverty traps, such as through kin groups setting up normative barriers to individuals moving from rural farming into employment and business (Hoff & Sen 2006).

The 'broker' role and group 'closure' are complementary – one does not exist without the other and they act to reinforce one another (Burt 2005). Conversely, where densely clustered social networks do not exist, each person is subject to many different influences and innovations. It then becomes hard to recognise which people might have distinctive roles as 'brokers'. In these situations a group may lose its distinctive collective identity or way of doing things. It also risks losing the strong capacity for collective action that can be characteristic of densely connected groups (Carlsson & Sandstrom 2008). An extreme example of the change from densely connected network clusters to open network structures comes from the impact of the policy of assimilation pursued in Australia up to the 1970s. By removing Aboriginal people from their family environment and putting them in situations where they had to form relationships with many different people, the policy aimed to create a situation where the distinctive collective identity and culture of Aboriginal people was no longer recognisable. The adverse impacts of the assimilation policy on the wellbeing of Aboriginal people who were subject to it (Wilson & Dodson 1997) show very clearly that this kind of forced action to break down the dense social networks of Aboriginal society is destructive on individuals as well as on the group as a whole. Nevertheless, after rediscovering their Aboriginal family and identity, some Stolen Generation members do apparently now have a capacity to 'walk in two worlds', interacting with both Aboriginal and non-Aboriginal people with a high level of 'bridging social capital'. Some tend to be routinely functioning as 'brokers'.

Sutton (2001) and Petersen and Taylor (2003) (both citing Brady 1995) discuss examples of the impact of people in broker roles on social change that are less drastic and more routine. They describe how brief interventions by outsiders who are operating in a broker role, such as doctors, 'authorise' or 'legitimise' individual Aboriginal people's actions to change their behaviour towards more healthy modes. Such interventions are effective because they are authoritative and are coming from outside the person's normal kinship-based network so that it is difficult for family members to challenge their authority. Aboriginal people who have a non-Aboriginal partner also have access to similar kinds of 'acceptable, polite excuse for muting or avoiding demands' (Peterson & Taylor 2003: 114). Such intermarriages are proving to be a powerful force for social change in non-remote Australia with some evidence that they lead to Aboriginal people being better able to accumulate wealth, particularly measured through house ownership, without loss of identity as Aboriginal people (Peterson & Taylor 2003). However, as for other parts of remote Australia (Peterson & Taylor 2003), there is no significant trend to intermarriage apparent in Anmatjere region. The alternative brokerage mechanisms that are apparent in the social networks of the region's Aboriginal people are discussed below.

5.5.2 Brokers in Anmatjere region

A number of Aboriginal people in the region have relationships that in various ways make them brokers between the densely clustered social networks of Aboriginal society and the more open, but still culturally distinctive, networks of non-Aboriginal people. These include Aboriginal people who are employed, since most of the jobs available to Aboriginal people in the region involve working for or with non-Aboriginal people, and these can be in situations where trusting relationships are formed. They also include people in leadership positions in community organisations where the role typically involves

interaction with non-Aboriginal staff, funders and government agents. These Aboriginal brokers are the kinds of people that participants in this research referred to when they spoke of ‘role models’ (see Section 5.3.2). They include both men and women. Women are often in broker positions through their employment in community services such as education and health. Men have been more prominent in local government elected positions and in training for horticulture.

Non-Aboriginal people also play important roles as brokers, particularly when they live in a region long enough and engage with Aboriginal people enough to form some close relationships, perhaps becoming ‘trusted outsiders’, as Moran and Elvin point out (see Moran & Elvin 2009). In Anmatjere region, such non-Aboriginal brokers include some of the staff of locally based organisations and members of the pastoral and roadhouse communities. Batty (2005) discusses the dependence of non-Aboriginal managers of Aboriginal organisations on partnerships with particular Aboriginal people for their position and authority. Both are in effect operating in broker roles. Such collaborations are very likely to operate in Anmatjere region, though are not highlighted in this research since it did not focus on understanding the strategies of people in leadership positions.

Aboriginal people interviewed in this research who talked of introducing people to others, or picking out community members for particular jobs or community service roles are acting as brokers. We found that people in broker roles in the region give such assistance often, using the information and resources they have available to help others. However, the demands on them to help others can be excessive, leading to stress and burnout. Individuals in broker roles have to be very strong to resist these demands and it is helpful to them to have clear alternative institutions (e.g. rules from a workplace about use of workplace resources) or outside sources of authority (e.g. the boss or a non-Aboriginal worker) to appeal to if necessary.

5.6 Sustainable livelihood systems

The discussion above has focused on factors that impact on Aboriginal people in the region engaging in, and sticking with, employment, given that increased employment is an aspiration that many Aboriginal interviewees articulated as well as being of concern to governments and staff of Aboriginal organisations. We have explored some features of institutions and social capital in the region as factors which we have found have considerable impact on engagement with employment. The discussion now considers broader issues of sustainability in the livelihoods of the region’s people and in regional development. We first consider some of the values and assumptions that influence approaches to these issues. We then discuss broader principles for sustainability and considerations for resilience as they apply to this desert region. From this basis, and the preceding discussion, we conclude by describing the kinds of actions that this research suggests will foster sustainable livelihoods and development for the region.

5.6.1 Values and assumptions

In Anmatjere region, Aboriginal norms and socio-cultural systems, and Aboriginal connection to place are powerful drivers of livelihood systems. Global, national and regional institutions – global markets, government laws and policies and their application in the region – impose different values and meaning on the region’s resources, people’s rights and responsibilities, the activities they undertake and their outcomes. Non-Aboriginal people of the region and staff of regional organisations and agencies sit between these two cultures to a large extent, with a locally informed understanding of the tensions created by cultural difference, but with limited capacity to impact on the institutions that give rise to this situation.

Rowse (2002) draws on an extensive review of literature to present three types of assumption that shape the efforts of individuals and agencies seeking to respond to the socio-economic disadvantage they perceive among Aboriginal people:

- Liberation of Aboriginal people from the hegemonic culture that is holding them back from participating in mainstream market opportunities
- Adjustment to workplace norms to accommodate at least some dimensions of Aboriginal cultural norms and disadvantage
- Recognise the choice that Aboriginal people make for dependence on welfare and the payoffs it gives them in terms of time to engage in customary or preferred activities.

Elements of all three approaches are apparent from this research in Anmatjere region through the combined impact of:

- the NT Emergency Response, the lifting of remote area exemptions and the Aboriginal-led development of wealth generation opportunities through horticulture, mapping to the ‘liberation’ assumption
- the development of new public sector and council jobs with:
 - high Aboriginal employment
 - adjustments to cultural norms reflected in part-time work hours and a degree of flexibility about disruptions to work flow due to absences
 - investments in training Aboriginal people for horticultural work, and efforts to develop labour contracting.

These responses map to the ‘adjustment’ assumption.

- a co-existing sense of resignation among many people associated with the region that it may be impossible for strategies noted above to impact on widespread welfare dependence, mapping to the ‘recognition’ assumption.

The ‘recognition’ assumption can be interpreted as suggesting that welfare dependency is a choice that Aboriginal people make. Indeed, some authors have speculated that by continuing to live in remote regions, Aboriginal people are in fact exercising such a choice (Daly 1991, Taylor 1991, Altman & Smith 1992, Smith 1994). However, we question whether Aboriginal people actually do face a substantive choice between engagement in customary ‘caring’ activities, with reliance on social security for cash incomes, and paid work. Choice is substantive when the chooser values each option and has no impediment or external compulsion to undertake any one of them (Sen 1999, Dowding 2006, Robeyns 2006).

Substantive choice is constrained for Aboriginal people in Anmatjere region by suitability, accessibility and capacity to connect with jobs. Further, customary activities of caring for kin and country are part of the identity of local Aboriginal people. Such activities describe who these people are and locate them in Aboriginal social structures. It is not possible for people to simply trade off their identity for employment. Hence dependence on welfare is not a choice for many Aboriginal people, but rather a necessity in the absence of other options that support their social structures and identity. Ultimately, people’s sense of identity, their values and aspirations, are significant determinants of what is possible in terms of transformation of livelihood systems. As Martin (2006) points out, sustainable change in Aboriginal societies, addressing elements such as violence and alcoholism that are widely recognised as dysfunctional, needs to involve creative solutions based on Aboriginal people’s strengths, capacities, passions and commitments, rather than focusing solely on market mechanisms based on assumptions about the morally reformative power of employment.

The situation in Anmatjere region suggests the need to re-examine how approaches to regional development might match the livelihood assets and strategies of the region’s Aboriginal majority residents and address issues of sustainability.

5.6.2 Sustainability for desert regions

It is now well established (e.g. State of the Environment Advisory Council 1996: 10–12) that the pursuit of sustainability requires approaches to economic development that recognise the market economy as a sub-set of the activity of a healthy society, rather than something that can or should encompass all human activity. These approaches also require that neither the economy nor other aspects of social systems should overstretch the absolute constraints that natural ecology imposes on human activity. The importance of decision making for Anmatjere regional development working to this kind of integrated model of sustainability is highlighted by the region's arid climate and the great differences between Aboriginal and non-Aboriginal experiences of engagement with the market economy.

Research and practice about sustainability in arid regions of the world (Reynolds et al. 2007) highlights five general lessons:

1. An integrated approach is needed, because ecological and social issues and options are interwoven.
2. It is important to pay attention to things that change slowly. Short-term responses do not resolve chronic problems and are never effective at dealing with underlying change processes.
3. Non-linear processes need to be recognised. That is, change in one component of the system can change others and have feedback effects throughout the system, triggering sudden and irreversible systemic changes.
4. Problems and solutions at one level in the system influence and are influenced by those at other levels.
5. Local knowledge, including Indigenous knowledge, is often undervalued and warrants much more attention because it is central to the management of most desert regions. It is an important resource for adaptive responses appropriate to local circumstances.

Stafford Smith (2008) has developed these lessons further for Australian desert contexts. He concludes that trajectories for development in regions such as Anmatjere that do not take account of the interlinked bio-physical, social and economic drivers that characterise these regions lead to desert people facing intolerable unpredictability in their livelihoods that is quite inequitable relative to other Australians. To overcome this situation, it is important to build on strategies that are developed locally, since these reflect the realities of local conditions. The important role for outside people and institutions is to ensure that local ingenuity is not constrained.

The diversity of livelihood activities that people of Anmatjere region engage in is particularly apparent in the research reported here. Diversity, or pluriactivity, in livelihood strategies is an important adaptation to the extreme variability of desert systems in space and time, and to their low populations. Variability in rainfall, in production from natural resources, and in opportunities generated by investments of capital from outside the region mean that there is value in people being flexible in their approaches to livelihoods, rather than investing all their time into one relatively specialised activity. Further, sparse populations have limited capacity to support specialist expertise; people by necessity need to be multi-skilled and flexible in what they do. If people in such situations are required to operate to overly-rigid external rules, they lose the capacity to apply local knowledge to their decision making, adapting their livelihood strategies in response to the variable environment.

The characteristics of arid regions also help to explain why it can be particularly difficult for desert people to extract themselves from poverty traps without outside intervention: the resources they can draw on to generate wealth are simply less abundant and also less certain than in other regions. Hence, while community-driven processes of change that are sensitive to local conditions are important, they are not sufficient in themselves. Engagement of local people with supportive outsiders, and inflows of resources from outside the region (including through strategies such as local people gaining education elsewhere and returning to the region to work) are important for sustained poverty alleviation. However,

outside intervention carries the real risk that it imposes policies that reduce local motivation, contradict local practices or serve outsiders' political or economic objectives rather than those of the people of the region (Reynolds et al. 2007).

5.6.3 Livelihood strategies, resilience and adaptability in Anmatjere region

Socio-economic inequity, fuelled by differences in culture and values, constrains sustainability in Anmatjere region. It contributes to ill health, particularly among the Aboriginal population, and reinforces 'closure' in social networks and accompanying constraints on innovation. This situation reinforces the importance of 'claiming' as an Aboriginal livelihood strategy. The strategy was encountered most directly in this research as demand sharing (see Section 5.5). However, it also encompasses generalised expectations from Aboriginal people that the role of government is to 'look after' them, as Myers (1991), Folds (2000) and Austin-Broos (2009) discuss with regard to other central Australian regions.

This research indicates that 'claiming' (see Table 1.1) has worked well for Aboriginal people as a livelihood strategy. Claims on government have generated relatively reliable, though low, cash incomes and they also support settlement infrastructure. Claims on relatives for money help people to manage the uncertainty associated with low incomes. Claiming interfaces with other livelihood strategies. For example, it both enables and is supported by mobility. The research shows that Aboriginal people's livelihood strategies also include diversification. People seek bush food, engage intermittently in training schemes and available accessible jobs, and volunteer and assist others with practical needs that may provide them with a basis for later claims. However, indications are that natural resource production only makes minor contribution to Aboriginal livelihoods, that relatively little time is invested by Aboriginal people on country compared to settlement living, and that Aboriginal people do not have secure, confident access to many places and natural resources on their traditional country. Further, while subject to formal institutions that increasingly emphasise engagement with the market economy, most Aboriginal people are precluded from securing more than short-term opportunistic employment by the five variables discussed above of job availability, suitability, accessibility, capacity and motivation. Instead they invest heavily in claiming: circulating cash and commodities to build and maintain bonding social capital among their (mainly) kinship-based networks.

This mix of livelihood strategies has led to Aboriginal society in the region being resilient, meaning it has shown a strong capacity 'to experience shocks and undergo change while retaining essentially the same function, structure, feedbacks, and therefore identity' (Walker et al. 2006: 13). Robust structural and functional elements of Aboriginal society that have been retained include an ethos of egalitarianism and pursuit of family and local group loyalties (Trigger 2005), norms of 'caring for family' and a strong sense of place. These preserve tradition and attachment to country as strong elements of identity. However, observing that such elements are robust, and that the social system that they are embedded in is resilient, should not be taken to imply that the social ecological system as a whole is necessarily in a desirable regime (Walker et al. 2006: 14). Indeed, the situation in Anmatjere region has characteristics of a 'rigidity trap', where informal institutions that underpin the Aboriginal social system are persisting beyond the point where they enable the system to be adaptive.

Rigidity is characterised by lack of social flexibility (due to very high degrees of connectedness between people and differential access to social power), suppression of innovation and resistance to change. Rigidity traps arise where rigidity is reinforced because people lack options to do things differently even if they recognise change as desirable (Hegmon et al. 2008). Attenuation of the once integrated relationship between Aboriginal society, economy and environment under the impact first of non-Aboriginal settlement and then of Aboriginal marginalisation in a market economy now presents considerable challenges for adapting or transforming the social-ecological system of the region to a healthier configuration.

While this research has mainly encountered rigidity traps through qualitative data on Aboriginal livelihood strategies, similar dynamics are as likely to be operating among non-Aboriginal actors. In particular, bureaucracies are classic sites for development of rigidity traps as consequences of the repetitive actions of staff following established norms and procedures with insufficient incentives, authority or feedback on the consequences of their actions to adapt action to changing circumstances. For example, Lea’s 2008 research in the public health sector of the Northern Territory Government charts how staff who are new to the organisation – a common situation given rapid cycling of staff – are rapidly encultured into their responsibilities to help Aboriginal people to take control of their health and their communities. Yet the bureaucratic culture cannot ‘for a moment entertain an order of socio-economic coexistence with Aboriginal people that excludes institutional interventions’ (Lea 2008: 212) and that might thereby leave an uncrowded space for Aboriginal decisions and agency. A rigidity trap in Aboriginal society most likely intersects with other traps operating at different scales in government organisations, such as described by Lea (2008), and potentially in Aboriginal representative and service delivery organisations. This situation compounds the difficulties of envisaging how innovation might adapt or transform trajectories of regional development to be both resilient and sustainable.

Resilience and sustainability require adaptability throughout the social-ecological system of the Anmatjere region, rather than involution and rigidity within its various sub-systems as this research indicates is characteristic of the current situation. Through analysis of change in social-ecological systems through regional case studies elsewhere, Walker et al. (2006) have proposed that adaptability is determined by available assets (i.e. natural assets, social capital and infrastructure, as well as finance) and the effectiveness of systems of governance in generating conditions for ordered rule and collective action. Leadership, social networks and trust are important determinants of this effectiveness. In summarising resilience theory Walker and Salt (2006) propose other characteristics that would be present where resilience is supporting, rather than working against, the sustainability of social-ecological systems. They conclude that fostering resilience requires that decision makers at all levels promote certain actions. These are summarised in Table 5.2 (left hand column) together with examples of how resilience could be fostered in development of Anmatjere region (right hand column). For livelihoods, such a style of development would recognise and invest in activities that build on local knowledge and attachment to place, generating a ‘neo-ideographic’ style of development (De Haan 2000).

Table 5.2: Implications for Anmatjere region development of generic actions for promoting resilient social-ecological systems

Generic actions for promoting resilient social-ecological systems (after Walker & Salt 2006).	Examples of how resilience could be fostered in development of Anmatjere region
Promote and sustain diversity	Recognise contribution of both Aboriginal and non-Aboriginal people to the character of the region, its local knowledge systems and economic potential; balance out available income earning opportunities by new incentives that sustain the diverse livelihood activities that people of the region now engage in, particularly Aboriginal people in caring for people and country.
Embrace and work with ecological variability	Accept the inevitability of production that is variable across space and time, e.g. in pastoral sector where variable production may be driven by rainfall, and in horticultural sector, where variable production may be driven by pest outbreaks. Be wary of major investment in infrastructure that requires a steady return on investment.
Focus on relatively ‘slow’ controlling variables associated with irreversible thresholds or changes to a different kind of regime in the social-ecological system	Workplace culture and Aboriginal culture are slow-changing variables but most analysis focuses on relatively fast- changing variables, such as staff recruitment and retention and Aboriginal mobility. Relatively slow-changing variables, important to controlling the character of the region are likely to include local language use, bush foods production and other multiple uses of pastoral lease land, migration/urbanisation of Aboriginal populations, long-term non-Aboriginal residence, land ownership and continuity of investment.
Build overlap into governance structures	Avoid a totally top-down ‘command and control’ policy environment; maintain ambiguities and overlaps in property rights, notably pastoral land tenure and native title.

Generic actions for promoting resilient social-ecological systems (after Walker & Salt 2006).	Examples of how resilience could be fostered in development of Anmatjere region
Promote social capital: trust, well-developed social networks and accountable local leadership	Build capacity in bridging institutions; support a diversity of people in broker roles to foster growth of bridging social capital; recognise primary trust networks based on family and cultural norms (e.g. skin group) and engage with these to promote accountability in governance of service delivery.
Maintain modularity, such that everything is not tightly connected to everything else	Provide for a degree of local autonomy in decision making in accordance with principles set by higher levels in government structures (e.g. Shire, Territory, Commonwealth); promote decision making and mutual accountability within 'primary trust networks'.
Innovation, including learning, experimentation, locally developed rules and embracing change	Support practices that emerge from local knowledge, such as engagement of Aboriginal groups in labour contracting
Tight feedbacks to decision makers (at all scales) on the consequences of actions	Augment high level indicators of education and employment outcomes with monitoring of key slow-changing variables and other variables linked to aspirations of the region's residents. Build feedback and reflection on trends in indicators into governance processes.
Include all unpriced ecosystem services in development proposals and assessments	Ensure the cost of maintaining the ecosystem and cultural values of water is factored into horticultural and mining developments.

5.7 Action areas for sustainable livelihoods and regional development in Anmatjere region

We here turn back to the three action areas identified for the region in the context of employment (Section 5.3) to identify some actions that can be expected to enhance resilience and sustainability of the Anmatjere region and its livelihood systems. Important considerations for any such action is that it addresses factors identified as important for sustainable development in desert regions (local capacity and innovation, flexibility and diversity), and for increased adaptability to manage resilience (making effective use of all available assets, leadership, social networks and trust).

Knowledge and understanding puts a focus on education, including livelihood activities based around education, the biggest employment sector in remote Australia for Aboriginal women (Hunter 2004). These activities include jobs for local people in schools and the local knowledge centre; the development of community internet access centres to promote youth engagement with learning and literacy outcomes through new modes of production (Kral 2009, Inge Kral pers. comm. 2009); and promoting the intergenerational transmission and ongoing vibrancy of traditional knowledge systems (e.g. Alyawarr speakers from Ampilatwatja et al. 2009, Woods 2009, Douglas forthcoming). The latter, and other dimensions of the health of the region's local knowledge systems and innovations, are particularly important to promoting and sustaining diversity and the endogenous knowledge base of this desert region.

Much of the attention of governments, the media and other commentators is focused on relatively fast-moving variables relevant to 'knowledge and understanding', such as school attendance rates, turnover of teaching staff and training course completions. However, changes in local knowledge systems, such as in the vibrancy of local languages and in local understandings of the dynamics of natural resource production under the impact of rainfall, fire and threats from invasive species are relatively slower. More intercultural awareness of these underlying changes among people in the region will build their capacity to understand alternative scenarios for the region's future and how these might support their aspirations. Specific relatively slow-moving variables particularly relevant to knowledge and understanding that appear to warrant attention to monitoring and to feedback to the region's residents on change are the health of region's languages, with Anmatyerr suggested to be already at risk of endangerment (AIATSIS & FATSIL 2005); and the rate of graduation of local people as teachers and their retention in the region's schools; the engagement and retention in jobs and other livelihood activities in the region by graduates from education and training programs.

An important area for further action is in raising cross-cultural awareness of Aboriginal and mainstream systems for managing natural resources and the importance of these to the health of the region's social ecological systems. This is important because the future of the region as a place for healthy living depends ultimately on the capacity of the ecosystem to sustain people, for example, by providing high quality water and clean air. Adaptability requires some degree of shared mental models among the different people dependent on a resource (Abel et al. 2006). Yet our explorations of the region's livelihood systems have shown marked contrasts between the circumstances of Aboriginal and non-Aboriginal people with every indication that this extends to differences in mental models of the relationship between use and management of natural resources and human wellbeing. Improved cross-cultural awareness, involving education, monitoring and deliberative decision-making processes, will be important to the capacity of the region's people to adapt to, participate in and manage changes in land use, notably in horticulture and mining, and to ensure that the flow of ecosystem services that sustains people in the region, is maintained.

Throughout central Australia there can be substantial cultural restrictions or sensitivities on people who are not traditional owners accessing and understanding traditional knowledge. Building trust and a shared framework for inter-cultural understanding requires a substantial investment of time and other resources by Aboriginal and non-Aboriginal people alike. After making such an investment, the Anmatjere Kwatye project (Rea & Anmatjerr Water Project Team 2008, Rea & Messner 2008, Rea et al. 2008) found that employment for Aboriginal people in natural and cultural resource management with mentoring, development and direction by culturally authoritative traditional owners offers the best promise for sustainable resource management as well as stronger livelihoods in the region. Such employment, together with engagement between traditional owners and mainstream decision processes for natural resource management, bridges between the relationship-based values of Aboriginal culture and the role-based values of mainstream and workplace culture and may thus facilitate pathways for Aboriginal people into other employment. It is also a practical mechanism for building adaptive intercultural management of the region's natural assets and the economic uses made of them. These outcomes in turn hold promise for improved health and wellbeing of Aboriginal people through impact on the psycho-social determinants of health (Burgess et al. 2005, Burgess et al. 2008, Campbell et al. 2008). Continuing to build the capacity of the nascent Anmatjere region ranger group, and its linkages to both Aboriginal and mainstream institutions for natural and cultural resource management, is an important direction for knowledge and understanding. A diversity of roles could potentially be fostered as the group develops, including roles catering for mechanical skills (in vehicle and equipment maintenance, earthmoving), and gender-based management activities. While limited work is likely to be available through the NT Government natural resource management sector (Childs 2009), fencing and track maintenance on pastoral stations suggest other opportunities for a mature work group.

The concept of **role models** relates to the crucial area of local leadership. Fostering local leadership, such as through mentoring and other development programs, is important. As part of this, role models might be recognised in various sectors, including local organisation leadership, family care and cultural activities, not only through employment. Such recognition might be through respectful designation as 'role models', with interviews or short feature stories in local newsletters, noticeboards and radio. Generally, role models should be people who show capacity to operate across the 'cultural divides' in the region, to mentor others for these capacities, and to extend the 'bridging social capital' in the region through developing these broker and bridging roles. Overt recognition of the support needs, including family support, for people who are emerging as role models is important to address the stresses involved in the broker role. Talking about the issues involved is important, and mechanisms to promote such discussions within the region could be usefully developed. Recognition and support should be an area for collaborative action across the region's communities and organisations. In order to avoid increasing the stresses on role models and to build a broad base for emerging leadership, the emphasis should be on recognising diversity in the contributions people make as role models. Among other things,

this would mean recognising ‘small’ achievements as well as major ones and making sure that both non-Aboriginal and Aboriginal people’s ways of performing as a role model are acknowledged. For example, non-Aboriginal staff of local organisations who serve effectively over a long period might be specifically acknowledged, given the problems for continuity and mentorship that can come from high staff turnover.

Two laws, one set of rules working together. Rapidly changing program structures with rules designed without the benefit of local knowledge and applied rigidly at statewide or national scales constrain the flexibility that is needed for effective processes of ‘working together’ (see also Young & Guenther 2008, Moran & Elvin 2009). Local people lose trust in and respect for institutions that are not adaptive to local realities and where they have no sense of control. They tend to disengage and wait to see what will happen next. Investments in developing more effective ways of government and local people working together would support the livelihoods of people in broker roles, such as through paid work as liaison officers for government or private industry, interpreters, community-based researchers, and in establishing shared job roles in community governance.

A parallel challenge for regional sustainability under ‘two laws’ is how to maintain or enhance the sense of place, identity and community that characterises the region and derives in large part from its Aboriginal majority population, while overcoming the socially destructive forces that arise from the combination of Aboriginal social practices of demand sharing with substance abuse. Actions such as are discussed above for ‘knowledge and understanding’ and ‘role models’ will provide a stronger basis for the region’s people to work to address these challenges.

Other important directions would involve increasing investment into the diverse activities that Aboriginal people do now and value in caring for people and country, making these more visible and valued. In Australian urban mainstream society many of these roles have been transformed into paid employment in child care, aged care, home care, domestic catering, as well as the kinds of natural resource monitoring and management tasks discussed under ‘knowledge and understanding’. In Anmatjere region these roles exist, for the most part, within ‘community economy’ (Gibson-Graham 2005), sustaining lives and maintaining wellbeing directly without engagement with the market; that is, without people being paid to do them. It would be valuable to explore the potential for nurturing social enterprise around these roles in ways that engage the informal institutions that already exist and cooperate in care of people and country, as these areas are likely to expand opportunities for local people to earn cash income.

Further unrealised opportunities exist for new enterprise based around the flow of transport and traffic through the region. The fact that a major highway bisects the region generates a traveller and tourism market, such as for cultural tourism and art products and services that draw on local knowledge of country and culture. While many of the region’s existing enterprises do service this market, there is probably potential for new activity to develop, drawing on the enterprise skills of the region’s non-Aboriginal population, and the cultural knowledge and practices of the region’s Aboriginal people.

New economic opportunities have been developing in Anmatjere region in horticulture and mining. Both depend on linkages between local systems and drivers and decisions that operate at much broader scales, since investment in these industries, and sales of produce, are generally dependent on markets in major urban centres and internationally. Building knowledge and understanding among the region’s residents in these scale interactions, and the opportunities and vulnerabilities that they can generate for industries and for the region is important to the sustainable development of the region.

With new economic opportunities in mining come risks that an unsustainable mini-‘boom economy’ might develop. Globally there are many examples where boom (and bust) economies have devastated remote communities. One of the risks is that financial returns from external investment in the region are exported (in whole or in part) to outside the region (Shrimpton & Storey 1992). Another is that

rapid development has adverse social consequences within the region through an influx of outsiders and increased social stratification (Storey & Jones 2003). These risks can be ameliorated to some extent through local employment, since this promotes retention within the region of some of the wealth generated by investment of financial capital from outside the region. However, substantial local employment is an ambitious challenge given the mismatches identified in this report between workplace and Aboriginal cultures.

The variable and uncertain inputs of financial capital that are characteristic of externally driven investments such as mining can readily compound the underlying variability and consequent uncertainties of desert environments. Investment in building local assets currently tends to focus on training to meet immediate industry needs for employment. An important alternate strategy is to invest in actively building local assets, including human and social capital, during periods when external parties are investing in a region. For mining, this would direct investment to sustainability beyond the life of the mine, rather than only to employment during the life of the mine, as is being advocated for minerals industry operations to promote sustainability (Elkington 2009). A focus on building knowledge and understanding through such investments, through mechanisms such as discussed above, would contribute to resilience and sustainability of the region. For training directed at immediate workforce needs, lessons from Newmont's Tanami program are pertinent. These include ancillary support programs that legitimate and support Aboriginal cultural authority structures, and treating mine site work experience as 'real work' with real wages rather than as a lower status trainee or job preparation phase (Collier et al. 2007).

Horticultural enterprises are particularly vulnerable to risks from climate and from markets because they require constant intensive management against the risks of the extreme desert environment, products are perishable and stocks are immovable. Further, horticultural and production systems require time-bound commitment of intensive effort, including in hot summer months. These factors indicate that the horticultural industry has little capacity to adapt to address the mismatch between Aboriginal and workplace cultures that characterises the region's labour market. The opportunistic picture for the horticulture industry that characterises planning documentation about the region (Appendix 6) needs to be reassessed against such factors.

It is also important to realistically consider the investments that are being made by local Aboriginal people into horticulture. In central Australia, much of the Aboriginal investment in long-term strategies for building economic wealth relies on investments of land by traditional owner groups in return for lease or royalty payments that are then invested in community development activities or property, enterprise ownership and financial markets, or else distributed to individuals and families. It is important to consider whether Aboriginal people of the region would develop a stronger sense of 'joint investment' in the economic development of the region if they were sharing more in the development risk. Looking at regional development issues through the lens of the sustainable livelihoods framework draws attention to other assets that Aboriginal people might feasibly invest, particularly the human capital assets of their young people and the social capital inherent in the cross-cutting rights and responsibilities of customary law.

For example, concerted efforts by Centrefarm, acting as agent for the traditional owners, to develop the horticultural potential of the region (Section 3.1) have required traditional owners to invest land and time into decision-making processes, but little else. Further decisions about horticultural development would seem to be relatively easy for traditional owners to make, at least compared to decisions about exploration and mining. This is because, unlike mining proposals which are tightly bound to discrete locations of high value mineral deposits, there is flexibility to shift the location of a potential horticultural development within the water basin to minimise or eliminate conflict with important cultural values.

The relatively low risk investment of traditional owners into horticulture contrasts markedly with the extensive time and financial capital investments required from others to establish a horticultural opportunity: several years in planning stages and potentially several millions of dollars to establish a serviced parcel of leasehold land, with road access, water licences and headworks. An achievable community investment might be for elders to nominate a group of their promising young relatives for education and career development in the horticultural industry. While it would be naïve to think that the elders could necessarily command the services of their young people, a strategy like this would have potential to engage the institutions of reciprocal obligation within Aboriginal society in the same way as the current informal practices that operate to ‘pick’ Aboriginal people into jobs in the region. It would also signal a commitment to long-term support from horticultural proponents to build those young people’s knowledge and understanding, beyond short-term competency based training. In these respects, it would help to build much clearer pathways for the region’s Aboriginal people to be owner/operators of horticultural developments, rather than landlords and casual workers, as is now being achieved, at best.

This research was prompted by the difficulties being experienced in economic development in the region by the coexistence of ‘lots of jobs’ and ‘lots of unemployed people’. The actions discussed above will require long time scales to realise significant change in this situation. It will be important to the adaptive capacity of the region and the livelihoods of its people to ensure that effective processes for monitoring social change are implemented, tracking a selection of indicators of the wellbeing of the region’s people and not only measures of economic productivity, employment and standard educational attainment. Costanza et al.’s (2007) presentation of a multi-dimensional concept of quality of life incorporating both objective and subjective elements provides valuable guidance for identification of indicators. Coupled with this, giving regional media and locally based governance bodies, such as the Advisory Boards of the Central Desert Shire Council, feedback on trends will be critical to building the coherence of the regional community.

5.8 Using the Sustainable Livelihoods Framework

We used the Sustainable Livelihoods Framework (SLF) to guide the research questions, methods and analysis of this research. We have found the SLF to be useful in field research in two ways:

1. During field research it provided a checklist for researchers of elements of a livelihood system, which helped in design of an interview process that could quickly build a picture of how people interact with the resources in the region in their day-to-day lives.
2. In analysis, and particularly in considering research findings related to employment, it has helped us to maintain a sense of the whole of people’s lives and the complexity of factors that affect these.

Moran et al.’s (2007) study at Engawala also applied the SLF, though for different purposes. They aimed to use it to help members of that community, as a group, identify the assets they draw on and their community’s abilities to transform those assets into income, capacity, power, sustainability and wellbeing. Moran et al. found that the framework needed to be revised, and diagrams redrawn, to reflect the dominant roles of (Aboriginal) culture and of ‘government’ in Engawala.

‘Culture’ is accounted for variously in different conceptualisations of livelihoods, for example as an asset or an institutional element or both (Davies et al. 2008, Moran et al. 2007: 68). Moran et al. found that culture was best treated, and shown diagrammatically, as part of a ‘private Aboriginal domain’ which sets part of the context for the Engawala community’s livelihood assets, strategies and outcomes. They found this to be the most effective way of recognising that culture underpins and transcends livelihoods in a way that no-one can readily manipulate, even though culture itself is changing.

Moran et al. also portray ‘government’ – the various institutions and services of the Australian state – as part of the context for Engawala livelihoods. They note that ‘government’ powerfully determines opportunities and constraints at the local level. They found that local people seek influence on government through advocacy processes that are different in their nature and scale from their day-to-day decisions about their livelihoods (Moran et al. 2007: 60–65). They concluded that the value of using the SLF in the Engawala study, with modifications to its design, was as a participatory model of practice, to bring both researchers and community members to a common frame of reference for considering issues and planning at a community scale (Moran et al. 2007, Davies et al. 2008).

In this study, we have used the SLF in a different way from Moran et al. (2008). We have used it as a mental framework for researchers in designing data collection and guiding analysis rather than as a tool in participatory research. Nor does our research have the same focus as Moran et al.’s on engendering collective action by the communities of Anmatjere region. We have not found it necessary to redraw the SLF in order for it to be useful for our purposes. Rather, we have found that the significant impacts of ‘culture’ and ‘government’ on livelihoods in the region can be accommodated in a generic SLF (Figure 1.3), as part of considering the nature and impacts of institutions, influence and social capital. While we have found the framework to be useful in this research as a constant reminder that livelihood outcomes depend on many interacting factors and an encouragement to explore these, we also find that it does not account well for contestation between value systems. Further, while the SLF does draw attention to the key role of institutions in determining livelihood outcomes, it does not in itself facilitate analysis of institutions. Supplementary data collection directed at institutional analysis and development (Ostrom 2005) would enable more sophisticated analysis of these.

6. Conclusion

The central aim of this research project has been to investigate the relationships between the livelihoods of people in the Anmatjere region and opportunities for regional development, particularly through local employment.

The livelihoods of Aboriginal and non-Aboriginal people show strong contrasts. Both groups tend to see their livelihoods as attached to place, that is, to their location in Anmatjere region. However, while non-Aboriginal people in the region are either employers or employed in mainstream jobs, many Aboriginal people in the region are unemployed. For both employed and unemployed Aboriginal people, livelihood activities frequently include customary care for family, country and cultural activities. Jobs or income-earning opportunities from such activities are poorly developed in the region.

The research findings indicate that Aboriginal and non-Aboriginal people of Anmatjere region have different perspectives on the employment opportunities in the region. These opportunities are much more apparent to non-Aboriginal people than they are to Aboriginal people. Many Aboriginal people of the region aspire to continue undertaking their customary duties and activities of care for family, country and culture; improve their standing in their current job; and to have good education and jobs in the region for their children. They also express concern for a more cautious approach to development of the region, particularly its impact on their culture and ways of living. Non-Aboriginal people express stronger aspirations for economic development for the region, as well as for wellbeing and jobs for themselves and their children.

Aboriginal people’s access to employment opportunities is impacted by poor literacy and numeracy and poorly developed relationships outside their own dense social networks to employers and people in positions of authority. Furthermore, Aboriginal culture in the region and workplace culture present two different sets of norms. People of each cultural system are unfamiliar with the other. This unfamiliarity

carries the risk of causing offence, sanction and conflict. High costs are involved in people from one culture fitting in with the norms of the other culture. The costs are particularly high for private sector employers who have limited access to support to adapt the culture of their workplace.

A number of people, organisations and institutions in the region operate as brokers or bridges between Aboriginal culture and mainstream workplace culture. The role requires accountability to both cultural systems and hence it is stressful, with a high failure rate. Operating effectively in this role requires flexibility to apply local knowledge of the day-to-day dynamics of changes in local Aboriginal and workplace environments, and to apply learnings about the impact of actions. Yet institutions at higher orders, such as uniformly applied program rules and short-term funding cycles, act to limit the capacity of bridging individuals and organisations to operate effectively in this role. As a result, sustained adaptive action on addressing Aboriginal disadvantage and engendering a shift to a more sustainable state for the region and the livelihoods of people in the region will continue to be problematic.

There are no quick fixes to the limitations on developing a local workforce for the expanding opportunities in mining and horticulture. Long-term and consistent investment are needed in tailored training to develop skills required for jobs coupled with practical, family-based support to people who are managing transitions into work. Such support needs to engage closely with the social networks that operate among Aboriginal people of the region, that provide pathways to employment and both incentives and disincentives to stay in employment.

While such long-term and sustained investment can be expected to improve engagement of Aboriginal locals in mainstream employment, it is also essential to focus on what Aboriginal people in the region value and the activities that are closely associated with their identities. Aboriginal people of the region value being good custodians of their countries and undertaking customary economic and caring activities. An approach to regional development that recognises and promotes the values of these activities can play a substantial role in improving social wellbeing and sustainability of the region.

Sustainable development of the region will also depend on effective management of the benefits from extractive economic sectors. The mineral and ground water resources exploited through mining and irrigated horticulture are a draw down on the natural capital of the region that should be reciprocated by development of other forms of capital, notably by building the human and social capital of the region. Candidate investment areas include a) in knowledge and understanding that transform Aboriginal people from rent making to risk and profit sharing in economic activities of the region, b) in activities that promote the value of local and traditional knowledge and cultural and natural resource management practices, c) in encouraging and supporting role models and brokers that bridge disparate networks, and d) in matching institutions that bridge cultural norms for effective social and economic engagement.

Being a desert, ecological and climatic variability is inherent in Anmatjere region. Resilience in such environment requires flexibility and a diversity of livelihood strategies. Policies for regional development need to promote both mainstream jobs and other livelihood activities that local people value doing.

7. References

- Abel N, Cumming DHM and Anderies JM. 2006. Collapse and reorganization in social-ecological systems: Questions, some ideas, and policy implications. *Ecology and Society* 11(1). <http://www.ecologyandsociety.org/vol11/iss1/art17/>.
- ABS. (Australian Bureau of Statistics). 2006a. 'Confidentiality', *Census Dictionary: Australia*, Catalogue 2901.0 (Reissue). ABS, Canberra. Retrieved May 28, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2006b. 'Labour force status', *Census Dictionary: Australia*, Catalogue 2901.0 (Reissue). ABS, Canberra. Retrieved May 28, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007a. *Information Paper: Measuring Net Undercount in the 2006 Population Census*. Catalogue 2940.0.55.001. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007b. *2006 Census Community Profile Series Apatula (IREG33) Indigenous Profile*. Catalogue 2002.0. ABS, Canberra. Retrieved November 17, 2009, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007c. *2006 Census Quick Stats: Apatula (Indigenous Region)*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007d. *2006 Census Quick Stats: Anmatjere (CGC) (Local Government Area)*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007e. *2006 Census Quick Stats: Anmatjere (CGC) (Indigenous Area)*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007f. *2006 Census Quick Stats: Australia*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2007g. *2006 Census Quick Stats: NT Very Remote Australia (Remoteness Area)*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008a. *Regional Population Growth, Australia*. Catalogue 3218.0. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008b. *National Regional Profile Anmatjere CGC (Local Government Area)*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008c. *Labour force characteristics of Aboriginal and Torres Strait Islander Australians, Estimates from the Labour Force Survey, 2007*. Catalogue 62870DO001. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008d. *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2008*. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008e. *Information paper: An introduction to socio-economic indexes for areas (SEIFA) 2006*. Catalogue 2039.0. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- ABS. (Australian Bureau of Statistics). 2008f. *Socio-economic indexes for areas (SEIFA). Data only, 2006 for Statistical Local Areas and Census Collection Districts*. ABS. Catalogue 2033.0.55.001. ABS, Canberra. Retrieved November 31, 2008, from www.abs.gov.au.
- AIATSIS and FATSIL (Australian Institute of Aboriginal and Torres Strait Islander Studies; Federation of Aboriginal and Torres Strait Islander Languages). 2005. *National Indigenous Languages Survey Report 2005*. Department of Communications, Information Technology and the Arts, Canberra. http://www.arts.gov.au/__data/assets/pdf_file/0006/35637/nils-report-2005.pdf
- Alexandridis K, Maru Y, Davies J, Box P and Hueneke H. 2009. 'Constructing Semantic Knowledge Networks from the ground up: livelihoods and employment outcomes in Anmatjere region, central Australia.' *18th World IMACS Congress and MODSIM09 International Congress on Modelling*

- and Simulation*. July 2009, Cairns, Modelling and Simulation Society of Australia and New Zealand and International Association for Mathematics and Computers in Simulation. 2819–25. Retrieved December 23, 2009, from <http://www.mssanz.org.au/modsim09/H1/alexandridis.pdf>.
- Altman JC and Smith DE. 1992. *Estimating the reliance of Aboriginal Australians on welfare: some policy implications*. CAEPR Discussion Paper No. 19, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Alyawarr speakers from Ampilatwatja, Walsh F and Douglas J. 2009. *Angka Akatyerr-akert: a desert raisin report*. Desert Knowledge CRC, Alice Springs. Retrieved December 7, 2009, from http://www.desertknowledgecrc.com.au/researchimpact/downloads/DKCRC_Angka-Akatyerr-akert_A-Desert-raisin-report.pdf
- Anmatjere Masterplan Steering Committee. 2002. *Anmatjere Regional Development Plan 2002–2012*. Ti Tree. Retrieved March 28, 2007, from http://www.anmatjere.nt.gov.au/home/about_us/regional_report.
- Austin-Broos D. 2003. Places, practices, and things: The articulation of Arrernte kinship with welfare and work. *American Ethnologist* 30(1): 118–135.
- Austin-Broos D. 2006. ‘Working for’ and ‘working’ among Western Arrernte in Central Australia. *Oceania* 76: 1–15.
- Austin-Broos D. 2009. *Arrernte present, Arrernte past: invasion, violence and imagination in Indigenous Central Australia*. University of Chicago Press, Chicago.
- Baker R, Davies J and Young E (Eds). 2001. *Working on country: contemporary indigenous management of Australia’s lands and coastal regions*. Oxford University Press, South Melbourne.
- Batty P. 2005. Private politics, public strategies: White advisors and their Aboriginal subjects. *Oceania* 75(3): 209–221.
- Bourdieu P. 1986. *The forms of capital*. Greenwood Press, New York.
- Bowles S, Durlauf SN and Hoff K (Eds). 2006. *Poverty Traps*, Princeton University Press, New Jersey.
- Brady M. 1995. *Broadening the base of interventions for Aboriginal people with alcohol problems*. Technical Report No 29. University of NSW National Drug and Alcohol Research Centre, Sydney.
- Burgess CP, Johnston FH, Bowman D and Whitehead PJ. 2005. Healthy country: Healthy people? Exploring the health benefits of indigenous natural resource management. *Australian and New Zealand Journal of Public Health* 29(2): 117–122.
- Burgess P, Mileran A and Bailie R. 2008. Beyond the mainstream: health gains in remote Aboriginal communities. *Australian Family Physician* 37(12): 986–988.
- Burt RS. 2005. *Brokerage and closure: an introduction to social capital*. Oxford University Press, Oxford, UK.
- Campbell D, Davies J and Wakerman J. 2008. Facilitating complementary inputs and scoping economies in the joint supply of health and environmental services in Aboriginal central Australia. *Rural and Remote Health* (online) 8 (Article No 1010). <http://www.rrh.org.au/articles/showarticlenew.asp?ArticleID=1010>.
- Carlsson L and Sandstrom A. 2008. Network governance of the commons. *International Journal of the Commons* 2(1): 33–54. <http://www.thecommonsjournal.org/index.php/ijc/article/view/20/17>.
- Carney D. 2002. *Sustainable Livelihood Approaches: Progress and Possibilities for Change*. UK Department for International Development, London.
- Central Desert Shire Council. 2009. *Shire Business Plan 2009/10*. Alice Springs. Retrieved December 23, 2009, from http://www.localgovernment.nt.gov.au/_data/assets/pdf_file/0005/31973/Central_Desert_Shire_Business_Plan_-_Main_Report_1st_Draft.pdf.

- Central Land Council. 2007. 28 April 2008. *Our land: commercial horticulture*. from <http://www.clc.org.au/OurLand/horticulture.asp>.
- Centre for Appropriate Technology. n.d. *The Livelihood opportunity: A project to build understanding of livelihood options in remote communities of Indigenous people and to develop a new approach to achieving them*. Centre for Appropriate Technology. Alice Springs.
- Centrefarm Aboriginal Horticulture Limited. 2007. *Developing a horticulture industry on Aboriginal land in Central Australia*. Central Land Council, Alice Springs.
- Chambers R and Conway GR. 1992. *Sustainable rural livelihoods: practical concepts for the 21st century*. IDS Discussion Paper 296. Institute of Development Studies, University of Sussex, Brighton, UK.
- Childs J. 2009. *Review of contractible NRM activities within the Northern Territory Department of Natural Resources, Environment, the Arts and Sport*. Working Paper No. 47. Desert Knowledge CRC, Alice Springs. Retrieved December 23, 2009, from http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Working-Paper-47_Review-of-contractible-NRM-activities-in-NRETAS.pdf
- Chlanda E. 2004. Ti Tree grapes of wrath, *Alice Springs News*, 27 October 2004. Alice Springs. Retrieved December 23, 2009, from <http://www.alicespringsnews.com.au/1139.html>.
- Chlanda E and Finnane K. 2001. Black cattle stations: far too many bosses, *Alice Springs News*, 28 November 2001. Alice Springs. Retrieved December 23, 2009, from <http://www.alicespringsnews.com.au/0843.html>.
- Collier P, King S, Lawrence K, Nangala I, Nangala M, Orr M, Schaber E, Young M, Guenther J and Oster J. 2007. *Growing the desert: educational pathways for remote Indigenous people – Support document*. National Centre for Vocational Education Research. Adelaide. Retrieved December 23, 2009, from <http://www.ncver.edu.au/research/proj/nr4018s1.pdf>.
- Costanza R, Fisher B, Ali S, Beer C, Bond L, Boumans R, Danigelis NL, Dickinson J, Elliott C, Farley J, Gayer DE, Glenn LM, Hudspeth T, Mahoney D, McCahill L, McIntosh B, Reed B, Rizvi SAT, Rizzo DM, Simpatico T and Snapp R. 2007. Quality of life: An approach integrating opportunities, human needs, and subjective well-being. *Ecological Economics* 61(2–3): 267–276.
- Crawford E and Ostrom E. 2005. A grammar of institutions. In *Understanding institutional diversity*. E Ostrom (Ed.), Princeton University Press, Princeton: 137–173.
- Daly AE. 1991. *The participation of Aboriginal people in the Australian labour market*. CAEPR Discussion Paper 6, Centre for Aboriginal Economic Policy Research, The Australian National University, Canberra.
- Davies J. 2007. Enterprising work on country: incentives for biodiversity conservation and well-being. *Our Place*, Centre for Appropriate Technology(30): 14–16.
- Davies J, White J, Wright A, Maru Y and LaFlamme M. 2008. Applying the sustainable livelihoods approach in Australian desert Aboriginal development. *The Rangeland Journal* 30(1): 55–65.
- De Haan L and Zoomers A. 2003. Development geography at the crossroads of livelihood and globalisation. *Tijdschrift Voor Economische En Sociale Geografie* 94(3): 350–362.
- De Haan LJ. 2000. The question of development and environment in geography in the era of globalisation. *GeoJournal* 50(4): 359–367.
- Dockery AM and Milsom N. 2007. *A review of Indigenous employment programs*. National Centre for Vocational Education Research. Adelaide. Retrieved December 23, 2009, from <http://www.ncver.edu.au/research/proj/nr4019.pdf>.
- Douglas J. forthcoming. Learning from country: the value of Indigenous Language and Culture programs in remote schools for community engagement and natural resource management. Desert Knowledge CRC, Alice Springs.

- Dowding K. 2006. Can Capabilities Reconcile Freedom and Equality? *The Journal of Political Philosophy* 14(3): 323–36.
- Elkington J. 2009. 'Unearthing the future: mining and minerals in the phoenix economy.' In *Proceedings Minerals Council of Australia. SD09: Sustaining our social licence, 26-30 October 2009, Adelaide*. Retrieved 7 December 2009, from <http://www.sd09.com.au/images/stories/EPresentations/john%20elkington.pdf>.
- FaHCSIA (Australian Government Department of Families, Housing, Community Services and Indigenous Affairs). 2007. Budget 2007–08. A better future for Indigenous Australians. Retrieved 12 May 2008, from http://www.facsia.gov.au/internet/facsinternet.nsf/aboutfacs/budget/budget2007-07_indigenous_1.htm.
- Folds R. 2000. *Crossed Purposes: the Pintupi and Australia's Indigenous Policy*. UNSW Press, Sydney.
- Folke C, Carpenter S, Elmqvist T, Gunderson L, Holling CS, Walker B, Bengtsson J, Berkes F, Colding J, Danell K, Falkenmark M, Gordon L, Kaspersen R, Kautsky N, Kinzig A, Levin S, Mäler K, Moberg F, Ohlsson L, Olsson P, Ostrom E, Reid W, Rockström J, Savenije H and Svedin U. 2002. Resilience and sustainable development: building adaptive capacity in a world of transformations. Scientific background paper on resilience for the process of The World Summit on Sustainable Development. The Environmental Advisory Council to the Swedish Government. Stockholm. Retrieved November 25, 2009, from http://www.resalliance.org/files/1144440669_resilience_and_sustainable_development.pdf
- Friedel M and Chewings V. 2008. Central Australian Tourism Futures: Refining regional development strategies, using a systems approach, Central Australian Tourism Futures Stage 2. DKCRC Working Paper 29, Desert Knowledge CRC, Alice Springs. Retrieved November 23, 2009, from <http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Working-Paper-29-Central-Australian-Tourism-Futures.pdf>.
- Garden J. 2007. 'Indigenous affairs,' Research Brief no 12 2006/7: Budget review 2007-08. Retrieved May 12, 2008, from <http://www.aph.gov.au/library/Pubs/RB/BudgetReview/IndigenousAffairs.htm>.
- Gerritsen R and Straton A. 2006. Coping with a tragedy of the Australian Aboriginal common. In *Adapting rules for sustainable resource use*. A Smajgl and S Larson (Eds.). CSIRO Sustainable Ecosystems, Townsville: 173–188.
- GHD and Arafura Resources Ltd. 2008. Nolan's Bore: notice of intent. Prepared for NT Government Environmental Impact Assessment Process. Retrieved November 14, 2008, from <http://www.nt.gov.au/nreta/environment/assessment/register/nolans/intent.html>.
- Gibson-Graham JK. 2005. Surplus possibilities: Postdevelopment and community economies. *Singapore Journal of Tropical Geography* 26(1): 4–26.
- Giddens A. 1984. *The Constitution of Society*. Polity Press, Cambridge.
- Guenther J, Young M, Boyle A, Schaber E and Richardson J. 2005. Growing the desert: regional and educational profiles of the Australian desert and its Indigenous peoples Stage 1 Report. Desert Knowledge CRC Research Report No 10. Desert Knowledge CRC and National Centre for Vocational Education Research. Alice Springs. Retrieved December 23, 2009, from <http://www.desertknowledgecrc.com.au/publications/downloads/Growing%20the%20Desert%20Regional%20and%20Educational%20Profiles%20of%20the%20Australian%20Desert%20and%20its%20Indigenous%20Peoples.pdf>.
- Hamilton C, Eckersley R and Denniss R. n.d. The wellbeing manifesto. Retrieved November 17, 2009, from <http://www.wellbeingmanifesto.net/index.htm>.
- Hegmon M, Peoples M, Kinzig A, Kulow S, Meegan C and Nelson M. 2008. Social Transformation and Its Human Costs in the Prehispanic U.S. Southwest. *American Anthropologist* 110(3): 313.
- Hoff K and Sen A. 2006. The kin system as a poverty trap? In *Poverty Traps*. S Bowles, SN Durlauf and K Hoff (Eds.), Princeton University Press, New Jersey: 95–115.

- Hunt J. 2005. *Capacity development in the international context*. Working paper no. 278/2005, CAEPR, ANU, Canberra.
- Hunter BH. 2004. *Indigenous Australians in the Contemporary Labour Market*. Cat. no. 2052.0. ABS, Canberra.
- Institute for Aboriginal Development. 1983. *Puraiya Cattle Company: A development program by IAD's Rural Extension Unit for the Aboriginal Development Commission*. IAD. Alice Springs.
- Institute of Development Studies. 2008. *Robert Chambers: Livelihoods in the North discussion*. You Tube: <http://www.youtube.com/watch?v=OtbEKaScAnA>. Retrieved 14 November 2009.
- Johnson CA. 1997. *Rules, Norms and the Pursuit of Sustainable Livelihoods*. IDS Working Paper 52, Institute of Development Studies, Brighton.
- Josif P, Ashley M and Bubb A. 2009. *Review of Indigenous employment and engagement in the Northern Territory Pastoral Industry 2007*. Meat and Livestock Australia Ltd. Sydney. Retrieved November 17, 2009, from <http://www.mla.com.au/TopicHierarchy/InformationCentre/PublicationsDatabase/PublicationDetailsCommerce.htm?pubID=4713&DirectDownload=y>
- Kral I. 2009. *The literacy question in remote Indigenous Australia*. CAEPR Topical Issue No. 06/2009. CAEPR, ANU, Canberra. Retrieved December 7, 2009, from http://www.anu.edu.au/caepr/Publications/topical/Kral_Literacy_0609.pdf
- Kral I and Falk I. 2004. *What is all that learning for? Indigenous adult literacy practices, training, community capacity and health*. National Centre for Vocational Education Research, Adelaide. Retrieved December 23, 2009, from <http://www.ncver.edu.au/research/proj/nr2L05.pdf>.
- LaFlamme M. 2007. Developing a shared model for sustainable Aboriginal livelihoods in natural-cultural resource management. In *Proceedings MODSIM 2007 International Congress on Modelling and Simulation. Land, Water and Environmental Management: Integrated Systems for Sustainability*, Christchurch, New Zealand, 10–13 December: 288–94. Retrieved December 23, 2009, from http://www.mssanz.org.au/MODSIM07/papers/5_s45/DevelopingAShared_s45_LaFlamme.pdf.
- LaFlamme M. 2010. *Sustainable Desert Livelihoods: A cross-cultural framework*, DKCRC Working Paper 69, Desert Knowledge CRC, Alice Springs.
- Land Rights News. 2008. New growth brings jobs to the desert, *Land Rights News*, Alice Springs. 11: 3.
- Lea T. 2008. *Bureaucrats and bleeding hearts: Indigenous health in northern Australia*. UNSW Press, Sydney.
- Leach M, Mearns R and Scoones I. 1999. Environmental entitlements: dynamics and institutions in community-based natural resource management. *World Development* 27(2): 225–247.
- LGANT. (Local Government Association of the Northern Territory). 2006. *Report: Anmatjere. Audit of employment opportunities in remote communities in the Northern Territory*. Local Government Association of the Northern Territory (LGANT) and Australian Government Department of Employment and Workplace Relations. Retrieved August 13, 2007, from <http://www.workplace.gov.au/workplace/Publications/ResearchStats/LabourMarketAnalysis/LEO/NT/LGANTCommunityJobAuditReports.htm>.
- Marks N and Shah H. 2004. A well-being manifesto for a flourishing society. *Journal of Mental Health Promotion* 3(4): 9–15.
- Martin DF. 2006. *Why the 'new direction' in Federal Indigenous affairs policy is as likely to 'fail' as the old directions*. An edited transcript of a seminar delivered at CAEPR on May 10, 2006. Centre for Aboriginal Economic Policy Research, Australian National University, Canberra. Retrieved December 4, 2009, from <http://www.anu.edu.au/caepr>.
- Maru Y. 2000. 'Towards developing a community-based sustainable development monitoring system for Tigray State, Northern Ethiopia', School of Natural and Rural Systems Management. University of Queensland. PhD.

- McAllister R, Cheers B, Darbas T, Davies J, Richards C, Robinson CJ, Ashley M, Fernando D and Maru YT. 2008. Social networks in arid Australia: a review of concepts and evidence. *The Rangeland Journal* 30(1): 167–76.
- McRae-Williams E. 2008. ‘Understanding “work” in Ngukurr: a remote Australian Aboriginal community’, *Anthropology*. Charles Darwin University, Darwin. PhD: 297.
- Measham T, Maru Y and Murray-Prior R. 2006. *Outback Livelihoods: Defining and linking social and economic issues affecting the health and viability of Outback regions*, DKCRC Working Paper 6, Desert Knowledge CRC, Alice Springs. Retrieved from <http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Working-Paper-06-Outback-Livelihoods.pdf>.
- Meglani Pty Ltd. 2005. *Updating the Anmatjere regional development: A report on the outcomes of a community workshop*. NT Department of Local Government, Housing and Sport; Anmatjere Community Government Council.
- Memmott P, Long S and Thomson L. 2006. *Indigenous mobility in rural and remote Australia*. Final Report no 90. Australian Housing and Urban Research Institute, Brisbane. Retrieved November 24, from http://www.ahuri.edu.au/publications/download/20260_fr.
- Miller C. 2005. *Aspects of training that meet Indigenous Australians’ aspirations: A systematic review of research*. National Centre for Vocational Education Research. Adelaide. Retrieved November 23, 2009, from <http://www.ncver.edu.au/statistics/surveys/indig/sysreview/sr4002.pdf>.
- Misko J. 2004. *The role of Community Development Employment Projects in rural and remote communities*. National Centre for Vocational Education Research. Adelaide. Retrieved December 23, 2009, from <http://www.ncver.edu.au/research/core/cp0208a.pdf>.
- Mitchell J, Pearce R, Stephens M, Taylor J and Warchivker I. 2005. *Indigenous Populations and Resource Flows in Central Australia: A Social and Economic Baseline Profile*, DKCRC Research Report 5, Desert Knowledge CRC, Alice Springs.
- Moran M and Elvin R. 2009. Coping with complexity: Adaptive governance in desert Australia. *GeoJournal* 34(5): 415–428.
- Moran M, Wright A, Renahan P, Szava A, Rich E and Beard N. 2007. *The Transformation of Assets for Sustainable Livelihoods in a Remote Aboriginal Settlement*, DKCRC Research Report 28, Desert Knowledge CRC, Alice Springs.
- Morphy F, Sanders W and Taylor J. 2007. *Producing powerful numbers. Agency, contingency and census process: observations of the 2006 Indigenous enumeration strategy in remote Aboriginal Australia*. F Morphy (Ed.) CAEPR Research Monograph No. 28: 1–8, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra. Retrieved December 23, 2009, from http://epress.anu.edu.au/caepr_series/no_28/pdf/ch01.pdf.
- Musharbash Y. 2001. *Yuendumu CDEP: The Warlpiri work ethic and Kardiya staff turnover*. In *The Indigenous welfare economy and the CDEP Scheme*. F Morphy and W Sanders (Eds.), Centre for Aboriginal Economic Policy Research, Australian National University, Canberra: 153–72. Retrieved December 23, 2009, from http://epress.anu.edu.au/caepr_series/no_20/mobile_devices/ch16.html.
- Myers FR. 1991. *Pintupi country, Pintupi self: sentiment, place and politics among Western Desert Aborigines*. University of California Press, California.
- NTDIPE (Northern Territory Department of Infrastructure, Planning and Environment). 2002. *Ti Tree Region Water Resource Strategy*. NTDIPE, Darwin.
- NTDPIFM (Northern Territory Department of Primary Industry Fisheries and Mines). 2006. *Primary Industry: Ti Tree Research Farm*. Retrieved May 3, 2008 from http://www.nt.gov.au/dpifm/Primary_Industry/index.cfm?Header=Ti%20Tree%20Research%20Farm.
- O’Faircheallaigh C and Corbett T. 2005. Indigenous participation in environmental management of mining projects: the role of negotiated agreements. *Environmental Politics* 14(5): 629–647.

- Ostrom E. 2005. *Understanding institutional diversity*. Princeton University Press, Princeton.
- Pareek U. 1976. Orientation toward work and school: cultural context and intervention strategies. In *Aboriginal cognition: retrospect and prospect*. GE Kearney and DW McElwain (Eds.), Australian Institute of Aboriginal Studies, Canberra: 98–112.
- Parliament of Australia. HRSCAFF (House of Representatives Standing Committee on Agriculture Fisheries and Forestry). 2007. *Skills: Rural Australia's needs. Inquiry into rural skills training and research*. Commonwealth of Australia, Canberra. Retrieved August 19, 2007, from <http://www.aph.gov.au/house/committee/Primind/ruralskills/report.htm>.
- Parliament of Australia. SSCECITA (Senate Standing Committee on Environment Communications Information Technology and the Arts). 2007. *Indigenous art – securing the future. Australia's Indigenous visual art and craft sector*. Commonwealth of Australia, Canberra. Retrieved December 23, 2009, from http://www.aph.gov.au/senate/Committee/ecita_ctte/completed_inquiries/2004-07/indigenous_arts/report/report.pdf.
- Pawu-Kurlpurlurnu WJ, Holmes M and Box LA. 2008. *Ngurra-kurlu: A way of working with Warlpiri people*. Desert Knowledge CRC Research Report No 41. Desert Knowledge CRC, Alice Springs. Retrieved December 23, 2009, from <http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Report-41-Ngurra-kurlu.pdf>.
- Peterson N. 1993. Demand Sharing: Reciprocity and the Pressure for Generosity among Foragers. *American Anthropologist* 95(4): 860–874.
- Peterson N. 2005. What can the pre-colonial and frontier economies tell us about engagement with the real economy? Indigenous life projects and the conditions for development. In *Proceedings of a Workshop of the Academy of the Social Sciences in Australia: Culture, Economy and Governance in Aboriginal Australia*. The University of Sydney, 30 November – 1 December 2004. D Austin-Broos and G Macdonald (Eds.), Sydney University Press, Sydney: 7–18.
- Peterson N and Taylor J. 2003. The modernising of the indigenous domestic moral economy. *Asia Pacific Journal of Anthropology* 4(1): 105–122.
- Povinelli EA. 1992. “Where We Gana Go Now”: Foraging Practices and Their Meanings among the Belyuen Australian Aborigines. *Human Ecology* 20(2): 169–202.
- Pretty J. 2003. Social capital and the collective management of resources. *Science* 302(5652): 1912–1914. <http://www.sciencemag.org/cgi/content/full/sci;302/5652/1912>
- Putnam R. 1993. *Making democracy work*. Princeton University Press, Princeton, NJ.
- Putnis A, Josif P and Woodward E. 2007. *Healthy country, healthy people: supporting Indigenous engagement in the sustainable management of Northern Territory land and seas*. CSIRO, Darwin. Retrieved 10 June, 2008, from <http://www.csiro.au/files/files/plbc.pdf>.
- Rea N and Anmatjerr Water Project Team. 2008. *Provisions for cultural values in water management: the Anmatyerr story*. Research project NTU18 of the Innovations Research Program. Australian Government, Land & Water Australia, Canberra.
- Rea N and Messner J. 2008. Constructing Aboriginal NRM livelihoods: Anmatyerr employment in water management. *The Rangeland Journal* 30(1): 85–93.
- Rea N, Messner J and Gipey C. 2008. *The character of Aboriginal training pathways: A local perspective*. DKCRC Research Report 34, Desert Knowledge CRC, Alice Springs. <http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Report-34-Character-Aboriginal-Training-Pathways.pdf>.
- Reeves J. 1998. *Building on land rights for the next generation: the review of the Aboriginal Land Rights (Northern Territory) Act 1976*. Aboriginal and Torres Strait Islander Commisison, Canberra.
- Resilience Alliance. n.d. Key concepts: *Resilience*. Retrieved November 25, 2009, from <http://www.resalliance.org/576.php>.

- Reynolds JF, Stafford Smith DM, Lambin EF, Turner BL, Mortimore M, Batterbury SPJ, Downing TE, Dowlatabadi H, Fernandez RJ, Herrick JE, Huber-Sannwald E, Jiang H, Leemans R, Lynam T, Maestre FT, Ayarza M and Walker B. 2007. Global desertification: building a science for dryland development. *Science* 316: 847–851.
- Robeyns I. 2006. The capability theory in practice. *Journal of Political Philosophy* 14(3): 351–376.
- Rose B. 1995. *Aboriginal land management issues in central Australia*. Central Land Council, Alice Springs.
- Ross D. 2004. *Beyond the partnership rhetoric: Aboriginal rights and realities*. Paper presented at Inaugural Global Sustainability Conference, Minerals Council of Australia, Melbourne. <http://www.clc.org.au/media/speeches/Beyond%20the%20Partnership%20Rhetoric%20.pdf>
- Rowse T. 2001. The political dimensions of community development. In *The Indigenous welfare economy and the CDEP scheme*. W Sanders and F Morphy (Eds.), CAEPR, Canberra: 39–46.
- Rowse T. 2002. *Indigenous Futures: choice and development for Aboriginal and Islander Australia*. UNSW Press, Sydney.
- Ryder M, Walsh F, Douglas J, Waycott M, Robson H, Singh Z, De Sousa Majer M, Collins T, White J and Cheers B. 2009. *Sustainable Bush Produce Systems: Progress report 2004–2006*. Working Paper 31. Desert Knowledge CRC, Alice Springs.
- Sam Miles & Associates. 1999. *Aboriginal horticulture in Central Australia: developing a strategic management plan for a horticulture industry on Aboriginal freehold land in Central Australia*. Central Land Council, Alice Springs.
- Sanders W. 2001. Adjusting balances: reshaping the CDEP scheme after 20 good years. In *The Indigenous welfare economy and the CDEP scheme*. W Sanders and F Morphy (Eds.), CAEPR, Canberra.
- Sanders W. 2004. *Indigenous centres in the policy margins: the CDEP scheme over 30 years*. ACOSS Annual Congress ‘From the margins to the centre’, Alice Springs. 28–29 October 2004. <http://www.anu.edu.au/caepr/Publications/topical/SandersCDEP.pdf>
- Sanders W. 2005. *Community Government Association and Municipal Councils in the Northern Territory: Comparing populations and finances*. Work-In-Progress Paper. Centre for Aboriginal Economic Policy Research, Australian National University, Canberra. Retrieved December 23, 2009, from http://www.anu.edu.au/caepr-old/Projects/Comm_Gov_Assoc_Munic_Counc_WSanders.pdf.
- Sanders W. 2007. *Changes to CDEP under DEWR: policy substance and the new contractualism*, Topical Issue No. 6/2007. Centre for Aboriginal Economic Policy Research, Australian National University, Canberra. Retrieved December 23, 2009, from http://www.anu.edu.au/caepr/Publications/topical/Sanders_CDEP.pdf.
- Sanders W. 2009. *Anmatjere through the census: profiling an arid zone region*. DKCRC Working Paper 64. Desert Knowledge CRC, Alice Springs. Retrieved December 23, 2009, from http://www.desertknowledgecrc.com.au/publications/downloads/DKCRC-Working-paper-64_Anmatjere-Profile.pdf.
- Sanders W and Holcombe S. 2008. Sustainable governance for small desert settlements: learning from the multi-settlement regionalism of Anmatjere Community Government Council. *The Rangelands Journal* 30: 137–147.
- Sanders W and Morphy F, Eds. 2001. *The Indigenous welfare economy and the CDEP scheme*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra. Retrieved December 23, 2009, from http://eprss.anu.edu.au/c20_citation.html.
- Sansom B. 1980. *The camp at Wallaby Cross: Aboriginal fringe dwellers in Darwin*. Australian Institute of Aboriginal Studies, Canberra.

- Scambury B. 2009. Mining agreements, development, aspirations and livelihoods. In *Power, culture, economy: Indigenous Australians and mining*. J Altman and DF Martin (Eds.), Research Monograph No 30, Centre for Aboriginal Economic Policy Research, Australian National University, ANU e-press Canberra: 171–201. Retrieved November 17, 2009, from <http://www.anu.edu.au/caepr/Publications/mono/2009RM30.php>.
- Scoones I. 1998. *Sustainable rural livelihoods: A framework for analysis*. IDS Working Paper 72. Institute of Development Studies, The University of Sussex, Brighton, UK. Retrieved November 14, 2009, from <http://www.ntd.co.uk/idsbookshop/details.asp?id=419>.
- SCRGSP (Steering Committee for the Review of Government Service Provision). 2007. *Overcoming Indigenous disadvantage: Key indicators 2007*, Productivity Commission, Canberra. Retrieved November 14, 2009, from <http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2007>.
- Sen A. 1992. *Inequality re-examined*. Clarendon Press, Oxford.
- Sen A. 1997. Editorial: Human capital and human capability. *World Development* 25(12): 1959–1961.
- Sen A. 1999. *Development as freedom*. Knopf, New York.
- Shrimpton M and Storey K. 1992. Fly-in mining and the future of the Canadian North. In *At the end of the shift: mines and single-industry towns in Northern Ontario*. M Bray and A Thomson (Eds.), Dundurn Press, Toronto, Canada: 187–206.
- Singh N and Gilman J. 1999. Making livelihoods more sustainable. *International Social Science Journal* 51(4): 539–545.
- Sithole B, Hunter-Xenie H, Williams L, Saegenschnitter J, Yibarbuk D, Ryan M, Campion O, Yunupingu B, Liddy M, Watts E, Daniels C, Daniels G, Christophersen P, Cubillo V, Phillips E, Marika W, Jackson D and Barbour W. 2008. *Aboriginal land and sea management in the Top End: a community-driven evaluation*. CSIRO, Darwin. Retrieved July 10, 2008, from <http://www.csiro.au/files/files/plcc.pdf>.
- Smith DE. 1994. *The cross-cultural validity of labour force statistics about Indigenous Australians*. CAEPR Discussion Paper 69, Centre for Aboriginal Economic Policy Research, The Australian National University, Canberra.
- Stafford Smith M. 2008. The ‘desert syndrome’ - causally-linked factors that characterise outback Australia. *The Rangeland Journal* 30(1): 3–14.
- State of the Environment Advisory Council. 1996. *Australia: State of the Environment 1996*. Commonwealth of Australia, Canberra.
- Stones W and Hughes J. 2003. *Social capital: empirical meaning and measurement validity*. Australian Institute of Family Studies, Melbourne.
- Storey K and Jones P. 2003. Social impact assessment, impact management and follow-up: a case-study of the construction of the Hibernia offshore platform. *Impact Assessment and Project Appraisal* 21(2): 99–107.
- Sutton P. 2001. The politics of suffering: Indigenous policy in Australia since the seventies. *Anthropological Forum* 11(2): 125–173.
- Taylor J. 1991. *Geographic location and Aboriginal economic status: a census-based analysis of outstations in Australia's Northern Territory*. CAEPR Discussion Paper No. 8, Centre for Aboriginal Economic Policy Research, The Australian National University, Canberra.
- Tiplady T and Barclay MA. 2007. *Indigenous employment in the Australian minerals industry*. University of Queensland, Brisbane.
- Trigger D. 2005. Mining projects in remote Aboriginal Australia: sites for the articulation and contesting of economic and cultural futures. In *Proceedings of a Workshop of the Academy of the Social Sciences in Australia: Culture, Economy and Governance in Aboriginal Australia*. The University of Sydney, 30 November – 1 December 2004. D Austin-Broos and G Macdonald (Eds.), Sydney University Press, Sydney: 41–62.

- UK DFID (United Kingdom Department for International Development). 1999–2001. *Sustainable Livelihoods Guidance Sheets*. Retrieved 5 April, 2007, from www.livelihoods.org/info/info_guidancesheets.html.
- Walker B, Carpenter S, Anderies J, Abel N, Cumming G, Janssen M, Lebel L, Norberg J, Peterson GD and Pritchard R. 2002. Resilience management in social-ecological systems: a working hypothesis for a participatory approach. *Conservation Ecology* 6(1). <Go to ISI>://000177892600018.
- Walker B, Gunderson L, Kinzig A, Folke C, Carpenter S and Schultz L. 2006. A handful of heuristics and some propositions for understanding resilience in social-ecological systems. *Ecology and Society* 11(1). <http://www.ecologyandsociety.org/vol11/iss1/art13/>.
- Walker B and Salt D. 2006. *Resilience thinking: sustaining ecosystems and people in a changing world*. Island Press, USA.
- WHO. (World Health Organization) Commission on Social Determinants of Health. 2008. *Closing the gap in a generation: Health equity through action on the social determinants of health*. World Health Organization, Geneva. Retrieved November 14, 2009, from http://www.who.int/social_determinants/thecommission/finalreport/en/index.html.
- Wilkinson R. 1996. *Unhealthy societies: the affliction of inequality*. Routledge, New York.
- Wilkinson R. 2005. *The impact of inequality: How to make sick societies healthier*. Routledge, New York.
- Wilson R and Dodson M. 1997. *Bringing them home: Report of the National Inquiry into the separation of Aboriginal and Torres Strait Islander children from their families*. Human Rights and Equal Opportunity Commission, Sydney. Retrieved December 1, 2009, from http://www.humanrights.gov.au/social_justice/bth_report/report/index.html.
- Woods G. 2009. *Language, art, media and youth: a community based, collaborative approach to documentation*. Paper presented to 1st International Conference on Language Documentation and Conservation, March 2009, University of Hawaii at Manoa. <http://scholarspace.manoa.hawaii.edu/handle/10125/5075>.
- Woolcock M and Narayan D. 2000. Social capital: implications for development theory, research, and policy. *The World Bank Research Observer* 15(2): 225–49.
- Young E. 1987. Resettlement and caring for the country: the Anmatyerre experience. *Aboriginal History* 11: 156–170.
- Young E and Doohan K. 1989. *Mobility for survival: a process analysis of Aboriginal population movement in central Australia*. ANU Press, Darwin.
- Young M and Guenther J. 2008. The shape of Aboriginal learning and work opportunities in desert regions. *The Rangeland Journal* 30(1): 177–186.
- Young M, Guenther J and Boyle A. 2007. *Growing the desert: educational pathways for remote Indigenous people*. National Centre for Vocational Education Research, Adelaide. Retrieved December 23, 2009, from <http://www.ncver.edu.au/research/proj/nr4018.pdf>.

Appendix 1: Anmatjere region

The Anmatjere region has been constructed in various ways for administrative, political and cultural purposes. The main regionalisations are outlined here.

Central Desert Shire and Anmatjere Ward

The Central Desert Shire commenced operations on 1 July 2008 as part of the Northern Territory local government reforms. The Anmatjere Ward of the new shire includes the main settlements that were formerly part of Anmatjere Community Government Council (CGC), adjacent pastoral and horticultural areas and roadhouses, and Yuelamu. The Central Desert Shire has an operational base at Ti Tree and is headquartered in Alice Springs (Central Desert Shire Council 2009). Anmatjere CGC was dissolved as part of the implementation of these local government reforms.

Anmatjere Community Government Council

The Anmatjere CGC was constituted in 1993 and represented the population of Ti Tree township and of a number of Aboriginal settlements within about 50 km of Ti Tree. In 2007–2008 these included:

- Settlements on the Ahakeye Aboriginal Land Trust (ALT), formerly Ti Tree Station, including Pmara Juntunta and Nturiya
- Laramba
- Engawala
- Several smaller settlements on small parcels of Aboriginal-owned land excised from pastoral leases, including Wilora, Alyuen, Adelaide Bore, Anyungyumba and Yanginj (the last three of which have had no residents recently).

The functions of Anmatjere CGC have never included representing or providing services to residents of the pastoral leases or horticultural areas in the region, Aileron or Tilmouth Well roadhouses, or the Aboriginal settlements of Angula and Mulga Bore.

Anmatjere regional development planning

In 2002 a report was prepared as a master plan for Anmatjere regional development (Anmatjere Masterplan Steering Committee 2002). This master plan is for a larger area than the Anmatjere CGC. It includes pastoral and horticultural lands, Yuelamu Land Trust (formerly Mt Allan station) and the settlement of Yuelamu (Mt Allan). The Anmatjere Regional Economic Development Committee was constituted by the NT Minister for Business and Economic Development to work towards employment and economic development in this area.

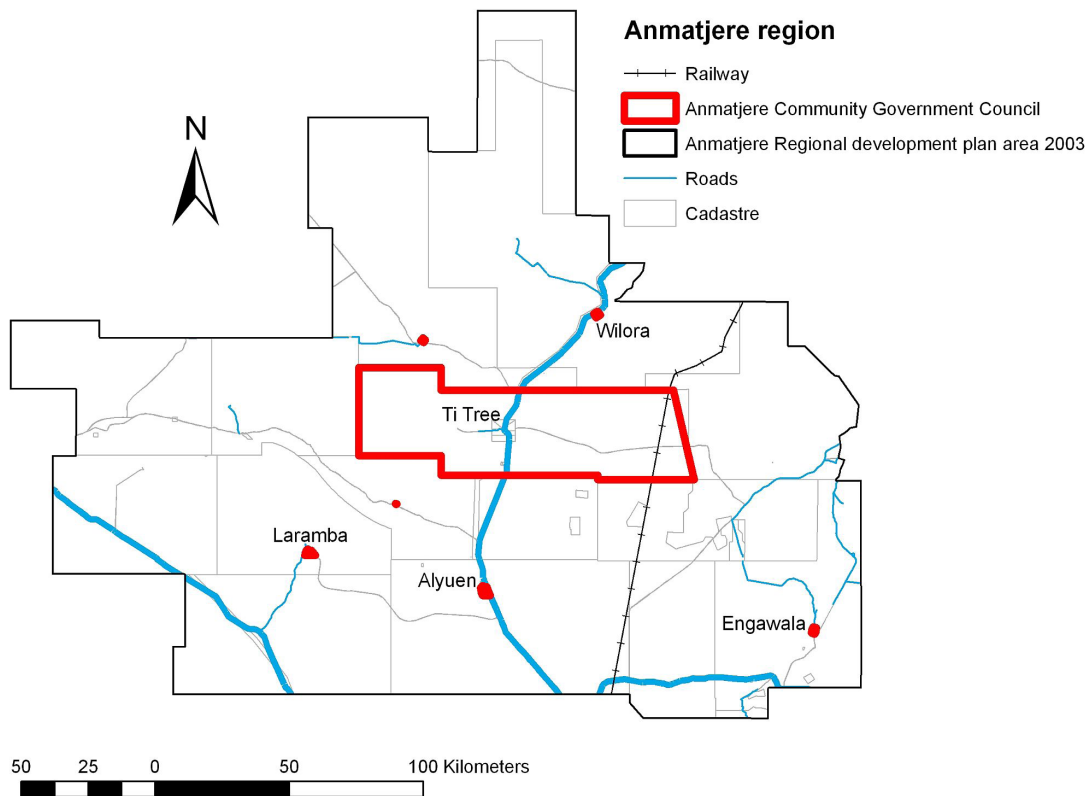


Figure 7.1: Anmatjere Community Government Council and Regional Development Plan area

Anmatyerre Land Council

Three applications have been made under the Aboriginal Land Rights (Northern Territory) Act 1976 [Cwlth] for an Anmatyerre Land Council separate from the Central Land Council, according to Reeves (1998: 197–8). The applications, lodged in 1988, 1992 and 1996, have not been successful. Presumably the boundaries encompassed the extent of Anmatyerr people’s traditional country (see below) though Reeves (1998) reports that investigation of the 1994 application found that Anmatyerr leaders were prepared to adjust their western boundary due to potential Warlpiri opposition to the proposal.

Anmatyerr Country

Young (1987), reflecting on land claims for Mt Allan and Ti Tree stations, describes the extent of the country of Anmatyerr people as being bounded approximately by Barrow Creek, Adelaide Bore, Aileron, Napperby, Mt Wedge, Yuendumu and Mt Barkly. She notes that there had been historic population decline and, among various movements of Aboriginal people impacted by the establishment of pastoral stations and reserves, expansion of Warlpiri into the western part of Anmatyerr country.

Appendix 2: Methods

Project Steering Committee and other stakeholder consultations

A loosely structured steering committee met for the first time in August 2007 and thereafter met approximately every two months until the draft report was prepared in June 2008. The purpose of the Steering Committee was determined at its first meeting to be:

- Advise on strategic directions of the project and associated communication with stakeholders
- Guide the project to help ensure it is responsive to key stakeholders.

Steering Committee meetings have involved representatives of key stakeholders, being Anmatjere CGC, NT and Australian Government agencies, and regional Aboriginal organisations/service providers.

In liaising with local leaders at the start of the project's field work, Jocelyn Davies attended the Pmara Jutunta Management Committee meeting on 16 July (with ANU and Desert Knowledge CRC researcher Will Sanders). Robyn Grey-Gardner and Hannah Hueneke attended Anmatjere CGC meetings on 24 July 2007 and August 2007 and were invited to introduce the proposed research. Jocelyn Davies made a presentation to the Anmatjere Economic Development Committee on 1 August 2007.

The people at these meetings were generally welcoming of the research. Anmatjere CGC members were interested and pleased since they were going to be consulted in the research. In contrast, much action in the region that was happening at that time as a result of the NT Emergency Response had not involved consultation. The Council chairman asked about whether government would take up the research findings. Councillors readily engaged in discussions about the proposed research one on one after the meeting. Points raised in questions and discussion have helped to target the project and its data collection.

Project team members liaised with Centrefarm and interacted with a number of other stakeholders in the region and in Alice Springs during the project's data collection and analysis.

Ethics approval and permits

The research proposal was reviewed by Central Australian Human Research Ethics Committee in 2005 and given approval to proceed on ethical grounds. Field work was undertaken in compliance with provisions of a permit from Central Land Council.

Field data collection

Field data collection aimed to address the research questions from the experiences of people who live and/or work in the region. Constraints were a comparatively short period available for field work, between August and December 2007, and budget considerations. We interviewed a sample of people living in the settlements of Alyuen, Ti Tree, Pmara Jutunta (Six Mile) and Wilora, and a sample of owners/operators or staff of nearby rural and roadhouse enterprises. We also spoke to pastoralists in the region about their strategies for employment and experiences with employment at a Desert Knowledge CRC field day held at Tilmouth Well roadhouse and Napperby station in November 2008. The strategy of interviewing a sample of people from settlements/localities along the Stuart Highway was decided after consideration of other options for a sampling strategy and research methods. These options are discussed below.

Sampling strategy

Two main options were considered by the project team and steering committee for selection of a sample of people from the region to include in the research.

A) Link closely to ongoing and emerging training and contract work initiatives in the region, particularly those in horticulture

Stakeholders who are working to develop employment in the region were interested in an independent assessment of the experiences of Aboriginal participants in mentoring, training and employment support projects, based on the stories and behaviours of those participants. Learnings from such an assessment were seen to be important to future expansion of these programs. Under this sampling option a relatively small group of Aboriginal people would have been tracked closely for a couple of months to learn in depth about experiences and observations for how employment support projects could be improved.

B) Interview a sample of residents and workers in different circumstances in the region

This option involved data collection through one-on-one interview or small group discussion with people from settlements and businesses along the Stuart Highway about their motivations and constraints for taking up various livelihood options. The data would be less 'rich' or detailed than in Option A, but the range of living and working situations where research participants are engaged would be far greater.

The sampling was planned to be limited to settlements close to the highway because of budget and time limitations. This limitation also introduced a control on one group of factors that we could reasonably expect to impact on the accessibility of employment opportunities: distance, road condition and availability of transport. Many of the available employment or business opportunities (such as for tourism, horticulture, transport services) are more prevalent along the highway corridor. People living in settlements close to the highway could be expected to have least difficulty in accessing these.

This second option was pursued in the study because it was more feasible within the budget and it was considered that it would provide more flexibility to adjust the sampling as required by the dynamic circumstances of community life. It also was compliant with the project's ethical protocol so did not require re-application to the CAHREC.

It was further decided that in implementing Option B, the research team would also:

- include some of the people who have participated in CDEP/NTDPIFM prevocational and horticultural work in the interview sample
- keep abreast of developments in Centrefarm/Adelaide Bore prevocational program and provide advice from the research that is relevant to that program's need to plan for success
- be conscious of the need to encompass opportunities and constraints for livelihood activities outside towns, and in smaller settlements not adjacent to the highway.

Interview design

The focus of the research on employment presented risks for the robustness of the data collection process, particularly because at the time of field research in the second half of 2007, government rules for access to welfare, employment and CDEP by remote Aboriginal people were changing very fast. New requirements were being introduced to require remote Aboriginal people to actively look for work. The risk for the research was that Aboriginal interviewees might interpret our questions about job experiences and aspirations as part of the government or Centrelink or Job Network information collection associated with new rules and requirements for welfare access and job seeking. We saw a risk that this could lead interviewees to give answers biased towards what they think 'the government' might want to hear about their aspirations and experiences of employment.

Our use of the sustainable livelihoods framework to guide the research helped to avoid this risk. Research questions were framed to explore different aspects of people's livelihoods, and direct questions about paid work or jobs were a relatively minor part of the survey.

A rapid appraisal methodology was implemented using a structured but informal interview technique. The interview questions were used as a guide to oral questioning, but the way the question was asked was varied between interviews. Interview aids included a set of photo cards of livelihood activities to assist interviewees in pointing out which activities they had been involved in. In other questions interviewees were encouraged to indicate a response along a 'one to ten' scale using a diagram drawn in the sand or on paper.

The questions for the survey are presented in Appendix 2, with indication of which aspect of the sustainable livelihoods framework the question 'maps' to.

Field work was conducted over ten site visits of 1–4 days (usually 2–3 days) from late July 2007, starting with briefing discussions with key people. Field visits for interviews occurred in consecutive weeks in September and October. Responses of interviewees were hand written onto pre-printed interview forms and transcribed into an Excel table as soon as possible afterwards, generally the same day.

Several community members were employed casually as research assistants to assist in locating people who were interested in being interviewed, to explain what the research is about, to secure written informed consent of interviewees, to listen for complaints or concerns about the research, and to assist researchers to understand in multi-lingual conversations.

Interviewees were not paid. Drinks or fruit and small thank-you gifts, including caps and shoulder bags, were offered to interviewees.

Four editions of a small community newsletter and photo story were made during and at the end of the field period and distributed informally. These were used to give ongoing feedback to community members, Anmatjere CGC and other interested people about the research team's activities and some early emerging findings. The newsletter was also used to show community members photos that had been taken of them, and ask for their permission to use the photographs in other communication about the project.

Sample size and characteristics

The aim in the field data collection was to sample 20% of the population of the settlements where interviews were conducted. We also aimed to sample Aboriginal and non-Aboriginal people, men and women and different age groups over 15 years in approximately the same proportion as are present in the Anmatjere region population.

Seventy-two interviews were conducted. Figure 7.2 shows the distribution of interviewees in different categories of age, gender and Aboriginality. Comparison with Figure 7.3 indicates a reasonable match with the overall demographic profile of Anmatjere CGC area.

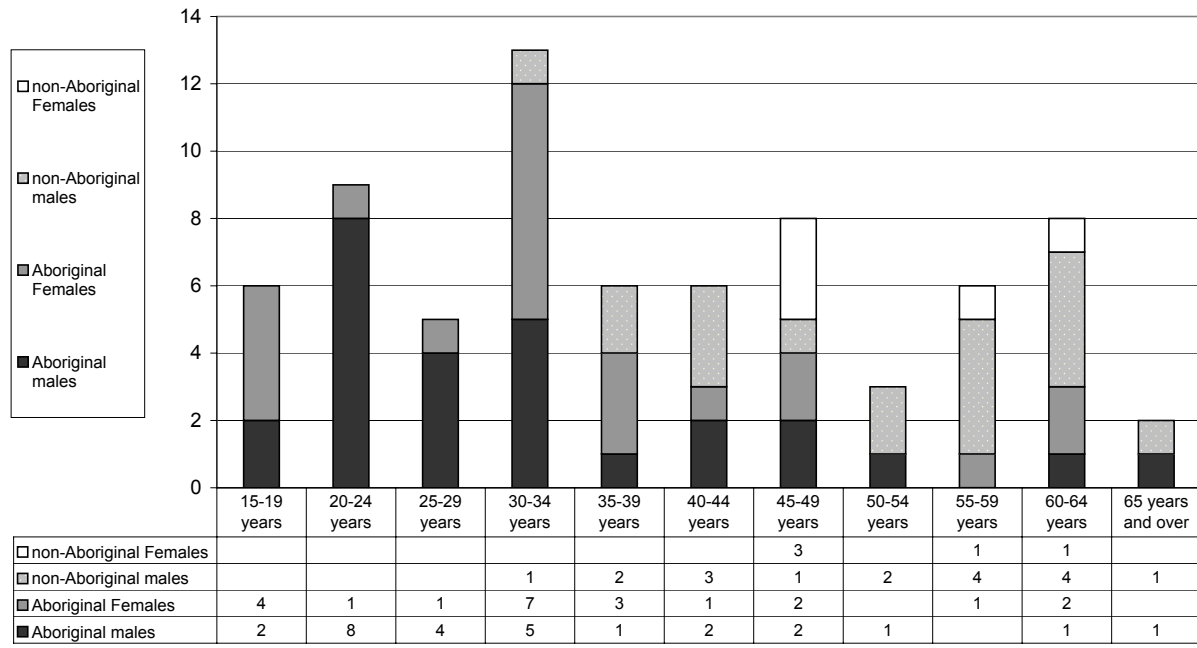


Figure 7.2: Number of interviewees by age, gender and Aboriginality

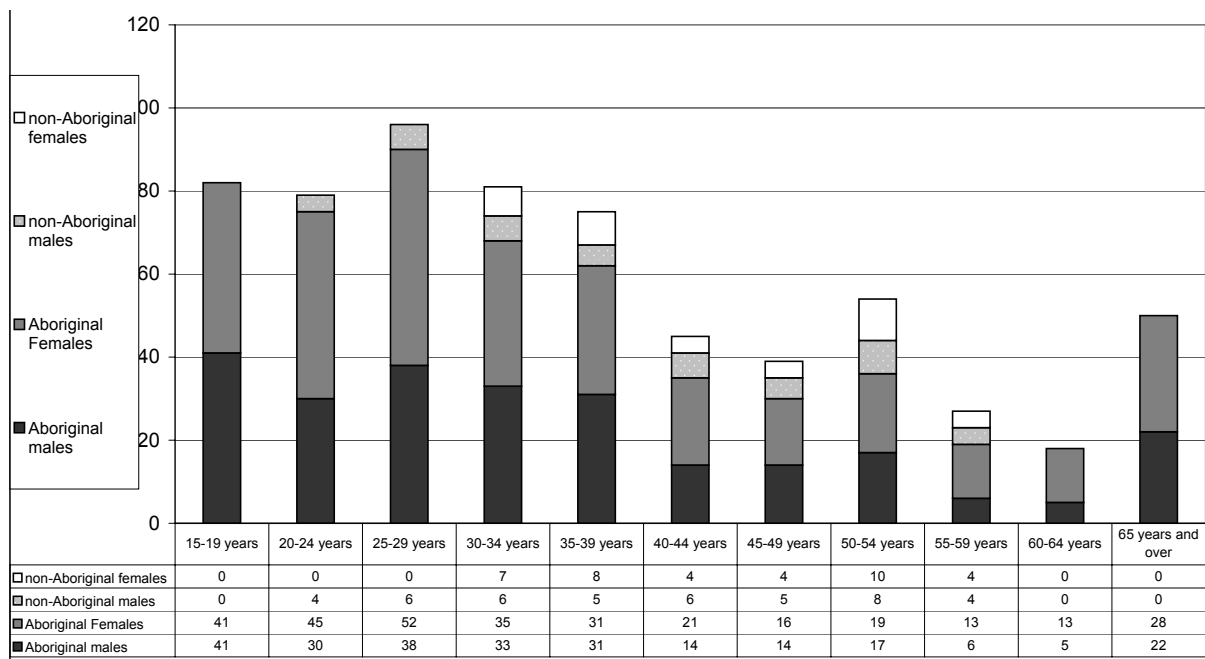


Figure 7.3: Population of Anmatjere CGC area by age, gender and Aboriginal status

Source: ABS Census 2008b Census Tables for Anmatjere CGC SLA based on place of usual residence.

Securing participation by Aboriginal interviewees

One of the challenges the research encountered was securing engagement and participation by Aboriginal interviewees. Our experiences from this offer some insight to important considerations for appropriate engagement with Aboriginal residents in remote settlements. They also validate issues raised during the interviews themselves.

We found that engagement proceeded quickly once relationships were established, once key people in the community had participated, and once potential interviewees could be personally invited by name, rather than being expected to volunteer interest. This indicates some themes about mode of engagement by Aboriginal people into livelihood strategies that we visit more directly in analysing and discussing the findings from the field data collection.

We conclude that, as a ‘rule of thumb’, people conducting short-term field engagements, such as this interview process, can expect to spend half their time in the field on planning and arranging engagements with the Aboriginal people they need to meet/talk with, and that at least 15% of field time will be unproductive ‘downtime’ when planned arrangements do not work out.

The basis for these findings is outlined below.

Number of interviews per day

The number of Aboriginal interviews conducted per day of fieldwork during each fieldwork visit is shown in Figure 7.4.

At the start of the field work, the interviewers were building a relationship with community research assistants. The first two field trips were spent only meeting people and establishing expectations of the research.

Following this the early phase of interviews was intermittent and reflected the low quality of relationships between the researchers and residents. Researchers knew few community residents by name. The interview process was opportunistic. It relied on interviewers or community research assistants asking those residents who happened to be available at the time about their willingness to participate.

By field week seven, the gaps in the interview sample began to be apparent. It was clear which age or gender groups were under-represented. Also, the interviewers and community research assistants had developed more of a shared understanding of the interview process. The research assistants and interviewees then began to name other residents who should be sought out for interview. When people were identified by name and invited personally to be interviewed, participation began to increase markedly – at some times, a queue of people formed waiting to be interviewed. Willingness to participate also increased once key residents had been interviewed.

The following factors seemed to be important in the greatly improved rate of interviews that is apparent by the end of the project:

- A critical mass of residents had been interviewed so that many people were familiar with the process and the interviewees were no longer complete strangers.
- Sufficient time had passed so that people were able to fit the interview in among their other commitments
- Potential interviewees could be identified by the community research assistants and approached for an interview that would help fill a gap in the sampling for age, gender, etc. People were getting special consideration and acknowledgement by being invited to participate.

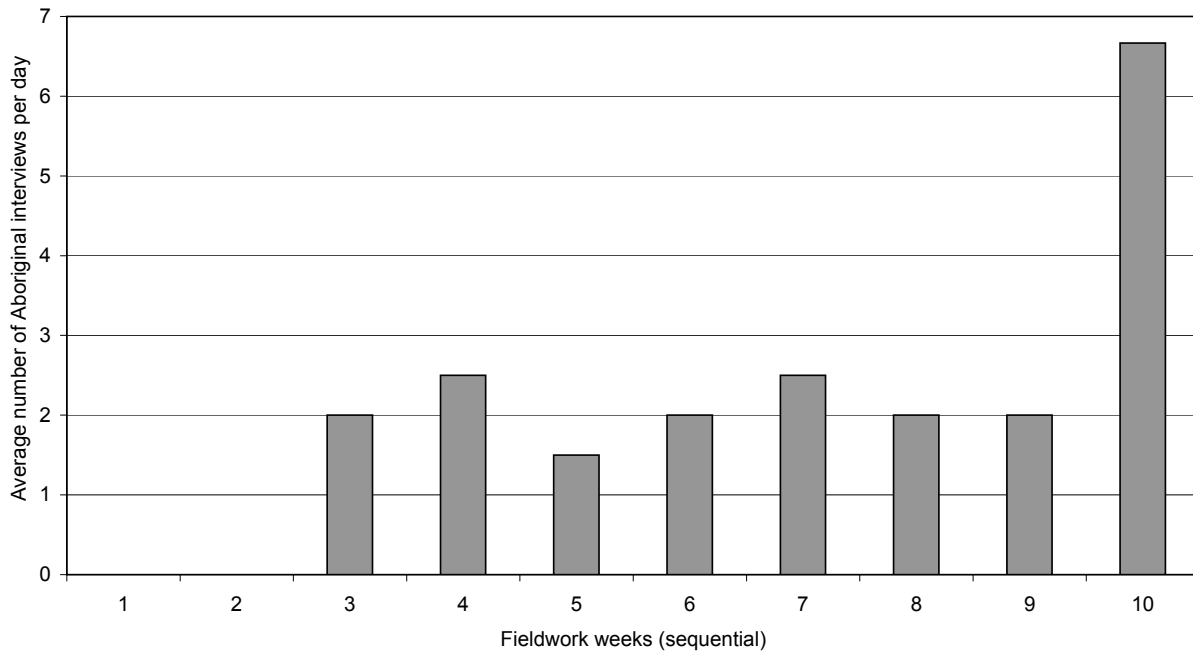


Figure 7.4: Average number of Aboriginal interviewees per day of field work, by fieldwork week

Efficiency of the interview process

A measure of the efficiency of the interview process is provided by comparing the proportion of time spent on interviews with the time spent on organising interviews and ‘downtime’.

Organising includes arranging interview times, following research procedures (reporting back to interviewees with information), and locating interviewees.

Interviews is the actual time that was spent conducting the interviews. Mostly this included time for obtaining written informed consent, though in some cases this was done during the ‘organisation’ phase.

‘Downtime’ is time when interviews were planned and times had been pre-arranged but interviews could not be carried out. Causes included the community research assistants or interviewees being unable to participate due to sorry business (death in family or funeral) or absences due to ‘drinking’ or other activities (e.g. sport).

The proportion of time spent on these different classes of activity varied across the fieldwork period, as shown by Figure 7.5. At the start of this period, downtime was able to be reclaimed and hence reduced in length because it was often possible to change plans and interview non-Aboriginal people, which the interviewers could do independently of research assistant availability and Aboriginal community dynamics. However, later in the interview period this was not possible as the target sample for non-Aboriginal interviewees had been achieved.

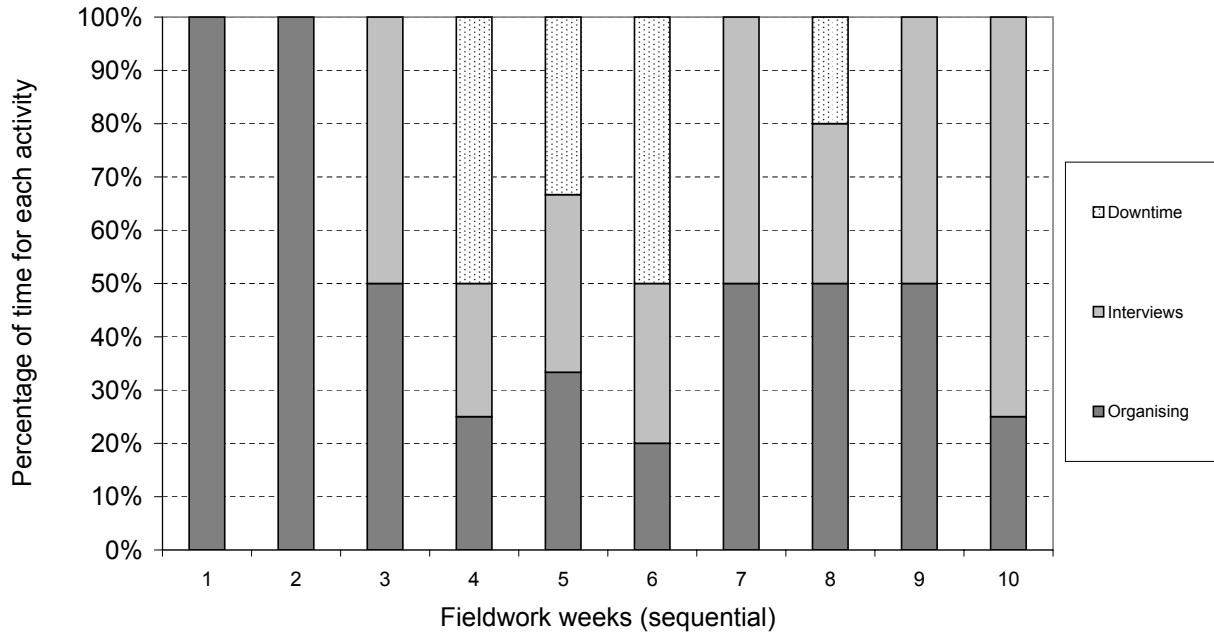


Figure 7.5: Percentage of fieldwork time on interviews, organising interviews and downtime, by fieldwork week

Overall, as indicated by Figure 7.6, 50% of fieldwork time was spent organising; 35% was spent on actual interviews and 15% was downtime, when anticipated interviews could not be conducted.

Note: In the case where we were able to conduct interviews (for example with non-Aboriginal people in the first few weeks, then the downtime was reduced to an hour, or the time it took to assess the situation and seek alternatives).

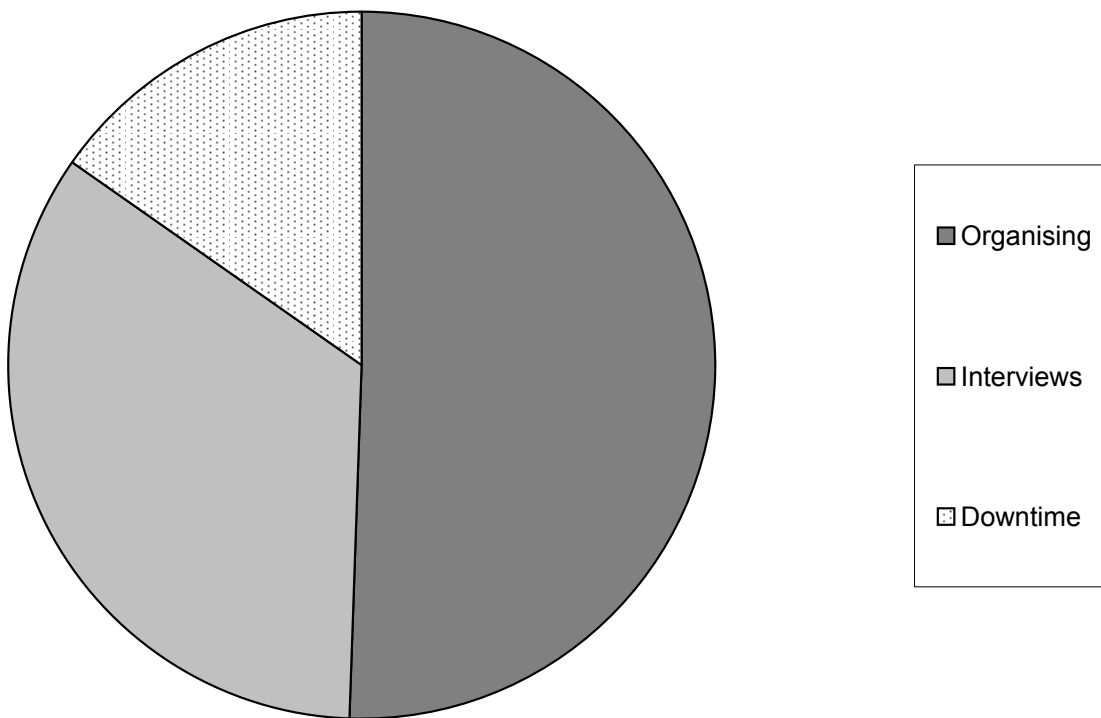


Figure 7.6: Proportion of all fieldwork time spent on organising, interviewing and downtime

Analysis

Systematic analysis of the interview data was undertaken in several steps, and emerging findings further explored in focus group discussions, as explained below.

Coding data and using nVivo software

Notes taken by researchers during interviews were first transcribed into an Excel table. At the conclusion of the interview phase, these data were checked and cleaned and de-identified (removing the names and other specific information from each interview record so that interviewees could not be identified).

Interview data that could be readily grouped into categories (for example: age, gender) were assigned 'attributes' in the database. The attribute data were uploaded to nVivo as a casebook. The typed-up notes from what people said during each interview were also uploaded to nVivo and, in the first stage of analysis, were coded automatically against the particular interview questions the notes related to.

nVivo software facilitates basic quantitative analysis, as well as detailed qualitative analysis. The qualitative analysis involved the coding of text from interviews and focus group discussions according to concepts and themes. Coding is like using a set of highlighter pens to identify different topics or concepts that interviewees talked about. It allows researchers to examine, explore and compare the different ideas raised by interviewees. nVivo software allows this coding to be done in a sophisticated and flexible way. It speeds up many of the manual tasks of classifying, recalling, and cross-referencing across the data.

To ensure the analysis was consistent and reliable, the first seven interviews were coded by three researchers. This helped to standardise the interpretation of interviews to help minimise personal biases. After the initial coding was compared and discussed among the researchers involved, one researcher coded the remaining interviews.

nVivo allows coded textual data to be readily re-organised according to the characteristics, or 'attributes', of different interviewees. For example, this allows the responses to a question by interviewees who are Aboriginal to be reviewed separately to, and compared with, the responses of interviewees who are not Aboriginal. A similar process can be readily followed for the responses of men and women, employed and unemployed people, long-term residents and short-term residents, etc.

In most of our analysis we compared responses to interview questions according to the identity of interviewees (Aboriginal/non-Aboriginal). This identity attribute has a close association with employment status. That is, although there are certainly many employed Aboriginal people in Anmatjere region (and in our interview sample), almost all the unemployed local people in the region (and all of those in our sample) are Aboriginal. In contrast, the non-Aboriginal people in our interview sample were all either employees or employers. We have not analysed data to look at other differences, for example, between men's and women's responses.

We used a constant comparative method in analysing what people said during the interviews. Constant comparative analysis is a technique used to generate grounded concepts and integrated hypotheses about basic social issues and how they are expressed in a given context. These are the building blocks for development of theory. The grounded concepts and integrated hypotheses are identified from 'patterns' that are apparent to the researcher in a close examination of the text data. The researcher aims to find a way to succinctly express the kinds of patterns that they detect in what different people have said in the interviews. These grounded concepts and integrated hypotheses are then tested against other data sources, including secondary sources such as the findings from other research or from developmental projects, that can help to explain their meaning or whether they apply more widely than the immediate

interview situation. Focus groups were used in this research for some of this testing (see below). In reporting on the analysis of the research data (Section 4 of this report), we refer to these grounded concepts and integrated hypotheses as ‘emerging findings’.

Testing emerging findings in focus groups

We held two focus group discussions at an early stage in the analysis of the interview data. These were at Ti Tree on Wednesday December 12, 2008 when members of the research team met separately with three Aboriginal women and four Aboriginal men. In the men’s group we had the assistance of Mr David Strickland, non-Aboriginal linguist and Anmatyerr speaker, for translation.

The two-hour discussions were structured around seven key areas or issues where there were emerging findings from the interviews (see Appendix 5). We investigated each area/issue by presenting rephrased statements from interviewees to the focus group to prompt open-ended discussion (for example: ‘Some people say that they like to change jobs now and then, to learn something new and have a break from something hard like grape picking, or night patrol. Why do you think people change jobs?’). We also asked some direct questions (for example: ‘What is a good boss like? What is a bad boss like?’) (see Appendix 5).

Detailed notes were taken from these focus groups and the text was uploaded to nVivo for analysis along with the interviews.

Appendix 3: Interview questions

Date **Time** **Location**

Interviewers **M/F**

Aboriginal/non-Aboriginal

NB: Questions in **bold** are for Aboriginal people only and questions in *italic* are for non-Aboriginal people only.

Section A

1	What is your name?
2	How old are you?
3	Is there one place you call home or more than one place? Where is the main place? Where else do you go and stay?
4	How long have you been here?
5	Where else do you go and stay over a short time? Where else do you go and stay over a long time?
6	Where were you born?
6a	Where is your Country? Do you have Country that you are responsible for looking after? Where is it?
7	Do you have children? How many, what age are they? Do they live with you? Who else lives with you? Is it a house or a camp?
8	Did/do you attend school? Do you have a special skill or skills for earning a living?
9	What sort of life do you want for your kids?
10	What do you want for the future of your country?
11	What do you want for your future?
12	Tell me about what is strong or good in your community? (on a scale of 1 to 10, or draw where they sit on a line from bad to good) - buildings and roads? - trees, water and land - people (does your community know a lot of people outside) - funding and money? - knowledge and skills? - culture? (family) - organisations - ways of doing things Are these strong things the same for you yourself?

Section B

1	<p>Do you do any of these things?</p> <ol style="list-style-type: none"> 1. Cattle work 2. Trees and plants (grapes) 3. Bushtucker 4. Ranger work 5. Looking after country 6. Art 7. Cooking 8. Gardening 9. Cleaning 10. Retail-shop work 11. Looking after kids 12. Looking after old people 13. Looking after other people (disabled people) 14. Work in Child care looking after kids 15. Work in Aged care 16. Council 17. Computer work 18. Job network 19. Training 20. Family care 21. Sport 22. Youth work 23. Tourism 24. Night Patrol 25. Police 26. Women's centre 27. School 28. Teaching 29. Ceremony 30. Health care 31. Vehicles and mechanics 32. Music 33. Firewood collection 34. Any other activities?
2	<p>When do you do each activity?</p> <hr/> <p style="text-align: center;">Jan May September December</p> <hr/> <p>Why do you do each activity at that particular time</p>
3	<p>Which activity is most important to you?</p> <p>Which activity do you spend most time doing?</p> <p>How did you get involved in the activity?</p>
4	<p>Did you <i>have</i> to get involved in the things you do?</p>
5	<p>How long have you been doing the activities?/<i>business or enterprise?</i></p> <p>Are there activities that you used to do but you don't do any more?</p> <p>Why did you stop doing the activities you don't do any more?</p>
6	<p>Is one of the activities (in Question B1) a job?</p>
7	<p>What job? Is it a CDEP job?/ How do you earn your living?</p>
8	<p>Any other jobs?</p>
9	<p>What do you do in your job?</p>
10	<p>What other responsibilities do you have?</p>

11	<p>Do you get money from:</p> <ul style="list-style-type: none"> • Job • Pension • Child payment • Royalty • Art • Wild harvest • Interpreting • Sitting fees • Card games • Other activities?
12	<p>How much of the following helps you do the things you do?</p> <ul style="list-style-type: none"> • (on a scale of 1 to 10, or draw where they sit on a line from 'nothing' to 'a lot') • buildings (what transport and equipment do you need?) • Land (what do you use from the land/water?) • Social/People (what people and relationships are important?) • money (Is money or grants important?) • skills and knowledge (what do you need to know?) • Culture? • What organisations help you to do the things you do? • Ways of doing things
	<p><i>What other factors have been important in getting your business/enterprise/work in the region going? (non-Aboriginal)</i></p> <p><i>What factors are important for its future? (non-Aboriginal)</i></p>
13	<p>Why aren't you involved in other things like</p> <p>Are there things that you really want to do?</p>
14	<p>What government/council or services do you use?</p> <p>Which ones do you want to use?</p> <p>Are there customary or government laws and obligations related to your major job [most important or time consuming livelihood activity?]</p> <p>Which are they?</p> <p>How do they affect your major job?</p>
15	<p>How much do you need the government or services to do what you do now?</p> <hr/> <p>Need no help Need lots of help</p> <p>And what you want to do?</p> <hr/> <p>Need no help Need lots of help</p>
16	<p>Describe what you have to do to get the government programs or schemes you are involved in? e.g. Ring in each fortnight</p>
17	<p>If you wanted to help someone start to do what you are doing, what advice would you give them? What help could they get? Or who would you go to for help in a crisis?</p> <p><i>What are the constraints to getting local people involved in your business?</i></p>
18	<p>What makes it hard to do the things you do?</p>

19	<p>Is doing your major job (most important or time consuming activity) enjoyable or stressful?</p> <p>What makes it enjoyable?</p> <p>What makes it stressful?</p> <p>What are the results of your major job e.g. income, fulfilling family responsibility or government obligation?</p> <p>How do these results help you in caring for yourself, family, and country?</p> <p>How much do these results help you in caring for yourself, family, and country?</p> <p>High Medium Low None</p>
20	<p>What do you think might happen with the things you do?</p> <p>In the next couple of years?</p> <p>After 5 years?</p> <p>Long time – 10 years?</p>

Appendix 4: Interview questions mapped to sustainable livelihoods concepts

Section A or B (survey form)	Question number and question/summary of question	Mapping to Sustainable Livelihood concepts or other broader concepts of interest
	information about gender	Characteristics of sample
	information about Aboriginality	Characteristics of sample
	information on settlement/residence location	Characteristics of sample
A	Q2 Information about age	Characteristics of sample
A	Q7iii Do they (the children) live with you?	Characteristics of sample (could also be assets or enabling/constraining variables)
A	Q7iv Who else lives with you? (apart from the children)	Characteristics of sample (could also be assets or enabling/constraining variables)
A	Q7v (Aboriginal interviewees) Is it a house or a camp?	Characteristics of sample (could also be assets or enabling/constraining variables)
A	Q3i Is there one place you call home or more than one place?	Sense of place/region
A	Q3ii Where is the main place	Sense of place/region
A	Q3iii Where else do you go and stay?	Sense of place/region
A	Q4 How long have you been here? (or at the main place if different location to where the interview is being held)	Sense of place/region
A	Q5i Where else do you go and stay for a short time?	Sense of place/region
A	Q6ai (Aboriginal interviewees) Where is your Country?	Sense of place/region
A	Q6aia IP Do you have Country that you are responsible for looking after?	Institutions – Cultural – also sense of place/region
A	Q6aiaii Where is the Country that you are responsible for looking after?	Institutions - Cultural - also sense of place/region
A	Q12 Tell me about what is strong or good in your community – Various items from Physical assets, lifestyle and norms	Assets (community); also sense of place/region
A	Q10 What do you want for the future of your Country (or the region)	Aspiration (Internal driver)
A	Q11 What do you want for your future?	Aspiration (Internal driver)
B	Q13ii Are there things that you really want to do?	Aspiration (Internal driver)
A	Q9 What sort of life do you want for your kids?	Aspiration (Internal driver)
B	Q14ii Which Government or Council service do you want to use?	Aspiration (External driver)
B	Q19i Is doing your major job (most important or time consuming activity) enjoyable or stressful?	Outcomes
B	Q19iv What are the results of your major job e.g. income, fulfilling family responsibility or government obligation?	Outcomes
B	Q19v How do these results help you in caring for yourself, family and country?	Outcomes
A	Q12 Tell me about what is strong or good in your community – Various items from Physical assets, lifestyle and norms	Assets (community); also sense of place/region
B	Q12i-v How much of the following helps you do the things you do? (Various assets)	Assets
A	Q8i Did/do you attend school?	Assets – human
A	Q8ii Do you have a special skill or skills for earning a living?	Assets – human

Section A or B (survey form)	Question number and question/summary of question	Mapping to Sustainable Livelihood concepts or other broader concepts of interest
B	Q12 ix What other factors have been important in getting your business/enterprise/work in the region going?	Enabling variables or Assets
B	Q14i What government/Council services do you use?	Enabling variables or Assets
B	Q1 Do you do any of these things? Various options, Cattlework to Health care	Strategies
B	Q2i When do you do each activity?	Strategies
B	Q2ii Why do you do each activity at that particular time?	Strategies or enabling/constraining variables
B	Q3i Which activity is most important to you?	Strategies
B	Q3ii Which activity do you spend most time doing?	Strategies
B	Q5i How long have you been doing the activities?	Strategies
B	Q6 – Is one of the activities you do a job?	Strategies
B	Q7 What job? Is it a CDEP job? B) How do you earn your living?	Strategies
B	Q8 Any other jobs?	Strategies
B	Q9 What do you do in your job?	Strategies
B	Q11 Do you get money from: Job, pension, etc	Strategies
B	Q4 Did you have to get involved in the things you do?	Institutions
A	Q6aii (Aboriginal interviewees) Do you have Country that you are responsible for looking after?	Institutions - Cultural - also sense of place/region
A	Q6aiii Where is the Country that you are responsible for looking after?	Institutions - Cultural - also sense of place/region
B	Q10 What other responsibilities do you have?	Institutions
B	Q12vii How much of the following helps you do the things you do? Rules, policies and Organisations	Institutions
B	Q12viii How much of the following helps you do the things you do? Norms	Institutions
B	Q14iii Are there customary or government laws and obligations related to your major job (most important or time consuming livelihood activity)?	Institutions
B	Q14iv Which are they (customary or government laws)	Institutions
B	Q14v How do the customary or government laws affect your major job?	Institutions and Enabling/constraining variables
B	Q16i Describe what you have to do to get the government programs or schemes you are involved in? e.g. Ring in each fortnight	Institutions
B	Q17i If you wanted to help someone start to do what you are doing, what advice would you give them?	Enabling variables
B	Q17ii If someone wanted to do what you are doing, what help could they get?	Enabling variables
B	Q19ii What makes your activity enjoyable?	Enabling variables
B	Q3iii How did you get involved in the activity?	Enabling variables
B	Q12 ix What other factors have been important in getting your business/enterprise/work in the region going?	Enabling variables or Assets
B	Q12x What factors are important for the business's future?	Enabling variables
B	Q14i What government/Council services do you use?	Enabling variables or Assets

Section A or B (survey form)	Question number and question/summary of question	Mapping to Sustainable Livelihood concepts or other broader concepts of interest
B	Q15ii How much do you need the government services to do what you want to do?	Enabling/constraining variables
B	Q2ii Why do you do each activity at that particular time?	Strategies or enabling/constraining variables
B	Q14v How do the customary or government laws affect your major job?	Institutions and Enabling/constraining variables
B	Q17iii What are the constraints to getting local people involved in your business?	Constraining variables
B	Q18 What makes it hard to do the things you do?	Constraining variables
B	Q19iii What makes your activity stressful?	Constraining variables
B	Q5ii Are there activities that you used to do but don't do anymore?	Constraining variables; Trend
B	Q5iii Why did you stop doing the activities you don't do anymore?	Constraining variables
B	Q20ii What do you think might happen with the things you do in the next 5 years?	Trend
B	Q20iii What do you think might happen with the things you do in the next ten years?	Trend

Appendix 5: Discussion points December 2007 focus groups

Discussion issues	Discussion questions – open-ended	'People say ...'
<p>1. Caring for people and for country</p> <p>Aboriginal people in Anmatjere participate in multiple livelihood activities, including caring for children, extended family members and country while involved in bushtucker and voluntary services as well as observing customary norms such as attending sorry business and ceremonies on searching.</p> <ul style="list-style-type: none"> • Discuss the impact of these activities and obligations on getting and maintaining jobs in Anmatjere? 	<p>What makes it hard for people to search for, find and keep a job?</p> <p>What do bosses say about the effect of these things on your work? Are all bosses the same?</p> <p>Can people go to sorry and keep their job?</p> <p>Many people we spoke to had children or parents who they had to look after – how does looking after your family affect searching for, finding and keeping a job?</p> <p>How does humbugging affect you when you're a worker?</p>	<p>Some people say that working a full-time job can be hard because it makes it hard to look after family, like children and mother-in-laws, and hard to go for sorry and other business. Is this right? How do these things affect you?</p> <p>Some workers said that it can stress you out being a worker, because you need to understand both worlds. Workers sometimes need to wear two hats, one for work and one for home. How is that important in your experience?</p> <p>Is it hard to agree with different bosses about how it affects your work if you are sick or need to go away for sorry business?</p> <p>In your work, can you get someone to cover for you if you can't be there?</p>
<p>2. Getting a job</p> <ul style="list-style-type: none"> • Discuss being picked for a job • Discuss working in a job in turns • Discuss role of picking up rubbish 	<p>We want to talk about how people search for and get a new job.</p> <p>Do people search for jobs?</p> <p>Are there many people who search for jobs?</p> <p>How do people search for jobs?</p> <p>Why does one person get the job and not someone else?</p> <p>Do they have to talk up and put themselves forward?</p> <p>Does the boss choose that person?</p> <p>How do family help people get a job?</p> <p>Does it help if you have family who are already working there?</p> <p>What's the best way to get a job?</p> <p>How do people get good jobs?</p> <p>How does picking up papers and cleaning the community help you to get a good job?</p> <p>Are there ways that people in community advocacy and broker roles can get paid?</p>	<p>Some people said that if they wanted to help someone get a job they would 'invite him. Maybe just join him in, start work'.</p> <p>'I'm working in this job because someone asked me if I would do this job.'</p> <p>People say sometimes families work together in one place – what's good about working with family?</p> <p>People here told us it was important to pick up papers, and keep the community clean. Whitefellas also say it is important. Who is it important for?</p> <p>People told us it was important that some people talk up for their place, and keep talking to make sure they get things in the community. Is it hard to talk up when you are working?</p> <p>Young men say Jobshop is no good for getting a job – what is a good way to get a job? What doesn't work?</p>
<p>3. Availability of work</p> <ul style="list-style-type: none"> • Discuss how focus group sees the claim that there are plenty of jobs in Anmatjere. 	<p>What different jobs are there for Aboriginal people here?</p> <p>Are there lots of jobs on the grape farms?</p> <p>What type of job would you like to get?</p> <p>Who could work in those jobs and who could not?</p>	<p>People say there is plenty of work here in Anmatjere – how do you see this from your perspective?</p> <p>People say there are lots of jobs in grapes – do you agree?</p>

Discussion issues	Discussion questions – open-ended	'People say ...'
<p>4. Conditions of work (more 'external' motivators)</p> <ul style="list-style-type: none"> Discuss how the conditions of work (type of work, approach of boss, co-workers) affect their motivation. 	<p>Talk about different places of work, and different bosses?</p> <p>What is a good boss like?</p> <p>What is a bad boss like?</p> <p>What are the differences between a CDEP job and a 'normal' paid job? Is one better or easier?</p> <p>Is working alone OK?</p> <p>Is working in a big group OK?</p> <p>What's good about working in the same job for a long time?</p> <p>What's good about changing jobs and doing something different?</p>	<p>People told us about what it's like working with different bosses. Some talked about playing jokes with boss, laughing at him, he is a good man. It can be stressful: boss telling you what to do, too much sun.</p> <p>Some people said they like to change jobs to learn something new and have a break from something hard like grape picking, or night patrol.</p>
<p>5. Motivation and capacity to work and keep working (more 'internal' motivators)</p> <ul style="list-style-type: none"> Discuss why people want to work or not work. Discuss the differences between having a job and receiving sit down money. 	<p>Why do people want to work in a job in turns?</p> <p>What makes you want to keep working at a job?</p> <p>What's good about working?</p> <p>What do people who don't work miss out on?</p> <p>What do people who work miss out on?</p> <p>What makes it hard to work or makes people stop working?</p> <p>Do you earn much more money with a job than if you just have Centrelink?</p> <p>Is money one of the main reasons you work?</p> <p>Some people say when you work in some jobs you get more knowledge and you get more respect. Who respects you when you are a worker?</p> <p>What is the effect of drinking and grog on people's motivation and capacity to work?</p>	<p>Some people say that there are lots of people who just don't want to work. Does this sound right?</p> <p>Why do you want to work?</p> <p>Some people say that work is better than sitting around, you get money for food, clothes, cars, etc.</p> <p>Other people get money from mother or father or other family.</p> <p>'Some people say that stopping sit down money could be a good thing – get all the young ones, Long time people getting paid for sitting down. All the old people are okay, they go to Alice, they got art. It's the young ones, they got nothing.'</p> <p>Sometimes drinkers are just thinking only about grog, so they don't want to work or can't stop drinking. ??</p>
<p>LOWER PRIORITY TOPICS</p>		
<p>6. Matching skills and jobs</p> <p>People have multiple practical skills such as fencing, fixing cars, plumbing, etc., but may not have literacy and numeracy skills. There is also a desire to have more jobs and skills in mechanics and operating heavy duty trucks.</p> <ul style="list-style-type: none"> Discuss whether the focus group thinks there are many practical jobs using these skills? If so, what are these and what stops people doing these jobs? What is the role of training and certificates? 	<p>What types of paid work would you like to do?</p> <p>What sorts of skills do people have?</p> <p>What is grape farm work like?</p> <p>Do you think there are lots of jobs in the practical areas in machinery?</p> <p>What is working on the grape farm like?</p>	<p>Many people said that some Anmatjere people here have great skills in mechanics and heavy machinery, and enjoy driving trucks, tractors, and quad bikes, and using proper CDEP tools. Do you think there are plenty of jobs that can use those skills?</p> <p>You need a drivers licence for these jobs – does this stop people from working very often?</p> <p>Some people say Anmatjere people have had lots of training, other people say they need more training. What sort of training helps people get or stay in a job?</p> <p>Some people say its better to learn on the job. 'If you learn on the job, then there is someone on your side, you pick it up easy.' – talk about the best ways to learn to do new jobs.</p>

Discussion issues	Discussion questions – open-ended	'People say ...'
<p>7. Welfare and work</p> <p>Government agencies intend to obligate and encourage job search and employment.</p> <p>Discuss how the focus group sees the role of the requirements and support provided by agencies such as Centrelink, Job shops and other government employment related services in encouraging preparedness and facilitating search, and recruitment to a job.</p> <p>Complete Centrelink forms</p> <p>Discuss training in relation to obtaining employment.</p>	<p>What are government requirements to receive unemployment benefits?</p> <p>Would these requirements encourage searching and getting jobs?</p> <p>Can Jobshop and Centrelink help people to get a job? Can Council and CDEP help people? What's the best way to find a job?</p> <p>If someone wants to work or get a job, where can they go? Who can help?</p> <p>We don't know what is going to happen, but what do you think would happen if sit down money stopped?</p>	<p>Often if you want a job you have to go to Alice Springs or Batchelor for training, but people say they don't want to leave the area. Does this stop people getting a job?</p>

Appendix 6: Factors affecting industry development in Anmatjere region from planning reports and associated literature

Prior to fieldwork, reports about the region and planning documents were reviewed for various industry sectors: horticulture, pastoralism, tourism, art, land management (natural and cultural resource management) (Institute for Aboriginal Development 1983, Rose 1995, Sam Miles & Associates 1999, Anmatjere Masterplan Steering Committee 2002, Guenther et al. 2005, Meglani Pty Ltd 2005, Sanders 2005, LGANT 2006, Centrefarm Aboriginal Horticulture Limited 2007).

This table summarises the factors affecting industry development as represented in this literature and in interviews for the 2004 scoping study.

DRIVERS	OPPORTUNITIES	CONSTRAINTS	IMPACTS
HORTICULTURE			
<ul style="list-style-type: none"> • Suitable groundwater soil and land available, climate variability and change • Early season market niche with good profit margin 	<ul style="list-style-type: none"> • Enormous opportunities for expansion • Potential for expansion, keen for economic development • Opportunities for joint ventures or leasing land • Opportunities for labour or supply of services • Training of a few locals at Ti Tree Grape Farm 	<ul style="list-style-type: none"> • Cross-cultural challenge • Land title impediment to economic development. Pastoral lease limited to pastoralism. Title change needed to use uneconomic pastoral land • Costs of water extraction and transport • Low local education levels has implications for skills; need skilled local workforce 	<ul style="list-style-type: none"> • Draw down of non-renewable water resource, salinity and interference to local biological and cultural microcosm resource use conflicts • New and rapidly developing sector bringing increased employment and income
PASTORALISM			
<ul style="list-style-type: none"> • Temporal and spatial variability of climate • Remoteness 	<ul style="list-style-type: none"> • Potential to restructure destocked Mt Allan to enable pastoralism or alternative livelihood; Aboriginal Pastoral Program bringing pastoral land back into production. Far greater number of people dependent on a pastoral enterprise than non-Aboriginal properties • Aspirations of Aboriginal people in pastoral industry: 'cowboy' 	<ul style="list-style-type: none"> • Cross-cultural challenge • Land title impediment to economic development • Industry skills training essential 	<ul style="list-style-type: none"> • Historically include residential camps, access to bush tucker, independence, self pride • Participation in pastoral industry allowed for maintenance of cultural activities

DRIVERS	OPPORTUNITIES	CONSTRAINTS	IMPACTS
LAND MANGAGEMENT, NATURAL AND CULTURAL RESOURCE MANAGEMENT			
<ul style="list-style-type: none"> • Mining – extract vermiculite • Changing fire regimes • Land degradation (different meanings e.g. pastoral vs. hunting) • Grazing of ferals in ranges and around natural waters • Resource and culture sustainability imperatives; basis for Aboriginal 'conservation' practices is in religious and ritual practices • Government policy • Social value of country and culture • Designation of sacred area for protection • Long-term economic viability of resource and culture 	<ul style="list-style-type: none"> • Traditional land management practices provide opportunities for employment and will have a vital role to play in future conservation management • Feral animal control • Successful horticulture involving gardens and trees for shade 	<ul style="list-style-type: none"> • Inappropriate land management from lack of cattle operation skills • Need for separation of powers between Aboriginal structures for land management and for service delivery • Need for subsistence land use to be included in employment for land management decision-making process • 'Killer' herds on a number of remote communities as a source of meat, no use where little vegetation, also can conflict with bush tucker • Conflict with mining potential? • Barriers to land management on Aboriginal land • Lack of coordination, appropriate information, etc • Understanding on endangered arid zone species • Industry skills training essential 	<ul style="list-style-type: none"> • A number of failed horticultural projects around Papunya, none of the activities involve traditional practices. • Monitoring of range condition • Knowledge of endangered species of arid zone • Condition of vegetation around outstation communities has direct influence on community health
TOURISM			
<ul style="list-style-type: none"> • Outback experience • Distinctive land and wildlife features • Increased demand for cultural tourism • Most tourist foci in central Australia are registered sacred sites, varying levels of control • Maintenance of distinctive cultural features (artefacts, lifestyles and languages) • Increased demand for services and infrastructure for self-drive market 	<ul style="list-style-type: none"> • Opportunities to offer Aboriginal tourism experiences • Opportunities for employment as rangers or tour guides • Established camp grounds that can be branded and promoted 	<ul style="list-style-type: none"> • Aboriginal people's desire to fit into western type jobs is limited, at Uluru flexible pool of people • Domestic violence and community dysfunction • Tourism has potential to increase pressure around cultural areas • Cross-cultural challenge • Pastoral lease limited to pastoralism currently • Hub needed: growth of Ti Tree limited by proximity to Alice Springs 	
ART			
<ul style="list-style-type: none"> • Preserved art-related resources • Demand for authentic art 	<ul style="list-style-type: none"> • Tourism boom 	<ul style="list-style-type: none"> • Art business coaching • Low incomes, classified as self-employed • Some centres run using CDEP 	
BUSH HARVEST			
<ul style="list-style-type: none"> • Resource availability and seasonality • Demand for authentic bush foods 	<ul style="list-style-type: none"> • Cultural Aboriginal diet • Youth interest 	<ul style="list-style-type: none"> • Profits • Protected IP • Gardens for bush tucker need to come from communities, not from outside • Bush resources not adequately recognised, resource use needs to take account of changes 	<ul style="list-style-type: none"> • Multifaceted cultural benefits

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