

**Processes for effective management:
Learning from Agencies and Warlpiri people
involved in managing the Northern Tanami
Indigenous Protected Area, Australia**



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Photo on title page: Margaret Nungarrayi Martin burning country with a firestick to hunt for *kalawurru* (goanna), east of Lajamanu, April 2007.

THESIS DECLARATION

I hereby declare that the work herein, now submitted as a thesis for the degree of Doctor of Philosophy by research of the Charles Darwin University, is the result of my own investigations, and all references to ideas and work of other researchers have been specifically acknowledged. I hereby certify that the work embodied in this thesis has not already been accepted in substance for any degree, and is not being currently submitted in candidature for any other degree.

Jane Walker

3 December 2010

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ABSTRACT

Over the past three decades, protected area management has moved away from a strict preservation to a more socially orientated management ethos. This change is based on ideals such as biodiversity conservation, Indigenous and community participation, and sustainable development and use. These changes are increasingly being reflected through the World Conservation Union's (IUCN) definition of protected area governance regimes, which attempt to reconcile conservation and development agendas between partners. Recent analysis shows that this is not easily achieved, even in more socially orientated regimes of co-management and Indigenous and Community Conserved Areas (ICCAs). In this dissertation I address why equity between conservation and development agendas of Indigenous peoples and partnering agencies are hard to achieve. The overall aim is to contribute useful insights into where management practice can be enhanced to attain a better balance.

This study takes place within an Australian desert context. Aboriginal landowners, in conjunction with the Federal Government's Indigenous Protected Area (IPA) program, manage a large amount of land through the national protected area system in desert Australia. The IPA program is considered a leading example of ICCA governance with Aboriginal values and objectives incorporated alongside those of the state. The Northern Tanami IPA, based in the Tanami Desert in the Northern Territory and managed from the largely Warlpiri populated community of Lajamanu, is the case study through which I investigate how local management and partnering agency agendas are being achieved. This evaluation takes place in the early life of the IPA in an attempt to better understand and improve management resilience into the future. I do this by examining the management intent and practice of key partners: Warlpiri people from Lajamanu; the Central Land Council (CLC); and the Federal Government Department of Environment, Water, Heritage and the Arts (DEWHA).

The results of this research show that for Warlpiri people, country within the IPA needs to be managed in accordance with the values of cultural tradition, identity, well-being and spiritual connection. Management is multi-purpose, where the land

and its resources are used and managed in numerous ways to provide a suite of social, cultural, environmental and economic outcomes. In contrast, agency staff interests in management relate principally to improvements in the ecological condition of the IPA, with some focus on the social and cultural outcomes from management. Such differing interests have constrained the achievement of management agendas within the Northern Tanami IPA. This is because partnership creation has not given enough attention to knowledge sharing, negotiation and investment in planning, decision-making and implementation over time. This has resulted in inequitable power relationships and imbalanced management accountability between Warlpiri people and partnering agencies.

Through this research I aimed to study how to improve IPA management so as to reduce such gaps between intent and practice. I outline four practical ways in which management interventions need to progress. First, there needs to be increased investment at the institutional level in policy and program funding and support. This is required to continue the decolonisation of government ideals about Aboriginal notions and interests in managing country. Second, the Northern Tanami IPA needs to be viewed as a multi-scaled, co-managed system with a process of adaptive management at its core; there are multiple stakeholders, who have differing interests that need to be managed through a cycle of planning, implementation, monitoring and evaluation. Third, I outline the importance of enhanced cross-cultural management. Collaborations and partnerships need to be developed and sustained over time through knowledge sharing and negotiations if equity is to be achieved. Finally, it is crucial that management continues to be developed at the local level so that Warlpiri control and autonomy comes to the fore. This is vital for the continued process of Aboriginal self-determination through protected area management.

Overall this research shows the value of investing in and supporting the development of partnerships in multi-scaled management regimes for sustained management efficacy where Aboriginal people and agencies work together. This is needed so that the costs and benefits of protected area management practice are fairly distributed amongst partners and management resilience is built into the future. Within Australia, this is particularly critical as the investment in protected areas owned and managed by Aboriginal people continues to grow.

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GLOSSARY OF WARLPIRI TERMS

Kirda – a Warlpiri person who has primary responsibility for Jukurrpa and sites within their father's father's country

Kurdungurlu – a Warlpiri person who has primary responsibility for making sure *Kirda* responsibilities for country are being carried out

Yapa – an Aboriginal person

Kardiya – non-Aboriginal person

Jukurrpa – (also known as Dreamtime or the Dreaming) the creation period where ancestor spirits created the landscape and traditional law. *Jukurrpa*, in the form of stories and songs (ceremony) and ownership rights to land, is still passed on through a complex kinship system today.

Yuwayi – yes

Lawa - no

The meanings of other terms used in this dissertation are outlined in the text.

ACRONYMS AND ABBREVIATIONS

AIATSIS – Australian Institute for Aboriginal and Torres Strait Islander Studies
ALRA – *Aboriginal Land Rights Act* (NT) 1976
ALT – Aboriginal Land trust
CAR – Comprehensive, Adequate and Representative
ICCA – Indigenous and Community Conserved Areas
CBD – Convention on Biological Diversity
CDEP – Community Development and Employment Program
CDU – Charles Darwin University
CEC – Community Education Centre
CfoC – Caring for our Country
CLC – Central Land Council
DEWHA – Department of Environment, Water, Heritage and the Arts
DKCRC – Desert Knowledge Cooperative Research Centre
EPBC – *Environment Protection and Biodiversity Conservation Act* (Cth) 1999
IBRA – Interim Biogeographic Regionalisation of Australia
IKS – Indigenous Knowledge Systems
ILC – Indigenous Land Corporation
IPA – Indigenous Protected Area
IUCN – World Conservation Union (formally called the International Union for the Conservation of Nature)
NAB – Native Affairs Branch
NCRM – Natural and Cultural Resource Management
NGO – Non-government Organisation
NRM – Natural Resource Management
NRS – National Reserve System
NHMRC – National Health and Medical Research Council
NT – Northern Territory of Australia
UN – United Nations
VRDCA – Victoria River District Conservation Authority
WCPA – World Congress on Protected Areas
WoC – Working on Country

Chapter 1

Introduction



Photo 1: Margaret Nungarrayi Martin and Myra Nungarrayi Herbert hunting along a road to Mirririnyungu, Northern Tanami IPA, July 2007

1. INTRODUCTION

1.1 Research direction, questions and thesis: a desert

Australian context

The desert regions of Australia, which cover approximately 70 percent of the Australian continent (Figure 1, p.2), are characterized by variable climatic conditions, nutrient-poor soils and a legacy of problems associated with degradation, such as the extinction of native species and high populations of feral animals (Morton et al. 1995; Davies 2009:1). It is questionable whether current land management practices within this region are able to achieve conservation outcomes that meet national and international standards of sustainability and biodiversity conservation (CGA 1992; Stafford Smith 1992; Thackway and Brunckhorst 1998; Australian State of the Environment Committee 2001).

Protected areas, as the primary regime for the protection and maintenance of biological diversity within Australia, need to be achieving conservation outcomes. In this research I have used Smyth's (1996:117) definition of conservation outcomes to be "the improved management of the natural and cultural values and objectives of a protected area". The largest tracts of protected areas across desert Australia are on Aboriginal owned lands and managed under the Indigenous Protected Area (IPA) program (Appendix 1. Map of Indigenous Protected Areas in Australia (DEWHA 2010e), p.351). Other management arrangements, such as co-managed¹ national parks, also exist on Aboriginal owned lands across this area. Altogether, Aboriginal owned lands in desert Australia contribute 30% of land for natural and cultural resource management (NCRM) in the National Reserve System (NRS) (Davies et al. 2010). In this dissertation NCRM means activities that are carried out to manage the natural and cultural values and resources of an area by drawing on Aboriginal and western knowledge and skill sets.

¹ Co-management, as used in this dissertation, is defined in section 1.2 of this chapter.

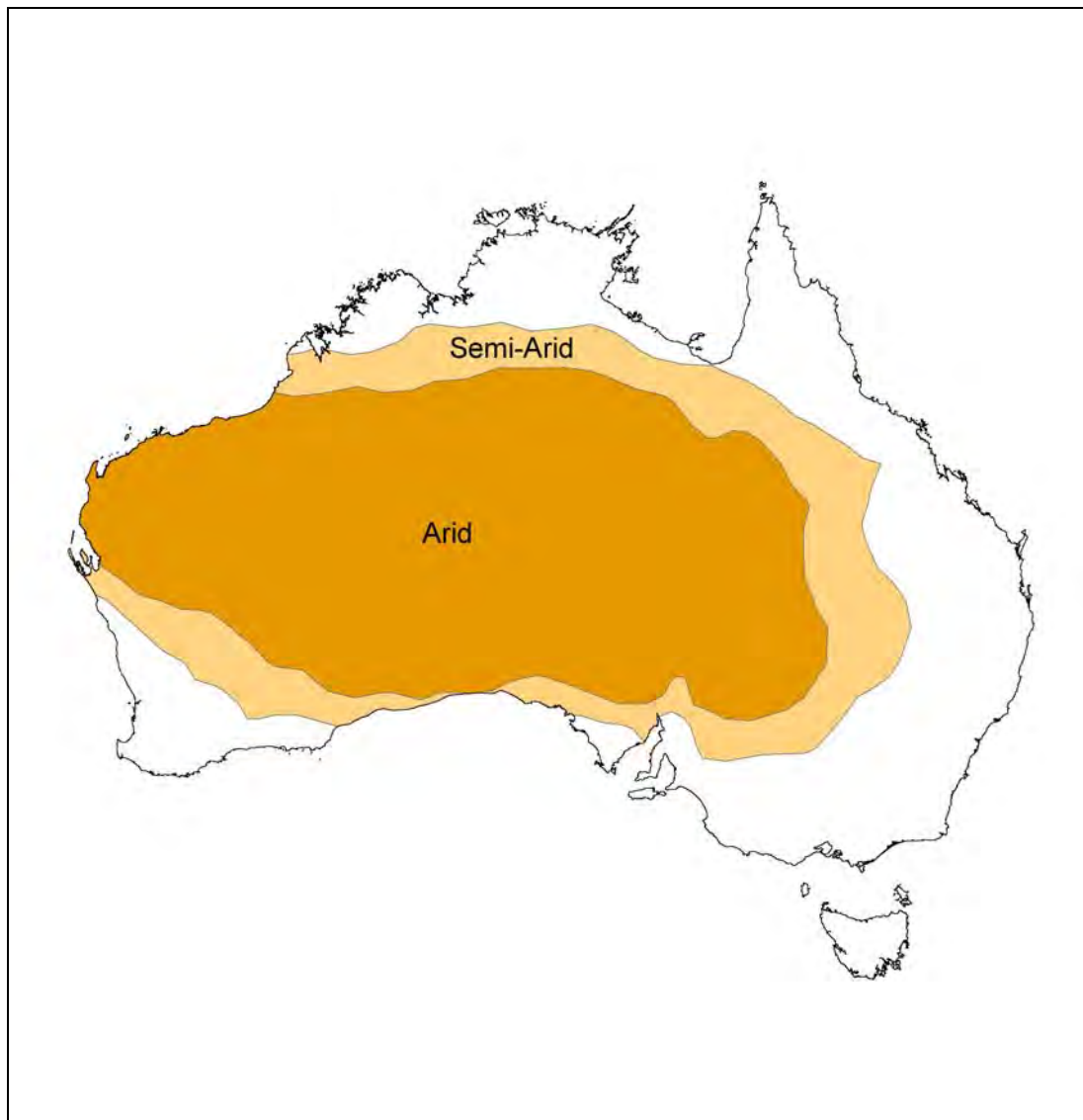


Figure 1: Map of Australia showing the extent of arid and semi-arid regions that are considered to encompass ‘deserts’ (DKCRC 2010)

Aboriginal people have well-developed traditional ecological knowledge and skills that have been used to shape the arid Australian landscape over thousands of years (Walsh and Mitchell 2002). Such skills and knowledge are vital for maintaining cultural and biological diversity, and influence how Aboriginal people use and manage country. To Aboriginal people, ‘country’ is considered to be a place of origin. It represents their identity and attachment to their traditional lands, both spiritually and physically (Langton 1998; Williams 1998; Hunter 2000). Alongside knowledge from western science, traditional skills and knowledge contribute to the improved management of country within protected areas, for example through the incorporation of traditional ecological knowledge in tracking surveys and threatened species management (Stevens 1997; Baker et al. 2001a; Luckert et al. 2007). As more Aboriginal-owned land is incorporated into the NRS (DEWHA 2010d), it is essential to understand how Aboriginal people want to manage country, and why, as the effective management of these lands depends on the values, interests and capabilities of their Aboriginal landowners. Continued regional and national support and investment in Aboriginal owned and managed lands for biodiversity conservation depends on the full recognition, incorporation and support of Aboriginal interests and outcomes alongside those of partnering agencies (Lawrence 1996; Davies et al. 1999; Smyth 2001; Ross et al. 2009).

In this context, Indigenous Protected Areas hold much interest. The IPA program is aimed at encouraging Aboriginal landholders to enter into voluntary conservation agreements to protect the natural and cultural values of their country and contribute towards national conservation objectives (Bridgewater et al. 1999). In return landowners receive on-going financial and technical support, as well as government recognition. The program has been funded since 1997 by the Natural Heritage Trust (NHT)², but is now supported under the Federal Government’s Department of Environment, Heritage, Water and the Arts (DEWHA) Caring for our Country (CfoC) initiative (see Ch. 2.2.3 for further background information on the IPA program).

² The NHT was set up in 1997 by the Australian Government to “help restore and conserve Australia’s environment and natural resources”. The three objectives of the NHT include biodiversity conservation, sustainable use of natural resources and community capacity building and institutional change. These objectives are targeted at three levels: national, regional and local investment levels (CGA 2007)

The IPA program has promised much. Already IPAs appear to bring notions of equity and participation to the protected area agenda. They are considered to enhance Aboriginal control in protected area management, recognise the cultural, spiritual and economic significance of land to Aboriginal people, and provide greater land management support for economic and social development (Davies et al. 1999; Muller 2000; Smyth 2001; Gilligan 2006; Ross et al. 2009). Thus IPAs can be seen as embodying the challenge of incorporating Aboriginal values and objectives alongside those of agencies within protected area management. Currently there has been little research on if, and how, this is actually being achieved. This is the focus of my study.

Initially, I aimed to develop a series of cultural indicators to measure the achievement of Aboriginal peoples' aspirations from protected area management through a case study of the Northern Tanami IPA (Ch. 2). Through engaging with Warlpiri people and agencies involved in the management of the Northern Tanami IPA, it became clear that the imbalance between what stakeholders wanted to achieve at the local level, and what was actually happening, was a more pressing issue. As such, this research advanced in line with community aspirations to examine management practice. The aim established was to delineate how local management agendas can be better achieved alongside those of partnering agencies through improved management practices.

Gaps between protected area management intent and practice were explored by asking the following questions:

- 1) What values and objectives are important to Aboriginal people and partnering agencies involved in the management of protected areas?
- 2) How does the management intent and practice of Aboriginal people compare and contrast to those of partnering agencies?
- 3) What processes are required to improve management efficacy to achieve multiple agendas from protected areas managed by and with Aboriginal people?

By analysing stakeholders' responses to these questions, I show that in the absence of strong cross-cultural partnerships, there are inequitable power relationships and

imbalanced accountability between Aboriginal managers and partnering agencies. This results in the assertion that Aboriginal management of community controlled areas and the achievement of local management agendas as being little more than rhetoric. This thesis is underpinned by my analysis that Warlpiri and agency management interests and values in the Northern Tanami IPA rarely align; and that multiple management agendas were not well met as a result of inadequate engagement, knowledge sharing, negotiation and investment in management planning, decision-making and implementation (Ch. 7 & 8).

1.2 Positioning the research

Protected areas are defined by the World Conservation Union (IUCN) as “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley 2008:8). Today there are over 108,000 protected areas, covering approximately 11.5% of the world’s land surface (Mulongoy and Chape 2004; IUCN and UNEP 2005).

Yellowstone National Park, declared in 1872, became the world’s first government administered protected area (Cook 1991). Its sole purpose was the preservation of the natural landscape. However, with its declaration came the exclusion of the resident Indian tribes from within its borders (Ghimire and Pimbert 1997a). This protection approach to management at the exclusion of human use and settlement has been coined the Yellowstone model (Colchester 1996). Since 1872, protected areas have become an international phenomenon. It has only been within the last three decades that protected area management policy and practice has evolved to incorporate theories such as sustainable development and biodiversity conservation. Such theories have challenged the Yellowstone model of protection by calling for greater cultural diversity and human use values to be instituted within management frameworks and practice (IUCN 2005a). These changes are increasingly being reflected within the IUCN protected area classification systems (Figure 2, p.6).

IUCN Category		Governance Type										
		A. Governance by government			B. Shared governance			C. Private governance			D. Governance by Indigenous peoples and local communities (ICCAs)	
		Federal or national ministry or agency in charge	Sub-national ministry or agency in charge	Government-delegated management (e.g. to an NGO)	Trans-boundary management	Collaborative management (various forms of pluralist influence)	Joint management (pluralist management board)	Declared and run by individual land-owner	...by non-profit organisations (e.g. NGOs, universities etc.)	... by for profit organisations (e.g. individual or corporate land owners)	Indigenous peoples’ protected area and territories – established and run by Indigenous peoples	Community conserved areas – declared and run by local communities
	1a. Strict Nature Reserve											
	1b. Wilderness Area											
	II. National Park											
	III. Natural Monument											
	IV. Habitat/Species Management											
	V. Protected Landscape/Seascape											
	VI. Protected area with sustainable use of natural resources											

Figure 2: The IUCN classification system for protected areas comprising both management category and governance type (Dudley 2008)

In the remainder of this section I outline the changing history of Indigenous peoples' involvement within protected areas through an examination of the following theoretical concepts: biodiversity conservation, sustainable development, participation, cultural landscapes, sustainable use and Indigenous rights. This review shows the transition in protected area governance regimes away from a strict preservation ethos to include more social governance types, in particular co-management and Indigenous and Community Conserved Areas (ICCAs). Box 1 outlines the definitions of co-management and ICCAs used in this research. The declaration of such regimes does not guarantee that Indigenous values and interests are equitably and effectively incorporated and achieved. Co-managed protected areas in particular have been heavily criticized for their inability to balance Indigenous peoples and national agendas of conservation and development (Colchester 1996; Stevens 1997; Davies et al. 1999; Smyth 2001; Borrini-Feyerabend et al. 2004). ICCAs are considered to better encapsulate this challenge (Borrini-Feyerabend 2003; CEESP ND). More recent analysis highlights that even within ICCAs, there is still much to be learnt about trying to reconcile conservation and development objectives, and integrate Indigenous people and their institutions in management frameworks (Goriup 2000; Borrini-Feyerabend et al. 2004; SCBD 2004; Agrawal and Redford 2008).

Co-management can also be referred to as collaborative, participatory, joint, shared, multi-stakeholder or round table management. In this dissertation I use co-management. Co-managed protected areas are officially defined as “government designated protected areas where decision-making power, responsibility and accountability are shared between governmental agencies and other stakeholders, in particular Indigenous people and local and mobile communities that depend on that area culturally and/or for their livelihoods” (Borrini-Feyerabend et al. 2004).

Indigenous and Community Conserved Areas (ICCAs) can be defined as “natural and modified ecosystems with significant biodiversity, ecological and related cultural values, voluntarily conserved by Indigenous peoples and local communities' through customary laws or other effective means” (Kothari 2006:3).

Box 1: Definitions of co-management and ICCAs used in this dissertation

1.2.1 Biodiversity

Biological diversity (or biodiversity)³ refers to the variety and variability of life on earth (Koziell 2001). The term emerged in the 1980s as concern over the loss of biodiversity was growing within the scientific community (Wilson 1985; Wilson 1988). Current evidence confirms that the planet's biodiversity is being notably reduced by human activities at rates significantly higher than in the past (Wilson 2000; McNeely et al. 2006). Scientists and practitioners are increasingly calling for the adoption of conservation approaches to help stem the rate of loss. Such approaches are advocated on terms of sustainable use, current and future value, human wellbeing, intrinsic worth and morality (World Commission on Environment and Development 1987; Koziell 2001; Wilson 2002; McNeely et al. 2006).

Protected areas are the world's most commonly used approach for *in situ*⁴ biodiversity conservation (UN 1992a). Historically, protected areas were not focused on the conservation of biodiversity per se, but on the conservation of species for intrinsic worth and ecosystems for their beauty (Barber et al. 2004). Prior to the formation of protected areas, ecosystem and species level management had already been in existence for centuries. For example, wildlife reserves for game hunting have been recorded as far back as 700 BC in Assyria, and the Northern Africa hima reserve system, established by the Hafside dynasty in Tunisia, dates back to around 1240 AD (Colchester 1997; McNeely et al. 2006). Traditional resource management

³ Biodiversity consists of three key levels. Ecosystem diversity is the variety within and between differing ecosystems, including habitats, biotic communities and ecological processes. Ecosystem means "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit". The interaction of ecosystem functions provides the services upon which life depends, such as nutrient recycling, climate regulation and hydrological cycles. Species diversity is the variety of species or the diversity among species. Species are described as "populations of organisms which are able to interbreed freely under natural conditions". Species have distinct inheritable characteristics and generally occupy specific geographical areas. Genetic diversity is the frequency and diversity of different genes and/or genomes, including variation within a population and between populations. Genetic diversity allows species to adapt to environmental stresses over time and thus increase the species chance of survival (Glowka et al. 1994).

⁴ In-situ conservation refers to the conservation of ecosystems, natural habitats and viable species populations in their natural surroundings, differing from ex-situ conservation which protects the components of biodiversity outside of their natural habitats, such as in botanical gardens, aquaria and gene banks (UN 1992a; Glowka et al. 1994). In-situ conservation is considered the primary approach for biodiversity conservation in the Convention of Biological Diversity (CBD) and should be supported by ex-situ conservation measures. Specifically Article 8(a) and 8(b) relate directly to the establishment "of a system of protected areas" and the creation of "guidelines for the selection, establishment and management of protected areas for biodiversity conservation" (Glowka et al. 1994).

in non-western societies is also widely documented. Aboriginal people in Australia have regulated the use and management of natural resources through well defined stewardship systems over thousands of years (Rose 1996a; Langton 1998). Similarly, Indian tribal peoples have a history of forest and sacred grove preservation centred on religious and mythological beliefs (Chandran and Hughes 1997; Singh 2004). Historical evidence suggests that few ecosystems around the world have been deserted or uninhabited by humans and in most areas of the world, ecosystem value and health has been culturally maintained through traditional management systems based on complex rights of use, ownership and access over many generations (Berkes 1989; Ostrom 1990; Stevens 1997; Ostrom and Field 1999).

Despite evidence that the exclusion of humans from reserve systems is undesirable, contemporary protected areas can still display the colonial notions of Indigenous and local peoples as encroachers, poachers and squatters in their management intent (Blaikie and Jeanrenaud 1997; Stevens 1997). This view of conservation is steeped in Western historical concepts of wilderness, with protected areas more aligned with Yellowstone than traditional resource management approaches. This is reflected in the current IUCN protected area category system where protection, rather than conservation, is still the principle aim of many of the world's protected areas; with 56.2% of protected areas conserved under categories I to IV (IUCN 1994; Mulongoy and Chape 2004) (Figure 2, p.6).

This approach to management has increasingly been contested in both Western and developing countries where there is growing social conflict over access and rights to natural resources and land. Analysts also claim that the current global system of protected areas is insufficient to achieve biodiversity conservation due to limitations in geographical coverage, management process and governing policy (McNeely et al. 2006). This is due in part to the ad hoc manner in which protected areas have developed over time. It is also a result of limited understandings in system design for biodiversity conservation beyond the species level (de Klemm et al. 1995; Barber et al. 2004; McNeely et al. 2006). Ecosystem or landscape approaches to management are increasingly becoming a key focus for international conservation measures (Barber et al. 2004; Shepherd 2004).

Ecosystem approaches have been coined as “strategies for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” (IUCN ND). One of the key principles behind this approach is the decentralization of natural resource management to the local level by placing Indigenous people and local communities at the centre of practice (IUCN 2000). A focus on protected areas in light of this suggests that management agendas need to embody local concerns and rights where land and seascapes are subject to human influence and use (Colchester 1997; Pimbert and Pretty 1997; Brody 2003; Borrini-Feyerabend et al. 2004).

Conservationists and resource managers have not been blind to the inadequacies of protected areas in accommodating ecosystem approaches (Colchester 1996; IUCN 2005a). Zonation, habitat corridors, biosphere reserves and trans-boundary protected areas all represent recent changes in the way biodiversity management is approached. Another significant strategy has been the broadening of governance regimes beyond the centralized, state-managed protected areas to incorporate localized approaches that include Indigenous peoples’ values and interests, such as ICCAs (Barber et al. 2004; Mulongoy and Chape 2004).

Protected areas in their new form will likely remain a key mechanism for biodiversity conservation into the future. Yet questions are being raised about the level to which protected area policy and management genuinely balances biodiversity conservation with sustainable development needs that reflect Indigenous peoples’ value and interests in management (Lawrence 1996; Stevens 1997).

1.2.2 Sustainable development

The term sustainable development first appeared in the World Conservation Strategy (published by the IUCN in 1980) as a process to improve human welfare by integrating conservation and development (IUCN Inter-Commission Task Force on Indigenous Peoples 1997). It was redefined in the 1987 World Commission on Environment and Development Brundtland Report, *Our Common Future*, as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment

and Development 1987:54). Since then, sustainable development has become an international term that conceptualises the combination of political and economic agendas within social justice and environmental limits.

Beyond this broad meaning there is little shared understanding of what sustainable development means in practice (Lele 1991; Eichler 1999). Many argue that it is overly simplistic and gives no real indication of what commitments are required and at what cost (Reid 1995). Others debate that sustainable development is undefinable; it is a guiding moral for bridging development and environment agendas within and between the global North and South (Becker et al. 1999; Engfeldt 2002). However, across all these debates sustainable development is characterized by concepts of equity and precaution (UN 2003; UN 2005).

In a protected area context, sustainable development has become a central tenet in management theory and practice for mitigating biodiversity loss. Alongside the core role of biodiversity conservation, protected areas are now being called on to contribute to broader objectives. These include the sustainable use of resources, the preservation of ecosystem services and the integration of broader social development processes, in particular poverty alleviation and improved human wellbeing (Koziell 2001; Phillips 2003a; IUCN 2005d; Agrawal and Redford 2008). International discussion and debate on these objectives has stimulated the development of new protected area governance regimes to accommodate situations where conventional national park regimes have failed. The concern for social equity underlies many of these changes; but what does social equity mean in practice?

At the very least, social equity implies improved welfare and benefit sharing from conservation initiatives without detriment to either humans or the resource base on which they rely. In situations of uncertainty, a precautionary approach to decision-making is advocated in order to minimize threats and irreversible damage to the natural resource base (UN 1993). Uncertainty is, however, not an excuse for inaction. Many rates of resource production and consumption are unsustainable and as such the priority is to reduce ecological impacts to within sustainable boundaries. With a primary focus on biodiversity conservation, balancing social equity and management within protected areas may require trade-offs (Borrini-Feyerabend et al. 2004;

Agrawal and Redford 2008). This has implications for inter- and intra-generational equity, a key principle of sustainable development. So how are social equity and biodiversity agendas equated within protected areas? Participation, sustainable use and Indigenous rights are elements central to both social equity and biodiversity conservation agendas within protected areas.

1.2.3 Participation

Participation has its roots in urban planning and decision-making processes, highlighted first by Arnstein's ladder of public participation in 1969 (Arnstein 1969). Over the past two decades, participation has been mainstreamed in development activities by practitioners such as Chambers (1992; 1994; 2005) and by international development agencies such as the United Nations (UN) and The World Bank (Nelson and Wright 1995; Williams 2004; The World Bank 2007a; The World Bank 2007b).

As in the development arena, natural resource management has been characterised by diverse meanings of participation. Participation has been described as both an effective decision-making-process, a means to an end, and an outcome, an end in itself (Pimbert and Pretty 1997; Cleaver 1999; Barber 2004b). It has also developed over time from an originally extractive, top-down process to one that reflects and empowers local situations, knowledge and people (Chambers 1994; Nelson and Wright 1995; Lane and MacDonald 2005). Participatory rural appraisal (PRA) methods such as semi-structured interviews, participatory mapping, livelihood analysis and transect walks, are seen to enhance this process by decentralising planning programs and activities to within local social realities (Chambers 1992; Chambers 1994; Nelson and Wright 1995). Decentralisation, empowerment and ownership are all elements underlying the participation ideology of sustainable development. They also pertain to the strategy of ecosystem management i.e. local institutions, people and knowledge are integral to promoting conservation and development agendas (Berkes 2003; IUCN ND).

Yet critics of participation question its adoption and effectiveness, considering it more of a development rhetoric, and in some situations a tyranny in practice (Cook

and Kothari 2001; Brown 2002; Williams 2004). Participation in many cases is used to achieve state driven goals by passive consultation and containment (Chambers 2005). Such notions of participation fail to address issues of power imbalance, conflict and knowledge control (Cleaver 1999; van den Hove 2006). Pimbert and Pretty (2003) outline a typology of participation, as seen within conservation arenas, that places such participation at the top of the scale (Table 1). In fact, all participation types in the top half of the scale are considered to merely employ participation as a term, failing successfully to engage local people and achieve sustainable conservation initiatives (Brown 2002; Pimbert and Pretty 2003).

Table 1: Typology of Participation (Pimbert and Pretty 2003)

Typology	Components of each Type
1. Passive participation	People participate by being told what is going to happen or what has already happened.
2. Participation in information giving	People participate by answering questions posed by extractive researchers and project managers using questionnaire surveys or similar approaches.
3. Participation by consultation	People participate by being consulted, and external agents listen to views.
4. Participation for material incentives	People participate by providing resources, for example labour, in return for food, cash or other material incentives.
5. Functional participation	People participate by forming groups to meet pre-determined objectives related to the project, which can involve the development or promotion of externally initiated social organisation.
6. Interactive participation	People participate in joint analysis, which leads to action plans and the formation of new local groups or the strengthening of existing ones.
7. Self-mobilization	People participate by taking initiatives independent of external institutions to change systems.

In a protected area context, the participation of Indigenous peoples varies from relationships based on conflict, collaboration and, in some cases, co-existence. It was not really until the 1980's that the full participation of Indigenous peoples in protected area management was being called for. This need was articulated by the growing understanding that protected areas affect the livelihoods and well-being of many Indigenous peoples; that many Indigenous peoples have long-standing traditions of resource use and customary rights to land and resources, which could no longer be denied (Kothari 2004; SCBD 2004); and that to improve biodiversity conservation, protected areas should not be isolated from local involvement (Phillips

2003a; McNeely et al. 2006). Co-managed protected areas and ICCAs are the two broad governance types of participatory conservation that are seen within today's protected area system.

Figure 3 (p.15) shows the differing levels of Indigenous participation found within protected area governance regimes across the world; from very marginal participation in Government run protected areas to devolved management in ICCAs. Historically, Indigenous participation was mainly centred on full exclusion, alienating the needs and rights of many Indigenous peoples (Colchester 1996). This led to resettlement, impoverishment and a breakdown of traditional resource management systems (Colchester 1997). The forced removal of resident Indian populations from within Yellowstone National Park highlights this point. Many other Indigenous peoples around the world have been subject to similar human rights abuses in the name of protected areas. This is especially evident in countries under colonial rule⁵ (Stevens 1997; Adams 2003). Such approaches to conservation arise from European understandings of wilderness as nature that is untouched by the human hand (Lawrence 1996). The ecosystem approach to management questions the scientific basis of this assumption.

⁵ Two of the better-known cases of colonial displacement include the Ik of Uganda who starved in resettlement camps surrounding the newly formed Kidepo National Park; and the San who were removed from the Gemsbok National Park in Botswana (Colchester 1997; Stevens 1997).

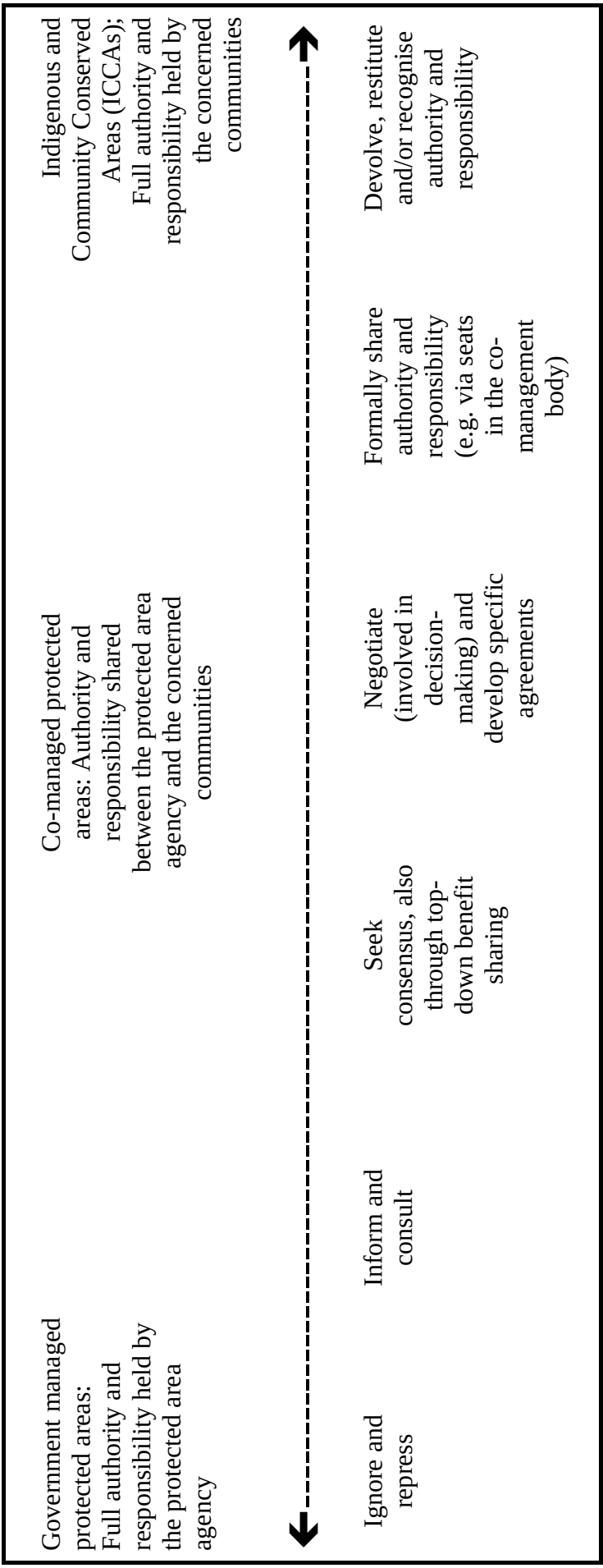


Figure 3: Protected area governance types, a continuum of participation (Borrini-Feyerabend et al. 2004:30)

1.2.4 Cultural landscapes

Two centuries before the creation of Yellowstone National Park, people such as William Bradford considered wilderness to be compatibly inhabited by both “...wild beasts and wild men” (Stevens 1997:36). This sense of man in nature was superseded by a very different concept; the absence of human use and settlement (Bartlett 1974; Ghimire and Pimbert 1997a; Adams 2003). In this view, nature was considered a wilderness distinct from the cultural and technological influence of humans (Schama 1995; Ghimire and Pimbert 1997a). It was such notions of wilderness, uninhabited and free from human influence, that made it appear so valuable and in need of protection, particularly from the rapid progress and development that was fuelling European expansion in the 1800s (Grusin 1998). By the end of the 19th century, wilderness had become a romantic philosophy motivating conservation efforts around the world. Yet the social and cultural impacts of this perception were anything but romantic for Indigenous people.

Not long after the establishment of Yellowstone National Park, the preservationist view of wilderness was given a basis in law. Under the *United States Wilderness Act 1964*, wilderness was defined as a place “where man himself is a visitor who does not remain” (Colchester 1996:2). A strict definition of national parks in line with this view was adopted by the IUCN general assembly in Delhi in 1969. It underpinned global discussions on conservation and dominated the protected area movement throughout the 1960s and 1970s (Elliott 1972). Evidence of human occupation, use and management of such lands has challenged the very concept of wilderness being untouched by human activity. It is well known that many Indigenous people rely on natural resources for their survival and that they have occupied their traditional homelands for generations and in some cases centuries. As a result, Indigenous land management practices and natural resource use is what Stevens (1997:20) calls “...grounded in place”, shaped by local knowledge and environmental understandings (Blackburn and Anderson 1993; Langton 1998).

Some analysts, such as McNeely (1993:251), consider the concept of wilderness to be an ignorant view, showing little understanding of the diverse and dynamic relationships that existed between Indigenous people and the natural environment.

Recognising the inaccuracy of wilderness in this light challenges the very basis for the establishment of many of the world's protected areas. It also denies the reality of some protected areas that have a history of habitation. For example, Indigenous populations inhabit approximately 80% of South and Central American protected areas (Colchester 1996; Marrie 2004). As such, notions of wilderness are increasingly superseded by the concept of cultural landscapes – landscapes resulting from the interactions between humans and nature (Ghimire and Pimbert 1997b; Maffi 2004).

Cultural landscapes have evolved over time through human use and management and are often reflected in and supported by local languages, traditional knowledge and spiritual values (Posey 1999a; Maffi 2004). Ecosystem approaches that comprise these cultural elements of landscape are integral for enhancing biodiversity conservation. This is noted principally in the Convention on Biological Diversity (CBD), which recognises the rights and benefits of Indigenous community use and conservation of biological diversity. The inclusion of Indigenous land management does not discredit or exclude the fundamental role of western science for improved biodiversity conservation within protected areas. Some people consider that for sustainable management, Indigenous and western land management interests, knowledge and practices need to be combined as a complementary approach (Stevens 1997; Berkes 1999; Baker et al. 2001a; Gambold 2002; Walsh and Mitchell 2002; Berkes 2003; Pimbert and Pretty 2003; Kothari 2004). Yet the Yellowstone management agenda of many of the world's protected areas is incompatible with Indigenous rights and interests (Marrie 2004). The new understanding of governance types for protected areas moves away from this notion of incompatibility by recognising the need for Indigenous participation and the accommodation of cultural values and interests for sustainable use.

1.2.5 Sustainable use

Some analysts argue that Indigenous peoples are inherent conservationists with ideals of conservation and sustainable use embedded in their land management approaches (Langton 1998; Baker et al. 2001a). This can be seen in attitudes of stewardship and concepts of resource restraint that have helped regulate common

pool resources by means such as defined areas of use, sacred site protection, seasonal resource use and hunting taboos (Feeny et al. 1990; Ostrom 1990; Rose 1996b; Chandran and Hughes 1997; Stevens 1997; Singh 2004). Others argue that it is important not to romanticise the conservation ethos of Indigenous peoples. Pressures such as population growth and contemporary society have greatly influenced the governance and social norms that once sustained local systems of land management (Ostrom and Field 1999; Baker et al. 2001a). Analysts such as Robinson and Redford (1994) and Stevens (1997) observe that market economies and consumerism also play a significant role in changed management practice. As a result overuse and mismanagement can place increasing demands on resources and the environment (IUCN Inter-Commission Task Force on Indigenous Peoples 1997; Barber 2004b). This raises questions as to the extent to which Indigenous stewardship can help achieve the conservation outcomes of today's protected areas.

It is imperative to understand that Indigenous peoples are not biodiversity preservationists per se. The natural environment is indeed manipulated, but for economic, social and cultural interests, not simply to maintain biodiversity (Borrini-Feyerabend et al. 2004; Naughton-Treves et al. 2005). Scepticism in this light is valuable to dispel romantic notions of Indigenous stewardship (Flannery 1994; Berkes 1999; Barber 2004b). However, it is critical that scepticism does not threaten or underestimate conservation efforts that arise from the inclusion of Indigenous peoples in protected area management and policy (Stevens 1997; UNEP 2003; Barber 2004b; Bishop et al. 2004; Kothari 2004).

Indigenous people have situated traditional knowledge and management practices that have historically been important for ensuring their survival (Borrini-Feyerabend 2003). This knowledge and management practice can be collectively referred to as Indigenous knowledge systems or IKS (IUCN Inter-Commission Task Force on Indigenous Peoples 1997). IKS encompass physical and perceptual information and understandings of landscape features and formation, human and environmental interactions, and ecosystem functions, relationships and products (IUCN Inter-Commission Task Force on Indigenous Peoples 1997; Nakashima and Roue 2002; Verlinden and Dayot 2005; SCBD ND-b). IKS are based on powerful social, cultural and spiritual beliefs and values that are integrated in a dynamic and holistic

relationship (Posey 1999b). It is this relationship that has helped maintain biodiversity in landscapes where Indigenous peoples live. This is noted by conservationists such as Neitschmann, who states that "...most biological diversity is in landscapes and seascapes inhabited and used by local peoples, mostly Indigenous..." (in Stevens 1997:27). The holistic nature of IKS for most Indigenous people embodies the broad concept of sustainability, i.e. human well-being and benefit through sustained resource use (IUCN Inter-Commission Task Force on Indigenous Peoples 1997; Berkes 1999). Yet the debate on Indigenous participation in protected areas should not be confined to the role and benefits of using IKS for biodiversity conservation.

1.2.6 Indigenous rights

Indigenous peoples' knowledge systems are managed according to traditional land and resource rights, cultural obligations and customary law (Pimbert and Pretty 1997; Stevens 1997; Berkes 1999; Ostrom and Field 1999; Borrini-Feyerabend et al. 2004). These rights and laws have a history of being disregarded in place of state imposed management and control (UNEP 2003). This denial has led to conflicts and violence, reducing Indigenous peoples' incentive to be involved in protected area management and undermining local livelihood security (Pimbert and Pretty 2003; Marrie 2004). In some cases it has also undermined the values for which protected areas were originally established (Bishop et al. 2004). With the evolving trend of participation and de-centralised management, attention to Indigenous peoples' rights in protected area management is a fairly recent development. It emerged as part of the human rights movement in the late 1940's.

The Zaire Resolution on the Protection of Traditional Ways of Life, passed by the IUCN General Assembly in 1975, was one of the first international resolutions to acknowledge the importance of safeguarding Indigenous rights and interests (Lawrence 1996). The resolution makes specific reference to the rights of Indigenous peoples to live on their homelands, without being displaced by protected areas and "without relinquishing their ownership, use or tenure rights" (Eidsvik 1980:186;

Colchester 1997; Stevens 1997). Prior to this, very few protected areas supported Indigenous settlement and subsistence practices⁶.

Historically Indigenous participation in protected areas arose due to land tenure competition. This is particularly notable in countries such as Australia and Canada, where Indigenous rights to land have been formally recognised and co-management regimes have resulted (Lawrence 1996). In many cases co-management success has ignored other fundamental rights and concerns of Indigenous peoples, in particular sovereignty and resource use rights (Colchester 1997). Today's rights-based approach to protected area management moves beyond legal tenure to include a broad suite of rights such as the right to self-determination, the right to local governance and control, and the right to equitable benefit sharing (Colchester 1997). In countries where Indigenous property rights are not formally recognised, this approach to protected area management may be the only viable opportunity for Indigenous peoples to equitably secure occupancy, access and resource use rights (IUCN Inter-Commission Task Force on Indigenous Peoples 1997; Borrini-Feyerabend et al. 2004). This is essential for Indigenous people who rely on the land and resources under protected area status for livelihood security and poverty reduction.

On the other hand, governance regimes such as ICCAs provide an opportunity for Indigenous peoples to have their rights and interests recognised and supported within a protected area framework. ICCAs are usually established to meet many concerns based on community need and a view of sustained resource use for human benefit (Borrini-Feyerabend et al. 2004). This implies a collective approach to management built on local priorities, institutions and resource management, strengthened by customary law and IKS (IUCN Inter-Commission Task Force on Indigenous Peoples 1997; Pimbert and Pretty 2003). This aligns with the sustainability ethos that is essential for mainstreaming protected area systems within conservation and development agendas (Mulongoy and Chape 2004).

⁶ Serengeti National Park in Kenya and the Xingu National Park in Brazil were amongst a few that respected traditional land use at the time. This has been claimed by some to be a reflection of the government's inability to implement restrictive protected area laws at the time (Stevens 1997).

1.2.7 ICCAs: bridging multiple agendas?

Whilst co-management has increasingly become the norm for Indigenous participation in protected area systems throughout a small number of countries worldwide, ICCAs have emerged as a new conservation concept (Borrini-Feyerabend et al. 2006). There are thousands of ICCAs throughout the world, including marine areas and sacred forests and lakes that have been in existence much longer than state-governed protected areas (Borrini-Feyerabend 2003). They provide many cultural, ecological and aesthetic benefits, ranging from the maintenance of ecosystem services and functions, to sustained livelihood opportunities (Borrini-Feyerabend et al. 2004; Berkes 2009a; Ross et al. 2009).

One of the most significant elements of ICCAs is that management is based on community institutions, norms and tenure systems. In many cases this means that ICCAs are not formally or legally recognised and supported by the state (Borrini-Feyerabend et al. 2004). In a few countries such as Australia where recognition is given, ICCAs managed primarily by Indigenous people are acknowledged as being part of the national protected area system (Borrini-Feyerabend et al. 2004; Gilligan 2006). In many other countries around the world, this recognition has altered power relations, replacing community authority with state-based governance regimes, thus undermining traditional rights and management practice (Barber et al. 2004). Both the Durban Accord⁷ and the CBD Programme of Work (PoW) on Protected Areas⁸ recognise and call for greater support and adoption of ICCAs as a governance type to help strengthen management and expand the coverage of the world's protected area network (CEESP ND).

ICCAs introduce nothing new to the debate on community-based conservation. Indigenous peoples have historical practices of sustainable use, regulation and

⁷ From the 5th World Parks Congress, Recommendation 5.26 on ICCAs highlights the need for governments to recognise, promote, facilitate, respect and support ICCAs as a legitimate option for biodiversity conservation, as well as recognising and extending the importance of ICCAs culturally, economically and socially (IUCN 2005a).

⁸ The seventh meeting of the Conference of Parties on the CBD adopted a programme of work on protected areas that specifically includes a section, Program Element 2, on "governance, participation, equity and benefit sharing". This program calls for greater recognition and adoption of protected area governance types conserved by Indigenous and local communities, as well as the increased participation of Indigenous and local communities for biodiversity conservation and to promote equity and benefit-sharing (SCBD ND-a).

resource management that have helped sustain ecosystems and community livelihoods for generations (Borrini-Feyerabend 2003; Balasinorwala et al. 2004). Yet within a protected area context, recognition of ICCAs seeks to legitimise Indigenous peoples' values and interests and may facilitate understanding of crucial lessons in resource management and practice (Borrini-Feyerabend et al. 2004). So the question can be asked: how and to what extent are Indigenous values and interests successfully incorporated once an Indigenous managed area is recognised as part of a national protected area system?

In the previous sections, I have outlined the change in protected area governance regimes through an examination of literature on a number of concepts, including biodiversity conservation, sustainable development, participation and cultural landscapes. I have shown that ICCAs are currently considered one of the most appropriate regimes for bringing together conservation and development agendas within protected areas, where Indigenous rights, sustainable use and meaningful participation are considered to be at the fore of policy and practice (Phillips 2003b). Such regimes do not, however, guarantee the values and interests of Indigenous peoples are recognised, supported and achieved through management frameworks. Over the last decade research into such community-based programs has shown continued concern over local control and ownership, organisational and partner conflict, and tensions between local and national agendas and priorities (Mahanty 2002; Kothari 2006; Berkes 2007; Axford et al. 2008). This indicates that rather than being the panacea for integrated conservation and development outcomes, more sophisticated approaches to management continue to be required if Indigenous agendas are to be achieved alongside those of the State (Berkes 2007; Agrawal and Redford 2008). As with many state-run protected areas, theory is emerging that suggests community-based conservation efforts need to be considered as multi-levelled, whereby partnerships and objectives are a result of collaboration and deliberation i.e. multiple parties communicate, share knowledge and skills, and negotiate (Berkes 2007:15190; Gruber 2010). This is of growing importance as the numbers of, and investment in, ICCAs by Indigenous and local communities, governments, NGO's and other organisations continues to develop worldwide.

At a national level, the IPA program within Australia has dramatically increased the area of lands being managed for conservation and sustainable use in the NRS. The trend continues. IPAs are considered to exemplify changes in global and national policy and program management to better reflect Aboriginal rights and interests in protected area management through ICCAs (Bridgewater et al. 1999). This dissertation provides an independent evaluation of one case study site, the Northern Tanami IPA, to see whether, and how, this is being achieved. Such research is important as it provides some baseline data on the success of integrating conservation and development agendas, while also identifying any tensions that currently exist, or might arise, from such integration through the IPA program. It adds to the growing national and global literature on principles and processes for more effective management of protected areas where Indigenous people, the State and other partners work together.

1.3 Dissertation structure

In Chapter 1 I have outlined the main research direction and questions. I have also positioned the research within the broader literature on changing approaches to protected area management.

In Chapter 2 I review the history of Aboriginal engagement in the Australian protected area system, with a focus on co-management and IPAs, and provide background on the biophysical and social context of the Northern Tanami IPA as the case study site.

Chapter 3 outlines the analytical and methodological frameworks underpinning my research. The research methods and techniques used to gather and validate the research data are also discussed.

Chapter 4 investigates what Warlpiri people mean when they talk about ‘managing country’ and includes discussions of Warlpiri values for managing country, current management practices, and challenges to management. This chapter is fundamental for understanding how Warlpiri people involved in the management of the Northern Tanami IPA, envision, use and manage country.

In Chapter 5 I outline Warlpiri people's perspectives on the management of the Northern Tanami IPA. Topics raised in this chapter include people's understandings and impressions of management structure and function, as well as their involvement in day-to-day management practice. This chapter details the extent to which Warlpiri people's aspirations for country are being met through the IPA, and processes for improving on-ground management practice.

Chapter 6 examines agency staff interests in and impressions of management, and management efficacy, within the Northern Tanami IPA. Agency perspectives on Warlpiri interests and achievement are also discussed. Overall in this chapter I highlight a diversity of management interests between agencies, and a diversity of opinion on management achievements and challenges.

Chapter 7 brings together the results from Chapters 4, 5, and 6 to examine the overall efficacy of the Northern Tanami IPA. The analytical framework underlying this research is applied to look at management intent and management practice. The key challenges limiting the achievement of multiple agendas through current management practice are outlined and discussed.

Chapter 8 concludes this dissertation, and contains a summary of the key processes needed to improve management within the Northern Tanami IPA. Four categories of processes have emerged and are discussed in turn. These categories are institutional advancement, adaptive co-management in scaled environments, cross-cultural management, and working within the local context. I then discuss the relevance of these findings to other protected areas management by and with Aboriginal people in desert Australia.

Chapter 2

Australian protected areas and Aboriginal peoples: an environment of change



Photo 2: Warlpiri women and girls performing a *wampana* (spectacled hare-wallaby) ceremonial dance for the Northern Tanami IPA declaration, Lajamanu, April 2007

2. AUSTRALIAN PROTECTED AREAS AND ABORIGINAL PEOPLES: AN ENVIRONMENT OF CHANGE

2.1 Introduction

In this chapter I provide a historical overview of the Australian protected area system, the National Reserve System (NRS). This overview includes a discussion on Aboriginal engagement, and the benefits and constraints of the more socially orientated governance regimes of co-management and IPAs. Both of these regimes are examined to show the progression of Aboriginal involvement in protected area management over time. The second part of this chapter outlines the case study environment. I outline the formation and management strategy of the Northern Tanami IPA, as well as the biophysical and social context of the case study site. Overall this chapter positions the national and local context in which this research is situated.

2.2 The Australian protected area system: a national overview

The Australian protected area system has a varied history, mostly due to political and economic differences among the States, Territories and Commonwealth systems of management and planning. From the declaration of Royal National Park in 1879, the protected area system has developed on an ad hoc basis, preserving lands for their scenic, recreational and natural values (Figgis 1999; Worboys et al. 2005). Since the early 1990s, Australia's protected areas have been managed under the NRS. The NRS was established to integrate management objectives nation-wide for enhanced biodiversity conservation through the development of a comprehensive, adequate and

representative (CAR)⁹ system of terrestrial protected areas. To help ensure the acquisition of lands into protected areas was planned systematically, the Interim Biogeographic Regionalisation of Australia (IBRA) was developed to underpin the selection of priority regions and ecosystems for conservation as on and off-park¹⁰ protected areas¹¹ within the NRS (NRMMC 2004).

Today, terrestrial protected areas in Australia cover a total of 11.6% of the Australian land mass (DEWHA 2010b). The majority of these have a management emphasis on strict protection and species and habitat conservation (86.2% under IUCN Categories I to IV; Table 2, p.28). Only 13.8% of protected areas (IUCN Categories V and VI) are managed to combine conservation and sustainable use objectives. Many such areas are very large, so that protected areas emphasising this combined approach contribute over a third of the area of land protected in the NRS (34% under IUCN Category V and VI, Table 3, p.29). The discussion below examines the background to the inclusion of such protected areas within the NRS, in particular the development of the IPA program. This discussion does not revisit the history of protected area establishment in Australia in detail, but instead aims to highlight key issues and connections between protected area management direction and policy and Aboriginal participation over time.

⁹ Comprehensiveness: “the NRS will aim to include the full range of regional ecosystems recognised at an appropriate scale within and across each IBRA region”; Adequacy: “the NRS aims to provide reservation of each ecosystem to the level necessary to provide ecological viability and integrity”; and Representativeness: “areas selected for inclusion in the NRS should reasonably reflect the intrinsic variability of the ecosystems they represent” (NRMMC 2004:26).

¹⁰ Off-park conservation reserves have been established throughout Australia on private lands over the past ten years, including lands bought by non-government organisations such as the Australian Bush Heritage Fund, Australian Wildlife Conservancy and Birds Australia (NRMMC 2004).

¹¹ To be included in the NRS, areas of land must be a protected area that is dedicated to the primary purpose of biodiversity conservation; be classified into one or more of the IUCN protected area management categories; be managed by legal or other effective means (which includes both public and privately owned protected areas); and contribute to the CAR of the NRS (CGA 2005).

Table 2: Number of Australian Terrestrial Protected Areas by IUCN Management Categories, 1997 – 2008 (DEWHA 2010b)

<i>IUCN Category</i>	1997		2000		2002		2004		2006		2008	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
IA	2038	38.06	1981	37.97	3199	47.6	2090	27.07	2200	25.1	2367	25.9
IB	52	1.03	49	0.94	32	0.48	38	0.49	44	0.5	61	0.7
II	560	10.46	603	11.56	642	9.55	644	8.34	828	9.4	941	10.3
III	847	15.82	660	12.65	696	10.36	2019	26.15	2312	26.3	2328	25.5
IV	1543	28.82	1397	26.78	1527	22.72	2060	26.69	2149	24.5	2176	23.8
<i>I-IV total</i>	5040	94.14	4690	89.9	6096	90.71	6851	88.74	7533	85.8	7873	86.2
V	35	0.65	151	2.89	172	2.56	139	1.8	203	2.3	227	2.5
VI	279	5.21	376	7.21	452	6.73	730	9.46	1044	11.9	1033	11.3
<i>V-VI total</i>	314	5.86	527	10.1	624	9.29	869	11.26	1247	14.2	1260	13.8
Total	5354	100	5217	100	6720	100	7720	100	8780	100	9133	100

Table 3: Area of Australian Terrestrial Protected Areas by IUCN Management Categories, 1997 – 2008 (DEWHA 2010b)

<i>IUCN Category</i>	1997		2000		2002		2004		2006		2008	
	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%
IA	20,559,295	34.55	19,119,788	31.13	18,667,937	24.1	18,212,695	22.51	18,515,397	20.7	18,468,054	20.2
IB	2,952,112	4.96	3,918,965	6.38	3,969,356	5.13	4,099,515	5.07	4,786,179	5.3	5,559,380	6.1
II	23,523,375	39.53	25,204,425	41.03	28,766,907	37.14	29,678,100	36.69	36,148,340	40.4	32,451,394	35.5
III	339,625	0.57	271,713	0.44	390,948	0.5	970,517	1.2	1,104,307	1.2	1,085,119	1.2
IV	283,607	0.48	325,304	0.53	2,225,208	2.87	2,818,936	3.48	2,926,137	3.3	2,694,602	3.0
I-IV total	47,658,014	80.09	4840 195	79.52	54,020,356	69.75	55,779,763	68.95	63,480,361	70.9	60,258,548	66.0
V	100,379	0.17	861,095	1.4	788,779	1.02	919,746	1.14	850,178	0.9	1,082,837	1.2
VI	11,748,516	19.74	11,720,773	19.08	22,635,792	29.23	24,195,591	29.91	25,198,320	28.1	29,992,067	32.8
V-VI total	11,848,895	19.91	1,581,868	20.48	23,424,571	30.25	25,115,337	31.05	26,048,498	29.1	31,074,904	34.0
Total	59,506,909	100	61,422,063	100	77,444,927	100	80,895,100	100	89,528,859	100.0	91,333,452	100.0

2.2.1 Aboriginal people and parks

The Australian landscape has been home to Aboriginal people for at least the past 40,000 years (Flannery 1994; Worboys et al. 2005). This landscape, often referred to as ‘country’, has over time been influenced and modified by land use practices that are clearly defined by spiritual connections and social order and responsibilities. Compared with European land management practices over the past 200 years, Aboriginal people have cared for country on a much broader landscape scale (Baker et al. 2001a). ‘Caring for country’ has shaped an environment where the maintenance and conservation of plant and animal species has in return provided Aboriginal people with food, water, social order and spiritual continuity (ACF 1991; Walsh and Mitchell 2002). Caring for country is the western term used to describe the custodial right of individual men and women to maintain their land and its resources through learning, performing and teaching law, ceremony, kinship and language. It also includes the use of the land and its resources to maintain productivity through management practices such as burning, hunting and gathering (ACF 1991; Walsh and Mitchell 2002).

Throughout much of the history of protected area establishment in Australia, Aboriginal people have been excluded from using and caring for country in accordance with their cultural and spiritual needs and ideals. This exclusion was based on the British notion of ‘terra nullius’; that Australian was a “colony which consisted of a tract of territory practically unoccupied, without settled inhabitants or settled law...” (Davis 1990:26). Since the mid 1970s, concerns over Aboriginal exclusion were to start a period of significant change within the Australia protected area system. This change was facilitated by the growing international recognition of Indigenous peoples’ rights and interests to land, their role in biodiversity conservation, as well as global calls for decentralized management practices based on sustainable use and participation (see Ch 1.2.2-6). These concerns were also being raised nationally¹². The turning point for Aboriginal involvement within Australian

¹² One of the first political campaigns calling for the need to establish Indigenous rights throughout Australia was the result of the 1966 Wave Hill walk-off. Gurindji pastoral workers walked off Wave Hill station in protest against the inadequate living conditions and wages they were receiving. They established a camp on traditional Aboriginal land at Daguragu where they stayed until the Daguragu lease was handed back by the Whitlam government in 1975 (Nettheim et al. 2002).

protected areas was the creation of co-managed protected areas, which arose through successful Aboriginal land claims. Table 4 (p.32) summarises the key legislation supporting Aboriginal ownerships of protected area lands within the Northern Territory of Australia. Human rights, national environmental concerns and the call for participatory approaches to natural resource management have also contributed to the push for social justice and national policies enabling Aboriginal involvement in protected area management (Borrini-Feyerabend et al. 2000; Howitt 2001; Borrini-Feyerabend et al. 2004). The main policies allowing for this in Australia are outlined in more detail in Table 5 (p.33)

As can be seen from Tables 4 and 5, Aboriginal participation is chiefly predicated on the role that traditional knowledge and management practice have in helping to maintain biodiversity and the cultural landscapes of Australia. Aboriginal participation is also a priority as large tracts of Australia not represented within the NRS are owned and managed by Aboriginal people (Smyth 1996; DEWR 2005; Cork et al. 2006). It was this realisation that helped create the IPA program. Co-management and the IPA program are the two main protected area governance typologies that incorporate Aboriginal people and Aboriginal owned land within the Australian NRS. In the following sections I explore the participation initiatives of co-management and the IPA program, considering the benefits and inadequacies of both.

Table 4: Key legislation allowing for Aboriginal ownership of protected areas in the Northern Territory

Legislation	Description
Aboriginal Land Rights (NT) Act 1976 (Cth) (ALRA)	This act introduced a land claims system which provides for the recognition of Aboriginal traditional rights by providing statutory freehold title to certain lands held by the Crown for the use and benefit of Aboriginal people, as well as a process by which Aboriginal people could lay title claims to other areas of unalienable Crown land. Under this legislation Aboriginal people could claim rights over protected area lands (CGA 1976; Birkhead et al. 1993; Baker et al. 2001a; Nettheim and Howden 2002).
National Parks and Wildlife Conservation Act 1975 (Cth) (NPWCA)	Stage 1 of Kakadu National Park was established under this act as a result of a successful land claim under the ALRA (Cth) 1976 (Smyth 2001). However joint management arrangements were not successfully negotiated until 1991. Joint management of Uluru - Kata Tjuta National Park was established under this act in 1985 as a grant of land by amendment of the ALRA (Cth) 1976 (Lawrence 1996; Smyth 2001). Amendments to the NPWCA in 1985 under sections 14C(5) and 14D(1) requires a majority Aboriginal Board of Management when Aboriginal land is located within a protected area (CGA 1985).
Cobourge Peninsula Land and Sanctuary Act 1981 (NT)	Gurig National Park (formerly known as Cobourge Wildlife Sanctuary) was the first joint managed national park formed in Australia in 1981 under its own legislation. It was established by the Northern Territory Government and the Traditional Owners to resolve a pending land claim under the ALRA (Cth) 1976 (Smyth 2001).
Native Title Act 1993 (Cth)	This act sets a statutory framework that protects Aboriginal people's common law rights to use, manage and control resources within Australian land and sea scapes, including protected areas (Baker et al. 2001a; Nettheim and Howden 2002; Worboys et al. 2005).
Parks and Reserves (Framework for the Future) Act 2005 (NT)	This Act provides a framework for negotiations between the Northern Territory government and the traditional Aboriginal owners for settling outstanding Native Title and ALRA claims over 27 Northern Territory Parks and Reserves, outlined in Schedules 1, 2, 3 and 5 of the Act (NTG 2005d; NTG 2005b).
Territory Parks and Wildlife Conservation Act (NT)	Amendments to this Act provide a legal framework for the joint management of parks and reserves (section 22 to 25) scheduled under the Parks and Reserves (Framework for the Future) Act only (NTG 2007).

Table 5: Legislation and social justice and national policies supporting the engagement of Aboriginal people in protected area management

Policy & legislation	Description
Royal Commission into Aboriginal Deaths in Custody	Specifically recommendation 315 calls for the inclusion of Aboriginal people in protected area management by their involvement “in the development of management plans for national parks” as well as other initiatives that include “land excisions for use by Aboriginal people as living areas” and “granting of access by Aboriginal people to national parks and nature reserves for subsistence hunting, fishing and the collection of material for cultural purposes” (Royal Commission into Aboriginal Deaths in Custody 1991:62).
National Strategy for Ecologically Sustainable Development (1992)	This strategy calls for the full participation of Aboriginal and Torres Strait Islander (ATSI) people towards achieving ecologically sustainable development (ESD). This includes the “greater recognition of ATSI peoples’ values, traditional knowledge and resource management practices” (CGA 1992:2).
Environmental Protection and Biodiversity Conservation Act 1999 (Cth) ¹³ Regulations 2000 (Cth)	This act and regulation legislates a role for Aboriginal people in the sustainable use and conservation of Australia’s biodiversity and their rights to involvement in protected area management; specifically in relation to the establishment and roles of management boards on Aboriginal owned land where the Commonwealth has jurisdiction ¹⁴ (CGA 1999; CGA 2000).
Guidelines for Indigenous Participation in Natural Resource Management 2004	This document recognises Indigenous peoples’ ties to the land and seas, encouraging regional natural resource management (NRM) groups “to engage and form partnerships with Indigenous people”. Some of the guiding principles include acknowledgement of Indigenous interests and relationships to land and water; representation of Indigenous people on regional decision-making committees; and that Indigenous ownership and management arrangements are taken into account for NRM planning (CGA 2004).

¹³ The Environmental Protection and Biodiversity Act 1999 (Cwlth) replaces the National Parks and Wildlife Conservation Act 1975 (Cwlth), as well as the Environmental Protection (Impact of Proposals) Act 1974 (Cwlth), Endangered Species Protection Act 1992 (Cwlth) and the World Heritage Properties Conservation Act 1983 (Cwlth).

¹⁴ This role was adapted from the National Parks and Wildlife Conservation Act 1975 (Cwlth) and the National Parks and Wildlife Conservation Amendment Act 1985.

Policy & legislation (cont.)	Description
The National Reserve System Strategic Plan 2005	One of the 4 objectives of this plan is to “provide incentives for Indigenous people to participate in the National Reserve System through voluntary declaration of protected areas on their lands and support for greater involvement of Indigenous people in the management of existing statutory protected areas” (DEW 2005:2). The plan also notes that Indigenous “knowledge will be of great value in helping to learn how to better manage the Australian landscape” (DEW 2005:7).
Parks and Reserves (Framework for the Future) Act 2005 (NT)	This Act recognises the need for “valuing and incorporating Indigenous culture, knowledge and decision-making processes” for the establishment, maintenance and management of protected areas (NTG 2005d:3).
Schedule 2.5 to the Overarching Agreement on Indigenous Affairs between the Commonwealth of Australia and the Northern Territory of Australia, 2005 to 2010: Healthy Country, Healthy People.	In this schedule Commonwealth and Northern Territory governments aim to “support the effective engagement of Indigenous people in the decision-making and management processes” for sustainable land and sea management. This includes taking full account of “Indigenous aspirations, priorities and preferences” and “promoting the use of Indigenous knowledge” in the implementation of existing and the development of new policies, legislation and programs (OIPC 2005:1).
Australia’s Biodiversity Conservation Strategy 2010-2020, Consultation Strategy	This Strategy calls for the “recognition of the special relationships of Indigenous peoples with Australia’s natural environment, the cultural significance of that relationship and its ongoing importance to the conservation of Australia’s biodiversity” (National Biodiversity Strategy Review Task Group 2009:38-42). This is reflected in actions that include appropriate Indigenous engagement and recognition of traditional knowledge and management expertise in protected area and conservation management. This strategy is an update on the previous National Strategy for the Conservation of Australia’s Biological Diversity (1996).

2.2.2 Co-management

Co-management is an approach to protected area management that seeks to develop management objectives and strategies on a collaborative basis between park managers and local people, requiring shared management responsibility and equal participation (Lane 2001). It is advocated for its role in helping to reduce the social impacts of conservation whilst improving protected area conservation objectives. Within Australia, co-management has arisen due to the legal recognition of Aboriginal people's rights to own traditional lands. It has been defined as "the establishment of a legal partnership and management structure that reflects the rights, interests, and obligations of the Aboriginal owners of the park, as well as the those of the relevant government, acting on behalf of the wider community" (Smyth 2001:75).

Only a small percentage of Australia's 9107 protected areas are co-managed, with the majority of these being within the Northern Territory. Yet Ross et al. (2009:248) say co-management is the norm in terms of expectation of how Aboriginal interests should be accommodated in parks. Figure 4 (p.36) shows protected area governance types within Australia. Kakadu and Uluru Kata-Tjuta National Parks are the most widely recognised co-managed protected areas in the world. These national parks have been called 'models' of management and widely copied (Lane 2001). There are many benefits associated with co-management. Conversely co-management is also heavily criticised. Table 6 (p.37) provides a summary of the main benefits and critiques of Australian co-management found within the literature. Some of the benefits include the reduction of social and cultural impacts of conservation on local communities, and better informed resource management through the use of local knowledge and understandings of place (Lane 2001). Yet critiques emphasise that the success of co-management depends largely on the effectiveness of its implementation (Lawrence 1996; Borrini-Feyerabend et al. 2004). In many cases trying to bridge the cultural and social divide between Aboriginal people and state agencies has proven very difficult. In Australia, opinion is that only the minimum requirements for co-management are being met (Lane 1997; Davies 1999; Davies et al. 1999; Muller 2000), characterising it more as an arena of competing interests rather than a partnership of equality (Woenne-Green et al. 1994; Lawrence 1996).

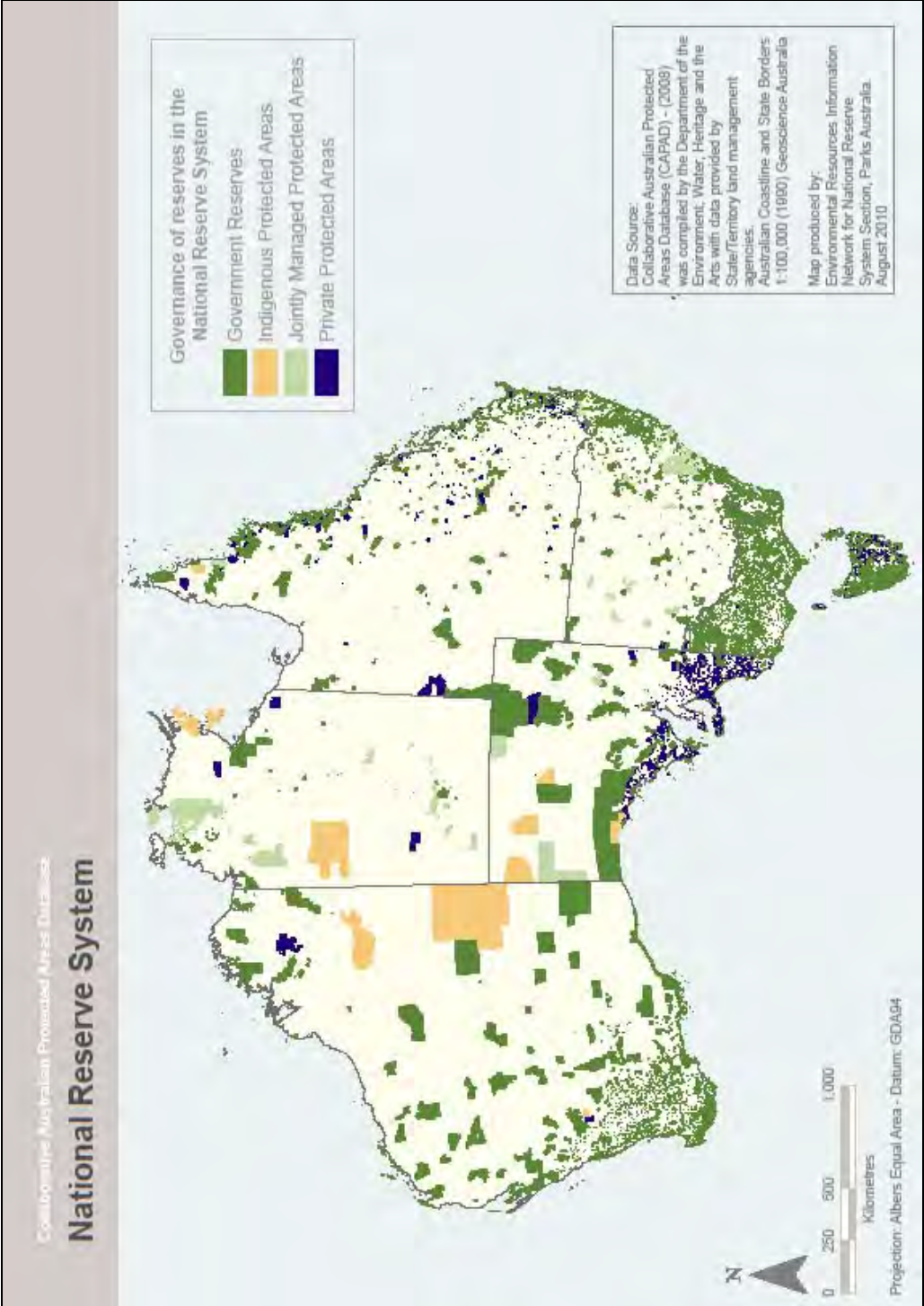


Figure 4: Map of the National Reserve systems showing governance types (DEWHA 2010c)

Table 6: Benefits and critiques of co-management in Australia

Benefits	Critiques
• Provides a mechanism by which Aboriginal people can regain ownership of land (Smyth 2001) • Returns benefit through the empowerment and participation of Aboriginal people in decision-making processes (Davies et al. 1999; Lane 2001; Muller 2003) • Provides a framework for reducing the negative social and cultural impacts of traditional protected area approaches based on the exclusion of human use and occupation (De Lacy 1994) • Provides a contemporary context for the incorporation of traditional knowledge and management alongside modern conservation practice; building cross-cultural partnerships, reducing protected area conflicts and creating opportunities for employment and training and cultural continuity (Lawrence 1996; Davies et al. 1999; Lane 2001; Smyth 2001) • Helps to educate the wider Australian public on Aboriginal interests, management practice and culture (De Lacy 1994) • Provides economic benefits from lease payments, tourism ventures and employment and economic well-being through customary harvest and wildlife utilization (De Lacy 1994; Davies et al. 1999; Altman 2001; Smyth 2001)	• Co-management arrangements were not sought by Aboriginal people but were established as a 'pre-condition' to the granting of Aboriginal land (De Lacy 1994; Lawrence 1996; Muller 2000); • Restricts Aboriginal landholders private care rights to access and live on traditional lands (Hill 1993; Burton Phillips 1995; Lawrence 1996) • Emphasise 'top-down' management, not allowing for the full expression of Aboriginal self-determination in decision-making processes, resulting in power imbalances (Lawrence 1996; Smyth 2001; Behrendt and Thompson 2004) • Operates under 'western' principles of law and within rigid institutional agencies, with little national co-ordination and application of joint management principles (Lawrence 1996; Webb 1996; Aboriginal Project Committee 1997; Robinson and Munungguritji 2001) • Rarely achieves a balance between the differing management objectives and practices of Aboriginal landowners and the state (Woenne-Green et al. 1994; Bomford and Caughley 1996; Smyth 2001); for example, ownership of domestic livestock, hunting of flora and fauna and the collection of firewood is often incompatible with western conservation practice (Bomford and Caughley 1996; Davies et al. 1999)

Lawrence (1996) states that successful co-management arrangements should be measured by Aboriginal empowerment, equity and social justice. This includes the full recognition of the cultural, economic and political importance of land to Aboriginal people within management policy and day-to-day management practice (Smyth 2001; Muller 2003). The likelihood of this occurring is limited when co-

management conforms to pre-determined management frameworks and ‘allows’ Aboriginal participation (Foster 1997; Muller 2003). As such, co-management is only seen as having marked the beginning of what Howitt calls the ‘decolonisation’ of Australia’s protected areas: the process whereby colonial legacies of management are reconstructed by understanding, supporting and in some cases re-establishing “the web of relations between Aboriginal economies, Aboriginal people and Aboriginal country” (Howitt 1997:6; Muller 2000; Howitt 2001). For this reason, people such as Stevens (1997:35) suggest that “new insights into wilderness, the conservation of biodiversity, human rights, and Indigenous peoples’ role in maintaining both cultural and biological diversity instead seem to call for the creation of new kinds of protected areas altogether”.

2.2.3 The Indigenous Protected Area Program

The IPA program was developed out of necessity in the early 1990s as a collaborative approach to include Aboriginal owned land in the NRS (CGA 1992; Smyth 1996; Thackway and Brunckhorst 1998). Many of the priority IBRA regions identified for biodiversity conservation are on Aboriginal owned land, which today accounts for over 15 percent of continental Australia. The incorporation of these lands into the NRS is one of the main goals of the IPA program (see Box 2, p. for a summary of the overall IPA program goals), and is extremely valuable for national conservation efforts in terms of land contribution and biodiversity protection value (Szabo and Smyth 2004). Other factors that lead to the development of the program include:

- Federal Government inquiries recognising the rights and interests of Aboriginal people in protected area management;
- the modification of the IUCN classification system to recognize the rights, interests and roles of Aboriginal people to own, manage and use land and sea country within protected areas;
- lack of legal barriers to voluntary declarations across Australia; and
- consultations and workshops with Aboriginal landholders and organisations, and State, Territory and Federal Government conservation agencies highlighting interest in the use of traditional and contemporary land

management practices (Smyth 1996; Beltran 2000; Szabo and Smyth 2004; Gilligan 2006).

To establish partnerships between government and Indigenous land managers to support the development of a comprehensive, adequate and representative national system of protected areas which is consistent with the international protected areas classification system, by:

- Assisting Indigenous people to establish and manage protected areas on their estates for which they hold title; and
- Assisting Indigenous Groups and Australian Government agencies at various levels to develop partnerships and agreements for the cooperative management of existing protected areas.

To promote Indigenous involvement in protected area management by supporting the establishment of cooperatively managed protected areas in each jurisdiction, and promotion of national best practice approaches to cooperative partnerships in protected area management.

To promote and integrate Indigenous ecological and cultural knowledge into contemporary protected area management practice in accordance with internationally endorsed protected area guidelines.

Box 2: Three goals of the IPA program (DEH 2005b)

IPAs are advantageous to government agencies as they contribute directly towards the NRS with little cost and intervention involved (Szabo and Smyth 2004). Since the establishment of the Nantawarrina IPA in South Australia in 1998, the declaration of 36 IPAs has added over 14.8 million hectares of land to the NRS (Gilligan 2006). These lands include some of the most diverse and highly valued land under the IBRA for biodiversity conservation, with many IPAs in areas where NRS representation is less than five percent (Gilligan 2006). Other benefits of the IPA program are considered to be:

- government investment in sustainable land management by Aboriginal people (Davies et al. 1999);
- successful engagement, participatory conservation planning and partnership development between Aboriginal landowners, local and Aboriginal organisations, and government agencies (Bridgewater et al. 1999);
- recognition of Aboriginal interests and practice in managing land and sea country, fostering pride and ownership and validating land management practices and capacity (Smyth 2001; Muller 2003; Szabo and Smyth 2004);

- Aboriginal self-determination through voluntary declarations, local control and management (Muller 2003; Szabo and Smyth 2004; DEH 2005a; Gilligan 2006);
- declaration in accordance with the IUCN protected area classification system rather than being tied to state, territory and federal legislation, which is often critiqued as a mechanism for dispossessing people from their land (Davies et al. 1999); and
- broader social, educational and economic benefits to Aboriginal communities from involvement in the program (Gilligan 2006).

There has been little review of the IPA program beyond the works of O'May (1999), Muller (2000; 2003) and Gilligan (2006). These reviews have, however, highlighted limitations and concerns including:

- the lack of government investment for effective on-going management;
- the need for greater cross-governmental integration to support partnership development and program linkages;
- the non-statutory nature of voluntary IPA agreements; and
- the high level of public accountability for investment.

2.2.4 A way forward?

As can be seen from the discussions above, Aboriginal involvement in Australia's protected areas varies legally and physically. Co-management has been the longest standing model of management inclusive of Aboriginal participation in Australia. This participation has been out of necessity on the part of Aboriginal people to maintain some right to control management of their country. Aboriginal people have said that such arrangements do not adequately recognise their status as landowners or fully incorporate their land management interests. The IPA program on the other hand has developed through the recognition of Aboriginal land ownership and management practices, contributing successfully to the effective engagement of Aboriginal people in protected area management. The program is also thought to have facilitated Aboriginal self-determination through local control and management. This can be seen through processes of voluntary self-declaration and management plans that reflect long-term land management aspirations of Aboriginal people. This

success is considered to be reliant upon targeted government investment in and on-going engagement with Aboriginal landowners to build “effective and equal partnerships” (Bridgewater et al. 1999:77; O'May 1999; Gilligan 2006). Box 3 outlines the key attributes for successful Aboriginal engagement that are considered to be shown through the IPA program.

From all accounts the IPA program seems to be achieving its three goals of partnership creation, Aboriginal engagement, and integration of Aboriginal management practices within Australia's protected areas. Apart from a few IPA program reviews (O'May 1999; Gilligan 2006), and research by Muller in 2000 on the ways the IPA program contributes to the process of protected area decolonisation, there has been little detailed research on if and how the IPA program recognises and supports Aboriginal values and objectives for managing country. This dissertation adds to the limited literature on IPAs by examining management practice within the Northern Tanami IPA. It shows where advancements have been made, and where management practices still need to be progressed to better achieve Aboriginal, as well as partnering agencies, interests through protected area management.

Timing: process based on Aboriginal time frames and cultural protocols
Dedicated resources: deliberate, directed and supported engagement
Support for Aboriginal processes: support for Aboriginal processes rather than pre-determined agency processes
Effective leadership: leadership promotion advocated through Aboriginal decision-making and planning processes
Recognition and respect: process based on recognition, acknowledgment and respect for relationships and rights to country, knowledge, capacity and governance
Capacity building: capacity of Aboriginal people, agencies and other stakeholders built through good process
Aboriginal diversity: process incorporates diversity in and between Aboriginal groups
Scale: process based on country-based scale inclusive of all Aboriginal peoples associated with that area
Complementary social and economic objectives: engagement and process integrates a diversity of objectives to reduce Aboriginal disadvantage, e.g. employment, education and training, cultural continuity and inter-generational transfer of knowledge, skills and management practice
Effective and on-going communication: process based on flexible, on-going and adaptive approaches e.g. meet when and where Aboriginal people want to, availability and responsiveness, preparedness to adapt approach, accept criticism

Box 3: Key attributes of the IPA program that support successful Aboriginal engagement (Smyth et al. 2004; Gilligan 2006)

2.3 The case study environment

The Northern Tanami IPA was voluntarily declared by Traditional Owners on the 30th April 2007, under the *Australian Environment Protection and Biodiversity Conservation (EPBC) Act* 1999. It covers 40,050km² of land and is located within the northern section of the Tanami Desert, in the Northern Territory (Appendix 2. Map of the Northern Tanami IPA, p.352). It is classified as an IUCN category VI protected area; a protected area with sustainable use of natural resources (Box 4, p.44, provides more detail on this category).

The IPA includes lands within the Central Desert and Hooker Creek Aboriginal Land Trusts (ALT). These are traditional lands of the Warlpiri, Gurindji and Kartangarurru¹⁵ language groups (Bridgewater et al. 1999). In the west the IPA borders the Yingualyalya, Purta and Mount Frederick ALTs and Supplejack Pastoral Lease, and to the east, the Karlantijpa North ALT. The Northern Tanami IPA is managed from Lajamanu, situated approximately 900km northwest of Alice Springs.

Lajamanu is on land traditionally owned by Gurindji people, but is predominately a Warlpiri settlement today (CLC 2006). It has a population of approximately 790 people, of which 92% are Indigenous (ABS 2008). Of this population 134 people are employed in casual, part-time or fulltime work in the following organisations: Lajamanu Health Clinic, Lajamanu Community Education Centre (CEC), Central Desert Shire, Lajamanu Progress Association (local shop), Wulain Resource Outstation Centre, Warnayaka Art and Cultural Centre and the Central Land Council. Many of these jobs are provided through the Federal Governments Community Development and Employment Program (CDEP). The average weekly income is \$207 (ABS 2008), with the community heavily reliant on local services which include store food, bore water and the service station. Katherine is the nearest major town, 550km to the north-east of Lajamanu. Lajamanu has been earmarked as one of 20 communities within the Northern Territory to be a Growth Town (NTG ND-b). These towns will become regional economic and service delivery hubs through

¹⁵ The Kartangarurru language is no longer spoken. The descendants of this group now speak Gurindji or Nyininy. Nyininy is a dialect of the Jaru language (Horton 1996; CLC 2006).

increased investment in planning and design, services and facilities, and infrastructure.

The Northern Tanami IPA was selected as the case study for my research in consultation with staff from the Land Management Unit of the Central Land Council (CLC). The main factors contributing to its selection were: that the Northern Tanami IPA was the only declared IPA within the arid region of the Northern Territory at the time; management was through a partnership between traditional landowners, the CLC and DEWHA; it includes country which has a long history of Aboriginal occupation, use and management; and is of regional and national conservation significance.

Category VI protected areas (protected area with sustainable use of natural resources) conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems.

Primary objective:

- to protect natural ecosystems and use natural resources sustainably, when conservation and sustainable use can be mutually beneficial

Other objectives:

- to promote the sustainable use of natural resources, considering ecological, economic and social dimensions
 - to promote social and economic benefits to local communities where relevant
 - to facilitate inter-generational security for local communities' livelihoods – therefore ensuring that such livelihoods are sustainable
 - to integrate other cultural approaches, belief systems and world-views within a range of social and economic approaches to nature conservation
 - to contribute to developing and/or maintaining a more balanced relationship between humans and the rest of nature
 - to contribute to sustainable development at national, regional and local levels
 - to facilitate scientific research and environmental monitoring, mainly relating to the conservation and sustainable use of natural resources
 - to collaborate in the delivery of benefits to people, mostly local communities, living in or near to the designated protected area
 - to facilitate recreation and appropriate small-scale tourism
-

Box 4: Characteristics of IUCN protected category VI (Dudley 2008)

2.3.1 Northern Tanami IPA and the Wulain Ranger group formation

Since 1998 Traditional Owners of the Hooker Creek and Central Desert ALT's, together with the CLC, have worked to develop a framework to assist with the NCRM of the land trusts. From a series of workshops a strategic plan was developed that highlighted key goals for doing this, which included: the promotion of community land management through local employment and training; the creation of long-term structures that support and enhance Aboriginal management and control in land management in the region; and the promotion and use of traditional ecological knowledge and skills for cultural continuity (CLC 2001). The efforts between Traditional Owners and the CLC to achieve these goals resulted in a feasibility study looking at the formation of an IPA and of the Wulain Ranger group to manage the area.

The IPA feasibility study sought to consult Traditional Owners about the possibilities provided by the IPA Program to better enhance the natural and cultural values of the

area, and develop a plan of management outlining a suitable management strategy and governance structure (CLC 2001; CLC 2006). Overall the creation of an IPA was seen as a suitable long-term structure that could provide on-going support and recognition for Traditional Owners, the Wulain Rangers and the wider Lajamanu community to manage country (CLC 2001). It would also support national conservation targets through the incorporation of Aboriginal owned lands into the NRS. The Northern Tanami IPA was officially declared in Lajamanu in April 2007.

The Wulain Ranger program, established in 2002, was created to assist Traditional Owners and the community to better manage the land trust areas surrounding Lajamanu (CLC 2001). The program aimed to provide employment and training opportunities for up to eight local Aboriginal people (Stoll et al. 2005). Employment was initially under the Community Development Employment Program scheme (CDEP), with additional wage top-up provided through contract work (CLC 2001). Initial implementation of the program was slow due to time constraints for on-ground program development and lack of long-term support from resource agencies (Gambold). In 2010 six Warlpiri men and one woman are employed in the Wulain Ranger group. Funding for these Rangers is provided through DEWHA's Working on Country (WoC) and IPA Programs, and the Indigenous Land Corporation's (ILC) Real Jobs Program. In conjunction with Traditional Owners, these Rangers carry out resource management on country throughout the IPA and surrounding mining lands.

2.3.2 IPA management strategy

This section gives an overview of the management structure, objectives and management zones for the Northern Tanami IPA. The information in this section is principally from the Northern Tanami IPA Draft Plan of Management (CLC 2006), which guides the management of the IPA. Even though this plan is still in draft form, it is the most comprehensive document on the Northern Tanami IPA available in 2010, and the only document that outlines the management strategy for the area. This document and much of the literature sourced for identifying the biological values of the IPA in this chapter (see Ch 2.3.3) are written by scientists and conservationists from the point of view of conserving the biological values of the IPA. There is very little literature that illustrates Warlpiri peoples' values for the area.

2.3.2.1 Governance structure and decision-making model

The Draft Plan of Management specifies that the Northern Tanami IPA governance structure be made up of a number of key players who are involved in decision-making and on-ground management. Figure 5 (p.47) is a diagrammatic representation of the IPA governance structure. This structure includes Traditional Aboriginal Landowners, the Northern Tanami IPA Management Committee, Wulain Rangers, CLC and an IPA Advisory Committee. Other players such as DEWHA contribute to the success of the IPA. The roles and responsibility of each of these players is discussed in turn.

Traditional Aboriginal Landowners

The land included in the IPA is inalienable freehold land granted under the *Aboriginal Land Rights Act (NT) 1976 (ALRA)*. Traditional Aboriginal landowners have exclusive rights over the spiritual and physical use and management of the land and its resources. Cultural authority over the IPA is respected through a process in which Traditional Owners are responsible for selecting members to sit on the Northern Tanami IPA Management Committee.

The involvement of Traditional Owners in meetings and consultations is essential for the success of the Northern Tanami IPA. Involvement in the training of rangers and passing on IKS is also essential for NCRM within the IPA. This involvement is through the IPA Management Committee. CLC staff only consults the broader traditional landowner group where specific activities within the IPA or on lands beyond the IPA boundary are required under the ALRA, for example, systematic feral animal control.

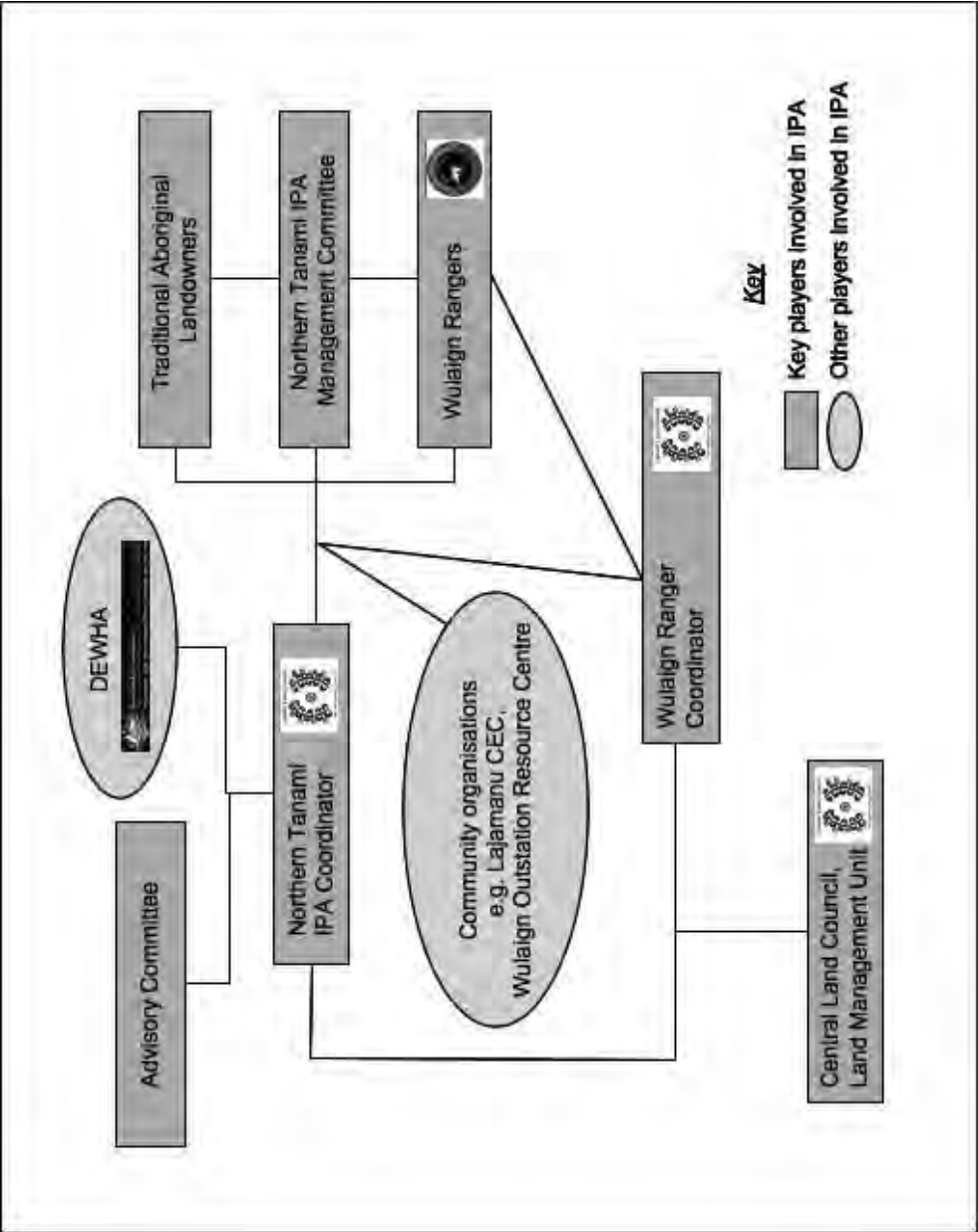


Figure 5: Northern Tanami IPA Governance Structure for the 2005-2010 period

The Northern Tanami IPA Management Committee

The IPA Management Committee was established as the main governance body overseeing the management of the IPA. The committee reflects traditional ownership of land within the IPA as required under the *ALRA*. The committee is made up of both male and female representatives, who act in the best interests of the broad traditional landowner groups. The establishment of an IPA Management Committee streamlines the consultation process for land management activities. For decision-making a quorum of half the listed committee plus one is required, including a minimum of 6 women. At present there are 32 traditional Aboriginal landowners on the committee, which includes 17 men and 15 women. The Management Committee makes most of the decisions regarding planning and the use and management of land within the IPA, in particular the yearly schedule of works for the IPA.

Wulaign Rangers

The Wulaign Rangers undertake the day-to-day, on-ground management of the IPA. They are accountable to the Traditional Owners on the Northern Tanami IPA Management Committee and are supported by a Ranger Coordinator and the IPA Coordinator.

Central Land Council

The CLC is a statutory body set up under the *ALRA*. In relation to land management, the CLC is responsible for assisting Traditional Landowners to protect and promote their interests in the use and management of land across the CLC region. For the Northern Tanami IPA, the CLC reserves the right, in accordance with its statutory responsibilities, to review significant decisions made by the Management Committee on the use and management of land within the IPA and, if necessary, undertake consultations with the broader traditional landowner groups. It is also responsible for advising the Trustees of the Hooker Creek and Central Desert ALT's on land related issues.

The CLC hosts the Northern Tanami IPA Coordinator position in Lajamanu. The Coordinator is directly employed by the CLC. The Coordinator's role is to provide natural resource management advice and information; conduct planning, statutory consultations and IPA Management Committee meetings; coordinate the Wulaign

Ranger program; and undertake project administration. The Northern Tanami IPA Coordinator is responsible to the Northern Tanami IPA Management Committee for meeting the objectives set out in the plan of management and the yearly schedule of works. The Coordinator, as an employee of the CLC, is also responsible to the CLC. CLC support for the IPA is also given through the Regional Land Management Officer for the north-west CLC region, located in Alice Springs. In 2009, a Wulain Ranger Coordinator position was created and is funded through the IPA program. This position is responsible for the day-to-day management of the Wulain Ranger group. This position is not discussed in this dissertation, as it did not exist while the majority of this research was being undertaken.

IPA Advisory Committee

It is recommended by DEWHA, as part of its role in implementing the IPA Program that each IPA has an Advisory Committee made up of key agency stakeholders. The role of this committee is to foster information exchange and partnership development, and provide advice on program delivery (Rose). It has been suggested that key agencies to be included on the Northern Tanami IPA Advisory Committee are DEWHA, Northern Territory Parks and Wildlife Service and ILC. No Advisory Committee had been established while I undertook the field research; however one was formed in 2010 and includes representatives from DEWHA, Bushfires NT, Northern Territory Parks and Wildlife Service, Victoria River District Conservation Authority (VRDCA) and the CLC.

Other stakeholders: DEWHA, Wulain Outstation Resource Centre and the Lajamanu CEC

Alongside the key players mentioned above, a number of other organizations and government departments have a role in the management of the Northern Tanami IPA. Firstly DEWHA, the department that administers the IPA program, has a small team of people that provide staged development through which Aboriginal landholders consider committing their lands for NCRM. Staged development is done through a process consisting of community consultations; formation of a plan of management; coordination of funding contracts; formal declaration celebrations; and support for IPA managers on the ground. IPA program support is administered from Canberra.

The Wulain Outstation Resource Centre (WORC), a local Aboriginal agency, was involved in the establishment of the Wulain Rangers, hosting the program from 2002 to 2007. WORC is primarily involved in the maintenance of outstations on the Hooker Creek and Central Desert ALTs, plus the contracts for heavy machinery and road works throughout the area. Prior to the establishment of the Northern Tanami IPA Coordinator and Management Committee, WORC organised the work schedule and supervised the Ranger on a day-to-day basis.

The Lajamanu Community Education Centre (CEC) has had involvement with the Northern Tanami IPA through the creation of the Junior Wulain Ranger Program in 2005, which ran as a one-off program. The Lajamanu CEC and the CLC have interests in growing their affiliation to support and further the country visit program run by the CEC. The country visit program aims to involve Traditional Owners and local children to promote education and learning through the transfer of traditional knowledge and skills on country.

2.3.2.2 Management objectives

The Northern Tanami IPA is managed for environmental, cultural and socio-economic objectives that cover a range of land management issues (Ch. 2.3.3.4), as summarised in Table 7 (p.51).

Table 7: Northern Tanami IPA management objectives (CLC 2006)

<i>Environmental</i>	<i>Cultural</i>
• Limit the spread of introduced plant species • Sustainable use and management of wildlife populations, particularly species of cultural and economic significance to Traditional Owners • Mitigate threats to threatened or declining native species • Reduce the number and impact of feral herbivores, specifically horses and donkeys • Reduce the number and impact of introduced predators, specifically cats and foxes • Avoid the introduction of non-exotic species with potential to become pests • Protect water places and surrounding ecological communities	• Value and promote the use of traditional knowledge and skills • Pass on traditional knowledge, skills and oral history to children • Keep connections to country strong • Protect cultural sites and objects • Respect the authority of traditional Aboriginal landowners • Promote and support traditional land management practices
	<i>Socio-economic</i>
	• Strengthen community organisations • Build local capacity, in relation to sustainable commercial land use • Broaden local economies • Provide appropriate local employment

2.3.2.3 Management zones

Five management zones have been identified within the Northern Tanami IPA. These include Kiwinyi, Mirirrinyungu, Jilpili, Katarta and Jiwaranpa. Appendix 3. Map of the Northern Tanami IPA: management zones & sites of botanical significance (p.353) shows the location of these zones within the IPA. These zones were defined as part of a strategy to manage the scale and diversity of country within the IPA, and have been identified as key areas for management based on their conservation significance, existing management issues and accessibility. Each zone is briefly described in Appendix 4. Description of the key management zones of the Northern Tanami IPA (p.354), including an outline of the desired outcomes and management actions for each zone.

2.3.3 Natural environment and conservation significance

The Northern Tanami IPA lies principally within the IBRA Tanami Bioregion (Figure 6 p.53). This bioregion has a semi-arid climate with monsoonal influences characterized by summer rainfall periods (CGA 2007). Much of the area to the north is considered an ecotone. An ecotone can be defined as a transition area between two or more adjacent ecological communities (Thain and Hickman 2000). This IPA is characterised principally by semi-arid species with some intermixing of tropical plant species. Hummock grassland sandplains dominate the bioregion. Other habitats include sand dunes, rocky outcrops, watercourses and paleodrainage systems (Gibson 1986). The bioregion is considered to be in relatively good ecological condition, having had limited impact from grazing and intensive development (NRETA 2005a). It is of very high conservation value due its species diversity, habitat range and ecological condition (NRETA 2005c; DEWHA ND).

The IPA is located within the northwest of the bioregion and covers 17.5% of the bioregion within the Northern Territory (Appendix 5. Area of land for Tanami Bioregion and Northern Tanami IPA, p.360). The Northern Tanami IPA is significant for conservation because it:

- has a high species richness and is a refuge for many poorly known and threatened species (Gibson 1986; Woinarksi 1992; CLC 2006);
- contributes to the conservation of the Tanami bioregion which would otherwise be unrepresented within the NRS (NRETA 2005c; NRETA 2005b); and
- contributes over a third of land to the conservation estate within the Northern Territory (Appendix 5. Area of land for Tanami Bioregion and Northern Tanami IPA, p.360).

2.3.3.1 Biological interest in the area

The Tanami has been a region of biological interest since 1911, when a Commonwealth Exploration Party travelled along the Lander River collecting plant and animal specimens (Gibson 1986). The next botanical expedition was led by the Australian Museum in 1952, when a number of rare animal species were collected (Gibson 1986). Other biological surveys occurred between 1960 and 1980, largely within the former Tanami Desert Wildlife Sanctuary, to research rare and endangered species and fire ecology (Gibson 1986). Biological surveys carried out by the Conservation Commission of the Northern Territory between 1981-1983 were the first to document areas of conservation significance and high biological diversity across the broader Tanami region (Gibson 1986). Many of these surveys included areas that are currently within the southern region of the Northern Tanami IPA. Table 8 is a summary of the biological surveys that correlate with the IPA, outlining members of the survey team and the area the survey was conducted in. More recent surveys were carried out between 2003 and 2004, in the key management zones of the IPA. Much of these areas are still relatively biologically unknown (CLC 2004; CGA 2007).

Table 8: Biological surveys that correlate with areas included in the Northern Tanami IPA, 1964 to 1983 (Gibson 1986:23 & 40)

<i>Date</i>	<i>Survey team</i>	<i>Area</i>
Surveys prior to 1981		
September 1964	Slater, Stephens and Lindner	Between Lake Buck & Lake Surprise
October 1965	Lindner and Howe	Lake Buck
March 1973	Bolton, Maconochie, Howe, Dodd and Henry	Lake Surprise
July 1980	Johnson, Latz, Maconochie and Thomson	Tanami Range
Tanami Desert Wildlife Surveys 1981-1983		
August to September 1981	Gibson and Fleming	Wilson Creek, Mt Winnecke, Lajamanu & Duck Ponds
September 1982	Gibson and Southgate	Wilson Creek and Lake Buck
October to November 1982	Gibson and Southgate	Lajamanu, Winnecke Creek & Duck Ponds
June to July 1983	Gibson and Cole	Duck Ponds & south
September 1983	Gibson and Cole	Winnecke Creek & south

2.3.3.2 Habitats and floral composition

The key habitats found within the Northern Tanami IPA include sandplains, deep sandplains, shallow sands, floodouts, drainage depressions, watercourses, paleodrainage channels and ranges, low rises and outcrops. As the Northern Tanami IPA is an ecotone there are many plant species within these habitats that are at their southern or northern most distribution limits. These include northern species such as the boab (*Adansonia gregorii*), bauhinia (*Lysiphyllum caronnii*), northern grey box (*Eucalyptus argillacea*) and freshwater mangrove (*Lophostem grandiflorus*); and southern species such as woolly matt-rush (*Lomandra leucocephala subsp. robusta*) and native poplar (*Codonocarpus cotinifolius*) (Gibson 1986; Harrison 2003). Many such species found within the IPA are significant at the bioregional and Territory level (see Appendix 6. Floral species of significance occurring within the Northern Tanami IPA, p.361) and can be found within habitats that are considered national sites of botanical significance. See Appendix 3. Map of the Northern Tanami IPA: management zones & sites of botanical significance (p.353) for a map and Appendix 7. Sites of botanical significance in the Northern Tanami IPA (p.363) for a correlating list of sites of botanical significance across the IPA.

2.3.3.3 Fauna

Biological surveys carried out in the 1980s highlighted that the Tanami Bioregion has a diverse range of fauna, including many poorly known, uncommon and rare species (Gibson 1986) (see Appendix 8. Summary of data from the Tanami Desert Biological Survey, 1981 to 1983 for a list of these species, p.364). A number of small to medium sized mammals have become extinct throughout the region including mala, golden bandicoots, brush-tailed bettongs and the western quoll (CGA 2007) (see Appendix 9. Mammals from the Tanami Bioregion now known to be extinct in the wild, p.365).

Biological surveys carried out within the key management zones of the IPA in 2003 highlight the high diversity of fauna in the area. A total of 257 vertebrate species were recorded, including 31 mammal species and 150 bird species (see Appendix 10. Number of vertebrate species found within the key management zones of the Northern Tanami IPA, p.366). This is comparable with the number of species

recorded by Gibson (Gibson 1986) for the overall Tanami region (268 species). Twenty-four of the species recorded within the IPA are either poorly known, vulnerable or near threatened (see Appendix 11. Significant vertebrate species found within the Northern Tanami IPA, p.367), and include the greater bilby, floodplain monitor and square-tailed kite. In the CLC literature there is also reference to the decline of some of the more common fauna species in the area: “Need to look after kangaroos and emus as they (sic) now hard to get in this area now. Maybe because proper burning isn’t happening... sometimes, wrong place or wrong time” (2001:12). Common species decline is discussed further in the next section.

2.3.3.4 Land management issues within the Northern Tanami IPA

Within the Northern Tanami IPA, land management issues have arisen from the establishment of industries such as pastoralism and mining (Ch. 2.3.4.2). The reduction in traditional Aboriginal land management practices is also considered to have impacted on the health of country. In this section I outline the key issues that are associated with managing country in the Northern Tanami IPA. The literature on management issues specific to the IPA is not extensive; as with previous sections, broader literature that privileges the conservation value of the Tanami Bioregion has been examined to better identify issues in the IPA area.

Fire management

The reduced application of traditional Aboriginal burning regimes, resulting in uncontrolled wildfires, is viewed as one of the most significant land management issues in the Tanami (NRETA 2005c; CLC 2006). Wildlife fires are considered to have affected community diversity by creating degraded habitats of homogenized species (CGA 2007). For example research by Bolton and Latz (1978) found that the decline of the Western hare-wallaby in the Tanami Desert appears to relate directly to the decline of Aboriginal mosaic burning, which produced suitable habitat and food conditions for the hare-wallaby. In addition, above average summer rainfall in some years, and reduced localized burning has created high fuel loads, resulting in extensive wildlife damage across the area in 2000, 2002 and 2006 (CLC 2006).

Feral animals

The northern part of the IPA comprises areas of savanna country with many permanent and semi-permanent water places, in which populations of feral animals, such as donkeys, horses, cattle and camels are easily sustained (CLC 2006). Throughout the rest of the IPA these animals take advantage of seasonal, ephemeral water. Other feral animals that are commonly found include rabbits, foxes and cats (Gibson 1986; CLC 2006). Feral animals cause erosion, particularly around waterholes, vegetation damage, weed infestations, and the loss of native fauna through predation (CLC 2006; CGA 2007).

Weeds

The introduction and spread of weeds is generally limited to areas of intensive human use including outstations, settlements and roadsides (CLC 2006). Feral animals such as donkeys and horses have intensified weed infestations along watercourses. Some of the most common weeds found within the IPA include rubber bush (*Calatropus procera*), parkinsonia (*Parkinsonia aculeate*), Mossman river grass (*Cenchrus echinatus*) and buffel grass (*Cenchrus ciliaris*) (NRETA 2005c; CLC 2006; CGA 2007).

Threatened species

Over the Tanami Bioregion, 12 small to medium sized mammals have become extinct with many other species declining (NRETA 2005c). As noted earlier in this chapter (Ch. 2.3.3.2-3) country within the IPA supports many poorly known, near threatened and vulnerable plant and animal species, making the area an important refuge for species within the bioregion (CLC 2006). The biggest threats to these species are believed to be habitat modification because of changed fire regimes and predation by introduced animals.

Traditional land management

With the disruption and altered patterns of traditional land management brought on by permanent settlement, habitat change and species loss has occurred within the area (Latz 1995). Sedentary lifestyles have also reduced people's access to land and use of plant and animal species. This in turn has resulted in a loss of traditional knowledge and skills (CLC 2006). Despite this, many Warlpiri people still manage areas of country based on traditional rights and responsibilities for country (Rose

1995; Brown and Haworth 1997; CLC 2006). Some of these practices are essential for management of country, for example fire management. Table 9 (p.59) outlines traditional land management practices that are still used by Warlpiri people to manage country.

Table 9: Warlpiri traditional land management practices used for managing country

Ceremony

Ceremony involves singing songs, telling stories and performing ritual dances to keep *Jukurrpa*, people and country healthy (Rose 1995). Ceremony is often carried out at sacred sites, of which there are many throughout the IPA (CLC 2006). Aboriginal traditional ecological knowledge is contained within these songs, stories and dance (Meggitt 1962).

Hunting and gathering bush foods

Hunting and gathering is a very common management activity that requires detailed knowledge of plants, habitats and animal behaviour. Performing ceremony, seasonal hunting and gathering, and controlled access to resource areas and species helps maintain the health of country (Brown and Haworth 1997; CLC 2006).

Burning

Burning is used to fulfil cultural responsibilities to manage country and maintain law. Burning is used to adapt and reproduce resources for hunting and gathering, to signal movements and as a tool to ‘clean’ country for ease of travel, viewing and hunting (Kimber 1983; Latz 1995; Brown and Haworth 1997; Burrows et al. 2006). Symbolism within the *Jardiwanpa*¹⁶ ceremony also shows the cultural importance of fire for Warlpiri people (Langton 1998).

Teaching

The intergenerational transfer of traditional knowledge is an activity that is essential for maintaining *Jukurrpa* and managing country (Rose 1995; CLC 2006). Traditional knowledge is contained within songs, stories and dance and reflects the relationship between landscapes, species and ecosystem function (Varzon-Morel 1995). Aboriginal knowledge has developed experientially and is learnt the same way (Brown and Haworth 1997).

Maintaining sacred sites and burial sites

Sacred sites is a term used for places that are the physical manifestation of the activities of the dreaming ancestors (Rose 1995). Burial sites are also of cultural significance because they are the places where people’s spirits return to country after death (Meggitt 1962; CLC 2006). Many of the activities mentioned above are carried out at sacred sites and burial sites and are essential for people to fulfil their responsibility for managing country. Throughout the Northern Tanami IPA there are over 100 sacred sites which are carefully monitored and managed, as well as a number of community cemeteries and significant burial sites (CLC 2006).

Maintaining water places

Water places are maintained for the spiritual well-being of place, as well as to keep a reliable, clean water source available (Rose 1995). As the Tanami is an arid environment, knowledge of water sources and their management has been essential for the long-term survival of people and animals (CLC 2006). Water places, such as rockholes, soakages and springs are important sites for Warlpiri people and are more often than not sacred sites.

¹⁶ *Jardiwanpa* is the Warlpiri fire ceremony and rituals associated with the Snake Dreamtime ancestor called *Jardiwanpa*. This ceremony belongs to the Jupurrula-Jakamarra-Jangala-Jampijinpa patrimoiety, and complements the *Ngajakula* fire ceremony of the Japaljarri-Jungarrayi-Japanangka-Japangardi patrimoiety. *Ngajakula* uses *jutiya* (death adder) and *rdipirri* (mala) symbolism, whereas the *Jardiwanpa* uses *yarripiri* (the Dreamtime python) and *wampana* (spectacled hare-wallaby) symbolism (Laughren).

Conversely, intensifying species use around settlements, outstations and roads also creates pressure on the land through overuse and mismanagement (Walsh and Mitchell 2002). Hunting of emu and kangaroo for example, places pressure on species that are declining in numbers throughout the area (Ch. 2.3.3.3). Such species are culturally significant and important for local subsistence economies. For example kangaroos are a primary food source and an important cultural totem for male initiation ceremonies for Warlpiri people (Burbidge et al. 1988; Glowczewski 2001). The sustainable use and maintenance of species populations is therefore extremely important (see Appendix 12. Flora and fauna species known to have been used by the Warlpiri people (Meggitt 1962:5-15), p.368, for a list of plant and animal species historically used by Warlpiri people). Walsh (2000:16) and Robinson et al. (2003:352) also provide anecdotal evidence of the decline of common species across central Australia, including perentie, red kangaroo, euro, emu, sand goanna and the Australian bustard. Hunting pressures and changed fire regimes, in combination with introduced herbivores, weeds, predation and unreliable water sources, are considered to be the primary causes for species decline.

Traditional land management practices are not applicable for managing contemporary issues such as feral animal, weed and erosion control. In many cases such issues are perceived differently between Aboriginal and western land managers. Rose (1995) notes that Aboriginal people across central Australia have an extremely low awareness of land degradation issues. For example, feral animals are seen as belonging to the land, with little broad understanding of their impacts and the need for control programs (Rose 1995). Differing perceptions of land management issues are common across Australia. For example an article by Robinson et al. (2005) states that Jawoyn people in Kakadu National Park see buffalo as having cultural and economical value rather than as a direct threat to country. Another article by Vaarzon-Morel (2010) shows the Aboriginal attitudes to feral animals are not homogenous and are changing. This change is thought to be the result of interface between conservationists, scientists and land managers. Combining skills and knowledge training in both traditional and contemporary land management practices is considered essential for improving understanding of current land management threats and ultimately the health of country (Rose 1995; CLC 2000; CLC 2001; CLC 2006). This is particularly pertinent across desert Australia as lands now formally

owned and managed by Aboriginal people are often severely degraded from grazing, erosion and loss of native species (Davies et al. 1997:16; Baker et al. 2001a:17-18)

Other management issues

A number of other management issues relevant to the Northern Tanami IPA have been identified by Traditional Owners, other community members and agencies based in Lajamanu. They have been grouped into themes that include cultural continuity, access to country, tourism and community and economic development and are summarized in Table 10.

Table 10: Other management issues identified in literature on the Northern Tanami IPA (CLC 2000; CLC 2001; CLC 2006)

<i>Theme</i>	<i>Management issue</i>
Cultural continuity	• Need to increase the transfer and use of traditional knowledge and skills to care for country, including the protection and management of sacred sites, waterholes, plants and animals • Country should be managed in tradition with <i>kirda</i> and <i>kurdungurlu</i> rights and responsibilities – the use of the generic term traditional owner (TO) subverts this dual and interlocking traditional system of responsibility for managing country • Training and teaching young people about country, law and culture
Access to country	• Need to visit more country, more often • Limited access to country makes management difficult as there are only a few roads, which are in poor overall condition, with some rarely used • Limited access to suitable vehicles • Need better maintenance of outstations as they can act as hubs for people to visit, access and manage country
Community and economic development	• Limited employment for young people in the area • Need to provide training for young people in conservation and Ranger work • Need to create partnerships with others doing similar work, e.g. Parks and Wildlife • Visit other places where land management happens • Develop nursery to grow bush foods and plants for shelter around the community and outstations
Tourism	• Upgrade the Warrego track to bring in tourists • Create shelters and water points along roads for tourist safety • Develop a camping area to attract tourists

2.3.4 Social context of the IPA

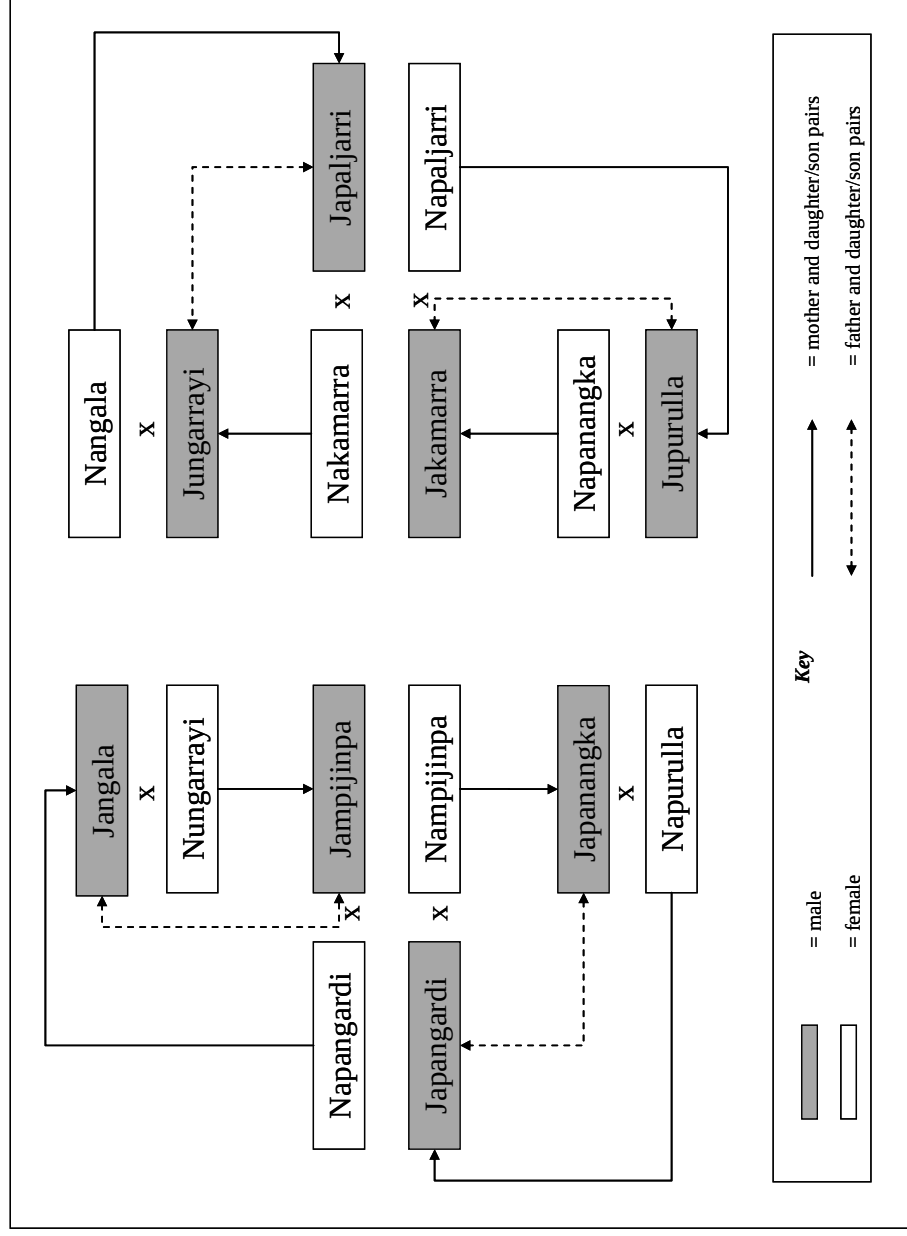
In this section I outline a brief history of the Tanami area to provide the social context of the Northern Tanami IPA. This section includes information on traditional Aboriginal land ownership, European exploration and impact, and conservation interests in the Tanami area.

2.3.4.1 Traditional land ownership

The community of Lajamanu is on the traditional country of the Gurindji people, as is the country to the west and the northwest. Jaru and Kartangarurru country borders the western edge of the IPA, and Warlmanpa lands to the east. However, the majority of country within the Northern Tanami IPA is traditionally Warlpiri land (Peterson et al. 1978; CLC 2006). Alongside this, with support of the Gurindji Traditional Owners, the predominately Warlpiri community of Lajamanu accepts a duty of care to manage the land they live on and use (CLC 2006). For these reasons Warlpiri is the key language group involved in this research.

The Warlpiri

Warlpiri culture is inseparable from the country to which people belong. This connection between people and country stems from *Jukurrpa*; the creation time when the land and its features were created by the ancestor spirits. *Jukurrpa* is Warlpiri culture and law. It is embodied in people's rights and responsibilities to use and manage country through knowledge embedded in song, story and dance (Napaljarri and Cataldi 1994). Knowledge of country is passed orally from one generation to the next and is based on a kinship system (see Figure 7, p.63) which relates people to each other, *Jukurrpa* and country (Napaljarri and Cataldi 1994).



¹⁷ Robert Hoogenraad has worked in Central Australia since 1983 as a linguist for Northern Territory Department of Employment, Education and Training (NT DEET) and as a consultant. He has worked for many years with Warlpiri language speakers.

Each person has responsibility to country expressed principally through two descent lines¹⁸:

- father's father – primary spiritual responsibility for the Dreaming tracks and sites within their father's fathers country. People in this descent line are referred to as *kirda* and have *kirda* responsibilities for country; and
- mother's father – primary responsibility for making sure that *kirda* responsibilities for country are being carried out. People in this descent line are referred to as *kurdungurlu* and have *kurdungurlu* responsibilities for country (Meggitt 1962; Stead 1985).

Napaljarri and Cataldi (1994:xix) highlight that whilst responsibility for country is inherited, the right to manage country is “gained through participation and learning, and also good sense”. These rights are based on people's knowledge of country, and only those with “the right to speak about Warlpiri law and country may do so” (Varzon-Morel 1995:x).

Traditionally, the Warlpiri territory was made of four subgroups, the Yalpari (Lander) to the east, Waniega to the north, Walmalla to the west and Ngalia to the south (see Figure 8, p.65). People travelled widely within their own and each others' country to maintain kin relationships, ritual obligations and to source food (Meggitt 1962). In seasons with abundant plant and animal life, people gathered and lived in larger groups, travelling from one waterhole to the next within their country (Meggitt 1962). In less plentiful times, smaller family units persisted and travelled further afield. Access to vast areas of country and kinship networks were essential for long-term social survival (Peterson et al. 1978).

Managing country was also important for cultural and environmental continuity. Many plant and animal species and places within the landscape are embodied in *Jukurrpa* (Napaljarri and Cataldi 1994; Varzon-Morel 1995). *Wampana* (hare-wallaby), *mala* (rat kangaroo) and *yarla* (yam) are examples of dreaming tracks

¹⁸ There are another two descent lines, however they do not have primary responsibility for country:

1. father's mother's brother – often described as ‘second generation’ *kurdungurlu* as they are children of the men from the mother's father's descent line. People in this descent line assist in *kurdungurlu* responsibilities for country.
2. mother's mother's brother – people in this descent line if requested, can help people in the father's father's descent line to carry out ritual responsibilities for country (Meggitt 1962; Stead 1985).

based on plant and animal species within the area. There are many other dreaming tracks, and associated sacred sites and song lines, that are either localized or cross country within the IPA (CLC 2006). Traditional land management activities such as ceremony, burning, and hunting and gathering maintained the diversity and health of these landscapes, and their cultural significance (CLC 2006). The Tanami can therefore be considered an anthropogenic landscape reliant on Aboriginal management.

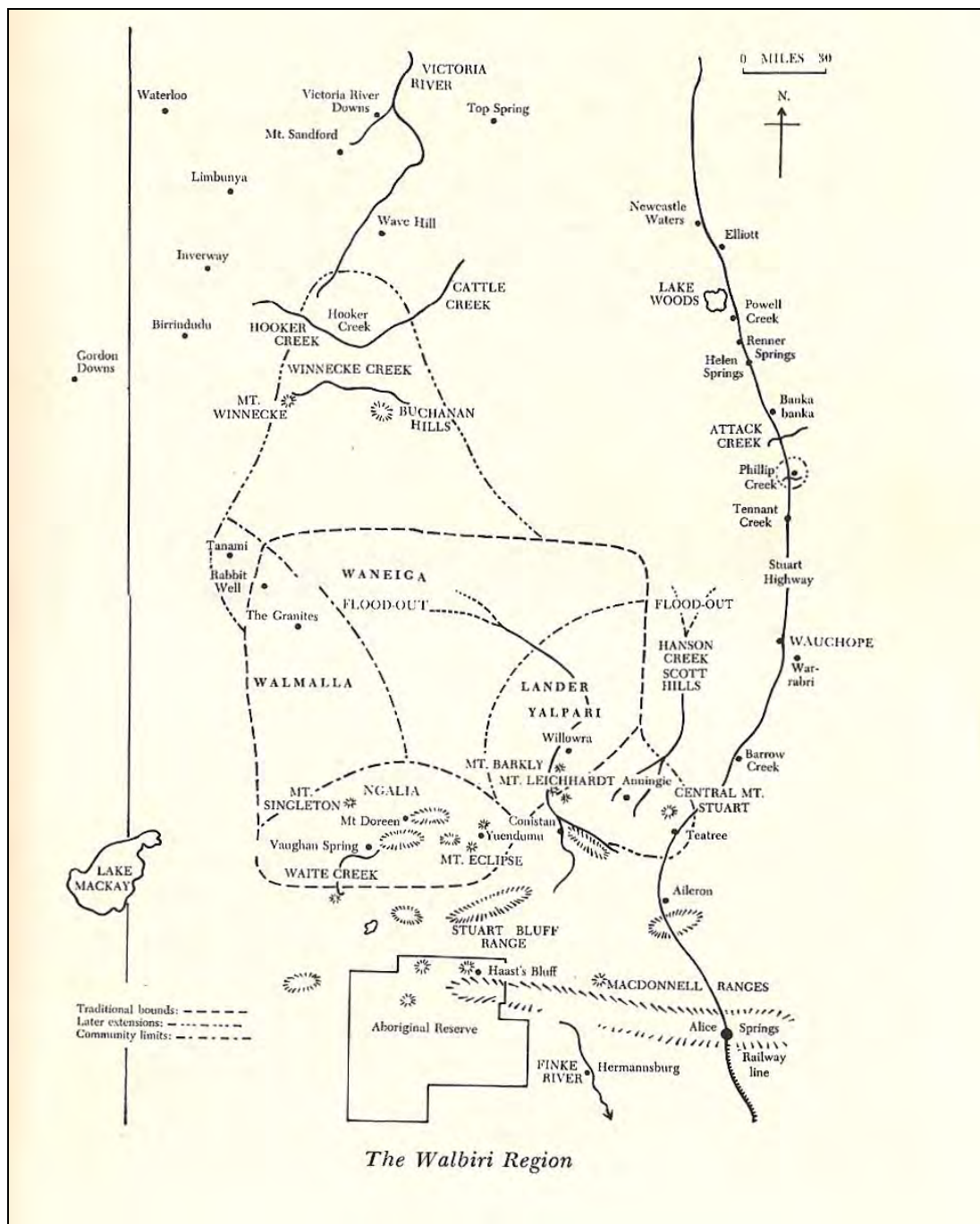


Figure 8: The Warlpiri region as identified by Meggitt (1962:5)

2.3.4.2 European exploration, pastoralism and gold mining

With colonization many changes to Warlpiri ownership and management of country occurred. The first known European exploration of the Tanami Desert was the expedition led by A.C. Gregory in 1855 which passed near present day Lajamanu (Meggitt 1962). Other expeditions by J.M. Stuart in 1860 and both W.C. Gosse and Colonel P.E. Warburton in 1873 only reached the edges of the Tanami (Meggitt 1962). It was not until 1896 that the first known crossing of the Tanami Desert by a European occurred. Nat Buchannan, who previously in the 1880s had moved cattle into and established Wave Hill Station, crossed between Tennant Creek and the Victoria River in the hope of finding a suitable stock route between the Barkly Tablelands and the Western Australian goldfields (Gibson 1986).

At this time areas around the Hanson and Lander Creeks were under claim for pastoralism, but by the end of a drought in 1905, most small holdings were no longer operating (Gibson 1986). The bigger pastoral leases of Mt Doreen, Mt Denison, Stirling, Mt Barkly, Coniston and Willowra were established in the south and the west of the Tanami region between 1917 and 1951. It was not until the 1960s that pastoral interest in the region increased again. This followed a survey by the Lands and Survey Branch and the Animal Industry Branch of the Northern Territory Administration looking for suitable pastoral areas (Gibson 1986). Supplejack, Chilla Well and Tanami Downs pastoral stations were established not long after. Today, a number of these pastoral stations are under Aboriginal management as a result of successful land claims under the *ALRA* (see Appendix 13. Key pastoral stations within the Tanami Desert, p.375).

One of the most extensive explorations of the Tanami region was carried out by Allan Davidson, a geologist looking for gold in 1900 (Meggitt 1962). With reports of gold in the south west of the Tanami Desert, prospectors moved into the area with good seasons at the Tanami goldfields in 1908 and 1909 (Gibson 1986). This increased public and government interest in the area. However, little gold was found and most prospectors soon left. In 1932 interest in the Granites goldfield created another rush (Gibson 1986). Today, Newmont Mine, Australia's third largest gold producer, holds the exploration and mining leases for the Granites and Tanami

goldfields (Stoll et al. 2005). This history of European exploration, pastoralism and mining is similar across much of arid Australia (Wickman 1998).

2.3.4.3 Warlpiri settlement

Since colonization, the history of Aboriginal re-settlement over much of Australia involved land dispossession and the relocation of people to reserves or missions under policies of protection, assimilation and welfare dependency (Guenther et al. 2005). A result of forced settlement was the limited ability of people to access and continue traditional land management practices. This has had implications for the health of country and culture (Ch. 2.3.3.4). For Warlpiri people, contact with early explorers was limited due to the remoteness and the aridity of the Tanami Desert. Gibson (1986:29-31) states it wasn't really until the period between 1900 and 1930 that the 'detrribilisation' of the Warlpiri occurred through:

“severe droughts, development of the Granites and Tanami goldfields and punitive expeditions by Europeans all contributed to the detrribilisation of many Aborigines in the Tanami Desert with the result that large numbers concentrated around townships, mining sites and on cattle stations”.

The appointment of T.G.H. Strehlow in 1936 and the creation of the Native Affairs Branch (NAB) in 1938 saw the establishment of Aboriginal settlements within the area (CLC 2006). By this time many young Aboriginal men and women were already working in the mines and stock-camps (Meggitt 1962). Settlements were created for those Aboriginal people who were not considered completely detrribalised (Meggitt 1962). Small settlements at the Granites and the Tanami were established, but with a combination of drought, and fighting and unease with mining landholders, the larger Yuendumu Aboriginal Reserve was proclaimed in 1946 (Peterson et al. 1978; CLC 2006). By the end of that year about 400 Warlpiri people were living in Yuendumu (Peterson et al. 1978).

Around the same time, plans for a settlement north of Yuendumu were being developed and in 1948 the Hooker Creek Aboriginal Reserve (present day Lajamanu) was proclaimed on an expired pastoral lease (Meggitt 1962; Peterson et al. 1978). In 1949 about 25 Warlpiri people were living on the reserve. More than 150 people

were sent there from Yuendumu and the Granites soon after (Meggitt 1962). Many Warlpiri people walked back to Yuendumu from Hooker Creek in 1952, 1958 and 1965. In all these years the NAB forcibly removed people back to Hooker Creek where they eventually remained (Gibson 1986). Today, Lajamanu is the second largest Warlpiri settlement in Australia after Yuendumu.

2.3.4.4 Land rights and the outstation movement

The Northern Tanami IPA was declared over Aboriginal land, which was freehold due to successful claims under the *ALRA*. Under this act, land claims could be made over Aboriginal pastoral leases, settlements, national parks and reserves, stock routes, stock reserves and other public purpose lands defined under Northern Territory and Commonwealth law (Gibson 1986). Land claims needed to be based on detailed histories of family relationships, ownership and religious significance of country. Since many Warlpiri people had lived a traditional lifestyle up until the early 1940s, a strong case for ownership could be made (Peterson et al. 1978). See Appendix 14. Land claimed under the *ALRA (NT)* 1976 that is within the Northern Tanami IPA (p.376) for land claims that relate to land within the Northern Tanami IPA.

With the success of such land claims the establishment of outstations began (Gibson 1986). The outstation movement across Aboriginal Australia was associated with the return of people to their traditional lands (Coombs et al. 1980). It was also seen as a move to avoid social problems that were occurring in the larger settlements (Altman 2003). Within the Northern Tanami IPA a number of outstations exist. These include Lul-tuj, Duck Ponds, Parnta, Pinja, Mirridi, Jangalangalpa, Jiwaranpa and Picininny Bore. These outstations and associated roads provide access to many parts of the IPA and are a hub from which traditional landowners manage country (CLC 2006).

2.3.4.5 Tanami Desert Wildlife Sanctuary

The Tanami Desert Wildlife Sanctuary, covering an area of 37,350km² was proclaimed on 1st January 1964 by the Northern Territory Wildlife Conservation and Control Ordinance (Gibson 1986). The sanctuary was of high conservation value due

to its size, relatively undisturbed nature and number of rare wildlife species (Gibson 1986). It was the first successful attempt to reserve land for conservation in the Tanami Desert. The Territory Parks and Wildlife Commission took over its control in 1976. When the Warlpiri and Kartangarurru-Kurintji land claim was lodged by the CLC on behalf of the Traditional Owners in 1977, recommendations were made to enter into an agreement with the Territory Parks and Wildlife Commission to protect and conserve the area within two years (Gibson 1986). This agreement was never made and the Tanami Desert Wildlife Sanctuary lapsed in August 1982 (CLC 2006). The northern part of what was the sanctuary overlaps with the southeastern portion of the Northern Tanami IPA.

2.4 Conclusion

This chapter has provided an overview of the national and local context in which my research has taken place. The development of the national protected area system over time has been described. This has included discussions and critiques on the two main governance regimes that currently allow for Aboriginal ownership and management of protected areas, co-management and IPAs. I have also outlined the natural and social context of the case study area, the Northern Tanami IPA. The IPA faces a number of management issues, such as changed fire regimes, threatened species and feral animals. It has a long history of Aboriginal occupation and use, and many values that make it culturally and naturally significant at local, regional and national levels. In the next chapter I outline the analytical and methodological framework that I used to examine Warlpiri and partnering agency interests in, and practices for, managing the Northern Tanami IPA.

Chapter 3

Analytical and methodological framework



Photo 3: Country near Mirridi Outstation, Northern Tanami IPA, June 2009

(Photo courtesy of Ewan Macdonald)

3. ANALYTICAL AND METHODOLOGICAL FRAMEWORK

3.1 Introduction

In this chapter I outline the analytical and methodological framework used in this research. Firstly, I discuss protected area evaluation theory and methods. I do this to position the analytical framework that underpins this research, the World Congress on Protected Areas (WCPA) Protected Area Framework for Assessing Management Effectiveness. The application of this framework in guiding the research directions and methods is then outlined in the second section of this chapter. Thirdly, I describe the methodological framework that underpins this research. This is a cross-cultural research project that is situated across a number of qualitative research paradigms and methodologies. Finally, I describe the methods applied to gather and analyse the research data. These include reflections on the practice and principles for cross-cultural research, and analysis of the validity of the methods used.

3.2 Indigenous involvement in protected area management evaluations

The evaluation of protected area management has evolved over the past twenty years out of other fields, such as health and rural development, which recognise the need for effective, adaptive project management cycles (Leverington and Hockings 2004). The development of a framework by the WCPA Management Effectiveness Task Force in 2000 arose from both the III and IVth World Parks Commission, which identified effective management as a major issue for the future success of protected area conservation efforts (IUCN 1982; IUCN 1993).

Like all evaluation process, protected area evaluation works best when tested within a standardized framework (Foundations of Success et al. 2004). The WCPA Protected Area Framework for Assessing Management Effectiveness has been

widely adapted and utilized for protected area evaluations (see Figure 9) (Leverington and Hockings 2004). Other frameworks exist but they have tended not to examine the inter-relationship between the differing strands of management effectiveness highlighted in the WCPA framework (see Table 11, p.73 for some examples) (Ervin 2003). The WCPA framework unifies protected area design, management systems, and processes and objectives in what Ervin (2003:820) considers a significant advancement in assessing effectiveness as “a cohesive whole”. The WCPA framework is based on six elements that include context, planning and design, inputs, process, outputs and outcomes. These are outlined in turn in Table 12, p.74.

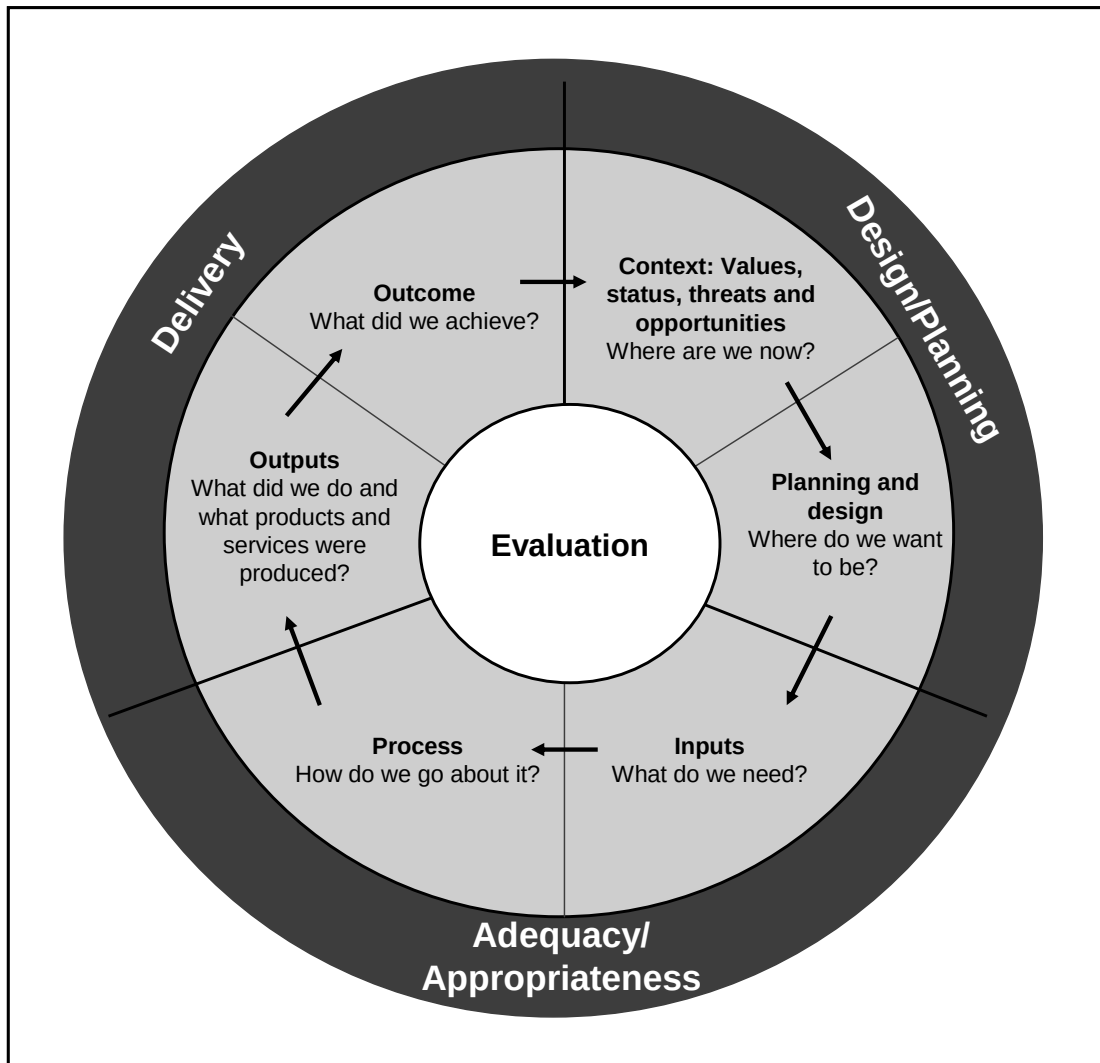


Figure 9: WCPA adaptive management and evaluation framework
(Leverington and Hockings 2004)

Table 11: Examples of methods used for protected area evaluation depending on the purpose of evaluation (Foundations of Success et al. 2004)

<i>Basic (gather and generate knowledge of the environment i.e. flora and fauna, to better understand it)</i>
• Knowledge research • Qualitative and quantitative research looking at aspects of context, value and management e.g. classification systems and biological surveys
<i>Status assessment (gauge the status of and potential threats to biodiversity health at a particular point in time)</i>
• Rapid assessment: Characterise vegetation types and associated flora and fauna e.g. Rapid Assessment Program (RAP); Rapid Ecological Assessment (RES); Rapid Assessment and Prioritization of Protected Area Management (RAPAM) • Priority setting: Monitoring strategies to target investment at priority areas e.g. Conservation Priority Setting Process (CPP); Gap analysis • State of the environment monitoring: High level indicators that track the status and change in environmental condition e.g. Millennium Ecosystem Assessment (MEA); Global Environmental Outlook; Living Planet Report • National report cards: State of the environment monitoring adopted at a national level e.g. State of the Parks report, Canada; State of the Environment Report, Australia • Scorecards: Assessment for site-level activities e.g. Five-S Framework; WWF/CATIE scorecard; Enhancing our Heritage
<i>Measuring effectiveness (evaluate interventions to adapt and improve management)</i>
• Impact Assessment • Environmental impact assessment (EIA): Process to identify, predict and evaluate effects of development to improve planning and decision-making • Biodiversity impact assessment (BIA): Expands the scope of EIAs to include impacts that development has on biodiversity • Adaptive Management: A cyclical process of learning by doing which integrates planning, implementation and monitoring and evaluation • Logical framework (logframe): Framework used to guide planning and project implementation by identifying project goals, objectives, activities undertaken and progress • Results based management (RBM): Approach to integrate strategy, people, process and measures to improve decisions and drive change e.g. National Environmental Performance Partnership Systems (NEPPS) • Project cycle management: Monitoring and evaluation is integrated with the project cycle and linked to program goals, objectives and activities e.g. Measures of Success, WCPA evaluation framework
<i>Accounting and certification (meet and enforce program or organizational obligations)</i>
• Ecological certification • Protected Area Network of Parks (PAN Parks): certification of protected areas according to a set of principles and criteria

Table 12: Six elements of the WCPA evaluation framework (Hockings et al. 2000; Leverington and Hockings 2004; Hockings et al. 2006)

<i>Context</i> - evaluates the values of protected areas and their significance at local, regional, national and international levels; threats and barriers to effective management; external influences on the management environment; and stakeholder involvement and influence. Context underpins management planning and focuses evaluation on the most important management aspects.
<i>Planning</i> - evaluates the adequacy of protected area legislation and policy, system design (number, extent and representation of protected areas), site design (size, shape, location and boundary of individual protected areas), and management planning. Planning identifies the management objectives and strategies that are to be evaluated.
<i>Inputs</i> - examines the adequacy of resources that are available for effective management. This includes the level of resources needed, the availability of resources, and suitability of resource application. Resources can include human capacity, finance, infrastructure and equipment.
<i>Process</i> - evaluates the management process of an individual protected area or system, including identifying 'best practice' systems and standards for management and how they are implemented, and recommendations for improving systems and standards.
<i>Outputs</i> - examines the extent to which management targets, plans and work programs have been implemented, and the number of outputs delivered. Outputs are the products and services resulting from management.
<i>Outcomes</i> - evaluates how well management objectives are being achieved. This requires well-defined management objectives that are based on core values for which protected areas are established. Outcome assessment is considered the single most important measure of effective management.

Evaluating management effectiveness and applying the results is important for the improved management of protected area values and threats and for achieving conservation outcomes (SCBD 2004). When referring to management efficacy or effective management I mean the degree to which protected areas are achieving conservation outcomes¹⁹ (Hockings 2004; Leverington and Hockings 2004).

The original emphasis on evaluating effectiveness was due to the need to reduce the rate of biodiversity loss that is occurring because of inadequate design and coverage of protected areas, and increasing environmental threats (Ervin 2003; Barber 2004a; Mulongoy and Chape 2004). More recently the need to evaluate effectiveness reflects increased recognition of global and social needs, such as accountability, improved communication and transparency, increased community support and value

¹⁹ See Ch. 1.1 for the definition of conservation outcomes used in this dissertation.

for money (Hockings et al. 2000; Leverington and Hockings 2004; Jacobson et al. 2008). Beyond this, investors and the international community are becoming more interested in the conservation outcomes of protected areas, especially when trying to equate sustainable and equitable resource use with social wellbeing and enhanced biodiversity conservation (Bellamy et al. 2001; Infield and Namara 2001; IUCN 2005c; Stoll-Kleeman 2010). According to Hockings (2000), outcome evaluation is the most critical measure of effective management. Approaches to outcome evaluation require not only the assessment of biophysical and cultural resource condition, but also of socio-economic aspects of use and impact and governance measures (Leverington and Hockings 2004). Little attention has been given to these later aspects of protected area management evaluation in the past. When evaluation has occurred it has generally focused on biological monitoring and condition (Hockings et al. 2000; Ervin 2003; Goodman 2003; Dudley et al. 2004; Stolton and Dudley ND). This raises questions about whose objectives and whose successes are being evaluated, and who is controlling evaluation processes?

Participation is a key factor in evaluation success. Hockings et al. (2000:7) state that in today's protected areas system the interests and concerns of all stakeholders need to be considered if management practices and priorities are to change. Many theorists and scientists also recognise the need to combine multiple knowledge sources, perceptions and experiences to create a learning culture within protected areas (Barber et al. 2004). Ensuring the participation of Indigenous people can unearth viewpoints and objectives that would otherwise go unnoticed. With the pressing issue of sustainability and improved health and well-being, the cultural values and interests of Indigenous people need to be fully recognised and integrated alongside biological values for assessing management effectiveness (Posey 1999b; Goriup 2000; UN 2003; Wells and McShane 2004; IUCN 2005a; IUCN 2005b; UN 2005; UN 2006). IKS need to be acknowledged and used, and conservation objectives related to human well-being and livelihoods, such as the protection of sites and species of cultural value and the economic usefulness of wild foods and other resources, need to be identified and adopted (Barber 2004a; IUCN 2005a). Management processes and structures that reflect Indigenous governance and resource use rights also need acceptance (IUCN 2005a). However, it is recognised that there has been little engagement of Indigenous people in protected areas

evaluations to detail their values and interests in management (Borrini-Feyerabend 2003; Borrini-Feyerabend et al. 2004; IUCN 2005c).

Assessing the effectiveness of protected areas managed by and with Indigenous peoples provides an opportunity to examine conservation outcomes that result from an interplay between social, cultural, economic and biodiversity values. The gains and failings in these conservation outcomes will highlight the value and role that Indigenous participation, governance and knowledge have in improving protected area management (Barber et al. 2004; SCBD 2004). It can also provide a platform for more equitable and effective policy support for Indigenous management interests within protected areas (Mulongoy and Chape 2004). Indigenous participation in management evaluations can help inform best practice management, reduce conflicts and threats within the management of protected areas, and by doing so, enhances overall conservation benefits.

3.3 Analytical framework

The WCPA protected area framework for assessing management effectiveness has been adopted by the IUCN as part of its best practice guidelines for protected area management (Hockings et al. 2006). The framework gives credibility to the evaluation approach by linking evaluation to the adaptive management cycle of protected areas (Hockings et al. 2006). The focus of my research is to examine management process through an analysis of stakeholders' views so as to improve management efficacy where multiple agendas of conservation and development exist, rather than to formally evaluate 'on-ground' conservation outcomes and practices. To do this, an understanding of management intent and practice is required. I have adapted the WCPA evaluation framework to guide the development and application of the research direction, methods and results (see Figure 10, p.78) for the following reasons:

- 1) The framework (Figure 10) outlines the six elements of the protected area management cycle that are essential for adaptive management. Adaptive management is the integration of management planning, implementation and monitoring and evaluation in an iterative cycle of learning by doing (Folke et

al. 2005; Olsson et al. 2007). I apply the context and planning elements to explore management intent; the inputs, process and outputs elements to examine management practice; and the outcomes element to reflect on the gap between management intent and practice;

2) The WCPA framework supports a participatory approach to clarify expectations and roles, share knowledge and insights, and improve management understanding (Ervin 2003). This allows for the integration of knowledge, perceptions and experiences of a range of managers and stakeholders involved in decision-making and on-ground actions (Hockings et al. 2006). This aligns with qualitative research methodologies which examine detailed meaning and understanding from many viewpoints, in this case Warlpiri people and agency staff involved in the management of the Northern Tanami IPA (see Ch. 3.4 for a more detailed description of the research methodology);

3) This framework can be used to evaluate a single protected area (Hockings et al. 2000; Hockings et al. 2006), supporting an applied case study approach. The WCPA framework is a practical guide to help improve management at either a site or national system level. By applying it as the analytical framework in this research, results relevant to improving management can be identified for adoption within the case study site. That is, a better understanding of Warlpiri people's and agency staff management intent and practice can lead to improved management within the Northern Tanami IPA; and

4) Evaluations can be done at any stage in the life cycle of a protected area with the purpose of improving management through an understanding of management strengths and weaknesses (Jacobson et al. 2008). Undertaking an evaluation so early on in the life of the Northern Tanami IPA will hopefully lead to the earlier adoption of management interventions to improve management successes and reduce any failures.

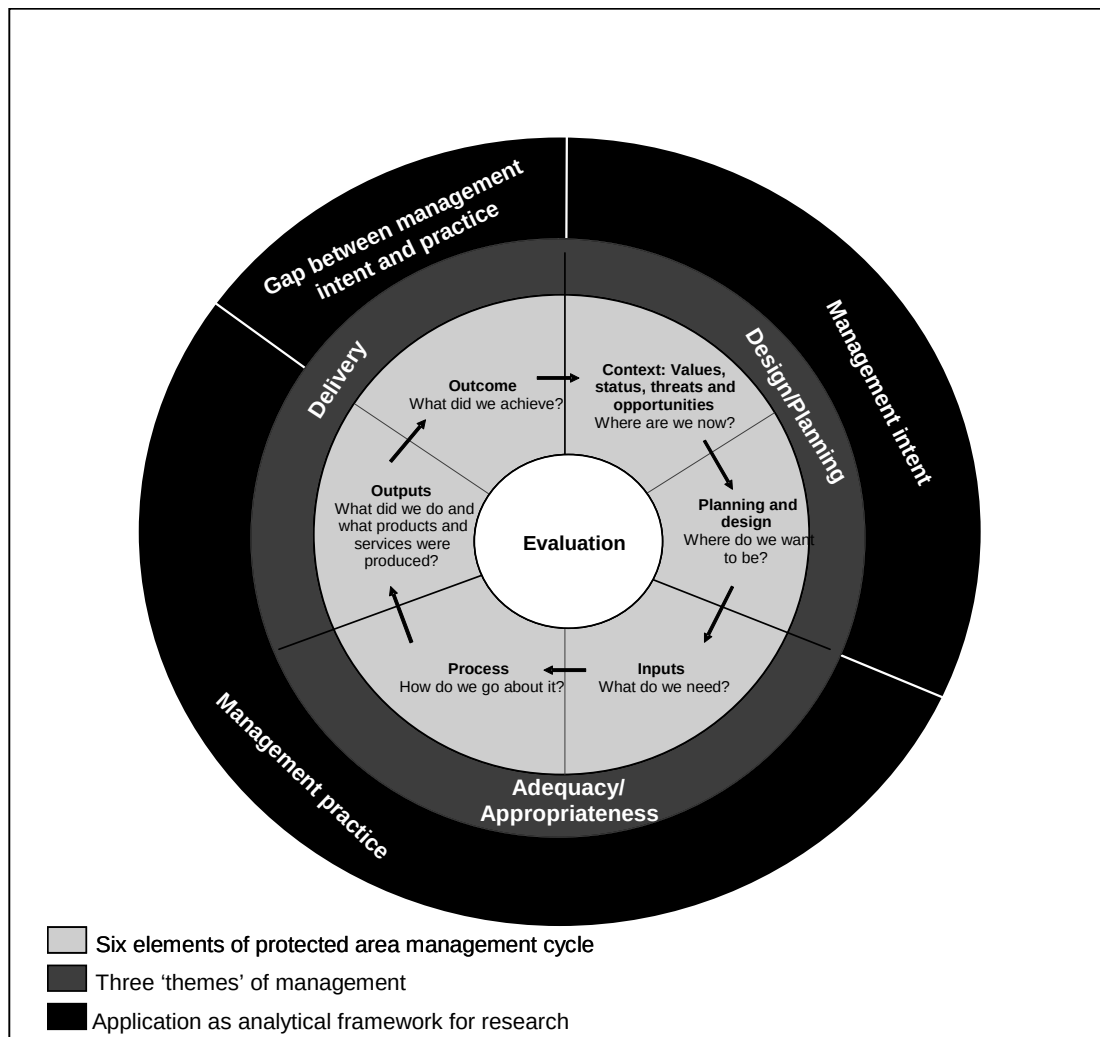


Figure 10: Application of WCPA framework as the analytical framework in this research (adapted from Hockings et al. 2006)

3.4 Methodological framework

3.4.1 Research methodology

As Patton (2002) and O’Leary (2004) argue is important, I wanted to provide real solutions to help improve the management of protected areas, rather than produce knowledge to ‘sit on a shelf’, a common critique of basic research. As such I have used an applied research approach to provide information for the purpose of change in this study (O’Leary 2004). Applied research is becoming more common in natural resource management and conservation fields where issues of social and environmental sustainability arise (Daily and Ehrlich 1999; Patton 2002; Boulton et al. 2005; Campbell 2005). Much of this research is carried out in cross-cultural settings where community participation is essential (Ivanitz 1999; Hills and Mullett 2000; Howitt and Stevens 2000; Howitt 2001; Ross and Pickering 2002; Walsh and Mitchell 2002; Hill 2003; Couzos et al. 2005; Robinson et al. 2005; Huntington et al. 2006). Participation is advocated because community members bring their own situated knowledge, experience and insights to the research (Kumar 2002; Walsh and Mitchell 2002; Carter 2008). Participation also increases the likelihood that research findings will be adopted and implemented through greater community ownership and involvement (Calheiros et al. 2000; Huntington et al. 2006; Carter 2008).

I used the qualitative methods of case studies and ethnography in this research. Ethnography was used to understand the reality of a cultural group²⁰ through first hand experience of social situations (de Laine 1997; Creswell 2003), and a case study methodology was used to examine a particular case bounded in time and place (Yin 1994; O’Leary 2004; Stake 2005; Creswell et al. 2007). By combining these methods I was able to get a more in-depth view of the case study as it happens. It allowed for a deeper understanding of social structures and processes, and individual experiences of those structures and process (Guba and Lincoln 1994; Wilde and Sockey 1995; Smith 1999; Hay 2000; Howitt and Stevens 2000; Shah 2004; Winchester 2005).

²⁰ In this research I adopt O’Leary’s description of a cultural group to be those “bounded together by social traditions and common patterns of belief and behaviour” (O’Leary 2004:119).

3.4.2 Research paradigm

Denzin and Lincoln (2005:22) state that “all qualitative researchers are philosophers”. They are guided by a worldview, or paradigm, that shapes how they see and act in the world. Mackenzie and Knipe (2006) note that paradigms have a varying emphasis in the literature, with differing terminologies and numbers of paradigms existing. Guba and Lincoln (2005) and Heron and Reason (1997) identify and describe positivism, realism, critical theory, constructivism and participation as the major paradigms underlying social science research. Each paradigm is characterized by three dimensions: ontology, epistemology and methodology. Ontology is the reality of nature, epistemology is the relationship between reality and the researcher, and methodology is the approach used to gain knowledge about the world (Guba and Lincoln 2005). Table 13 (p.81) provides a summary of the major paradigms used in social science, their principles, and their applicability to this research. Cross-cultural research is often an endeavour of deciding between competing paradigms (Golde and Gallagher 1999; Tinsley 2005). In line with this, my research sits mostly within the realism paradigm, although elements of the participatory and critical theory paradigms are relevant and applicable.

Table 13: Summary of five scientific research paradigms, their principles and applicability to this research (Guba and Lincoln 1994; Heron and Reason 1997; Perry et al. 1998; Healy and Perry 2000; O'Leary 2004)

Principles	Positivism	Realism	Critical theory	Constructivism	Participatory
Ontology	Reality is real, apprehensible and reductionist	Reality is real but ambiguous & variable; multiple realities exist	Reality shaped by social, political, cultural, economic, ethnic & gender values, formed over time	Multiple local and specific co-constructed realities	Subjective-objective realities, co-created by mind & cosmos
Epistemology	- Objective - Findings are true - Value-free	- Modified objectivist; - Participatory, collaborative - Value aware	- Subjective - Value dependant	- Subjective - Created findings - Value laden	- Critical subjectivity based on experiential, presentational, propositional & practical knowing - Co-created findings
Methodology	- Experimental/manipulative - Deductive - Hypothesis driven - Reliable - Reproducible - Mostly quantitative methods	- Case studies/convergent interviewing - Inductive & deductive - Exploratory & dependable - Triangulation - Mostly qualitative methods	- Dialogic/ dialectical - Inductive - Researcher is 'transformative', influencing social change	- Hermeneutical / dialectical - Inductive - Researcher is a 'passionate participant'	- Collaborative action inquiry based on epistemic & political participation - Shared experiential context - Co-operative inquiry methodology, multiple methods - Inductive

Principles (cont.)	Positivism	Realism	Critical theory	Constructivism	Participatory
Applicability to this research	Not applicable: doesn't allow for context to be examined holistically	- Focus on multiple perceptions of reality - Examines events & experiences - Value-aware nature of inquiry aligns with my philosophies - Suits case study methodology – applicable to analytical framework for the research - Suits an applied research approach	- Knowledge is locally situated, grounded in social & historical patterns 'De-colonizes' positivistic research – privileges Indigenous knowledge & voices - Ethnographic methodologies suits cross-cultural research - My research is not 'transformative'	- Looks at underlying 'values' - Due to value-laden nature of inquiry & influence of the researcher, this paradigm is not applicable	- Knowledge is learnt experientially, expressed through practice and empirical in nature - Methods value participants knowledge & role - Participation is central - This research is not a transformation action process, therefore paradigm not applicable

3.5 Research Methods

Research methods can be defined as the “investigation techniques employed” to gather research data (Hay 2000:4). In this study, I adopted methods common to both case study and ethnographic methodologies. These included participant observation, semi-structured interviews and informal discussions. Multiple methods were used on the same information source to provide a holistic reality (Patton 2002; Creswell 2003; Denzin and Lincoln 2005). I also adopted principles essential for participatory, cross-cultural research practice.

Carter (2008) suggests an iterative framework of principles to support Aboriginal engagement in environmental research in Australia (Figure 11, p.84). This framework was developed from a review of collaborative research projects across Australia, and is based on the four stages of research: planning, data collection, data interpretation and research recommendations. In conjunction with the ethical research guidelines and protocols (discussed later) and other well developed cross-cultural planning tools, such as those described by Walsh and Mitchell (2002), I have applied this framework to help demonstrate and validate the participation process and methods used in this research.

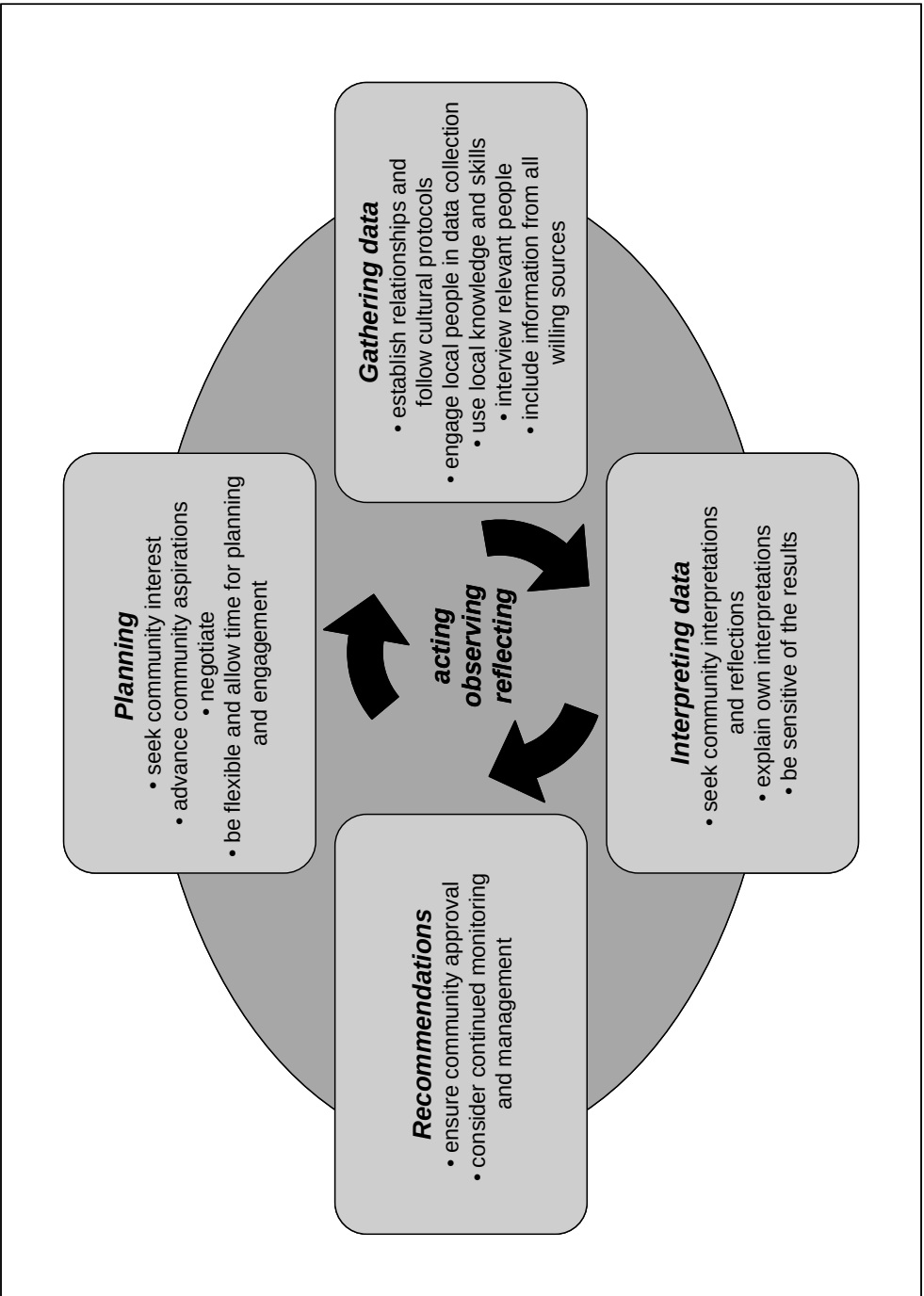


Figure 11: Framework of principles for Aboriginal participation in Australian environmental research (adapted from Carter 2008)

3.5.1 Getting started: case studies, ethics and research permits

I wanted this research to be useful and have practical benefits, so collaborations with and support from key organisations involved in protected area management in the southern half of the Northern Territory was essential. This required discussions with staff from both the Northern Territory Parks and Wildlife Service (NT P&WS) and the CLC. The CLC Land Management Unit gave support for the research, with the Northern Tanami IPA suggested as a case study site.

The CLC research permit and the Charles Darwin University (CDU) Human Ethics applications made me think critically about the approach and the responsibilities I had working in a cross-cultural setting. Ivanitz (1999:47) acknowledges the role that ethics has on a research project: "...ethical standards affect the research choices made and are best viewed not as an afterthought to planning and project implementation but as a guide to effective practice". There are many ethical guidelines and principles for research involving Aboriginal people that have been identified by organisations such as the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), the National Health and Medical Research Council (NHMRC) and CLC (see Table 14, p.86). Being aware of and applying such protocols and guidelines was essential for creating a cross-cultural research project based on equal power relations, transparency, representation and participation (Howitt and Stevens 2000).

In line with such protocols and guidelines I outlined an overall process that was emergent²¹ and based on a number of known methods and principles used in cross-cultural research to allow for shared dialogue, understanding and demonstration (Ch. 3.2.2). Secondary data review i.e. reviewing journal articles, books, planning documents, local histories and research documents, added value to this process (Patton 2002; Creswell 2003).

²¹ An emergent research design allows for the research to be flexible and adapt to new lines of inquiry as they arise (Patton 2002). As such the research design is not completely pre-determined prior to fieldwork (O'Leary 2004).

Table 14: Examples of ethical guidelines and protocols for research involving Aboriginal people in Australia (AIATSIS 2000; NHMRC 2003; CLC ND)

<i>Guidelines for ethical research in Indigenous studies, AIATSIS</i>
• Consultation, negotiation & free & informed consent are the foundations for research with or about Indigenous peoples • The responsibility for consultation & negotiation is ongoing • Consultation and negotiation should achieve mutual understanding about the proposed research • Indigenous knowledge systems & processes must be respected • There must be recognition of the diversity and uniqueness of peoples as well as of individuals • The intellectual and cultural property rights of Indigenous peoples must be respected & preserved • Indigenous researchers, individuals & communities should be involved in research as collaborators • The use of, & access to, research results should be agreed • A researched community should benefit from, & not be disadvantaged by, the research project • The negotiation of outcomes should include results specific to the needs of the researched community • Negotiation should result in a formal agreement for the conduct of a research project, based on good faith & free & informed consent
<i>Values & ethics: Guidelines for ethical conduct in Aboriginal & Torres Strait Islander health research, NHMRC</i>
• Reciprocity • Respect • Equality • Responsibility • Survival and protection • Spirit and integrity
<i>Research protocols, CLC</i>
• Prior informed consent • Participation by Aboriginal people • Benefits for Aboriginal people • Respect & protect Aboriginal cultural & intellectual property rights • Appropriate publication & dissemination of research outcomes

Ethical clearance from CDU and research approval from the community of Lajamanu was granted in late 2005 and early 2006 respectively. Despite the time taken for collaborations with the CLC and ethical clearance and permit approvals, the need for research support, legitimacy and local authorization was important for me as a researcher to be accountable to local cultural protocols and ethical guidelines. Seeking community and organizational interest and support is a key principle in participatory research practice (see Figure 11, p.84).

3.5.2 Data Collection

The objective of this research was to gain an understanding of Warlpiri and agency interests and practices for managing country in the Northern Tanami IPA: Who was involved? How they were involved? What was happening or not happening? And what they wanted to see happen and how? Data collection was carried out in two locations, Lajamanu and Canberra. These sites were chosen because Warlpiri people and CLC staff involved in the management of the Northern Tanami IPA are based principally in Lajamanu, and DEWHA staff who administer the IPA program are based in Canberra. The collection of data occurred over a two-year period from August 2005 to August 2007²². A number of qualitative methods were used to collect the data, including:

- semi-structured interviews with key participants;
- participant observations of country visits, meetings, workshops and conferences; and
- informal discussions with broader community members and key participants.

These research methods are commonly used in cross-cultural settings and are described in detail in the following sections. Table 15 (p.88) provides an overall summary of the methods used in this research, including the key advantages and disadvantages or challenges of each method.

Over the past five years I have spent most of my time with the senior women on the Northern Tanami IPA Management Committee. Gender roles are important in Aboriginal society (Walsh and Mitchell 2002). I am a young female researcher, so by engaging and working with senior women I was respecting and operating within the community's cultural protocols; an important principle in cross-cultural research (see Figure 11, p.84). The women who participated in this research are Traditional Owners for country within the IPA, and include Rosie Tasman, Molly Tasman, Alice Kelly, Gladys Tasman, Masie Granites, Biddy Long, Biddy Raymond, Liddy Miller, Peggy Rockman, Margaret Martin, Myra Herbert, Judy Walker and Liddy Miller.

²² Even though my research permit and ethical research approval were not approved until the end of 2005, access to the case study site was supported by CLC staff to start relationship building and be involved in IPA meetings.

Table 15: Summary of research methods used for data collection, including key advantages and disadvantages (Adler and Adler 1994; Denzin and Lincoln 1994; Fontana and Frey 1994; Yin 1994; Creswell 1998; Dunn 2000; Kearns 2000; Patton 2002; O'Leary 2004; Denzin and Lincoln 2005).

Method	Participant observation	Informal discussions	Semi-structured interviews
Description	Observations of, and involvement in country visits, conferences, meetings and workshops	Discussions with a wide range of people in Lajamanu, Alice Springs and Canberra	Open ended interviews conducted with key informants identified throughout the research process
Recording tool	Field diary, video and digital camera	Field diary	Digital voice recorder, field diary
Advantages	- Allows for more meaningful in-depth explorations of experience and behaviours - Allows for spontaneity - Learn things that people won't mention in interviews - Researcher's first hand experience allows for reflexivity throughout data analysis phase	- Allows for deeper observations through unplanned & informal interactions - Flexible approach that can be used in many situations & events - No-predetermined line of questioning is required - Useful when researcher is located in one setting for an extended period of time	- Flexible questioning opportunities & systematic data collection – this also allows for easier data analysis - More informal, conversational style than formal interviews - Allows for multiple informant interactions & discussions - giving greater breadth to answers - Values experience & perceptions
Disadvantages/challenges	- Researcher presence alters the social situation - Gaining access to suitable situations and cases can be difficult	- Need to have informed consent & follow ethical guidelines - Researcher needs to be patient & pace themselves & have good conversational and listening skills	- Distorted responses due to personal bias of informants - Flexible wording of questions can lead to different responses, causing reduced compatibility & topic omission

Method (cont.)	Participant observation (cont.)	Informal discussions (cont.)	Semi-structured interviews (cont.)
Disadvantages/ Challenges cont.	• Time consuming and expensive, limiting number of observable activities • Focus on external behaviours, participants may alter their behaviour	• Researcher needs to respect privacy & delicacy of informal interactions – people will say things that they wouldn't on record • May require substantial periods of time to gather systematic data • Requires more analysis than interviews to identify themes	• Interviews & transcribing are time consuming & personally taxing – often require more than one interview for each participant • Requires good engagement with participants & openness and honesty • Researcher needs good listening skills
Research participants/ informants	Senior women and men; Wulain Rangers; CLC staff	Senior men and women; Wulain Rangers; CLC, DEWHA, Wulain Resource Centre, Lajamanu CEC, VRDCA, NT P&WS staff; other researchers	Senior men and women; Wulain Rangers; CLC & DEHWA staff

3.5.3 Lajamanu

3.5.3.1 Engaging with the CLC

My collaborations with CLC staff developed from initial discussions on the suitability of the Northern Tanami IPA as a case study. These relationships were maintained throughout the research with regular meetings and informal discussions about the research and its direction, the formation and management of the IPA, and the settlement of Lajamanu in general. I took field notes detailing these meetings and discussions. CLC staff provided on-ground support for me, which was essential for fieldwork logistics. This included providing a place to stay in Lajamanu (see Photo 4, p.91), helping to support community engagement processes, providing extra equipment and vehicles for country visits, and personal support for me as a researcher conducting fieldwork in a remote location. As is the nature of collaborative partnerships, I assisted CLC staff with activities and meetings in Lajamanu, including preparations for the official IPA declaration.

CLC staff introduced me to the senior Aboriginal men and women involved in the management of the Northern Tanami IPA in August 2005. Establishing relationships with the community was a vital step in the research process so as to successfully engage people in the research (see Figure 11, p.84). A CLC staff member, the Regional Land Management Officer for the Tanami region, who I had accompanied to Lajamanu for an IPA planning meeting, introduced me to the senior men and women. This staff member had been working with people from Lajamanu and other Warlpiri communities in the Tanami for around a decade and was trusted. This allowed me to establish personal relationships with community members more rapidly than if I had gone to Lajamanu alone. These relationships were furthered on my first trip alone to Lajamanu in May 2006, when one of the women told me that “they did not think I would come back” (Robertson). At the time I remember thinking why wouldn’t I come back? Reflecting on this now I can say that I have seen many people come and go from Lajamanu over the past six years; local people invest time and build relationships with those outsiders who show commitment by returning.



Photo 4: CLC office in Lajamanu

3.5.3.2 Country visits

The Lajamanu based fieldwork was carried out between August 2005 and August 2007. Overall I spent five months on country with people doing various activities that ranged from hunting and burning, ceremonial activities and land monitoring, to seed collecting (see Photo 5, p.93) and teaching children. Country visits undertaken as part of this research turned out to have multiple purposes. They were a good way to build relationships; they allowed for shared experience and understanding; generated pride and enthusiasm; and helped build trust and rapport (Wohling 2001; Walsh and Mitchell 2002). Allowing sufficient time to engage and build relationships with people is critical for successful participation (Figure 11, p.84).

Country visits were one of the benefits the research provided for participants from Lajamanu, especially as most women involved in this research cannot drive and/or have no access to suitable vehicles. Being on country is essential for enabling Aboriginal people to manage country. This research supported and facilitated country visits for this reason. Coordinating country visits with the local school, the Lajamanu CEC (see Photo 6, p.93), also provided an opportunity for the intergenerational

transfer of traditional knowledge and skills (Palmer et al. 2006). Reciprocity is an important ethical consideration in cross-cultural research; Aboriginal people should benefit and not be disadvantaged by research (see Table 14, p.86). Table 16 (p.94) summarises the research benefits for all participants from this research.

Being on country also meant that I was experiencing first hand the social and cultural processes fundamental to the Aboriginal worldview of looking after country, as well as the practices that people use to manage country (see Photo 7, p.95). On these visits I started as an observer and later became a participant. I was involved in looking, listening, talking and learning about country from a different worldview; elements essential for cross-cultural research in Aboriginal Australia (James 2005). Ward (2002:78) notes that if you want to work together with Aboriginal people “get your hands dirty... learn from what Aboriginal people are teaching you – listen!”. Participating in this way is supported by an ethnographic methodology (Hollaway and Todres 2003; O’Leary 2004). Valuing, respecting and using local knowledge and skills is an important principle in cross-cultural research, and critical for ethical research practice. Furthermore, country visits helped shape the research direction. This research was initially focused on developing cultural indicators to measure effective protected area management. This focus changed in-line with community aspirations to examine management practice to better achieve local management agendas. Making the research process emergent and more relevant to community aspirations is a key principle in participatory research practice (Ivanitz 1999; Hills and Mullett 2000; Walsh and Mitchell 2002; Carter 2008).



Photo 5: Biddy Raymond, Margaret Nungarrayi Martin and Biddy Nungarrayi Long cleaning dogwood seeds (*Acacia coriacea*), November 2006



Photo 6: School children from Lajamanu CEC and Margaret Nungarrayi Martin on a country visit collecting witchetty grubs, April 2007

Table 16: Benefits from this research

<i>Recipient</i>	<i>Benefit</i>	<i>Output</i>
Jane Walker	• Increased skills and knowledge in cross-cultural research practice and protected area management; • Career enhancement and network creation; • Increased knowledge of Aboriginal land management practices and IEK	• PhD qualification • Publications • Presentations
Lajamanu community members	• Engagement in research practice; • Resourced country visits; • Increased understanding of western natural resource management and protected area management; • Engagement of women in Northern Tanami IPA Management Committee; • Enhanced participation in workshops and forums with other Aboriginal and non-Aboriginal land managers; • Employment for local community members; • Recording of traditional ecological knowledge; • Promote better understanding of Aboriginal interests in managing country	• Return of research results and interview transcripts • Community booklets • Video recordings, photographs and audio recordings • Presentations
CDU, DK-CRC and CSIRO supervisors	• Enhanced understandings of Aboriginal interests in IPA management and of processes for effective cross-cultural management	• PhD • Co-authored papers • Presentations
CLC and DEWHA	• Enhanced understandings of Aboriginal interests in Indigenous Protected Area management and of processes for effective cross-cultural management; • Results can be applied on-ground to improve service delivery; • Promotion of Aboriginal interests in managing country	• Research report



**Photo 7: Molly Napurulla Tasman and Lilly Nungarrayi Hargraves hunting,
March 2008**

3.5.3.3 Informal discussions and meetings

During the data collection period I also attended a number of IPA planning meetings (see Photo 8 and 9, p.97) and community meetings. I had informal discussions with other researchers working in Lajamanu and staff from organisations based in Lajamanu, such as the CLC, the Lajamanu CEC and the Wulain Outstation Resource Centre. These meetings and informal discussions contributed to a better understanding of community dynamics and politics, as well as providing information on the day-to-day management of the Northern Tanami IPA. Incorporating ideas and insights from all willing sources is an important principle in participatory research (see Figure 11, p.84). It allowed others not involved in the country visits and interviews to express views and contribute knowledge to the research. The research process became more reflexive and emergent when an open and on-going approach to communication and information exchange was incorporated. This is important for ensuring that the research is relevant to all stakeholders aspirations (O'Leary 2004; Carter 2008).

3.5.3.4 Other land management forums and activities

In addition to country visits, meetings and informal discussions occurring in and around Lajamanu, I facilitated the involvement of some of the women in a number of land management activities during this research. These included:

- the Miyalk Land and Sea Management Conference in Arnhem Land in August 2006, where Aboriginal women's Ranger groups from across northern Australia met to share stories and talk about looking after country (see Photo 10, p.98);
- the Women's Land Management Development Forum, hosted by the CLC in March 2007, where Aboriginal women involved in various caring for country programs discussed current activities and issues, and future ideas for land management across the region; and
- tracking endangered animals, such as the bilby and great desert skink, and other animals to develop a field guide for tracking in central Australia with Ada Nano from Northern Territory P&WS in April 2007 (see Photo 11, p.98).



Photo 8: Women at a Northern Tanami IPA planning meeting, November 2006



Photo 9: Men at a Northern Tanami IPA planning meeting, November 2006



Photo 10: Lilly Hargraves, Margaret Martin, Myra Hargraves, Biddy Long and Judy Walker at Yirrkala Nursery, August 2006



Photo 11: Margaret Martin, Rosie Tasman and Ada Nano tracking, April 2007

Participation in these activities supported the research and returned additional benefits to the research participants. Talking and engaging with other Aboriginal and non-Aboriginal women provided new insights and stimulated conversations about land management that the women from Lajamanu would not have otherwise had. It also provided me with a more complete understanding of Aboriginal interests in land management, and a more realistic picture of the knowledge, skills, issues and concerns that people from Lajamanu have in looking after country. Meeting people and sharing stories is a cross-cultural method used in participatory planning (Walsh and Mitchell 2002). Encouraging this shared experience allowed information from different sources to be incorporated in the research (see Figure 11, p.84), contributing to a more reflexive and emergent research process.

3.5.3.5 Collection methods

Throughout the data collection period I collected information through informal discussions and participant observations, methods common to case study and ethnographic methodologies (Yin 1994; Creswell 1998; Hay 2000; Patton 2002; Creswell 2003; O'Leary 2004; Denzin and Lincoln 2005). Field diaries, photographs and video recordings were used to capture observations, discussions and events. The use of field diaries is standard in qualitative research (Dowling 2000; Kearns 2000; Patton 2002). Photographs and video recordings are becoming more commonly used to increase insights into field observations through later review and analysis (Creswell 1998; Patton 2002). Video footage and photographs taken throughout this research were also of community benefit. On country trips, traditional ecological knowledge and management skills were recorded²³. These records are to be collated into the Lajamanu community's Knowledge Centre database.

3.5.3.6 Interviews

In the months of November 2006 and January 2007 I interviewed CLC staff involved in the on-ground management of the IPA. In April and July 2007 I interviewed the

²³ The purpose of this research was not to record traditional ecological knowledge and skills. However, on country visits women carried out land management activities such as hunting and burning where information was inevitably recorded. In line with the ethical protocols for the research this information is respected, with the intellectual and cultural property rights, and the decisions of use and storage belonging to those women.

senior men and women on the Northern Tanami IPA Management Committee and the Wulain Rangers. There was no pre-determined sample size or sampling criteria for these interviews. Instead I allowed the sampling process to evolve incrementally. People interviewed were those that had, over the previous year and a half, been identified by either myself or other research participants as people who could contribute useful insights into the research (Yin 1994; Creswell 2003). This sampling approach is supported by Bradshaw and Stratford (2000:72) who write that conducting interviews “with a small number of ‘right’ people will provide significant insights into a research issue”. Interviewing relevant people is an important principle in research projects where Aboriginal people participate (see Figure 11, p.84); only certain people have the right to speak for and about country (Robinson and Munungguritji 2001; Walsh and Mitchell 2002). Overall 31 people were interviewed in Lajamanu (see Table 17).

Table 17: Groups and numbers of people interviewed in this research

<i>People interviewed</i>	<i>Numbers interviewed</i>	<i>Other data sources used</i>
Senior Aboriginal men	10	Meetings, informal discussions
Senior Aboriginal women	11	Country visits, meetings, workshops, conferences, informal discussions
Wulain Rangers	8	Meetings, informal discussions
CLC staff	2	Meetings, informal discussions, documentation
DEWHA staff	4	Informal discussions, documentation

One-on-one interviews were carried out with two CLC staff. These participants were both non-Aboriginal, first language English speakers. The interviews with the senior Aboriginal men and women and the Wulain Rangers (see Photo 12, p.101) were in gender specific, small groups. This occurred for a number of reasons:

- the men and women choose to have meetings and discussions in gender groups;
- each group consisted of family members to ensure that the interviewees had the capacity to follow cultural protocols and present authenticity (Robinson and Munungguritji 2001; Walsh and Mitchell 2002; Carter 2008); and
- small groups allowed for comfortable dialogue and information exchange, generating more detailed information through group discussions. Walsh and

Mitchell (2002:54) state that small group discussions are “consistent with an Aboriginal culture of talking and listening”.

All of the interviews were digitally recorded and I took extensive notes at the same time. Voice recording and note taking are standard tools used to record data in interview methods (Dunn 2000). The interview notes were used in the data analysis period to support and confirm the interview transcripts. As the interviews were carried out in small groups recording was necessary to capture the amount of information and detail given by multiple informants (O’Leary 2004).



Photo 12: Steven Patrick, Jefferson Lewis, Quincy Samuels, Shaun Simon, Dylan Miller and Steven Robertson being interviewed by Jane Walker, June 2007

3.5.3.7 Language workers

For the interviews with the senior Aboriginal men and women and the Wulain Rangers, language workers from the community were employed to help guide,

interpret and translate the research questions, discussions and answers. The use of language workers was essential for two reasons. Firstly, many of the senior men and women involved in the management of the Northern Tanami IPA have limited fluency in English. Using an interpreter made it easier for people to express their opinion and thoughts on questions about looking after country in the IPA in their own language. Secondly, Aboriginal knowledge of country is contained within and expressed through language²⁴. Conducting interviews in Warlpiri, people's first language, was important for obtaining a more in-depth understanding. Using local community members in the data collection process is one of the principles of participatory research (see Figure 11, p.84). It also allowed for other community members to benefit from the research through employment, helped further community partnerships and research networks, built more dialogue around the research, and facilitated faster information exchange.

3.5.4 Canberra

Whilst I was developing relationships with Lajamanu community members and staff at CLC, I also collaborated with staff from the IPA Program. Having a research project that could benefit local people and inform the regional and national delivery of the program were the two desired outcomes from the research. The support and input from the national program level was therefore essential. I spent four weeks in Canberra in 2006 and 2007 engaging with DEWHA staff. In this time I had informal discussions with staff about the research and its direction and usefulness; accessed information relevant to the social, political, cultural and economic processes fundamental to the national delivery of the program; and interviewed the four staff running the program (see Table 17, p.100). These participants are all non-Aboriginal, with varying years of experience working in Aboriginal engagement and NCRM.

²⁴ Traditional knowledge couples the natural history of landscapes, species and ecosystem function with a system of management that governs resource use and protection, and layers of personal connection and experience of country (Posey 1995). Such knowledge is detailed in the lexicon of local languages, which James (2005:8) articulates are "the repository of cultural ontology, of the knowledge, perceptions, values, humor and relationship to land that cannot be expressed in another language".

3.5.5 Interview structure and prior informed consent

All the interviews that I conducted were semi-structured so as to allow for a more informal and less directed line of inquiry (Patton 2002). The interviews were based on the following broad areas:

- personal background and role in the IPA program or Northern Tanami IPA;
- management objectives and concerns for country;
- current and future management techniques; and
- views on the IPA, government interest and Aboriginal involvement.

Two separate interview guides were developed to assist with the direction and focus of the interviews to ensure a basic line of questioning is followed (Patton 2002). One was developed for interviews carried out with CLC and DEWHA staff (see Appendix 15. Guide interview questions for DEWHA and CLC staff, p.377) and the other for Lajamanu community members (see Appendix 16. Guide interview questions for community people, p.378). Individual questions may have changed between interviews, but the key interview themes remained consistent.

I transcribed three of the English language interviews myself. This process was valuable as it allowed me to become more familiar with what people were saying. A Queensland company transcribed the remaining 3 English interviews. The community interviews were transcribed and translated by Warlpiri women living in Alice Springs and Katherine.

All people involved in the research where participant observations, informal discussions, photos, video recordings, digital voice recordings and interviews were used, were given an information sheet on the research and were requested to sign the consent form before their involvement. When this request was made of community members, an interpreter was present to read and discuss the information sheet and consent form before signing. All participants had the right to not be involved in the research. Free and prior informed consent is standard ethical practice. Information sheets and consent forms were developed for Warlpiri research participants (see Appendix 17. Community information sheet and consent form, p.380) and Agency staff involved in the research (See Appendix 18. DEWHA and CLC staff information sheet and consent form, p.382).

3.5.6 Data analysis

Analysis transforms data into meaning (Patton 2002). In this research I use theme analysis to help make this transformation. I iteratively coded and compared the data looking for similar and disparate concepts (Strauss and Corbin 1990; O'Leary 2004). This technique is commonly used in case study and ethnography research methods (Strauss and Corbin 1994; Creswell 2003).

The following describes the data analysis process that I used. I read and re-read the interview transcripts and field notes, documenting emerging concepts. I grouped like concepts to create themes (see Photo 13, p.105), and compared the themes from the interviews and field notes to look for consistency. I then re-examined the data to look for potential sub-themes by re-grouping like concepts within each theme (see Photo 14, p.105). The key themes and sub-themes discussed in this dissertation are outlined in Table 18. I then used NVivo²⁵ as a storage tool for the raw data and coding system and to perform searches to compare themes and sub-themes against research participant's backgrounds. Overall the data analysis took approximately three months to complete.

Table 18: Key themes and sub-themes derived from my data analysis

<i>Chapter</i>	<i>Themes and sub-themes</i>
Chapter 4	Warlpiri people as land managers • Warlpiri values for managing country • Warlpiri knowledge and learning • Warlpiri management of country • Factors which challenge and limit management
Chapter 5	Warlpiri perspectives on IPA management • Warlpiri impressions of the IPA • Government interest and engagement • On-ground management • Governance, planning and accountability • Other concerns and challenges • Achieving Warlpiri aspirations
Chapter 6	Management agency impressions and interests • Agency objectives • Perspectives on Warlpiri interests and motivations • IPA structure and management practice • Achieving Warlpiri and Agency aspirations

²⁵ NVivo is a computer software program used for analysing qualitative data.



Photo 13: Key theme coding for one interview

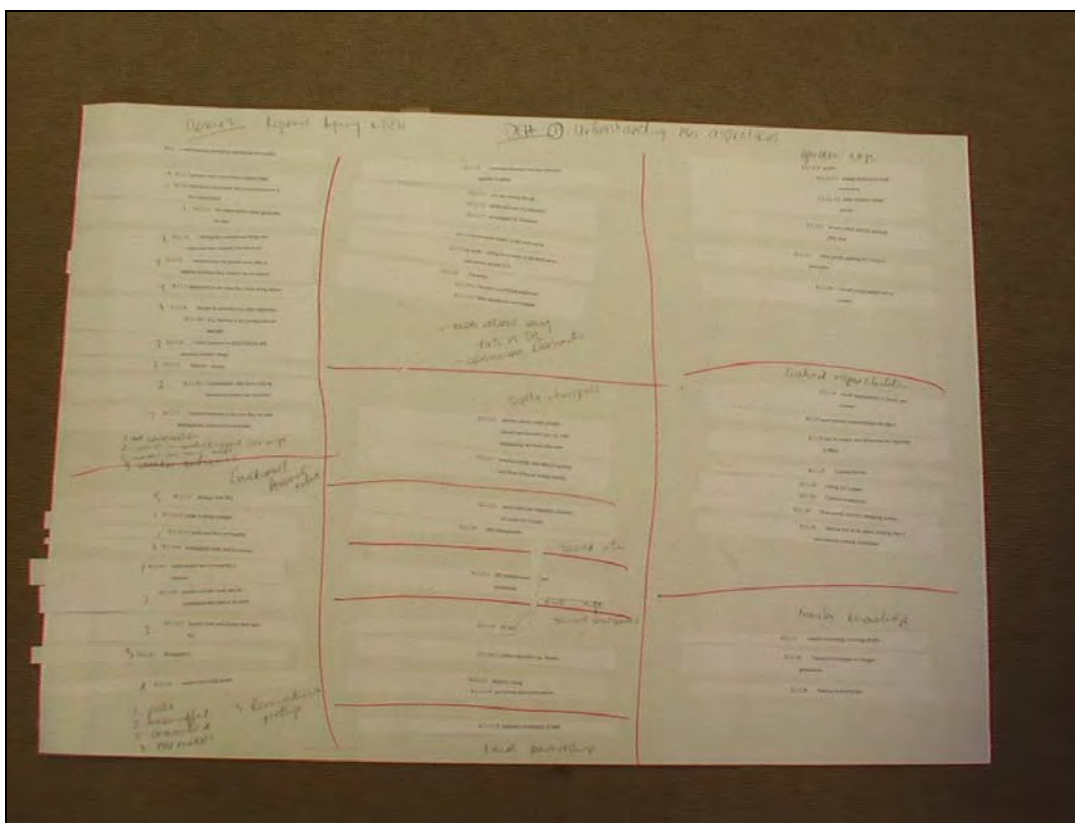


Photo 14: Data analysis process used to find sub-themes

3.5.7 Research validity

Mansvelt and Berg (2000:263) state that evaluation criteria should be used to guide and encourage “researchers to explore and make explicit their own research agendas and assumption and to elaborate on how they believe their research text constitutes the ‘truth’ about a particular subject”. In qualitative research there are a number of criteria frameworks identified for ensuring research validity (Denzin and Lincoln 1994; Yin 1994; Baxter and Eyles 1997; Healy and Perry 2000; Patton 2002; Creswell 2003). O’Leary (2004) states however that research underpinned by differing paradigms and methodologies does not fit neatly into one framework. Rather she suggests using a series of questions and indicators to frame research validity. These questions and indicators are based on researcher subjectivity, consistent methods, the capture of ‘truth’, finding applicability and verification (see Table 19). I have used these questions and indicators to identify the techniques used throughout the research process to ensure validity. Table 20 (p.107) is a summary of the techniques used in this research to ensure validity. A more detailed description of each technique can be found at Appendix 19. Description of techniques used for ensuring research validity in this study (p.385).

Table 19: Questions and indicators used for framing qualitative research validity (O’Leary 2004:58)

<i>Have subjectivities been managed?</i>
Subjectivity with transparency - “acceptance and disclosure of subjective positioning and how it might impact on the research process, including conclusions drawn”
<i>Are methods approached with consistency?</i>
Dependability - “accepts that reliability in studies of the social may not be possible, but attests that methods are systematic, well-documented, and designed to account for research subjectivities”
<i>Has ‘true’ essence been captured?</i>
Authenticity - “concerned with truth value while recognizing that multiple truths may exist. Also concerned with describing the deep”
<i>Are findings applicable outside the immediate frame of reference?</i>
Transferability - “whether findings and/or conclusions from a sample, setting, or group lead to lessons learned that may be germane to a larger population, a different setting, or to another group”
<i>Can the research be verified?</i>
Auditability - “accepts the importance of the research context and therefore seeks full explanation of methods to allow others to see how and why the researchers arrived at their conclusions”

Table 20: Techniques used throughout the research process to show validity

<i>Research process</i>	Planning the research	Data collection	Data analysis	Data interpretation	Reporting
<i>Validity indicators</i>					
Subjectivity with transparency	Peer debriefing	Field diaries		Member checking	
Dependability	Peer debriefing	Triangulation; engagement and observation; peer debriefing; purposeful sampling; interview guides	Peer debriefing; theme analysis; NVIVO	Member checking; peer debriefing	Peer debriefing
Authenticity		Engagement and observation		Member checking	Member checking; quotations and photographs
Transferability	Case study selection	Field diaries			Case study selection
Auditability		Field diaries; photographs; audio and video recordings; interview transcripts	Theme analysis; NVIVO	Member checking; field diaries	

3.6 Conclusion

As this research was undertaken in a cross-cultural setting, ethical guidelines and principles essential to ensuring collaborative, purposeful research were required. In this chapter I have outlined analytical and methodological framework that I used to do this. The WCPA framework was used to guide the development and application of the research approach to align with the research questions. In this research I took an applied, qualitative approach, grounded in ethnographic and case study methodologies. As such I crossed a number of paradigms, which required me to employ a number of research methods to ensure participatory, beneficial and ethical on-ground research practice. I also used a number of techniques to validate the research process and results.

Overall this chapter has outlined that an applied case study approach provides situated, contextual understandings that can contribute knowledge useful for on-ground change and broader theoretical debates on Aboriginal involvement in protected area management. In the following chapter I begin my analysis of the case study results, by examining Warlpiri meanings of ‘managing country’.

Chapter 4

Warlpiri people as land managers: Perceptions and practice



Photo 15: A hunting fire lit by senior women on the Northern Tanami IPA Management Committee, east of Lajamanu, July 2007

4. WARLPIRI PEOPLE AS LAND MANAGERS: PERCEPTIONS AND PRACTICE

4.1 Introduction

In this chapter I present the findings from my analysis of interviews and field notes on the first key research theme – Warlpiri people as land managers. The chapter explores what Warlpiri people mean when they talk about ‘managing country’. There is little reference to the Northern Tanami IPA in the chapter. This is because the research participants discussed country and managing country in its own right, rather than in relation to the designated IPA. The analysis presented in this chapter is representative of Warlpiri people involved directly in the management of the Northern Tanami IPA; that is the senior men and women on the Northern Tanami IPA Management Committee and the Wulain Rangers. The senior women and men have cultural responsibility to manage, and the right to speak for and about country within the IPA. The Wulain Rangers are the key group employed to carry out on ground management actions in this area. I have spent time with all the individuals from these three groups: the women through country visits, interviews, informal discussions and meetings, and the men and Wulain Rangers through informal discussions, interviews and meetings.

The chapter is structured according to the four sub-themes that emerged during analysis: Warlpiri people’s values; the role of traditional knowledge and learning; the multipurpose use and practice of managing country; and the challenges which limit management practice. Much of the information in this chapter is presented as quotes, which allows people’s voices to come through. Overall this chapter presents an understanding of how Warlpiri people value country and its management. Such understanding is fundamental to the effective management of the Northern Tanami IPA.

4.2 Warlpiri values for managing country

Reference to country by the Warlpiri research participants was always with the recognition and discussion of the interconnection between people and country:

“without people it’s dry that country, that’s true. The country is no good when there’s no people living there”²⁶.

In this section I explore this interconnection by showing the relationship that Warlpiri people have with country. This relationship brings together values of cultural tradition, identity, emotional and physical wellbeing, and spiritual connection. ‘Healthy country, healthy people’ is a unifying concept for development conservation and addresses the key pillars of sustainable development (Garnett and Sithole 2007). Even though these values are separated in this section, most Aboriginal people do not make any clear-cut distinction between natural and cultural values - they are interwoven.

4.2.1 We follow the footsteps of our old people²⁷: cultural tradition

The ownership and responsibility of people to look after their father’s and grandfather’s country was continually discussed throughout the research:

*“Mardanulpa warringiyirli warringiyi we never look nganimpa wangurla juku lawa jarriji, ngayu natirna nyangu ngayu nyangu grandfather manu father, but ngurulka karnalu jana marlaja nyanyi warringiyi kirlangu. (My grandfather looked after that place. We didn’t see him, he passed away, but we are looking after his place today, my grandfather’s country)”*²⁸.

This cultural tradition of ownership and responsibility is based on the Warlpiri kinship system that defines the relationships of people to each other, to *Jukurrpa* and to country (Ch. 2.3.5.1). The research participants identified knowing and understanding these relationships as important for many reasons. It ensures:

- intergenerational passing of ownership rights: “...we take kids over there to father’s country and showed them land... told them that that land belonged to her”²⁹;

²⁶ Toby Jangala Martin (IPA Management Committee), interview 4 May 2007

²⁷ Molly Napurrula Tasman (IPA Management Committee), interview 8 May 2007

²⁸ Lilly Nungarrayi Herbert (IPA Management Committee), interview 23 April 2007

²⁹ Bidy Napangardi Raymond (IPA Management Committee), interview 26 April 2007

- future management responsibility: “[looking after our country is important to] make sure it’s there for the future...so when we get old the young people can take it on”³⁰;
- maintenance of knowledge and law: “Your father and your grandfather’s country, that is where the songs for the place are”³¹;
- perpetual spiritual connection of people with place: “...the old people still there with us... look after father and grandfather when look after country”³²;
- the integrity of country: “...[burning] it makes our country wonderful, our fathers’ country”³³; and
- social and cultural wellbeing: “...learning about and looking after country means that country also looks after people”³⁴.

4.2.2 Culture, it’s my- my way culture³⁵: identity

The Warlpiri research participants all expressed that they derive their identity from their cultural connection to people and place. For example Biddy Raymond states:

“Yeah strong culture. Warringiyi nyanu kurlangu palka karlipa jana kuruwarri mardani jamirdi nyanu kurlangu, jaja nyanu kurlangu. Yangkarnalu jana kangu lajamanurla yangkarnalu jana jirrnganja wirntija kurdukurduku, ngaju nyangu walya kurrarnalu yanu. Ngaju nyangu father kurlangu manu warringiyi kirlangu kurra jilpirli kirra. (Yes we have strong culture. We have our dreaming. I took the kids to my father and grandfathers place)”³⁶.

The importance of knowing about and teaching culture was indicated as essential for creating an enhanced sense of Warlpiri identity in young people:

“...people they got to learn... we want kids to learn so they don’t forget what they’re about”³⁷.

³⁰ Quincy Jakamarra Samuels (Wulain Rangers), interview 7 May 2002

³¹ Joe Japanangka James (IPA Management Committee), interview 4 May 2007

³² Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

³³ Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

³⁴ Steve Jampijinpa Patrick (IPA Management Committee), interview 23 June 2007

³⁵ Rosie Napurrula Tasman (IPA Management Committee), interview 4 May 2007

³⁶ Interview 26 April 2007

³⁷ Biddy Nungarrayi Long (IPA Management Committee), interview 26 April 2007

It was also identified as important for the continued maintenance of country and culture:

“...we teach kids their grandmother and grandfather’s country, so they won’t forget it, so they keep culture alive”³⁸.

Many of the young men in the Wulain Ranger group indicated that their identity is tied to ownership of country:

“...this is not someone else’s place this is ours... this place is ours, it belongs to all *yapa* here, it’s our future”³⁹.

Conversely concerns about the lack of identity, pride and self-confidence in Warlpiri youth were often raised by the senior men and women, and also by some of the Wulain Rangers. For example Jerry Jangala Patrick notes that there is a need to “...get back the young people”⁴⁰ and Biddy Nungarrayi Long states:

“...*palka waja karlipa kuruwarriji mardani, yeah we got em kuruwarriji palka*, [we need to] make the kids understand that we still got our culture strong”⁴¹.

Warlpiri cultural identity is conceptualised by Steve Jampijinpa Patrick’s⁴² as ‘ngurra-kurlu’ (see Figure 12, p.115). Ngurra-kurlu translates as “with home, about home, within home and the home within”, where home means people, country and community (Pawu-Kurlpurlurnu et al. 2008). In an informal discussion with Steve Jampijinpa he explained that to be strong in Warlpiri identity, Warlpiri people need to understand and have knowledge of each of the five elements of Warlpiri culture - country, law, ceremony, language and kinship – and the relationships between them⁴³. Each of these elements is represented below through quotes expressed by the research participants:

- Country: “...my father used to live there, also my grandfather lived there... that’s my country”⁴⁴;

³⁸ Judy Napaljarri Walker (IPA Management Committee), interview 26 April 2007

³⁹ Anthony Japangardi Rex (Wulain Rangers), interview 7 May 2007

⁴⁰ Interview 23 June 2007

⁴¹ Interview 26 April 2007

⁴² Steve Jampijinpa Patrick is the principle author of the Ngurra-kurlu report.

⁴³ Field notes 23 June 2007

⁴⁴ Ronnie Jakamarra Lawson (IPA Management Committee), interview 4 May 2007

- Language: "...we have our culture and we teach our kids our language, so they speak strong Warlpiri"⁴⁵;
- Kinship: "*Mardanulpa warringiyirli warringiyi we never look nganimpa wangurla juku lawa jarriji, ngayu natirna nyangu ngayu nyangu grandfather manu father, but ngurulka karnalu jana marlaja nyanyi warringiyi kirlangu.* (My grandfather looked after that place, we didn't see him, he passed away, but we are looking after his place today, my grandfather's country)"⁴⁶;
- Ceremony: "...we like to show our culture... we like to sing and dance, we make big fire and we sit around it and sing songs"⁴⁷; and
- Law: "...people need to learn about cultural skin to keep families straight"⁴⁸.

These quotes show that no element is considered in isolation. For example the quote used to illustrate law, shows that law is dependant on kinship ("learn about cultural skin") and through that, ownership of country. Similarly, the quote used to demonstrate language shows that language is related to law ("we have our culture" and "we teach our kids our language") and kinship ("we teach our kids").

⁴⁵ Biddy Napangardi Raymond (IPA Management Committee), interview 26 April 2007

⁴⁶ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

⁴⁷ Liddy Napangardi Miller (IPA Management Committee), interview 24 April 2007

⁴⁸ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

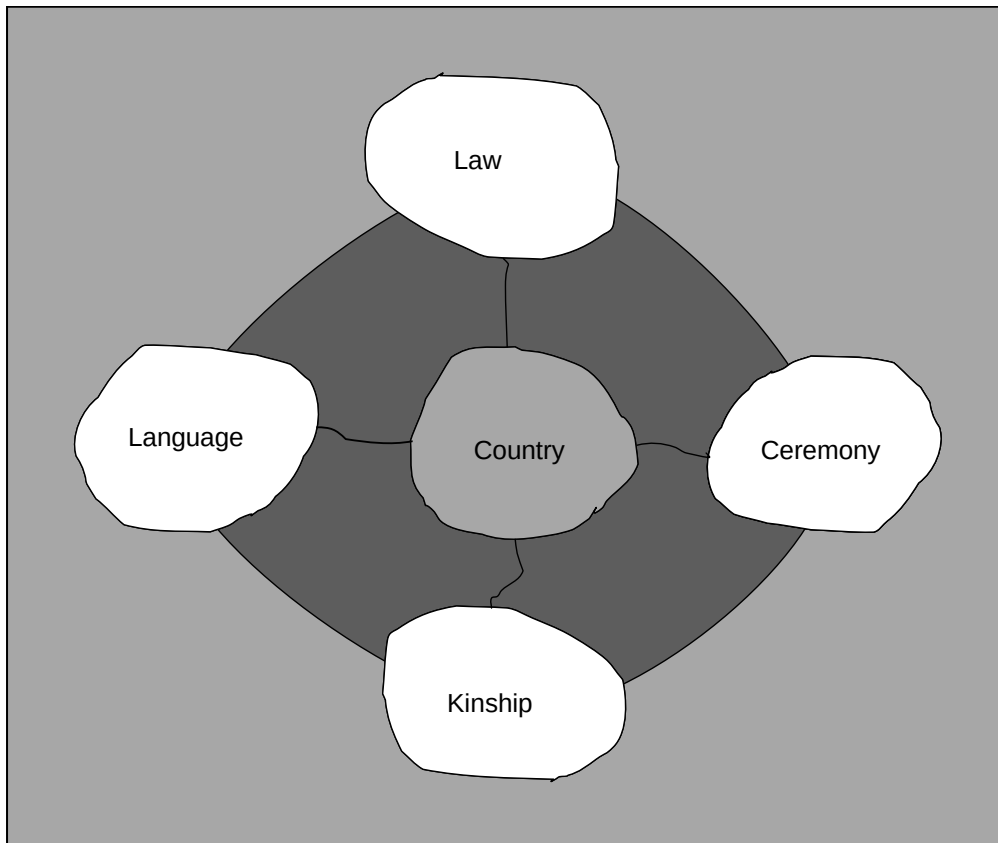


Figure 12: Ngurra-kurla (Pawu-Kurlpurlurnu et al. 2008:3-4)

4.2.3 We get that good feeling⁴⁹: emotional and physical wellbeing

“Yes happy, we’re happy, very happy when we go out [on country]”⁵⁰

“*Ngari karnalu happy jarrimi*, [burning] it makes our country wonderful, our father’s country... it makes us really happy”⁵¹

“...the land has our dreaming and culture... that is where I was born and grew up... I really love to go back there”⁵²

In the above statements words such as ‘happy’, ‘wonderful’ and ‘love’ show the positive emotional wellbeing that Warlpiri people get from being on country and fulfilling cultural responsibilities for country. Emotional wellbeing is intimately linked to the sentiment, practice and personal relationships that keep culture strong:

“*Manyu wana wangu ngayi true wardinyi-nganyirni*, we gotta learn my mother my mother *kalarnalujana nyangu manu grandma* (Not for fun, this is

⁴⁹ Molly Napurrula Tasman (IPA Management Committee), interview 8 May 2007

⁵⁰ Rosie Napurrula Tasman (IPA Management Committee), interview 8 May 2007

⁵¹ Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

⁵² Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

for real, we very happy cause we learned it [seed collecting] from watching our mothers and grandma)”⁵³.

The Wulaign Rangers also talked about emotional wellbeing in relation to the pride they have and give others by being involved in the Ranger group:

“it makes us feel good, and makes our old men proud... and old ladies”⁵⁴.

With emotional wellbeing comes physical wellbeing. Senior women in particular talked about the physical wellbeing from being active on country:

“*Ngawu jarri kaji karnalu yantarli nyinanjarlaju... kala yangka ngurrju wirlinyiji* (we might get sick if we just sit one place... that is why the hunting is good)”⁵⁵.

I have observed these women, some of whom are in their 80’s, become more energetic and lively on country, spending long hours hunting and collecting bush foods with, what seemed to me, to be noticeable changes in their health:

“We stopped about 500m down from the stand [of *Acacia coriacea*] we were at yesterday. The trees were a little smaller and had a lot more seed. The women jumped straight out of the car and started collecting. There was Myra, Margaret M, Judy W, Biddy R, Rosie, Molly and Alice. We arrived at about 10.30am and the ladies collected seed till 12.30pm, only stopping because lunch was ready. I can’t believe the women all look so healthy and fit after three weeks of bush trips collecting seed”⁵⁶.

Physical wellbeing was also associated with the consumption of bush foods. When asked why the women hunted *karlawurru* (goanna) the response was:

“*Pakarninjarla ngarninjaku ngurrju* (to kill it and eat it. It’s good, good meat)”⁵⁷.

Burgess et al. (2005) state that natural and cultural resource management provides a culturally appropriate vehicle for improving Aboriginal health, as country and engagement with country is central to people’s wellbeing. Wellbeing is associated with improvements in diet, physical activity, individual autonomy, social cohesion

⁵³ Molly Napurrula Tasman (IPA Management Committee), interview 8 May 2007

⁵⁴ Wulaign Rangers, interview 7 May 2007

⁵⁵ Judy Napaljarri Walker (IPA Management Committee), interview 2 April 2007

⁵⁶ Field notes, 26 October 2006

⁵⁷ Lilly Nungarrayi Hargraves (IPA Management Committee), interview 2 May 2007

and spiritual connection with country. Conversely, not being on country has implications for people's emotional wellbeing. When asked why people go back to country, a common response from both the senior men and women was because of the 'worry' they felt for country:

*"Kala warringiyi kirlangu kirdana kurlanguku karnalurla worry jarrimi.
Kirdana kurlanguku ngurraraku nganimpa nyanguku, our grandfather's side
(we are worried about our grandfather and our father's land)"*⁵⁸.

Worry is associated with people's ability to fulfil their social and cultural responsibilities for country.

Often feelings of worry were mentioned in combination with the lack of access for old people to visit and manage country:

*"...old people got no vehicles, private vehicles, don't go out anymore by themselves"*⁵⁹;

and the lack of knowledge young people have about ownership of country:

*"...in the old days people used to know that country but today they [young people] can't find it"*⁶⁰.

Access to country and lack of youth knowledge are discussed further in Ch. 4.3.3.

4.2.4 The country is alive in spirit⁶¹: spiritual connection

*"Without people it is a dry country, it gets sick and boring. Oh with people it is normal life. It is *kuntukuntu*⁶² again. That country is not dead. That country is alive in spirit... because it is not just land, it is alive. Our country is family because our spirits go back there"*⁶³.

This quote strongly indicates the spiritual connection of people, past and present, and country. The research participants did not see themselves as separate from the landscape: they are part and parcel of it. They interact with country in a very intimate way, often talking about landscape features and objects as family members such as

⁵⁸ Gladys Napangardi Tasman (IPA Management Committee), interview 8 April 2007

⁵⁹ Myra Nungarrayi Herbet (IPA Management Committee), interview 23 April 2007

⁶⁰ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

⁶¹ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

⁶² In this sentence *Kuntukuntu* means 'good condition, growing fresh after fire'. It can also mean fat, fresh growth or patch of green grass.

⁶³ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

‘father’ and ‘grandfather’. This spiritual relationship is generated through *Jukurrpa* and is relived continually. On every country trip and in every discussion I have had with Warlpiri people, *Jukurrpa* in some form or another was either enacted or mentioned. For example, on a hunting trip with the senior women to collect *yarla* (bush yams):

“...Gladys and Alice started to sing the bush yam dreaming song, *yarla-ngarrka*, and said they had danced for this one earlier in the year at women’s business... Later on that same day we passed a snake dreaming area which again spurred discussions of kin ownership and dreaming songs for that area of country”⁶⁴.

With knowledge of *Jukurrpa* comes the knowledge and responsibility for managing country:

“...we need to look after it [country] cause that dreamtime is there... that land has our dreaming and culture”⁶⁵.

Managing country also means that the knowledge embedded in *Jukurrpa* is also maintained:

“...see cause it’s part of my dreaming... that’s why we go out and collect, get those seeds... many people say, like... custodians of those seeds... just like my grandmother, we’re hitting the seeds just like they used to”⁶⁶.

When asked in the interviews, the senior men and women and the Wulain Rangers all indicated that Warlpiri knowledge was essential for managing country. The following quotes illustrate this:

“...[we need to] learn how to make boomerang and [the old people] take us out bush and hunt... sharing knowledge... stories and skills... we learning in Warlpiri, ’cause it’s our land”⁶⁷; and

“...got to know the land... that’s important, that’s *yapa* way... got to know that tree over there”⁶⁸.

Despite this, serious concerns were constantly raised by the senior men and women about the future maintenance of this knowledge:

⁶⁴ Field notes 5 June 2006

⁶⁵ Toby Jangala Martin (IPA Management Committee), interview 4 May 2007

⁶⁶ Alice Napaljarri Kelly (IPA Management Committee), interview 8 May 2007

⁶⁷ Warrick Japangardi Miller (Wulain Rangers), interview 7 May 2007

⁶⁸ Joe Japanangka James and Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

“...young people don’t know where or who’s country or where country is... old people know more about the countries than the young ones, because they grew up on that country...young people don’t know nothing”⁶⁹.

The role of Warlpiri knowledge and learning for managing country are discussed in the following section.

4.3 Warlpiri knowledge and learning

The section is based on the second sub-theme for this chapter, Warlpiri knowledge and learning. It is a discussion on the role of traditional knowledge in managing country, the intergenerational transfer of knowledge, the process of learning on country and Warlpiri concerns for knowledge maintenance.

4.3.1 We teach our kids⁷⁰: intergenerational learning

Many of the senior men and women described traditional knowledge as more than just knowledge of country. It was the knowledge of the relationships between people and country, the knowledge embedded in *Jukurrpa*:

“Your father and grandfather’s country, that is where the songs for the place are”⁷¹.

Jukurrpa is expressed through song, dance, story, ceremony, art and activities such as burning and hunting (Pawu-Kurlpurlunu et al. 2008). It details laws on cultural management practices, rights and responsibilities, and includes ecological knowledge on landscape form and function, plant and animal behaviour and habitat, and climatic and seasonal changes and characteristics. Throughout the research the senior men and women constantly talked about the need for Warlpiri youth to learn this knowledge:

“Yangka tarnnga-kujuku yangka milki-yirrarninjaku not jalanguku mipa but tarnngakujuku kajirli yangka wirijarrimi manu kajirli yangka nyanungurra-rlulku yangka milya-pinyi yangka, kujaku yangka nyampu now kanyarra japirni. Ngulaju yangka ngakarra ngakarra-rlanguku (to teach the young

⁶⁹ Molly Napurrula Tasman (IPA Management Committee), interview 24 May 2007

⁷⁰ Judy Napaljarri Walker (IPA Management Committee), interview 26 April 2007

⁷¹ Joe Japanangka James (IPA Management Committee), interview 4 May 2007

ones so they can keep the knowledge forever, not just for now. So they can keep it for themselves forever. So they'll know what to do when they grow up)"⁷².

The following quotes demonstrate some of the diversity of knowledge considered essential for maintaining the health of country and culture:

- song and dance (ceremony): "...yeah wirntinjaku karnalu jana milki yirrani don't lose em this song (yeah we teach them [kids] to dance and not to lose the songs)"⁷³;
- ownership of country: "...so that they... young kids can learn... grandfather and great grandfather, grandmother and great grandmother been there"⁷⁴;
- kinship and customary law: "...everyone [has to] learn cultural skin group... it's affecting our country"⁷⁵;
- management activities: "...we like taking kids out hunting, they are looking and learning, we took them out for [witchetty] grubs"⁷⁶;
- habitat and landscape characteristics: "...[we] teach young people to remember that place by retracing the way of looking for water"⁷⁷;
- animal behaviours: "...we show them tracks, dig in holes, ask them questions about tracks, get them to show us tracks...testing them"⁷⁸;
- artwork: "[these paintings are about] bush-tucker, yuwayi our grandfathers side... where they started from and who's the owner of the country"⁷⁹;
- language: "...we have our culture and we teach our kids our language... yeah... so they speak strong Warlpiri"⁸⁰; and
- artefacts: "...we get the old people to show us how to make boomerang and spear"⁸¹.

These quotes further demonstrate the interconnection between people and country as discussed in Ch. 4.2. For example the quote relating to artwork mentions knowledge

⁷² Molly Napurrula Tasman (IPA Management Committee), interview 8 May 2007

⁷³ Judy Napaljarri Walker (IPA Management Committee), interview 26 April 2007

⁷⁴ Biddy Napangardi Raymond (IPA Management Committee), interview 26 April 2007

⁷⁵ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

⁷⁶ Unknown senior woman (IPA Management Committee), interview 2 May 2007

⁷⁷ Toby Jangala Martin (IPA Management Committee), interview 4 May 2007

⁷⁸ Rosie Napurrula Tasman (IPA Management Committee), interview 24 April 2007

⁷⁹ Molly Napurrula Tasman (IPA Management Committee), interview 24 May 2007

⁸⁰ Biddy Nungarrayi Long (IPA Management Committee), interview 26 April 2007

⁸¹ Shannon Japanangka Rose (Wulain Ranger), interview 7 May 2007

of country through plant life (“bush-tucker”), Dreamings associated with kinship (“our grandfather’s side”), and ownership of country (“who’s the owner of that country”). Teaching such knowledge to younger generations was always indicated as a cultural responsibility by the senior men and women:

“...that’s our dreaming now... learning them kids”⁸².

In addition, it is a highly valued way of expressing and strengthening Warlpiri culture and identity (Ch. 4.2.2).

When asked about traditional knowledge and the importance of traditional knowledge for managing country, the Wulaign Rangers identified the need for ‘sharing knowledge’ between the generations:

“...we sit with the old men and [they] tell us old time story”⁸³.

The Rangers indicated that sharing such knowledge and stories was vital for learning the Warlpiri language and furthering land management skills such as hunting and burning. During this discussion the Wulaign Rangers raised the role of western learning and knowledge. The men clearly recognised and vividly discussed the importance of western knowledge for managing country:

“...we can’t just learn one way... we need to learn everything”⁸⁴.

Many of the senior men and women also talked about this role. However they made it clear that western knowledge should not be privileged over and above Warlpiri knowledge:

“*yuwayi*...two laws together...*yapa* law has to stretch out first”⁸⁵.

4.3.2 Take ‘em bush⁸⁶: learning on country

Alice: “*Nyangu kalarnalu-jana kamina-kaminarlu-wiyi nyanimpa-rluju* (we used to watch them when we were young girls).”

Molly: “*Kalalu-nganpa jirrnganja-pakarnu* (they used to hit the seeds with us around them).”

⁸² Biddy Nungarrayi Long (IPA Management Committee), interview 26 April 2007

⁸³ Shaun Jakamarra Simon (Wulaign Ranger), interview 7 May 2007

⁸⁴ Wulaign Rangers, interview 7 May 2007

⁸⁵ Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

⁸⁶ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

Marlkirdi (interpreter): “They saying they used to collect seeds cause they seen their parents, some of their mothers, grandmothers doing it, that's why they do it themselves now.”⁸⁷

The above exchange shows the ‘on country’ process Warlpiri people use to transfer knowledge and management practice to younger generations. Children learn from their elders through observation and practice:

“Kalalu nganpa kanjanu, lalalu nganpa yungu yurnkurrmu yakajirri, miyaka kalalu nganpa yungu kalalu nganpa. Jukurrpa yirri puraja kalalu nganpa pina pina manu yupuju wardingki miyiki manu kuyuku. Bush yams kalaku nganpa jirrnganja karlaja ngurlu kurra kalalu nganpa kangu jirrnganja warrkarru lalalu nganpa pirdijirri kalalu ngurrju manu mangarri piya ngula kalalu ngalpa yungu (they took us everywhere, to collect seeds, and fruits and raisins, they told us stories, taught us what food to get out in the desert, they climbed the hills with use and they taught us to make damper from seeds, they looked after us)”⁸⁸.

Returning to country to teach is still considered by senior men and women the most powerful way to educate Warlpiri people and deepen their respect for country and culture:

“in the old days people used to hunt and know every spot... young people have to go out and do things with the elders to learn this”⁸⁹.

The Wulaign Rangers supported this notion by talking about the importance of spending time on country with the ‘old people’ to learn about ‘Aboriginal ways’. They also indicated that it needs to happen more⁹⁰.

Being on country means that people are experiencing country and learning about it and from it. When on country Warlpiri people do not focus on just one activity. Use of country is multi-purpose (Ch. 4.4). Therefore the knowledge used and transmitted throughout country visits is diverse. In Lajamanu I observed that country visits happen in a number of ways:

⁸⁷ Alice Napaljarri Kelly and Molly Napurrula Tasman (IPA Management Committee) and Marlkirdi Rose (interpreter), interview 8 May 2007

⁸⁸ Myra Nungarrayi Herbert (IPA Management Committee), interview 23 April 2007

⁸⁹ Leslie Jampijinpa Robertson (IPA Management Committee), interview 4 May 2007

⁹⁰ Interview notes, 7 May 2007

- family trips to country where hunting and visiting outstations were the primary motivations;
- ceremonial activities, such as men's and women's business, and contemporary cultural activities, such as Milpirri⁹¹;
- through the Lajamanu CEC school country visit program, and other various community organisations such as the art or health centre on occasion;
- with CLC anthropologists and the IPA program; and
- through research projects, such as this one.

The school country visit program in particular was identified by the senior women and men as one of the key mechanisms through which intergenerational knowledge transfer occurs on country:

“*yuwayi*... school country visit... helps look after country... we teach them [kids] to dance, we teach our kids the land”.

The transfer of traditional knowledge is also increasingly occurring through classroom-based activities. Often knowledge learnt on country is turned into learning resources to aid classroom teaching. I also observed many times the senior women teaching songs and paintings to the younger children at school:

“[we] go to school too, come to school every day in the morning and teach the kids about country”⁹².

The senior women indicated that once young people show an interest in traditional knowledge they were more than happy to teach them:

“...we take the kids out [on country] as we can see that youngest children are interested in learning”⁹³.

They also indicated the enjoyment children get by being on country:

“*Nyampuju bush potato. “Bush potato karlipa find-mani bush potato nyampu yangka pirdinypa. Find-manirlipa jalangurlu ngaliparlju!, yali-kirranya ka rdurlurlu ngarni, yali kirranya”* (This is bush potato. We find this bush

⁹¹ Milpirri is a cultural celebration created by Steve Jampijinpa Patrick and run by Tracks Production Company with the help of the Lajamanu CEC and staff. The purpose of Milpirri is to draw the community together by reinterpreting traditional songs and stories into a contemporary context to strengthen Warlpiri culture, identity and social welfare (Holmes and Steve Jampijinpa Patrick 2007).

⁹² Judy Napaljarri Walker (IPA Management Committee), interview 26 April 2007

⁹³ Marlkindi Rose (interpreter), interview 8 May 2007

potato. Same one. 'Let's go look for this bush potato!' Soon as we say this, the kids all come running to us)"⁹⁴.

I have experienced this eagerness first hand on country visits with the school:

"Margaret, Biddy, Liddy M, Rosie, Lilly, Gladys and I were in the car whilst the grade 1 and 2, the transition kids, Myra and the teachers were in the bus. We pulled over just north of Lajamanu as the women found plenty of bushes for witchetty grubs. The children were so excited they rushed out of the bus and went straight to the old ladies"⁹⁵.

The feelings of self worth that people gain from teaching and learning on country have been very evident in discussions on this topic and from my own observations. People became more animated and eager on country and when talking about country. This shows teaching and being taught on country is a pathway to personal and social wellbeing.

4.3.3 Concerns for knowledge transfer

Throughout the research, many participants raised concerns about teaching young people about country and culture. This section outlines these concerns that centre on the lack of knowledge about and interest young people have in learning and on other processes that hinder knowledge transfer. These concerns relate directly to the practice of managing country. Other factors which influence and limit management are discussed in Chapter 4.5.

4.3.3.1 Young people don't know

The senior men and women often raised concerns about the loss of culture in Warlpiri youth through a lack of knowledge about country, ownership rights and management skills. When I asked people what happens to country if young people do not know country, people were generally unsure:

"...we don't know what will happen, no-one [will look after it], that's why we do it"⁹⁶.

⁹⁴ Molly Napurrula Tasman (IPA Management Committee), 8 May 2007

⁹⁵ Field notes 27 April 2007

⁹⁶ Gladys Napangardi Tasman (IPA Management Committee), interview 24 April 2007

On a country trip in July 2007, the women said that senior men often had more success at transferring knowledge to younger men:

“...men teach young fellas, they all right, they do business”⁹⁷.

In the same discussion these women indicated that they find it hard to teach the young women because young women do not understand culture and the loss of culture. Lack of interest was identified as one of the key reason for young people’s low involvement and knowledge about country:

“...we like to take young women but they don’t like to come with us”⁹⁸.

Other factors mitigating against interest in country that were identified by the senior men and women included laziness, marriage, sport, kids and jobs. The Wulain Rangers also noted that some young people are lazy, drink too much and have other problems such as health issues and have family commitments⁹⁹.

4.3.3.2 Humbug and community life

In contrast to the comments above, the Wulain Rangers talked about the interest that young people such as themselves have to learn from elders. This interest is based on wanting greater knowledge and management skills:

“so we can hear more... learn more stories and skills”¹⁰⁰.

Discussions with other people living in Lajamanu further the notion that young men and women are interested in knowledge and country, but often do not want to go out with elders because of ‘humbug’; in other words young people are expected by elders to do most of the work¹⁰¹. I have observed and experienced such ‘humbug’ on country visits, on occasion being bossed around myself because the women see me as ‘young and strong’. In further discussions on this the senior women told me that young people are made to ‘work hard’ to earn the respect of elders, and thus the right to gain knowledge¹⁰².

The assertion that young people are interested in knowledge and in being on country is supported in that I often saw or heard of young men and family groups heading out of Lajamanu to hunt. These country trips are valued because they provide an

⁹⁷ Field notes 26 July 2007; business refers to young men’s involvement in ceremonial activities

⁹⁸ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

⁹⁹ Interview notes 7 May 2007

¹⁰⁰ Wulain Rangers, interview 7 May 2007

¹⁰¹ Field notes 30 August 2005

¹⁰² Field notes 21 June 2007

opportunity for people to spend time with peers, away from the pressures of community life and family¹⁰³. The most frequently reported stresses for Aboriginal people living in remote locations include the death of family and friends, overcrowding, substance abuse, serious illness and the lack of jobs (ABS 2002). I observed first hand the difficult conditions experienced within Lajamanu and therefore why being out on country, and activities such as hunting are outlets that hold both social and cultural value for many people. For example, in a three day period in Lajamanu in June 2006 some young men were arrested for stealing a vehicle, sorry business¹⁰⁴ was carried out for two men who had passed away within a 24 hour period, and a number of community and government meetings were held requiring input from senior men and women¹⁰⁵.

The freedom that country visits can provide from the pressures of community life applies not only to young men, but also to other gender and age groups. A school teacher revealed to me in early 2006, that even the senior women valued their time out on country alone¹⁰⁶. This occurred on many of our country visits when no children, or even dogs, were allowed in the car. However, in contrast to the young men, I never saw groups of young women head out bush. I believe young women rarely visit country independently because they do not have access to vehicles and have family responsibilities such as caring for children as well as other having other interests and priorities which are similar to those identified by the young men – television, friends and sport.

4.3.3.3 Access to country

Access to country is of course imperative for enabling ‘on country’ knowledge transfer. As for the young women, the lack of access to vehicles is a major limiting factor for senior women and sometimes senior men in being able to visit country:

“we have problem too... like no vehicles”¹⁰⁷.

¹⁰³ Interview notes, 7 May 2007

¹⁰⁴ Sorry business is a period of time where extended family gather for ritualized grieving once a person has passed on.

¹⁰⁵ Field notes 5 to 7 June 2006

¹⁰⁶ Field notes, 3 May 2006

¹⁰⁷ Gladys Napangardi Tasman (IPA Management Committee), interview 8 May 2007

As shown in the following discussion, access to vehicles and country is directly associated with people's ability to teach:

Judy: "would like to take kids our bush... teach them dancing and singing"

Biddy R: "and teach them country, nobody ever goes there [Pinja]¹⁰⁸..."

Biddy L: "we got no vehicle..."¹⁰⁹

Even when senior women do have access to vehicles, they often do not have a driver's licence. They are reliant on family members and non-Aboriginal people living in Lajamanu to visit country. Most Warlpiri people living in Lajamanu are also a long distance from their traditional homelands and outstations (Ch. 2.3.4.3), which makes access very expensive and difficult.

Organisations such as the school provide opportunities for knowledge transmission to occur alongside family based country visits (Ch 4.3.2). The IPA was also discussed as a structure through which intergenerational country visits can and should be better incorporated:

"...[the IPA] should take them old people out when they [Rangers] go"¹¹⁰.

Capitalising on country visit opportunities for knowledge transfer is vital considering that the social processes of traditional Warlpiri education have changed dramatically through permanent settlement:

"*grow up manurlu jana bushngka kurdukurdu...we grew our kids up in the bush... you can't see that anymore, different now*"¹¹¹.

The research participants recognised the importance of using the school, the IPA and other programs as opportunities to visit country and transfer knowledge. However concerns were often raised about the limited structure and long-term support of these programs to sustain country visits¹¹². Informal discussions with Warlpiri and non-Aboriginal school staff indicated that the success of the school country visit program depends on the focus of the school's curriculum at any one time and staff dedication to support Warlpiri educational processes for learning on country. With such

¹⁰⁸ Pinja is one of seven outstations within the Northern Tanami IPA

¹⁰⁹ Judy Napaljarri Walker, Biddy Napangardi Raymond and Biddy Nungarrayi Long (IPA Management Committee), interview 26 May 2007

¹¹⁰ Jerry Jangala Patrick and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹¹¹ Liddy Napangardi Miller (IPA Management Committee), interview 24 May 2007

¹¹² Field notes 4 May 2006, 23 July 2007, 6 March 2008

programs relying on external funding and highly motivated individuals, on-ground success becomes more vulnerable.

4.3.3.4 Methods of learning

I formed the impression that alternative methods for knowledge transmission are often difficult for senior men and women to accept and implement. They learnt experientially, and want to teach their children the same way:

“...we want to talk about caring for country like in the old days”¹¹³.

When this way is unsuccessful they are often unsure of what else to do:

“I talked to the ladies about how to better engage young people... they want to take them bush and teach them *Jukurrpa*, ceremony and visit country, but it’s hard... they have tried and the young girls don’t want to come... it worries them that it [culture] will be lost but they do not know how to change it”¹¹⁴.

Some of the research participants also indicated that traditional methods for learning do not interest Warlpiri youth. For example in a discussion with Steve Jampijinpa Patrick he told me that for Milpirri¹¹⁵, children were more interested in learning traditional songs when they were combined with modern dance, such as disco and rap¹¹⁶. A similar comment was made by some senior women on a country visit:

“young people like Milpirri cause they can dance *kardia* way, not *yapa* way”¹¹⁷.

I observed similar experiences with some of the young men in Lajamanu. They became more interested in traditional knowledge and management of country through their involvement in filming interviews, oral histories, and stories and songs told by their elders. Firstly this indicates that Warlpiri people are looking for alternative ways to engage youth and elders together for knowledge transmission. Secondly modern conduits, such as multi-media technology, can be a very successful way to achieve this.

¹¹³ Teddy Jupurrula Morrison (IPA Management Committee), interview 4 May 2007

¹¹⁴ Field notes 26 July 2007

¹¹⁵ See footnote 91 for details on Milpirri

¹¹⁶ Field notes 9 May 2007

¹¹⁷ Field notes 26 July 2007

4.3.3.5 Loss of knowledge

Another concern raised by some of the senior women was that they are losing knowledge passed on to them from their elders:

“Biddy and Myra came by for a cup of tea and a chat... and Myra started to sing the budgerigar song. The song is about a young bird who can’t fly yet and whose parents come and feed it to keep it strong. Myra’s aunty taught her these songs when she was young. Myra has a beautiful voice and wants to record some of these songs as she is starting to forget them”¹¹⁸.

Recording traditional knowledge, such as songs, was identified as a valuable practice to ensure the longevity of knowledge for teaching young people:

“we can go there, see that place and sing songs... and take a tape recorder... to record songs... so we can keep it... *Waja waja maninja kujaku* [we might lose it]... keep it and learn young and new people... so it can’t be forgotten”¹¹⁹.

This is particularly crucial with so many elders and senior knowledge holders passing away:

“...there’s only four old men left here, and two Napurrula and Napangardi and Napaljarri¹²⁰, that’s all that teaches young people”¹²¹.

4.4 Warlpiri management of country

Warlpiri management of country can best be described as multi-purpose: resource use and management activities do not happen in isolation. A number of economic, social and cultural activities are typically undertaken when people visit country. For example, on a one day ‘hunting trip’ in April 2007 I observed the senior women talk about feral horses, donkeys and past country visits to hunt echidna and goanna; burn country; collect bush coconuts; sing dreaming songs; draw songlines; and collect and

¹¹⁸ Field notes 23 April 2007

¹¹⁹ Judy Napaljarri Walker (IPA Management Committee), interview 26 May 2007

¹²⁰ Napurrula, Napangardi and Napaljarri are three of the eight female kinship groups in Warlpiri culture (see Figure 13, p.64).

¹²¹ Margaret Nungarrayi Martin (IPA Management Committee), 23 April 2007

talk about *juju-minyi-minyi*, a common bush medicine¹²². As this hunting trip illustrates, Warlpiri management practice and resource use is applied and often opportunistic. It requires people to be able to access country, observe and monitor country, have knowledge of country and its associated dreamings, and use resources available at any one time.

In this section I explore Warlpiri management of country by analysing the activities identified by the research participants as integral for managing country, plus the on-ground management activities of the senior women that I was able to observe. Most of the results in this section are presented in tables and were collated by reviewing information recorded in the interviews and field notes. Each activity identified in the research data was listed and categorised. The number of times each activity was mentioned in the interviews or engaged in by a particular group (i.e. senior woman on the IPA Management Committee, senior man on the IPA Management Committee or Wulain Rangers) was noted, along with the data collection method (i.e. interview or field note observation).

As I spent the majority of my data collection time on country in the company of the senior women I have more data for this group than any other. Due to unequal sample size I cannot make comparisons among the three groups based on data frequency. Rather I use presence and absence as an indicator of the commonality of management activities between groups. The frequency that a management activity was mentioned in interviews or engaged in during country visits was used to rank activities and give an indication of priority. My observations of activities that people engage in during country visits was restricted to the senior women, therefore comparisons between on-ground management activities and management activities talked about are limited to this group. The majority of people involved in the research were men and women aged over 40. Considering this, I have not compared attitudes amongst age groups in my analysis.

¹²² Field notes 21 April 2007

4.4.1 Diversity of management activities

4.4.1.1 Senior women

Throughout the interview process I identified 19 activities that were discussed by the senior women that relate to managing country. Figure 13 (p.133) shows the frequency by which these different activities were identified by the senior women. The most commonly mentioned activity was the collection and management of bush foods and medicines (26 times). This activity is highly valued as it helps maintain cultural tradition, knowledge of country, engagement with country and personal wellbeing (Ch. 4.2.3). All references to burning as a management activity were directly linked to the collection and maintenance of bush foods. For example burning was indicated as important for hunting:

“make fire... make more fresh you know... *yuwayi*... big goanna... bush potato, we find ‘em after fire”¹²³;

And for the generation of bush foods:

“bush tuckers are found... *yarla, yakajirri*, bush plum... we burn the place so more bush tuckers can grow, like bush bananas and bush tomatoes”¹²⁴.

If all the categories relating to knowledge and learning are grouped, including intergenerational knowledge transfer, cross-cultural knowledge transfer, teach at school, learning on country and take elders on country, then collectively this is the most frequently raised activity (30 times). As discreet activities they show that knowledge and learning occurs in different ways and for different purposes. For example, teaching at school was considered an important activity through which Warlpiri children engage in knowledge transmission; whereas cross-cultural knowledge transfer was important for informing and teaching non-Aboriginal people about country and Warlpiri culture:

“we show them [*kardiya*] which country belongs to who, where there’s water, where there’s food, anything like that”.

Often cross-cultural knowledge transfer was linked to ensuring non-Aboriginal people’s safety when on country.

¹²³ Biddy Nungarrayi Long (IPA Management Committee), interview 26 April 2007

¹²⁴ Liddy Napangardi Miller and Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

Another frequently identified activity was ‘visit and look around country’. This is an activity in itself because of all the opportunistic possibilities that being on country presents. Being on country allows people to reconnect with place and strengthen cultural identity (Ch. 4.2.2), transfer knowledge (Ch. 4.3.2), and monitor and assess the health of country:

“visiting country... make sure doing things the right way”¹²⁵.

It also allows for gender and family responsibilities and other management activities, such as soakage and waterhole management, sacred site maintenance and firewood collection, to be carried out. Outstation management is one activity that ensures that people are able to live near and access more remote areas of country. Commercial seed harvest, tracking, painting country and making artefacts are activities that require access to country, as well as traditional knowledge and management skills to be carried out. In the case of painting and seed harvesting, economic benefits were derived from women’s knowledge of and connection with country.

¹²⁵ Unknown woman (IPA Management Committee), interview 24 April 2007

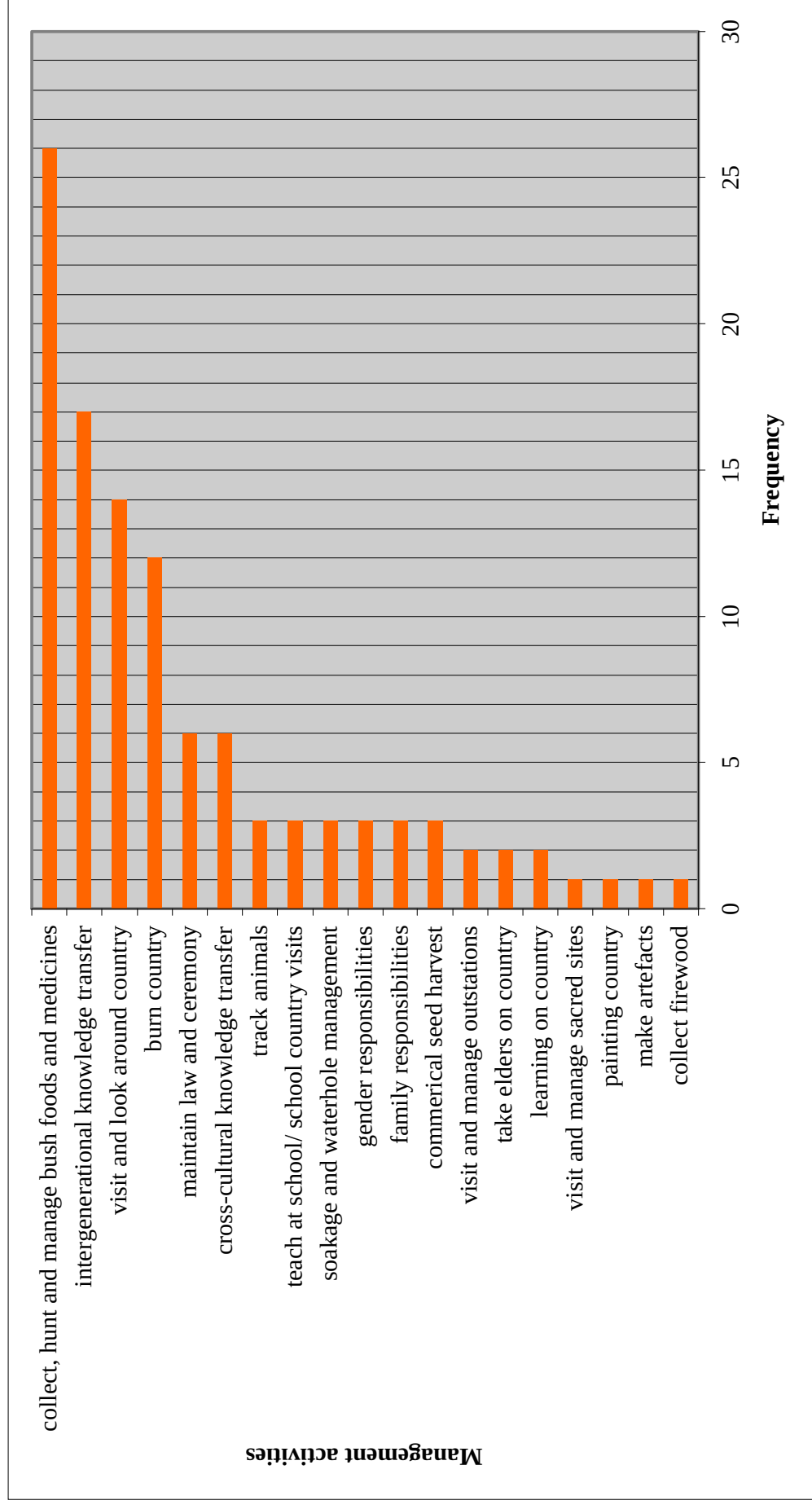


Figure 13: Comparative frequency that different management activities were identified by the senior women through interviews

4.4.1.2 Senior men

The senior men identified 13 activities necessary for managing country throughout the interviews (see Figure 14, p.135). The most commonly mentioned activity was to visit and look around country (8 times). Visiting country was often mentioned in combination with family responsibilities for managing country and collecting, hunting and managing bush foods:

“yeah I like to go back to my grandfathers’ country, so I can look after it...”¹²⁶; and

“want to go back to country and go on country... maybe doing some tracking of animals for food... and do a lot of hunting”¹²⁷.

If intergenerational knowledge transfer, learning on country and take elders on country are grouped, then knowledge and learning would again be one of the most frequently raised activities (8 times).

Burning was discussed as a management activity necessary for cleaning country, hunting and communicating:

“we would burn every year two reasons... to make it [country] green and find food”¹²⁸; and

“we used a bush fire in the past but now we have a satellite phone... the fire was a special one though, to let family know we are coming... not like ordinary fire”¹²⁹.

If grouped, maintain law and ceremony, visit and manage sacred sites and gender responsibilities collectively have a high frequency (7 times). These activities underlie the strength of Warlpiri culture and determine management responsibilities and rights:

“*Yapa* law is always there, it has to be there, it is the *Jukurrpa*... it is the management”¹³⁰.

The other three activities identified by the senior men include visit and manage outstations, soakage and waterhole management and making artefacts.

¹²⁶ Toby Jangala Martin (IPA Management Committee), interview 4 May 2007

¹²⁷ Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

¹²⁸ Joe Japanangka James (IPA Management Committee), interview 4 May 2007

¹²⁹ Leslie Jampijinpa Robertson (IPA Management Committee), interview 4 May 2007

¹³⁰ Toby Martin and Jerry Jangala (IPA Management Committee), interview 4 May 2007

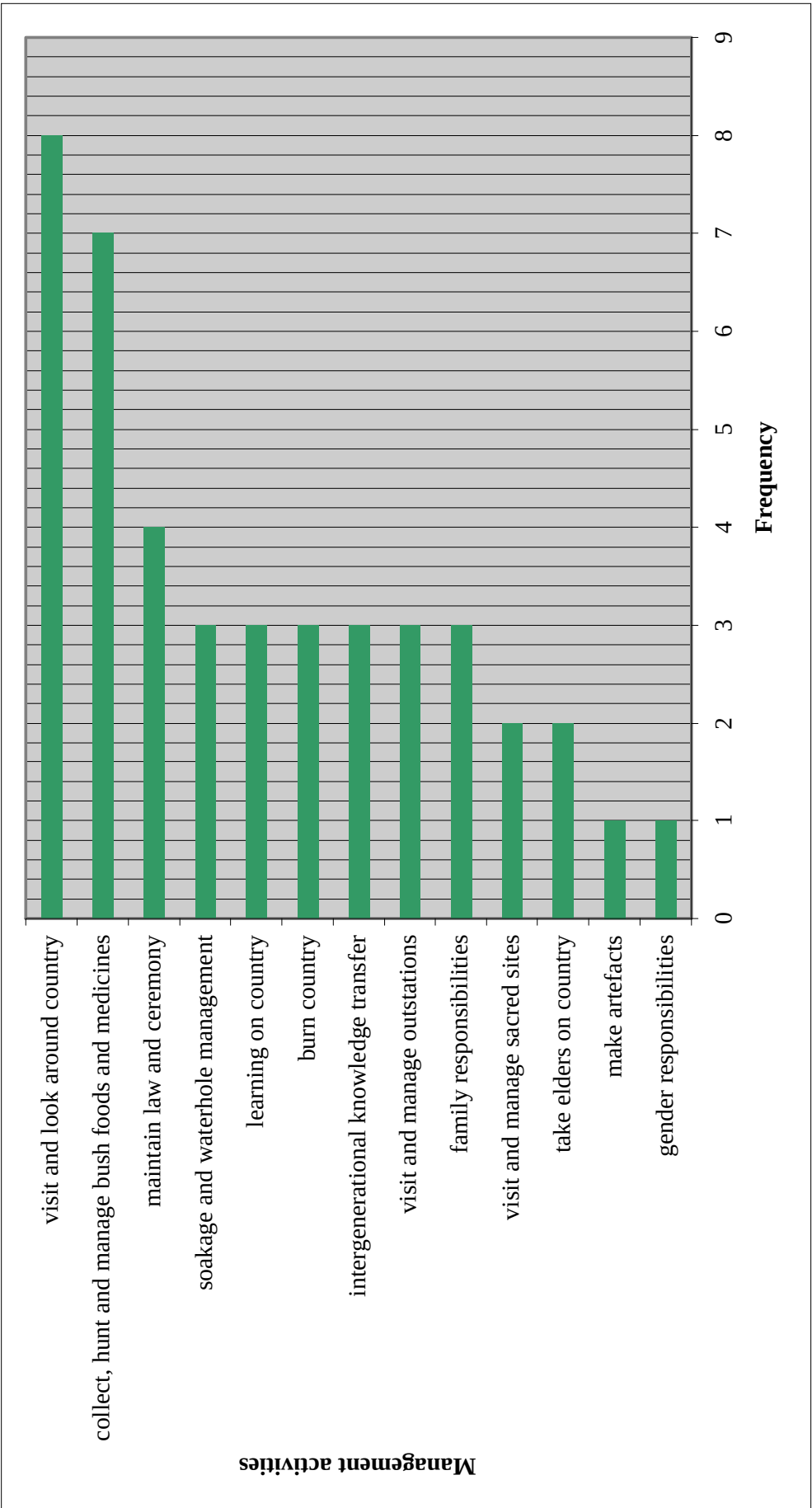


Figure 14: Comparative frequency that different management activities were identified by the senior men through interviews

4.4.1.3 Wulaign Rangers

The Wulaign Rangers identified 16 management activities throughout the interview process. The frequency these activities were identified can be seen at Figure 15 on the next page. One of the most commonly identified activities was to visit and look around country (4 times). Other traditional management activities such as visit and manage sacred sites, burn country, soakage and waterhole management, maintain law and ceremony, making artefacts and collecting, hunting and managing bush foods were indicated as practices necessary for maintaining the health of country. For example:

“when we go out bush we make fire... make sure everything is right so we can make the country better”¹³¹.

Knowledge about these activities was highly valued by the Rangers:

“we need to know everything. You need to know about fire, animals and plants...and sacred sites... we need to learn more”¹³².

Like the senior men and women, learning and knowledge has the highest frequency (7 times) when all related categories are grouped. The Rangers identified a number of non-traditional management activities, which included weed control, feral animal control, biological surveys, tourism management and visit and manage outstations. Fire management, in a western land management sense, was also mentioned:

“...when we go bush we make fire... to make a fire break”¹³³.

¹³¹ Wulaign Rangers, interview 7 May 2007

¹³² Wulaign Rangers, interview 7 May 2007

¹³³ Wulaign Rangers, interview 7 May 2007

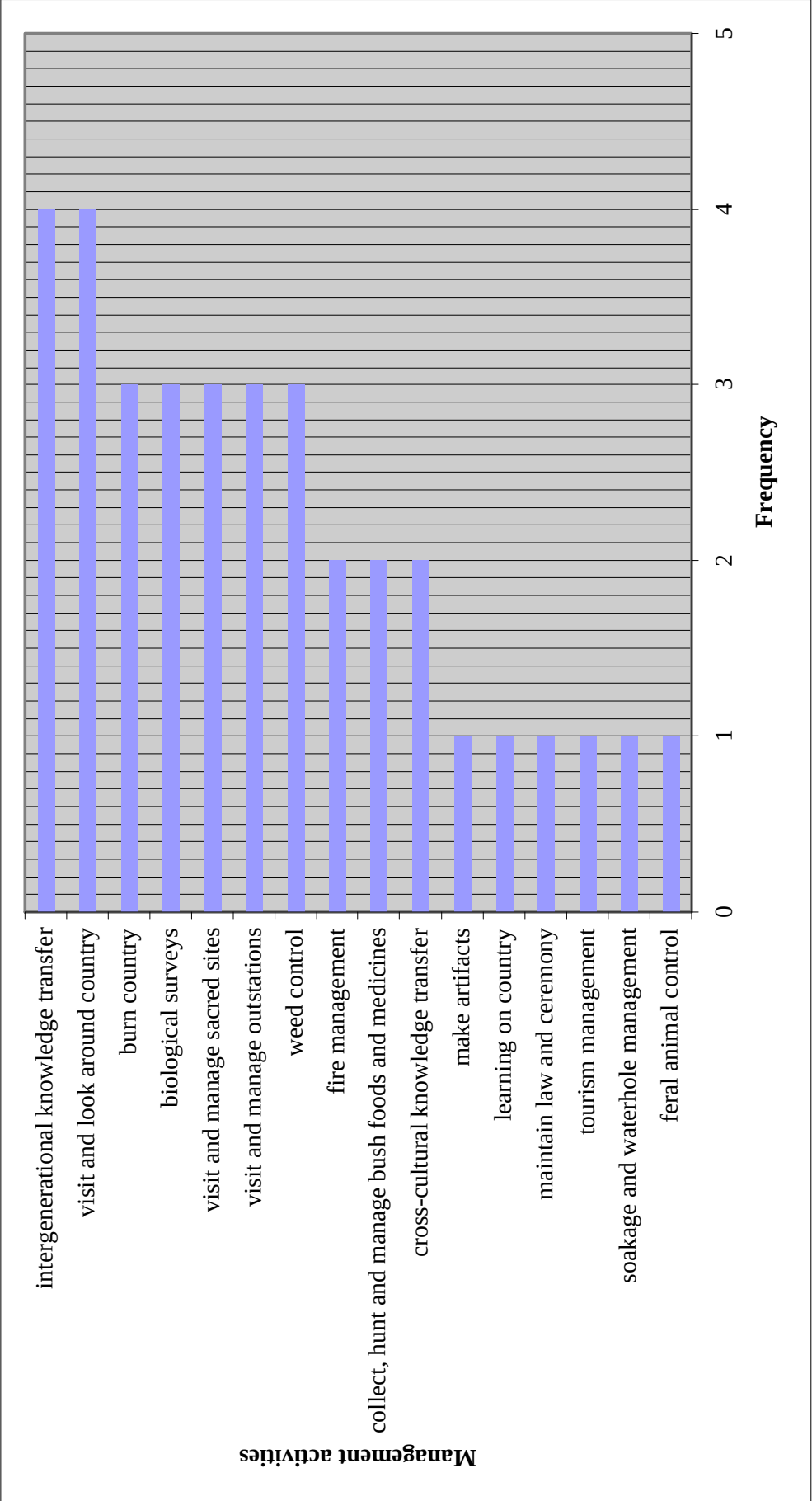


Figure 15: Comparative frequency that different management activities were identified by the Wulaign Rangers throughout interviews

4.4.1.4 Commonalities and differences

A total of 25 management activities were identified by the research participants throughout the interviews. Such diversity in management activity is characteristic of Aboriginal land use in arid Australia. Walsh (2000) writes that diversity of activities occurs because Aboriginal people have different interests in maintaining traditional practices, adopting western land management interests and pursuing other opportunities such as economic gain. In order to better understand the diversity of management activities identified in the interviews I have classified each of the activities into broader management categories which include:

- cultural resource management (CRM) – traditional activities carried out to maintain the health of country and culture;
- natural resource management (NRM) – western land management activities that relate to the sustainable management of natural resources (e.g. water, soil, plants and animals);
- combined natural and cultural resource management (NCRM) – activities of interest to non-Aboriginal and Aboriginal people that are carried out to manage natural and/or cultural resources by drawing on Aboriginal and western knowledge and skill sets;
- enterprise development – activities which use natural and/or cultural resources and/or traditional knowledge and skills to generate economic benefits;
- social development – activities that occur through other institutions and organisations to enhance the maintenance of culture and country; and
- infrastructure, services and access – activities that occur to improve access, services and infrastructure to enable better management of country.

Table 21 (p.140) outlines all the activities identified through the interviews that senior women, men and the Wulain Rangers carry out to manage country. These activities are compared across interview groups and management categories.

It is clearly evident that the majority of identified activities (71%) fall within the category of ‘cultural resource management’. This shows that the research participants still place great importance on maintaining the health of country and culture through customary management activities. These results correlate with what Rose (1995)

writes about Warlpiri attitudes and perceptions for caring for country. His analysis indicated that visiting country, carrying out law, managing sacred sites, burning, hunting and waterhole management were primary management activities for Warlpiri people. These activities were also identified by the three Warlpiri groups that I interviewed in this research, and are noted in the Northern Tanami IPA literature as activities still used by Warlpiri people to manage country (Ch. 2.3.3.4). Walsh (2000) reports that these activities are all of medium to high priority for many Aboriginal people involved in land management across central Australia.

There were some differences between the activities identified by the three groups in the cultural resource management category. Of all the activities, nine were mentioned by all three groups, three by two groups (the senior men and women) and one by one group (the senior women). Managing country, however, is not confined to cultural resource management practices. Other activities identified by the research participants fall into the management categories of combined natural and cultural resource management (11%), natural resource management (4%) enterprise development (6%), social development (2%) and community infrastructure (6%). There was no difference among groups in the recognition of the importance of infrastructure activities; all groups identified the need for outstations and outstation roads to be maintained and managed so people can access and care for country. The biggest differences among groups were across the other four categories: combined natural and cultural resource management, natural resource management, enterprise development and social development categories. The activities in these categories were mentioned either by the senior women or the Wulain Rangers, except for cross-cultural knowledge transfer, which was mentioned by both of these groups. These results illustrate that Warlpiri practices for managing country are not static. People incorporate alternative practices and ideas into their worldviews (e.g. weed control, feral animal control). People are also opportunistic; they take advantage of situations to enhance their interests in managing country and to not only derive cultural, but also social, economic and environmental benefits. For example, transferring knowledge through the school country visits program and biological surveys.

Table 21: Comparison of management activities identified by the senior women, senior men and the Wulain Rangers through interviews, showing presence and absence

<i>Management category</i>	<i>Cultural resource management</i>										<i>Combined natural and cultural resource management</i>	<i>Natural resource management</i>	<i>Social development</i>	<i>Enterprise development</i>	<i>Infrastructure services and access</i>
<i>Management activities</i>	Collect, hunt and manage bush foods and medicines														
	Intergenerational knowledge transfer														
	Visit and look around country														
	Burn country														
	Maintain law and ceremony														
	Soakage and waterhole management														
	Gender responsibilities														
	Family responsibilities														
	Learning on country														
	Take elders on country														
	Visit and manage sacred sites														
	Collect firewood														
	Make artefacts														
	Cross-cultural knowledge transfer														
	Track animals														
	Biological surveys														
	Fire management														
	Weed control														
	Feral animal control														
	Teach at school/school country visits														
	Commercial seed harvest														
	Painting country														
	Tourism management														
	Visit and manage outstations														
Senior women	•	•	•	•	•	•	•	•	•	•	•		•		•
Senior men	•	•	•	•	•	•	•	•	•	•					•
Wulain Rangers	•	•	•	•	•	•	•	•	•	•	•	•		•	•

The differences between groups may have been because I have a relatively closer relationship with the women; thus the interviews were more open with discussions reflecting on activities that had been carried out on country visits that I had participated in, such as tracking and seed collecting. This probably accounts in part for why more activities were raised by the senior women (19) than the senior men (13) and Rangers (16). However, people also have different motivations for managing country and this seems to be reflected in the results of the interview data. The senior men and women identified activities that principally fulfil their cultural responsibilities for managing country, as well as ones from which they derive great personal value and enjoyment, in particular hunting and collecting bush foods. The senior women also identified activities, such as seed collecting and painting, from which they derive economic benefits. The Rangers tended to focus more on practical activities, such as burning and feral animal control, which enable them to learn both Aboriginal and western skills and knowledge to better manage country. Many of these activities are also carried out as part of the Rangers' day-to-day responsibilities in managing country in the IPA (Ch. 5.4.1).

Apart from feral animal control, weed control and tourism management, all of the activities in Table 21 are either a traditional management practice, rely on traditional knowledge and skills to be used, or facilitate access to country. This shows the importance research participants place on being on country and having the right knowledge and skills to be able to manage country. Feral animal and weed control and tourism management were activities identified by the Rangers and probably reflect their exposure to western land management activities, issues and agendas through the Rangers group. This shows that Warlpiri people are incorporating alternative land management issues into their worldview. This is very important considering that contemporary problems such as feral animal, weed and erosion control require management approaches to which traditional knowledge and management practices cannot be applied (Ch. 2.3.3.4).

4.4.2 Observations of senior women's management activities

In this section I look specifically at the practice of managing country by the senior women. Data from both the interviews and field note observations were used to explore how country and its resources are managed.

4.4.2.1 Perceptions and practice

A total of 21 management activities were identified as important for, or carried out by, the senior women to manage country. There is only a slight difference in the number of activities that I observed women engaging in during country visits as identified in the field notes (17), and the activities identified by the women in the interviews (19) (see Figure 16, p.143 for a comparison of the activities identified by senior women during interviews and country visits). Of the total number of activities, 15 (71%) were identified in the interviews and were also engaged in during country visits. This indicates that the majority of activities the women identified as important for managing country are still carried out. In addition, the management activities that were most frequently raised in the interviews seem to correlate with the activities I observed most frequently during country visits. Five of the six activities were common to both, with collecting and managing bush foods the most frequently identified in both data sets.

The main difference between the most frequently identified activities in each data set was that intergenerational knowledge transfer, which was identified by the women in interviews as an important activity, was infrequently observed during country visits on which I was present. It was not commonly observed as the women took advantage of a rare opportunity to spend time on country away from the pressures of community life, and without extended family. Such visits were valued for the personal wellbeing that people derive from them (Ch. 4.3.3.2). The situations in which I observed intergenerational knowledge transfer were through collaborative country visits with the Lajamanu CEC, and the women teaching at school. Engaging with the school is a highly valued way to help maintain knowledge of country and culture (Ch. 4.3.2 & 4.3.3.3).

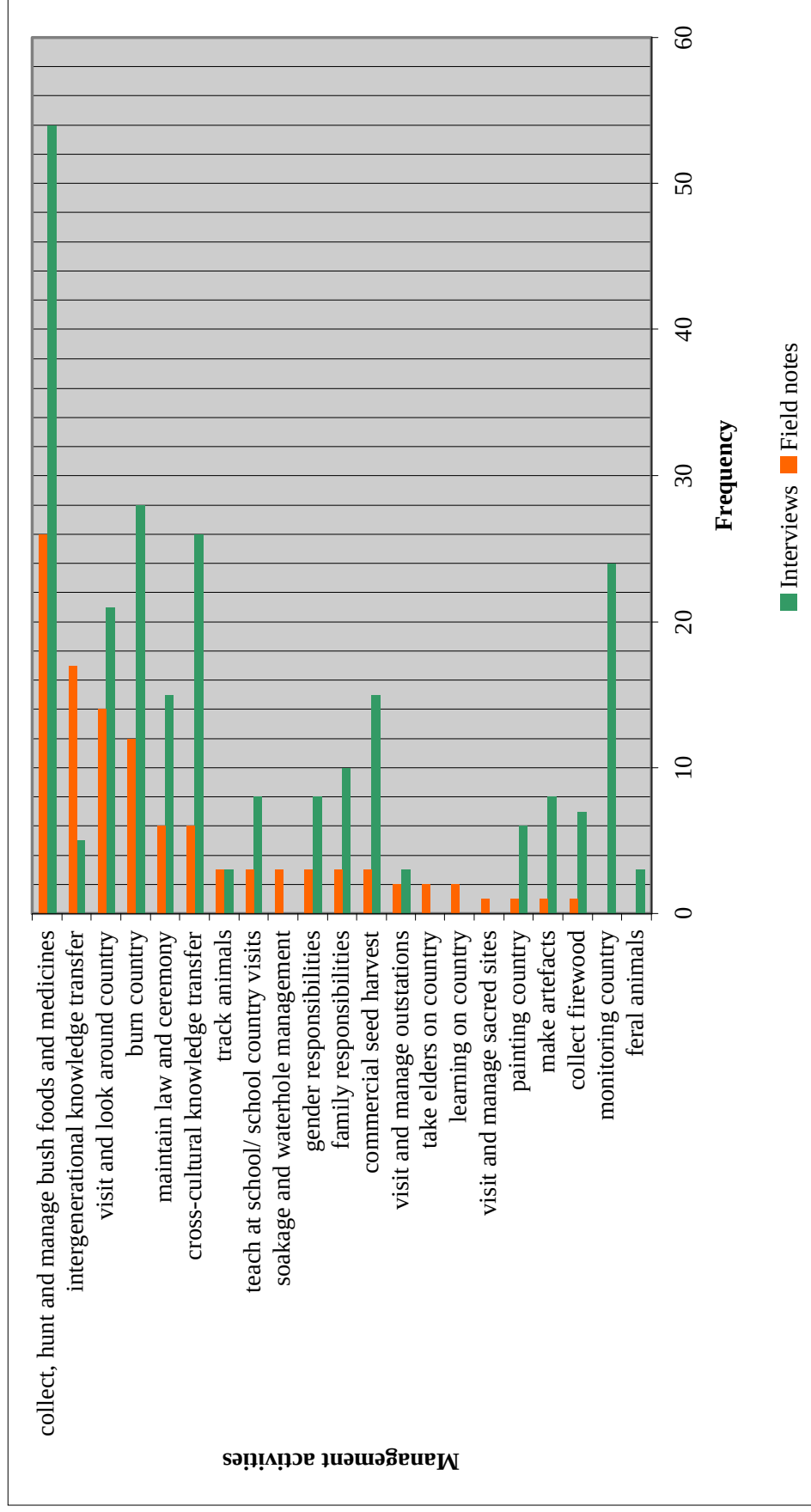


Figure 16: A comparison of the frequency that management activities were identified by the senior women through interviews with the frequency that activities were engaged in during country visits as recorded in my field-note observations

When comparing across the data sets, four (19%) activities were identified through the interviews only. Two of these activities, ‘learning on country’ and ‘take elders on country’, were talked about as important management activities that young people need to be able to do more often in combination with the senior women and men (Ch. 4.3.1 & 4.3.2). The other two activities, ‘soakage and waterhole management’ and ‘visit and manage sacred sites’, were noted as important but were discussed as activities that had been undertaken in the past:

“walk from soakage to soakage when little girl with mother”¹³⁴.

These women rarely carry out these activities today because they have limited access to many parts of their country:

“...certain places we can’t reach by car, where all the waterholes are”¹³⁵ (Ch. 4.3.3.3).

The women also referred to these activities as ones that are more often carried out, or should be carried out, by men. For example:

“Rangers can do anything for that country... [clean] rockholes and soakages... protect, fence sacred sites”¹³⁶.

Two (10%) of the 21 activities were identified during country visits and recorded in my field notes, but were not discussed in the interviews. The topic of feral animal management arose through direct observations of horses, donkeys and camels whilst on country visits. The women discussed the use of these animals in the pet food industry, but did not necessarily agree with the practice:

“We saw plenty of wild horses and talked about shooting them. The ladies said they did shoot them; they round them up with a helicopter and put them in the yards for pet food. They said that they didn’t like to shoot them because they ‘like them’, ‘they live on this land’ and ‘are part of this land’”¹³⁷.

Similar comments have also been noted by Rose (1995) who states that Aboriginal people across central Australia often feel that feral animal presence on country “confirms that the land is productive” and that people “derive pleasure from seeing

¹³⁴ Unknown senior woman (IPA Management Committee), interview notes 24 April 2007

¹³⁵ Unknown senior women (IPA Management Committee), interview notes 24 April 2007

¹³⁶ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

¹³⁷ Field notes 21 April 2007, quotes from Myra Nungarrayi Herbert and Margaret Nungarrayi Martin (IPA Management Committee)

them in the wild”. This view is very different to the western land management perception of feral animals. More current research from central Australia is showing that views on some feral animals and their impacts are no longer homogeneous, but are changing amongst some Aboriginal people who are most involved in land management practices (Varzon-Morel 2010).

Lastly, monitoring country was never identified by the women in the interviews as an activity. Perhaps this is because it is not explicitly seen as a separate land management activity, but is an essential element to be able to successfully carry out other activities to manage country. I did however observe and record in my field notes that the women monitored country on every country visit in which I was involved. For example, the women would discuss ownership and ‘Dreaming’ of country, availability of plant and animal resources, relive past country visits, and discuss information about country passed on from other family members:

“We headed out at about 10.30am. We drove west along the road towards 28 Mile. Myra talked about how she had been to 28 Mile before, getting wood for coolamons, but no one really hunted in this area. Margaret had been told by Jangala (her husband) that the area had been burnt, and would be good to look around for goanna. Jangala used to work as a stockman and travelled along this road all the time”¹³⁸.

This practice of monitoring and assessing country was even carried out when hunting. The women would walk close enough to talk to each other about what they were seeing and which direction to walk. Monitoring and assessing country in this way is a vital practice for determining where other management activities, such as hunting and burning, will occur in the future, and increasing people’s knowledge and familiarity with country. Such knowledge was always shared with family back in Lajamanu.

4.4.2.2 Spatial and temporal use

Throughout my fieldwork, the senior women directed where we would go and what we would do on country visits. The location and purpose of each country visit was

¹³⁸ Field notes, 20 September 2006

decided upon before we left the community. We often visited areas of country that the women knew had been burnt or where plant and animal resources had previously been found:

*“Yangka ngula kankulu nyurrurla yani wirlinyi wali yinya langangu ka mardani kuja yanu ‘oh yinya wanarlipa yani kakarrara, ngulalu Nungarrayi warnu yanu ngulalu kuyu pakarninjunu’ (when you go out hunting to that one place do you remember that place to go again? You might say ‘oh lets go on the east side where all the Nungarrayi’s went, they got lots of meat there’)”*¹³⁹.

All country visits occurred along well-known roads, and outstation and hunting tracks. These country visits took place between May 2006 and July 2007, mostly to country within 60kms of Lajamanu. On quite a few occasions, day trips to country near Duck Ponds outstation, approximately 80km from Lajamanu, were undertaken. The majority of country visits were day trips, with occasional overnight or three day trips. On average, eight senior women were involved in any one country visit.

On every trip we would drive to locations where the women wanted to hunt and gather bush foods. Once at the desired location, an area would be cleared for the ‘dinner camp’ (lunch) and the women would break into smaller family groups or hunt on their own. On occasion some of the women with ailments, such as sore knees, would stay at the dinner camp and wait for the others to return. The hunting and collection of bush foods and medicines was hard, physical work. The women would hunt on foot, burning country as they went, or hunt in areas already burnt for up to three hours at a time, coming back to the dinner camp for lunch. Most bush foods collected were prepared, cooked and consumed at this time. Portions were often saved for family members back in Lajamanu. Resources such as *Acacia* seeds¹⁴⁰, wood and bush medicines were taken back to Lajamanu and prepared at a later stage. After resting, the women would hunt again for up to another three hours, returning to Lajamanu by sundown. We would often revisit the same area or areas close by in short time periods if bush foods were readily found or if burnt areas had not already been hunted in.

¹³⁹ Unknown senior women (IPA Management Committee), interview 2 May 2007

¹⁴⁰ *Acacia* seeds were collected to sell to the Alice Springs bushfoods market

The primary purpose of nearly every country visit was to hunt for *karlawurru* (goanna), collect *yarla* (bush potatoes) or *Acacia* seeds. Many other bush foods, such as bush bananas and sugarbag¹⁴¹, and resources such as wood and bush medicines, were collected as the women encountered them. Successful hunting trips were reliant on the women's hunting skill, as well as their knowledge of seasonal resource availability and plant and animal characteristics and behaviours. The women knew which species were seasonally available, as shown by the following interview exert:

*“Like yangka ngapa jangkarla mani karlipa jana yuparli pinki ngulajangka yangunungu pinkilki karlipa manirra (after rain [summer time] bush banana and yams grow). Yangununguju cold weather time yinarlingi, rlangu sugarbag, rlangu yangka cold weather time (in winter there's always plenty of porcupines (echidna) and sugarbag (native bee honey)). Cold weather, rlu yangka ka mangarri yirrarni hot time, ji ngulaju ngungkarli. Karlawurru kuwana underneath now cold weather time (goannas are now underground because of winter).”*¹⁴²

The women also use biological indicators to assess the readiness of resources for collection. For example, when the Bloodwood tree flowers, the women know sugar bag will be available. Figure 17 (p.148) is a section of interview transcript that shows a detailed conversation about the knowledge the women have in relation to *Acacia coriacea* (dogwood), and how they use this knowledge to prepare for seed harvesting. On country visits, activities not related to collecting and hunting bush foods and resources were also undertaken; women would tell the stories and songs of Dreaming sites as we passed them. Country visits were also a social event, where the women readily discussed community events and life.

The frequency of country visits for these women increased through this research, as my vehicle was available for country visits. However, the women indicated that they hunted similar distances and in similar areas when family or other non-Aboriginal people living in Lajamanu took them out. With limited access to vehicles, some of the younger women also hunted on foot around Lajamanu:

¹⁴¹ Sugar bag is the honey produced from the Australian native bee

¹⁴² Unknown women (IPA Management Committee), interview 2 May 2007

“Margaret, Myra and Biddy stopped by the CLC building at about 5.30pm. They had been hunting [out past the horse yards]¹⁴³ and just walked back”¹⁴⁴.

-
- Alice: *Kapu palka-jarri yulyurpurla ngurlu jinjirla wiyi kapu karrirni pretty flower yangka pretty flower wiyi ngula wiyi kapu lurlurl karri ngulaju wita kapu wanarri pardu wiri jarrimi wantangka now wantangkalku* (yeah, when the seeds start to come out in the cold weather, first you'll see the pretty flowers start to bloom. All that will fall first on the ground, then the first seeds will grow, it will start as a little wanarri seed that will grow, during the hot weather).
- Alice: *Nyurru jala marda palka-jarrija ngarra watiya wurra wurdujarra-mani* (it's probably growing now (seeds), but the rain has to make the tree strong first).
- Rosie: *Nganayi-jika watiya wiyi jala parntimi* (first the trees will start to smell).
- Alice: *Nyampurla now* (this is the time now).
- Rosie: *No toilet-piya wiyi karla parntirr-karri yangka witawitaku baby one ngula-piyaku karla parntirrkarrri murnma watiyaju ngula ngaka kula ka come out jinjirla-wiyi* (it's got to smell like toilet first for the baby ones [buds] on the trees then the flowers come out).
Nyangurna jalangurlu jilpiripa nganayi wiyi ka pretty flower come out-jarri (when I looked today the flowers were starting to come up).
- Marlkirdi: There was them flowers coming out and then they see the flowers they know they will take a while for the seeds to grow.
- Gladys: *Witawangu kapu grow-jarri cold weather* (cold weather they're [seeds] going to come up really quickly).
- Rosie: *Ngaka jala kapu karapurda-yijala come out-jarri yurnmilki* (the seeds won't be ready to collect until hot weather time though).
- Rosie: *Karapurda karapurda ka wangkami ngulalku kapu palkalku karri* (the weather will come, then its [seeds] all going to come out).
- Alice: *Kapu ngulangkaji wirilki karrinjarra-yani wiri-wirilk* (then they're going to be really big [the seeds]).
-

Figure 17: Interview excerpt showing women's knowledge of *Acacia coriacea*

4.4.2.3 Resource use

The utilisation of plant and animal resources is central to the management of country; it fulfils people's cultural responsibility to care for country by using the resources it provides (Varzon-Morel 1995). As discussed above and shown in Figure 16 (p.143), the collection, hunting and gathering of bush foods and medicines is the most common management activity carried out by the senior women. However, other

¹⁴³ The horse yards are approximately 5.5kms northwest of Lajamanu

¹⁴⁴ Field notes 20 April 2007

activities such as making artefacts and seed and firewood collection are also reliant on the utilisation of the land's resources, as is Warlpiri law and ceremony.

The women in this research identified 53 species used for their resources (see Figure 18, p.151, for tabulated results, and Appendix 20. Plant and animal resources talked about and used by the senior Warlpiri women in this research, p.390, for a more detailed description of use). Of these species, 25 were plant (47%) and 28 were animal (53%). More species were identified during the country visits (48 resources, 91%) than the interviews (24 resources, 45%). This is not surprising considering the opportunistic way in which the women hunt; most resources are collected as they are encountered. Nineteen of the 53 species (36%) were identified in both the interviews and on country visits. The majority of these species are ones that were commonly hunted or gathered, for example bush yams, or ones recently collected, such as *Acacia* spp. seeds.

Of the total number of species identified, 18 (34%) are still used traditionally as food sources, bush medicines and for making wooden artefacts. Amongst these, many were regularly collected during the research period and can be considered staple-use resources, in particular *karlawaru* (goanna), *yarla* (bush yams), *kanta* (bush coconuts) and *miyaka* (bush peanuts). Sixteen (30%) of the 54 resource use species were talked about but never collected. Some of these resources were indicated to be no longer used, such as seeds from the desert fringe-rush for making damper, and feral cats and rabbits, which were regularly eaten in the past. The incorporation of introduced animals, particularly feral cats and rabbits, into the diet of many Aboriginal groups across desert Australia has been commonly documented (Cane and Stanley 1985; Walsh 1993; Rose 1995; Varzon-Morel 1995). The widespread availability of western food products has readily replaced many traditional foods:

“...nowadays, we buy bread but in the olden times, we made bread from *ngurlu*... Yuwayi. *Lukarrara kalarnalu ngurrju-manu ngurluju*” (yes, we made up that *lukarrara* seed [into bread])¹⁴⁵.

In the interviews and from discussions during the country visits, the women indicated that other resource species would have been collected but some are rarely

¹⁴⁵ Gladys Napangardi Tasman (IPA Management Committee), interview 8 May 2007

encountered anymore, for example bush tomatoes and bush raisins whose numbers have reduced due to intense wildfires; whilst others, such as bush turkeys and kangaroos, are principally hunted by men.

Twelve (22%) of the species were also identified directly with being tracked rather than being used for any other purpose. This included threatened and vulnerable species such as the *walpajirri* (bilby) and *wampana* (spectacled hare-wallaby). Such species were prized food sources in the past (Meggitt 1962; Varzon-Morel 1995). Three (6%) species were identified as used in the pet meat industry. This included horses, donkeys and camels (see Ch. 4.4.2.1 for further discussion on this). Two species (4%), the *ngatijirri* (budgerigar) and rainbow serpent, were associated directly with Warlpiri dreamings and locations on country. Such species show the physical manifestation of the ancestor spirits across the landscape, indicating the spiritual importance of plant and animal resources in Warlpiri cultural beliefs. Lastly, *Acacia* sp. seeds (4%) were collected principally for commercial sale. Commercial seed harvest provides a contemporary use for a resource, which the women indicated had not been utilised for a substantial period of time.

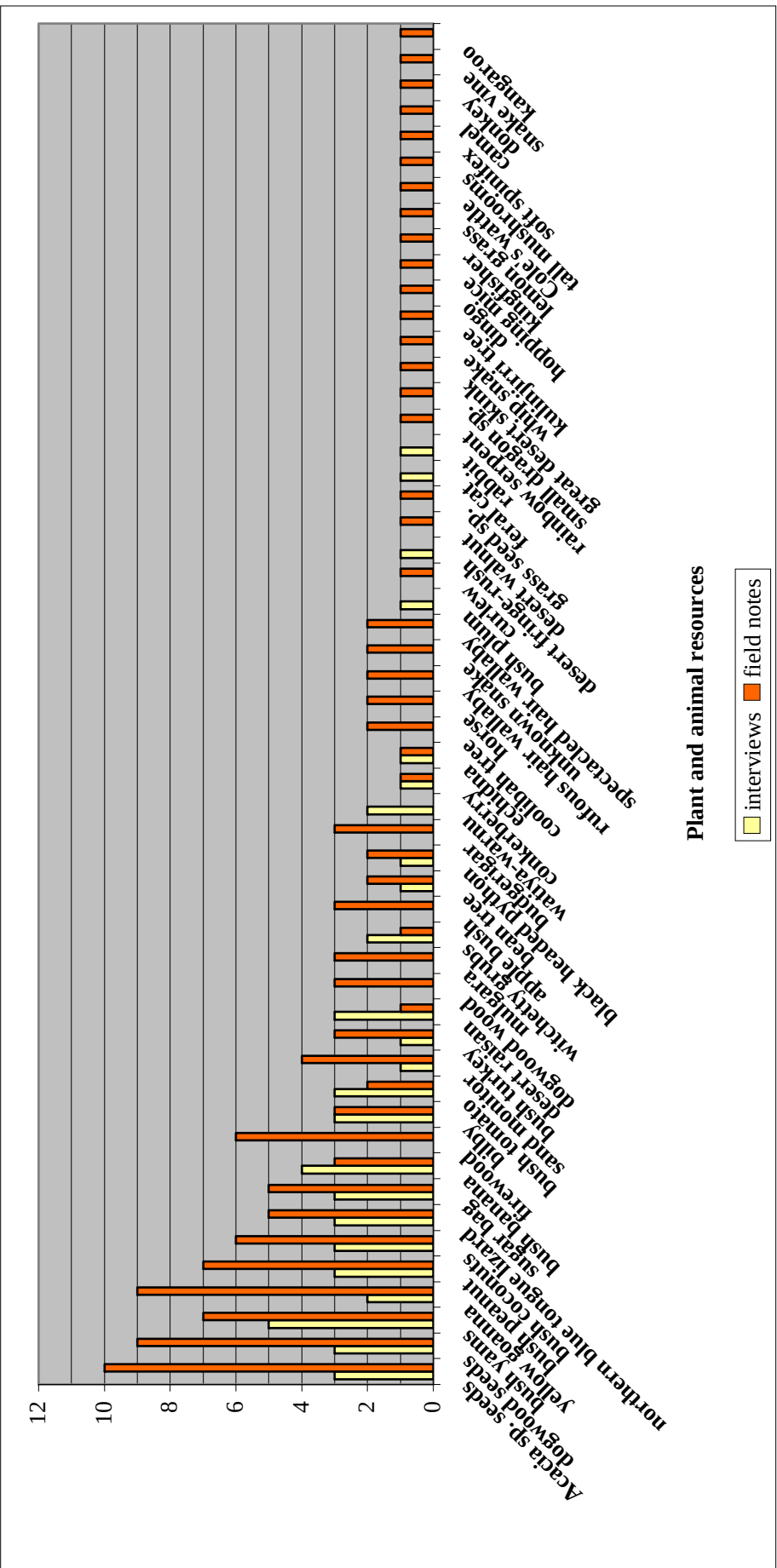


Figure 18: Frequency of observations of plant and animal resources used by the senior women as identified during interviews and country visits

4.4.2.4 Benefits of women's management practice

The importance of resource use as shown in the above analysis is consistent with findings by both Walsh (1993; 2008) and Cane and Stanley (1985). Plant and animal resources not only provide sustenance, they reinforce cultural identity and provide social and economic benefits. These benefits are not solely associated with traditional societal and economic interests. As indicated above the contemporary use of resources also relates to involvement in the market economy. The women have knowledge of resources that they use to generate economic benefits through activities such as seed harvesting and tracking. By doing this the women immediately derive social and cultural benefits by accessing and reconnecting with country. For example, on a country visit to collect seeds near Duck Ponds Outstation, the women pointed out some prominent landscape features discussing the importance of the area:

“Rosie and Myra were talking about how this area is an important area for a lot of dreaming tracks which flow off in all different directions”¹⁴⁶.

Likewise on a country visit to track animals, such as the bilby, the women indicated that they rarely spent time in that part of country¹⁴⁷. The areas we accessed and travelled through on that trip were traditional lands for three of the five women, and were near the southern end of the IPA boundary.

The management practice of hunting and collecting can also produce positive environmental outcomes. The collection and generation of many resource-use species is reliant on other management activities, in particular burning. On country visits the women always burnt where they hunted, even burning other areas of country to hunt in at a later stage. Burning gave the women an immediate return; they could easily access and walk through country to track and gather resources, rarely coming back empty handed. Bird et al. (2004) notes similar management practices by Martu women in the Western Desert. They also conclude that such management practices provide long term benefits in relation to plant and small animal diversity and abundance. The women in this research indicate similar environmental outcomes from hunting and burning:

¹⁴⁶ Field notes 26 October 2006

¹⁴⁷ Field notes 17-18 April 2007

“...we burn the place so more bush tuckers can grow, like bush bananas and bush tomatoes”¹⁴⁸.

Aside from generating useful resources, burning whilst hunting also creates vegetation mosaics that can reduce the threat and impact of wildfires (Latz 1995). It is therefore important to recognise the role that women's resource use has in maintaining the health of country and people in desert Australia.

Intensified resource use around Lajamanu, outstations and access roads (as shown in Chapter 4.4.2.2) can contribute to negative environmental outcomes through overuse and mismanagement (Walsh 2000). Ecosystem changes, such as infestations of exotic grasses around communities, living areas and access roads also have an impact on burning practices. Exotic grasses increase fuel loads resulting in more intense, hotter fires. Wildfires are one of the biggest land management threats to biodiversity in the Tanami (Ch. 2.3.3.4).

4.5 Factors which challenge and limit management

Factors identified by the research participants that challenge and limit how they manage country are summarised in Table 22 (p.154). For ease of reference these factors have been grouped into six categories that include personal and family, Warlpiri youth, cultural responsibility, infrastructure, services and access, ecology and climate, and cross-cultural management.

The personal and family category (21%) relates to human and social capital, and includes concerns such as:

- ill-health and age, which stops people from accessing and being active on country;
- reliance on broader social networks to access and manage country as there is often little family support to do so; and
- other obligations, commitments and interests, such as community meetings, employment and sport, which all place demands on people's time.

¹⁴⁸ Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

Table 22: Factors identified by the Warlpiri research participants that limit and challenge the management of country

<i>Category</i>	<i>Personal and family</i>	<i>Warlpiri youth</i>	<i>Cultural responsibility</i>				<i>Infrastructure, resources and access</i>				<i>Ecology and climate</i>	<i>Cross-cultural management</i>
<i>Issues</i>	Concerns for personal safety when on country – age and health											
	Little family support											
	Poor health											
	Other commitments e.g. community meetings											
	Rely on other people to access country											
	Concerns about ability and desire to be on country											
	Don't like bush foods											
	Don't want to learn											
	Have other interests											
	Need more knowledge to manage											
<i>Senior women</i>	Many young people have not been through ceremony											
	Need to fulfil gender responsibilities											
	Want to teach management through traditional ways											
	Not enough cultural management											
	Old and young people are not on country together											
	People are not on country enough in general											
	Better maintenance of outstations											
	Limited access to vehicles and resources											
	People's country is often far away											
	Road access is difficult											
<i>Senior men</i>	Too many hot fires											
	Rain and flooding stops access to country											
	Non-Aboriginal people have different attitudes to hunting											
	Non-Aboriginal people need to better understand Warlpiri law											
<i>Wulain Rangers</i>												

These concerns were raised only by the senior men and women, who are eager to be able to access and manage country but are often reliant on broader family and community support to be able to do so. These men and women, due to their seniority and cultural standing, are also involved in many community organisations, committees and meetings, which impacts on the time and energy they have to spend on country.

Concerns about Warlpiri youth (21%) relates to the limited interest and the lack of knowledge Warlpiri youth have for managing country, as has been identified in Ch. 4.3.3. Cultural responsibility (21%) relates to Warlpiri law and cultural tradition and includes issues such as the reduced numbers of young people going through ceremony, and challenges for fulfilling both male and female gender responsibilities for managing country. Cultural resource management underpins the health of country and people as noted in Ch. 4.4.1.4, and has been greatly influenced through permanent settlement. Concerns about intergenerational knowledge transfer and the maintenance of traditional management rights and responsibilities are issues already identified in the IPA literature (Ch. 2.3.3.4).

Permanent settlement has also greatly changed the economic value of country for Warlpiri people. As a result, language, traditional knowledge and management practices are less widely known and used. In particular, management practices associated with the maintenance, generation and collection of plant and animal resources no longer occur to the same extent. One of the biggest management activities influencing resource availability and collection is burning (Ch. 4.4.2). As shown in the ecology and climate category (8%), wild fires are of particular concern. 'Too many hot fires' have impacted on people's ability to manage bush foods and other resources. With the collection and management of bush foods being one of the most commonly identified and important management activities for the research participants, fire management is of great significance. Uncontrolled fire also has implications for biodiversity maintenance across the Tanami region more generally (Ch. 2.3.3.4). In association with this are climatic conditions, such as flooding, which impacts on people's ability to access country. With climatic conditions predicted to become more severe, extended flooding and drought periods will impact further on people's ability to access, stay on and manage country (Campbell et al. 2008).

The infrastructure, resources and access category (21%) relates to Warlpiri people's inability to be on country due to factors such as lack of appropriate vehicles and access to vehicles, maintenance of road networks and outstations, and the distance of people from their country. As noted throughout this chapter, access is crucial for Warlpiri people to be able to manage country. It is an issue clearly identified in the background literature on the Northern Tanami IPA (Ch. 2.3.3.4), and is still considered by the research participants as one of the biggest limitations for enhancing the management of country.

Issues in relation to cross-cultural management (8%) include differences in perceptions and understandings of management practice and culture. This is particularly relevant for the future management of the Northern Tanami IPA as regional and national interests in management are not necessarily aligned with Warlpiri interests in managing country (Ch. 6). Allowing multiple perceptions and management approaches to be recognised and valued creates a space for enhanced community ownership and empowerment (Hockings et al. 2006). These are elements essential for effective, collaborative management.

4.6 Conclusion: relevance to the Northern Tanami IPA

As indicated throughout this chapter the research participants see managing country as integral to maintaining the health of Warlpiri culture and people, and vice versa. Warlpiri agendas reflect a view that managing country is multi-purpose.

Management is based on being able to access and use the land and its resources; delivers a range of social, cultural, economic and environmental benefits; and reflects Warlpiri peoples' differing motivations for looking after country. Traditional activities were still identified as central to the research participant's views of managing country. These include activities such as the collection of bush foods and medicines; intergenerational knowledge transfer; maintaining traditional law and ceremonial practices; and visiting important places on country. As shown by an analysis of country visits by the senior women, traditional management activities are still the most commonly carried out on country.

Management practice is, however, not static. Western perceptions of land management and alternative management practices have been incorporated into Warlpiri people's worldviews. This is vital where traditional knowledge and skills cannot be applied to contemporary problems, such as weed and feral animal management. It is also essential for ensuring that traditional knowledge and skills can be used in a contemporary context where possible; such as through fire management, biological survey and commercial seed harvesting. This creates social and economic opportunities for people in a remote location and helps ensure the maintenance of a knowledge and skill base that is rapidly being lost.

In this chapter I have also outlined a number of concerns that the research participants have about managing country, in particular those relating specifically to maintenance of traditional knowledge and continued management practice. Many of these concerns relate to people's ability to access and stay on country, engaging youth and elders together. Overall this chapter frames what the research participants mean by 'managing country'. Such an analysis is essential so Warlpiri perceptions, practices and concerns for managing country and its resources are recognised and incorporated into planning documents and on-ground practice within the Northern Tanami IPA. In the next chapter I specifically examine Warlpiri people's perspectives on and involvement in the management of the Northern Tanami IPA. Chapter 5 also includes a discussion on how the IPA is meeting Warlpiri aspirations for managing country, as identified in this chapter.

Chapter 5

Warlpiri perspectives on the management of the Northern Tanami IPA



**Photo 16: Wulaign Rangers and Junior Wulaign Rangers at an IPA
Management Committee meeting, Lajamanu, November 2006**

5. WARLPIRI PERSPECTIVES ON THE MANAGEMENT OF THE NORTHERN TANAMI IPA

5.1 Introduction

In this chapter I address the second key research theme – Warlpiri people’s perspectives on the Northern Tanami IPA. There has been little constructive discussion on the effectiveness of conservation and land management agencies and programs from an Aboriginal viewpoint (Walsh 1993). Garnett and Sithole (2007) write that the documentation of management success and failures should be an opportunity to learn. Aboriginal people play a major role in the use and management of much of desert Australia under the IPA program (Ch 1.1). Understanding their perspectives on and interactions with resource management agencies and program delivery is vital for the management of these lands, and the continued engagement of and improvement of the IPA program to meet Aboriginal aspirations.

In this chapter I examine Warlpiri people’s understandings, engagement and impressions of the management structure and function of the Northern Tanami IPA, as well as government interest in the program. By analysing these perspectives I provide insights into the importance and benefits that the Warlpiri people derive from involvement in protected area management. I also identify concerns over planning, communication and partnership development that need to be addressed if management is to better meet Warlpiri aspirations for country.

The key themes in this chapter have developed out of the analysis of the interview and field note data sets for the Warlpiri research participants i.e. the senior men and women on the Northern Tanami IPA Management Committee and the Wulain Rangers. As discussed in Chapter 4, these participants are directly involved in the management of the IPA, with many being able to speak for and about country. Direct quotes are used to substantiate my analysis and to ensure participant representation. Data in this chapter has also been summarized in tables and represented diagrammatically for ease of reference. In contrast to Chapter 4, where little relevant

literature on Warlpiri or other Aboriginal land management interests and practices exist, key results and their implications in this chapter are integrated with findings from the literature. The key themes explored in this chapter include: Warlpiri impressions of the IPA, government interest and engagement; on-ground management, governance, planning and accountability; other concerns and challenges; and achieving Warlpiri aspirations for country. In comparison to Chapter 4, findings from this chapter have been integrated with findings from the literature as

5.2 Warlpiri impressions of the IPA: *Yuwayi*, good one that IPA

All three Warlpiri groups involved in the research, the senior men and women and the Wulain Rangers, strongly indicated that the Northern Tanami IPA is a valuable initiative for a variety of reasons. It is seen as a structure that provides support for Warlpiri people to manage country:

“we want it in our country... we want country looked after”¹⁴⁹.

In Chapter 4 I explored what the Warlpiri research participants mean by ‘managing country’. Having a long-term structure that supports and enhances Warlpiri management of country was stated as one of the initial goals for engaging with the IPA program (Ch. 2.3.1). Such interest is noted by Smyth (2001:89) who states that IPAs are “attractive to some Aboriginal landowners because they bring land management resources without the loss of autonomy”.

Aboriginal autonomy in management would certainly be one of the most notable benefits of the IPA program. It would be a significant step forward for Aboriginal involvement within resource management, if such aspirations were met through the program (Davies et al. 1999; Smyth 2001; Muller 2003). Muller (2003:41) notes that the voluntary declaration of Aboriginal owned lands as IPAs is an example of autonomy. To date there has been little research on whether management autonomy has been achieved beyond this initial phase. Benefits such as economic development, formal recognition of land management capabilities and increased self-esteem and pride are evident across some IPAs (Muller 2003; Gilligan 2006). At the same time

¹⁴⁹ Unknown senior women (IPA Management Committee), interview 24 April 2007

issues over community governance, decision-making processes and capacity continue to be raised (Muller 2003; Braham 2007).

Livelihood creation was identified as another key interest for having an IPA:

“jobs for young people *yuwayi*... Rangers look after that place, look after country for us”¹⁵⁰.

Through contemporary structures such as IPAs and ranger groups, employment and land management aspirations can be married to enhance Aboriginal livelihoods in remote settlements (SAMLISA Steering Committee 2000; Davies et al. 2006; Braham 2007; Sithole et al. 2007; Davies et al. 2008). Engagement through NCRM is increasingly being recognised and adopted throughout the Northern Territory as a mechanism for reducing disadvantage (Altman and Whithead 2003; Altman 2003; CoA 2006; Luckert et al. 2007), and is one of the few sustainable employment opportunities available for Aboriginal people in remote settlements (De Lacy 1994). Livelihood creation also encompasses other aspects, such as health and wellbeing and cultural maintenance:

“[being a Ranger] makes us happy and proud... makes them old people happy, those old people proud too”¹⁵¹.

Personal wellbeing and cultural identity are two of the key values that underpin Warlpiri management of country (Ch. 4.2).

The senior men noted that having an IPA on their country also demonstrates government recognition for Warlpiri management practices:

“the government knows we are already doing it... our country, our dreaming, our ceremony”¹⁵².

The Warlpiri research participants identify themselves as custodians for much of the land declared within the Northern Tanami IPA. Official recognition of land ownership and management capabilities are two of the most important outcomes for Aboriginal people from involvement in IPA management (Smyth 2001), and NCRM more generally (Sithole et al. 2007).

¹⁵⁰ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

¹⁵¹ Wulain Rangers, interview 7 May 2007

¹⁵² Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

5.3 Government interest and engagement

One component of the interviews aimed to determine Warlpiri people's opinions about Federal Government interest in the IPA. The Rangers indicated that they thought the government had significant interest because they recognise "... it's good country"¹⁵³ and an expansive area of land:

"this is the second biggest IPA in Australia"¹⁵⁴.

The Northern Tanami IPA is the only area of land within the Northern Territory portion of the Tanami Bioregion that formally contributes to the NRS (Ch. 2.3.3). The contribution of un-reserved land to the NRS is one of the three key goals of the IPA program (DEWHA 2008b), and one of the biggest outcomes for the program nationally, with over 15 million hectares added since 1994 (Gilligan 2006).

The senior men talked about government interest in relation to the recognition that Warlpiri people are already managing the land (Ch. 5.2). However, concerns were raised that the government didn't necessarily understand this management:

"we are just doing our duty [managing country] by following the law [i.e. customary law]... they [government] have to understand this... we don't want to lose our country and culture... *yuwayi*"¹⁵⁵.

Substantial literature exists on how Aboriginal perspectives on land management have not been effectively heard, interpreted and incorporated within NCRM programs (Davies and Young 1995; Lawrence 1996; Lane 1997). IPAs are seen to better recognise and incorporate these perspectives. The senior men see the Northern Tanami IPA as a way in which they can better educate government and other non-Aboriginal people on Warlpiri culture and management practices:

"*yapa* law is always there... it has always been there but the government doesn't want to know our law, but they can learn it through the IPA"¹⁵⁶.

IPAs therefore provide an opportunity to further decolonise mainstream conservation perspectives and agendas (Lane 1997; Muller 2003; Walsh 2008). However, concerns were raised about the extent to which this is being achieved.

¹⁵³ Wulaign Rangers, interview 7 May 2007

¹⁵⁴ Wulaign Rangers, interview 7 May 2007

¹⁵⁵ Ronnie Jakamarra Lawson and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁵⁶ Senior man (IPA Management Committee), interview 4 May 2007

Analysis of the research data suggests that the senior women have little understanding of government interests in the IPA. Throughout the fieldwork, the women initiated one discussion on the IPA that centred on the government “being the boss of the Rangers”¹⁵⁷, showing the limited knowledge they have about the IPA governance structure (Ch. 5.4.2 & 5.4.4). When told the government was interested in the IPA to help improve the health of country and support the Ranger program, the women indicated their support:

*“ngurrju ngayi, very good... yuwayi will help keep everything alive”*¹⁵⁸.

Their under-representation in management (Ch. 5.6.4) and the lack of partnership engagement between Warlpiri people and DEWHA (see below) are likely to be one of the main factors contributing to the low level of knowledge women have about governance of the Northern Tanami IPA.

At no stage throughout the research did the Warlpiri research participants discuss the conservation interests of government in relation to the Northern Tanami IPA. This further indicates low levels of understanding or even interest amongst the research participants of government involvement in the program. Walsh (1995) states similar findings from her research with the Martu in the Great Sandy Desert in Western Australia:

“...many Martu people have no understanding of the intended purpose of national parks, conservation or land management”.

She also identifies poor communication and engagement between Martu and agency staff to be the main causes. Limited engagement between Warlpiri people and DEWHA staff has occurred within the Northern Tanami IPA. The only event I am aware of where DEWHA staff and Warlpiri people have spent time together during the research period was the IPA declaration ceremony in April 2007¹⁵⁹. The IPA program is meant to be a program that delivers outcomes from dual interests; those of Traditional Owners and the Federal Government (Smyth 2001; Gilligan 2006). Both interests need to be recognised and incorporated within management practice. Partnership concerns with DEWHA are discussed further in Chapter 5.4.3.

¹⁵⁷ Field notes 28 July 2007

¹⁵⁸ Rosie Napurrula Tasman (IPA Management Committee), interview 24 April 2007

¹⁵⁹ Field notes 16 April 2007

5.4 On-ground management: how are people involved?

In the following sections I provide an analysis of the differing stakeholder roles and responsibilities identified by the Warlpiri research participants. These include the Wulain Rangers, the IPA Management Committee and the IPA Coordinator. Figure 19 (p.165) provides a diagrammatic representation of these roles.

5.4.1 The Wulain Rangers

The Wulain Rangers are seen by the senior men and women as central to the on-ground management in the IPA:

“we want to use Rangers like *kurdungurlu*, caretaker looking after country... just like the old people used to do when they were *kurdungurlu*”¹⁶⁰.

The men and women are extremely aware that the traditional management of country does not happen as it once did. Having a group of strong, young men to help “look after the old lands”¹⁶¹ is therefore considered vital for helping to maintain the health of Warlpiri people and country:

“...the Rangers look after our land, for us and the family”¹⁶².

A review by Sithole et al. (2007:21) of Aboriginal ranger groups within the Northern Land Council (NLC) region of the NT indicates similar findings:

“Ranger groups are a mechanism to complement individual, family and clan obligations to look after country”.

There is very little comparative literature on ranger groups within the CLC region. Most literature relates to Top End ranger groups who have been actively involved in land and sea management for a longer time (Langton 1998; Robinson and Munungguritji 2001; Cochrane 2005; Sithole et al. 2007).

¹⁶⁰ Toby Jangala Martin and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁶¹ Biddy Napangardi Raymond (IPA Management Committee), interview 26 April 2007

¹⁶² Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

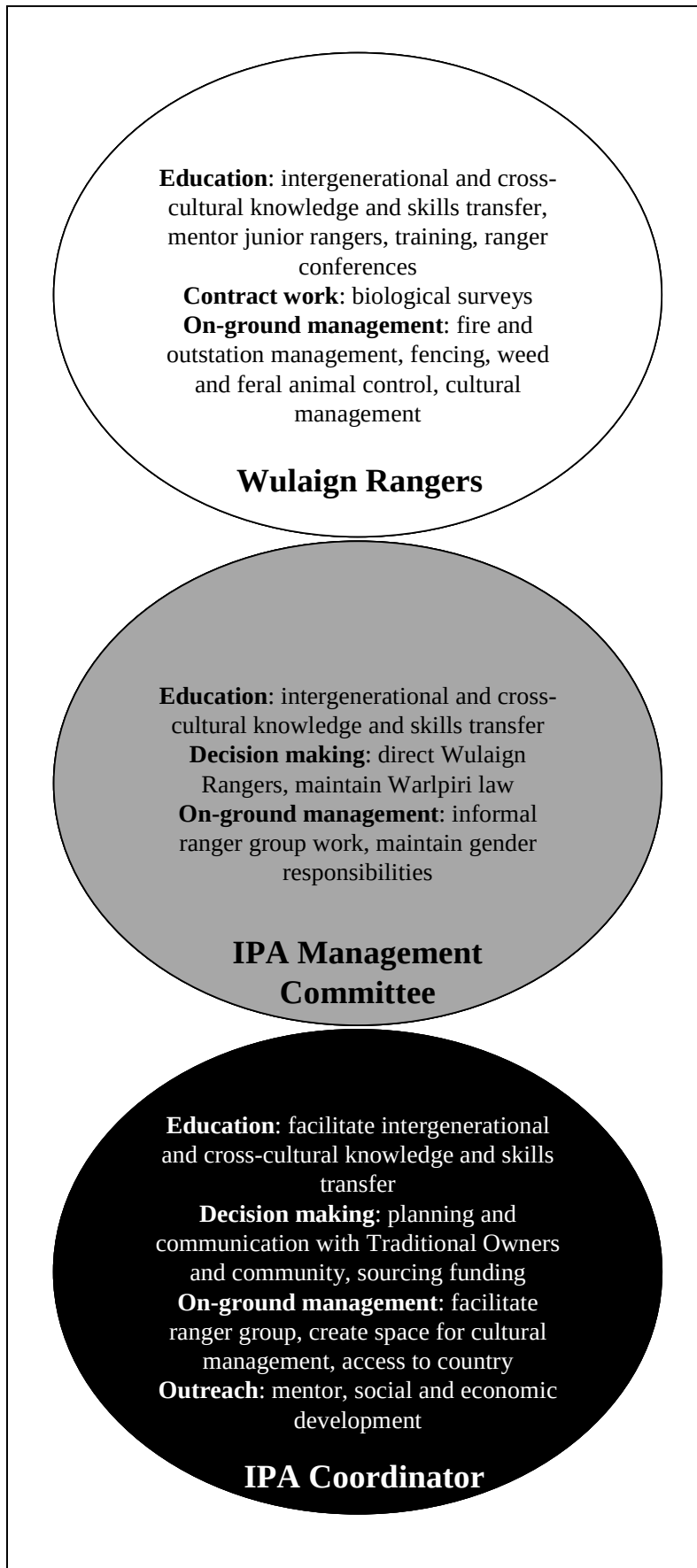


Figure 19: Stakeholders roles identified by the Warlpiri research participants

The Wulaign Rangers identified a number of management activities that they carry out on country, including burning, outstation management, fencing, and feral animal and weed control (Ch. 4.4.1.3). They also identified that they carry out contract work, principally biodiversity monitoring around the Newmont gold mines, situated at the southern end of the IPA. Fee-for-service is a viable opportunity for enhancing the economic sustainability of ranger groups in the Northern Territory (Putnis et al. 2007:62).

The senior men indicated that they are aware of some of the fee-for-service and other activities that the Rangers do:

“they do clean up, burning grass...fencing, mining work”¹⁶³.

In contrast some of the senior women were often unsure. They knew that the Rangers worked in certain areas:

“Granites, Duck Ponds they been working... at outstations”¹⁶⁴;

but not necessarily what they did:

“yuwayi they been workin... lawa, no... don’t know what”¹⁶⁵.

Other women, through conversations with the IPA Coordinator, were more aware:

“talking with Jupurrula [IPA Coordinator], they [the Rangers] been doing clean up... grass, might be... doing fencing... we see the good things... clean country, bush fires through areas... that’s a good job”¹⁶⁶.

The Ranger group is not confined to the role of on-ground management (see Figure 19). They are seen as, and see themselves as, having an educational role teaching non-Aboriginal people about country and culture:

“they [the Rangers] teaching *kardiya* how to hunt and cook”¹⁶⁷;

and being a role model for younger Warlpiri children:

“those Junior Rangers...they see our photos, and us staring in the Land Rights News”¹⁶⁸.

By being in the Ranger group these men have an opportunity to learn both Warlpiri and non-Aboriginal ways for managing country:

¹⁶³ Unknown man (IPA Management Committee), interview 4 May 2007

¹⁶⁴ Myra Nungarrayi Herbert (IPA Management Committee), interview 23 April 2007

¹⁶⁵ Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

¹⁶⁶ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

¹⁶⁷ Biddy Long (IPA Management Committee), interview 26 April 2007

¹⁶⁸ Wulaign Rangers, interview 7 May 2007

“they learn new skills... Jupurulla [IPA Coordinator] teaching them to work like Rangers”¹⁶⁹;

“that young fella gotta know everything... it is really good and important to have and learn two ways... two laws together”¹⁷⁰; and

“we can’t just learn one way... we need to learn everything”¹⁷¹.

Cross-cultural education is an essential process for understanding and incorporating different worldviews into management practice (Rose 1995; Hill 2003). Visiting and talking with other communities and ranger groups is a vital part of this process:

“been to ranger conference meetings, like at Tennant Creek and around... good to meet other rangers and hear their stories... they’re different stories... so we learn what they do”¹⁷².

Walsh (1995:103) writes that “supporting Aboriginal people to keep in touch and learn from each other” is important for developing networks and shared learning. More importantly, spending time on country with elders is considered the most valuable process for enhancing traditional knowledge and skills young people need for managing country (Ch. 4. 3.1 & 4.3.2).

Having the right knowledge to manage country and being gainfully employed is extremely important to the rangers. They get great pride and self-worth from their involvement in the ranger program (Ch. 5.2), indicating that more young men are interested in such employment:

“there are lots of people in the rangers and there are more that want to be rangers”¹⁷³.

Identity, pride and self-esteem are common benefits that Aboriginal people report from being actively involved on country through ranger groups and NCRM programs (Garnett and Sithole 2007; Sithole et al. 2007). The senior men and women also get great satisfaction from knowing the Rangers are employed to manage country:

¹⁶⁹ Biddy Napangardi Raymond (IPA Management Committee), interview 26 April 2007

¹⁷⁰ Jerry Jangala Patrick, Toby Jangala Martin and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁷¹ Wulain Rangers, interview 7 May 2007

¹⁷² Wulain Rangers, interview 7 May 2007

¹⁷³ Wulain Rangers, interview 7 May 2007

“yuwayi... good boys... *Warrki jangkalu yungulu pay waja mani* and they learn to look after the country and the animals. They should be getting paid for their work because they look after the country and the animals”¹⁷⁴.

Overall the Rangers and the senior men and women value the role the Rangers play in managing country, and value the role the IPA has in providing employment and education opportunities for them. Nevertheless, the level of traditional knowledge and skills, and the processes by which Rangers are taught traditional knowledge and skills, are of concern (Ch. 5.6.1 & 5.6.2).

5.4.2 The IPA Management Committee

The IPA Management Committee comprises the senior men and women involved in this research and are identified in the IPA Draft Plan of Management as the main governance body overseeing the management of the Northern Tanami IPA (Ch. 2.3.2.1). The Committee fulfils many roles within the IPA (see Figure 19, p.165).

The Wulain Rangers state that they have a clear understanding of the role of the Management Committee:

“they sit around and have meetings and talk about what jobs need to be done”¹⁷⁵.

The Rangers note that having such a committee motivates them to be on country more and directs them to better manage country. The senior men interpreted their involvement on the Committee as being because they have the entitlement, experience and knowledge to make decisions about country. Analysts write that it is essential in resource management planning to ensure Aboriginal representation based on people’s right to speak for country, not western notions of delegation and representation (Lane 1997; Howitt 2001). This is one of the best ways for ensuring Aboriginal autonomy and control over decision-making processes.

The senior men see their role as maintaining Warlpiri law:

¹⁷⁴ Molly Napurrula Tasman (IPA Management Committee), interview 24 April 2007

¹⁷⁵ Wulain Rangers, interview 7 May 2007

“because each skin group needs to be represented for country... this is law... *Yapa* law is always there, it has to be there, it is the *Jukurrpa*... it is the management”¹⁷⁶.

Cross-cultural knowledge transfer and western management practices are considered valuable for managing country. However, the men strongly assert that Warlpiri law must come before any other processes for managing country:

“*yapa* law never sink, its always there the dreaming and the law... *yapa* law should be first and then the *kardiya* law can come behind... its good and important to have and learn two laws”¹⁷⁷.

This includes directing and educating the Rangers to manage country according to Warlpiri culture:

“...Rangers have to train with elders... they have to learn one step first, then do the next step. Old people never do two things at once”¹⁷⁸.

Similarly to the men, the women said that they were involved in the Committee because of their right to speak for and about country. However, at no stage in the research did the women indicate that they participated in helping to plan or direct the overall management of the IPA or the Wulain Rangers. The suggestion by the women that the Federal Government was the ‘boss’ of the Rangers¹⁷⁹ confirms the limited understanding the senior women have of their role on the Management Committee (Ch. 5.3). The women discussed their involvement in the IPA in terms of what activities they carry out, or want to carry out to manage country (Ch. 4.4.2), often referring to themselves as the women’s ranger group¹⁸⁰. In this role, the women operate informally within the IPA structure and are not well resourced. Informal ranger groups are commonly reported across the Top End (Sithole et al. 2007:23). The women acknowledge that it is essential to have a women’s ranger group to help meet gender responsibilities for country. Due to limited staff numbers and vehicles, they find it difficult to fulfil this role:

¹⁷⁶ Toby Jangala Martin and Jerry Jangala Patrick (IPA Management Committee), interview 4 May 2007

¹⁷⁷ Unknown man (IPA Management Committee), interview 4 May 2007

¹⁷⁸ Joe Japanangka James and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁷⁹ Field notes 28 July 2007

¹⁸⁰ Field notes 5 April 2006, 7 June 2006, 19 July 2006, 28 November 2006, 26 July 2007, 28 July 2007

“...it’s different, we don’t have car... Jupurrula [IPA Coordinator] got vehicle to take those young men out”¹⁸¹.

The senior men and the Wulain Rangers saw support for the further development of a women’s ranger group as important:

“...women ranger group would be good”¹⁸² (Ch. 5.6.4).

5.4.3 CLC and the IPA Coordinator

The CLC is the agency administering funding for the Northern Tanami IPA and hosts the IPA Coordinator position in Lajamanu (Ch. 2.3.2.1). Working in partnership with CLC staff is considered extremely valuable by the research participants. This relationship is important for Warlpiri people to be able to both access and manage country:

“No truck, Land Council helps us... *lawa* no truck...”¹⁸³;

as well as to educate CLC staff on Warlpiri culture and management practices:

“*kardiya* want to go out and see country... happy to show them country, teach them ‘bout country... show CLC which country belongs to who, where there’s water, where there’s food... anything like that”¹⁸⁴.

This relationship is also vital for ensuring the success of the Ranger group:

“we have friendship with Jupurrula [IPA Coordinator]... he really listens to us [the Rangers]... we’re sharing time and learning together”¹⁸⁵.

Relationships are built on respect and trust:

“he’s good man... he works hard... we like ‘em Jupurrula [IPA Coordinator] because he take ‘em man working”¹⁸⁶.

Having a Coordinator who can work with and inspire the men is one of the key motivators for involvement of young men in the Ranger group. The role the Coordinator has in providing western knowledge and learning opportunities is highly valued:

¹⁸¹ Margaret Nungarrayi Martin and Myra Nungarrayi Herbert (IPA Management Committee), interview 23 April 2007

¹⁸² Ronnie Jakamarra Lawson and Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁸³ Molly and Rosie Napurrula Tasman (IPA Management Committee), interview 24 April 2007

¹⁸⁴ Unknown women (IPA Management Committee), interview notes 23 April 2007

¹⁸⁵ Wulain Rangers, interview 7 May 2007

¹⁸⁶ Myra Nungarrayi Herbert (IPA Management Committee), interview 23 April 2007

“that’s a good thing our young people learning to be Rangers with Jupurrula [IPA Coordinator]... he teach them *kardiya way*”¹⁸⁷;

as is the communication role they have with people on the Management Committee:

“sometimes we get together with Jupurrula [IPA Coordinator] and talk about things”¹⁸⁸.

Figure 19 (p.165) shows the multiple roles of the IPA Coordinator identified throughout this research.

Research participants indicated that having a Coordinator based locally in Lajamanu provides social and economic benefits for people within the community:

“Jupurrula [IPA Coordinator] gets money to pay Rangers to look after country”¹⁸⁹;

“...some [men] sitting there doing nothing... Rangers work keeps them busy and they go out [on country]...”¹⁹⁰, and

“Important for our people to make money...[the Ranger group] helps gets them bludgers off their bum”¹⁹¹.

They also indicated that the Coordinator should provide opportunities to enhance the cultural benefits of the IPA. Opportunities such as intergenerational country visits were described by the senior men, women and the Rangers as essential for the transmission of knowledge and skills for managing country, and a practice that should be supported through the IPA:

“in the old days people used to hunt and know every spot... young people have to go out and do things with elders to learn this... Rangers have to train with elders”¹⁹²; and

“...he [IPA Coordinator] can take the old people out... old people need to teach them [Rangers] what part of country they belong to”¹⁹³.

Putnis et al. (2007:94-5) write that coordinators need to be able to work effectively in cross-cultural situations, have networking and facilitation skills, and an ability to

¹⁸⁷ Judy Napaljarri Walker (IPA Management Committee), interview 26 April 2007

¹⁸⁸ Unknown women (IPA Management Committee), interview 26 April 2007

¹⁸⁹ Unknown women (IPA Management Committee), interview 24 April 2007

¹⁹⁰ Biddy Napangardi Raymond and Biddy Nungarrayi Long (IPA Management Committee), interview 26 April 2007

¹⁹¹ Wulain Rangers, interview 7 May 2007

¹⁹² Billy Jampijinpa Bunter and Joe Japanangka James (IPA managements committee), interview 4 May 2007

¹⁹³ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

attract funding and support. This research furthers knowledge on effective coordinators by showing that they need to be able to sustain effective partnerships and relationships to enhance cross-cultural awareness and capacity, and employment and training prospects. Coordinators also need to be able to create opportunities for, and support Warlpiri people to access and manage country according to their own aspirations. It is often hard to find coordinators who are able to fulfil all of these roles effectively (Putnis et al. 2007:95).

5.4.4 People know a little, but not the whole story

In the previous sections I have shown that the Warlpiri research participants recognise that there are many existing and potential benefits for individuals and the broader community of Lajamanu by having an IPA. These are summarised in Table 23 (p.173). Benefits include:

- employment;
- traditional and cross-cultural education opportunities;
- access to and improved management of country;
- enhanced pride, self-esteem and cultural identity; and
- maintenance of traditional management practices.

Such benefits are increasingly being recognised through the analysis of Aboriginal land and sea management activities (Burgess et al. 2005; Garnett and Sithole 2007; Sithole et al. 2007; Davies et al. 2008).

This section also shows that there is a diversity of knowledge about the role of each group within the IPA. When all of this knowledge is combined diagrammatically (as shown in Figure 19), a clear picture of the role of the Wulain Rangers, Management Committee and the IPA Coordinator can be seen. None of the Warlpiri research participants have this overall perspective. Rather, they have knowledge of certain elements of each other's roles. This is due in part to particular interests that people have for managing country, which influences how they engage with the IPA (Ch. 4.4.1.4). But, as shown in the remainder of this chapter, issues such as planning, accountability, gendered management, and partnership creation mean that there is little community-wide knowledge and coordinated governance occurring within the Northern Tanami IPA.

Table 23: Existing and potential benefits of the Northern Tanami IPA identified throughout this chapter

<i>Cultural benefits</i>
• Support for cultural management of country (Ch. 5.2 & 5.4.1-2) • Intergenerational knowledge & skills transfer (Ch. 5.4.1-2 & 5.6.1) • Intergenerational country visits (Ch. 5.4.2-3 & 5.6.1) • Gender representation (Ch. 5.4.2, 5.5.1.1 & 5.6.4)
<i>Social and economic benefits</i>
• Employment, education & training opportunities (Ch. 5.2, 5.4.1-2 & 5.6.2) • Improved livelihoods, health & well-being (Ch. 5.2 & 5.4.1) • Engagement in wider national economy e.g. contract work & tourism (Ch. 5.4.1 & 5.6.5) • Cross-cultural & intergenerational knowledge & skills transfer (Ch. 5.4.1-3 & 5.5.1.2) • Greater resources, funding & ability to access and manage country (Ch. 5.4.3 & 5.6.6) • Livelihood benefits from broader community development opportunities e.g. tourism (Ch. 5.6.5)
<i>Political benefits</i>
• Government recognition of Warlpiri management capabilities & land ownership (Ch. 5.2) • Ensure management according to Warlpiri law & governance (Ch. 5.3 & 5.4.2) • Partnership creation with government & CLC (Ch. 5.3 & 5.6.3) • Education of non-Aboriginal people in Warlpiri culture & management (Ch. 5.3, 5.4.3 & 5.5.1.2)
<i>Environmental benefits</i>
• Improvements in the health of country (Ch. 5.2, 5.4.1-3 & 5.6.1) • Improvements in community environmental health e.g. weed control & dust suppression (Ch. 5.6.5) • Contribution of land to NRS (Ch. 5.3)

5.5 Governance, planning and accountability: performance and issues

5.5.1 Planning and decision-making processes

The official decision-making (governance) model for the IPA, with specific roles and functions of each level in the model, is outlined in Ch. 2.3.2.1 (p.46). Through this research however, the research participants indicated varying opinions of and insights into how planning and decision-making processes are carried out within the IPA. The Rangers discussed how they met with the IPA Coordinator to plan activity logistics:

“...we have meetings and decided (sic) where to go, when we start”; but specified that the Management Committee has the overall role of decision-making (Ch. 5.4.2). While stating that they talked with the IPA Coordinator about activities carried out by the Rangers, the senior women did not identify with being involved in planning beyond decisions made about their own involvement in management activities (Ch. 5.4.2). The men told a very different story by talking about the processes required for effective planning, in particular the need to have the right people on the Management Committee to speak for and about country:

“we are the instructors... we have knowledge to make decisions”¹⁹⁴.

The men discussed the need for the IPA Coordinator and the Management Committee to be able to learn from each other to make sound decisions about country, including the need for all parties to listen and respect each other¹⁹⁵.

Processes which encourage respect and understanding between Aboriginal and non-Aboriginal people are essential in management planning (Davies and Young 1995; Bauman and Smyth 2007). Women’s involvement in planning was identified by the men as critical for meeting gender responsibilities for country:

“we have responsibilities on both sides... men and women”¹⁹⁶.

¹⁹⁴ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

¹⁹⁵ Jerry Jangala Patrick and Steve Jampijinpa Patrick (IPA Management Committee), interview 23 July 2007

¹⁹⁶ Ronnie Jakamarra Lawson (IPA Management Committee), interview 4 May 2007

5.5.1.1 Gendered management

The above discussion shows that decision-making and planning seems to be occurring in an ad hoc manner. Some people have a better understanding and are more engaged in the process than others. People's understanding of each other's roles and involvement in the IPA is a reflection of this (Ch. 5.4.4). Such differences seem to be due in part to gendered management approaches. The IPA Coordinator has always been a male¹⁹⁷; therefore the level of engagement with the senior men and Rangers has been more extensive. Davies et al. (1999) and Sithole et al. (2007) emphasise that women often do not get the same support to achieve their management aspirations as men, and that male coordinators are a contributing factor to this (Ch. 5.6.4). A male coordinator "makes it culturally difficult for women to get support for their priorities" (Davies et al. 1999:21-2). It was not until this research project that the senior women became actively engaged in the IPA management process, though still only marginally compared with the men and Rangers. The IPA Coordinator also has a diverse role, being responsible for all the administration, planning and on-ground management in relation to the IPA (Ch. 2.3.2.1). Therefore their time to actively and successfully engage all three groups in planning processes is highly constrained. Analysts commonly cite resource constraint and unrealistic workloads as a limitation for effective Aboriginal participation in resource planning and management (Lane 1997; Gilligan 2006; Bauman and Smyth 2007; Luckert et al. 2007; Putnis et al. 2007; Sithole et al. 2007).

5.5.1.2 Community control

Ad hoc planning is also a result of reduced community control (Davies and Young 1995; Howitt 1997). Some of the senior men claimed that decision-making and planning is constrained by not having collaborative meetings:

"no meetings with Rangers... need committee and Rangers together"¹⁹⁸.

Allowing simple processes such as this to be adopted within governance procedures provides an opportunity for greater community discussion and awareness and ownership over management directions and actions (Putnis et al. 2007). It also allows

¹⁹⁷ I took over the role as IPA Coordinator in October 2008.

¹⁹⁸ Jerry Jangala Patrick and Steve Jampijinpa Patrick (IPA Management Committee), interview 23 July 2007

for the creation of a collaborative management direction, which does not seem to be occurring. Instead the three groups, the senior women, men and Rangers are working on a more individual basis rather than on collective interests (Ch. 5.4.4). Having separate male and female roles is necessary due to cultural norms. However, this should not preclude all parties involved in management being aware of each other's interests and management actions, and having an overall vision for what can be collectively achieved through the IPA. Bauman and Smyth (2007:113) write that "a coherent and effective representative Indigenous party which has a big picture approach but which also addresses short term local issues" is a critical factor for successful protected area management.

Collaborative meetings are also valuable for knowledge exchange. The education of the Wulain Rangers according to Warlpiri culture and law is of great concern to the senior people on the Management Committee:

"one problem is that they are young boys... many things they need to know... but they have to learn one step first, then do the next step"¹⁹⁹.

They see the IPA as being able to help achieve this. Cross-cultural knowledge transfer is part of the knowledge exchange process. Combined meetings create opportunities for people to further develop relationships and incorporate new ideas and differing worldviews into planning processes and management decisions. This is particularly crucial where knowledge bases and practices are not conducive for managing contemporary resource problems, such as feral animal control (Rose 1996a; Altman 2003). The Wulain Rangers in particular have adopted alternative management interests into their worldviews, showing the value of cross-cultural knowledge transfer (Ch. 4.4.1.4). Improving communication and information exchange between Aboriginal and non-Aboriginal people is a key processes emphasised in the literature for improving environmental outcomes from NCRM within Australia (Young and Ross 1994; Walsh and Mitchell 2002).

The senior men also raised the frequency of meetings as an issue:

"not enough meetings on this"²⁰⁰.

¹⁹⁹ Billy Jampijinpa Bunter (IPA Management Committee), interview 4 May 2007

²⁰⁰ Interview 4 May 2007

Constant communication and information exchange on past management actions and decisions is required if informed, future planning is to occur. I am aware of only two IPA meetings that were held throughout my fieldwork period; one in June 2006 and the other in November 2006²⁰¹. Both of these were in relation to planning for the IPA declaration in April 2007, with little information delivered on the IPA and activities that were occurring. Another two meetings were planned during this time, but were cancelled due to 'sorry business' and localised flooding, which restricted the access of CLC staff to Lajamanu. Agency documentation shows that prior to this research two planning meetings were held: one in March 2005 and another in April 2006 (CLC 2006). These meetings included discussions on the formation and boundaries of the IPA; intent of the Draft Plan of Management; and the governance structure. This documentation infers that the IPA management committee was not long established before this research started, and would explain the research participants' comments about needing more and improved collaborative meetings for enhanced knowledge exchange and community control.

5.5.2 Draft plan of management

During discussions on the IPA and the role of the Management Committee with the research participants, I learnt that knowledge of the IPA Draft Plan of Management was low²⁰². CLC staff and some others, such as myself, had a greater awareness of and access to the plan. This draft plan is the blueprint for directing the strategic management and development of the IPA until 2012, and includes amongst its objectives, those of the Traditional Owners (Ch. 2.3.2). Despite the Plan being developed from information contained within earlier community planning documents and through participatory land management planning activities (e.g. field assessments, surveys and country visits) (CLC 2006), the level of awareness about the Plan reflects inadequate processes of information and knowledge exchange occurring between parties involved in the Plans development. By involving local people in management planning, greater community autonomy is created (SAMLISA Steering Committee 2000). Muller (2003:41) found this in her research on the

²⁰¹ Field notes 7 June 2006 and 28 November 2006

²⁰² Field and interview notes 27 April 2007, 4 May 2007 and 23 July 2007

Nantawarrina IPA; the Nepabunna Community felt “in control of management priorities” from direct involvement in the development of the plan of management.

Much information contained within the draft plan also focuses on contemporary perceptions of land management, for example weed and feral animal control. Even though some of these interests are incorporated into the Warlpiri worldview of managing country, this research shows that customary management activities are still the dominant interest (Ch. 4.4.1.4). This again reflects on the level of knowledge exchange occurring between IPA partners involved in developing the IPA draft Plan.

5.5.3 Accountability

The Draft Plan of Management states that the IPA Coordinator and the Wulain Rangers are accountable to the Management Committee, in line with the management objectives outlined in the plan. These management objectives also determine the annual funding for the IPA. However, with a poor awareness of the Draft Plan amongst the participants, and a seemingly ad hoc approach to planning, how do people know what they are accountable for and to whom?

The Rangers indicated that they make decisions on management logistics and the Management Committee make decisions about on-ground management; whereas the senior men indicate that the Management Committee are the decision-making body (Ch. 5.4.1 & 5.4.2). The women only indicate involvement in decision-making in relation to their own management activities (Ch. 5.4.2). At no stage throughout the research did any group discuss processes by which they feed back information on management practices, directions and actions to each other. The IPA Coordinator is the information link between the Rangers and the Committee. This process is unsustainable. It does not allow for effective communication between groups, which in turn limits the growth of communal knowledge and experience in decision-making, and thus ownership of management. This is of concern, especially when you consider the high turnover rate of coordinators and the wealth of knowledge they take with them (SAMLISA Steering Committee 2000). This creates instability for ranger groups and NCRM programs (Putnis et al. 2007). Processes already identified throughout this chapter, such as collaborative meetings and intergenerational country

visits, are practical ways in which management accountability can be observed and discussed.

5.6 Other concerns and challenges

5.6.1 Knowledge and skill transfer

The Rangers, senior men and senior women all recognise that the Rangers require greater levels of both Warlpiri and contemporary knowledge and skills. The intergenerational transfer of traditional knowledge and skills is of particular concern to many of the research participants (Ch. 4.3.3). Knowledge and skills are highly valued by the research participants, and are adapted and closely integrated within the cultural and socio-economic makeup of their lives (Walsh 1993; Caughley et al. 1996; Altman and Whithead 2003). Contemporary subsistence activities, such as customary harvest and hunting and gathering are examples of this (Ch. 4.4). The Rangers felt that they needed to spend more time on country with their elders to enhance knowledge and skill transfer. This opinion was readily confirmed by the senior men and women:

“old people and young fellas, Rangers gotta take them old people when they go... to teach them all about the land”²⁰³.

The Warlpiri research participants recognise that the IPA and the Ranger group can help foster knowledge transfer by providing opportunities for intergenerational country visits:

“we need to take advantage of the opportunities given by the IPA... country visits is one *yuwayi*... old people explaining country, song lines and dance for that country”²⁰⁴.

The maintenance of traditional knowledge and skills are also valuable for contemporary resource management and biodiversity conservation (CGA 1992; UN 1992b; DEH 1996; CGA 1999; CGA 2004; NTG 2005d; OIPC 2005; CoA 2006; UNESCO 2006; SCBD ND-b). For example, traditional knowledge of weather and past adaptation strategies in response to climate change events in Northern Australia

²⁰³ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

²⁰⁴ Steve Jampijinpa Patrick (IPA Management Committee), interview 23 July 2007

has recently become a national research focus (Batterbury and Green 2006). More commonly, traditional knowledge provides information on species ecology and diversity, and is used in fauna and flora surveys, ethno-botanical research, land mapping and assessment, commercial harvest activities, fire management and threatened species recovery programs (Burbidge et al. 1988; Bomford and Caughley 1996; Davies et al. 1997; Baker et al. 2001a; Walsh and Mitchell 2002; Whitehead et al. 2003; Pursche 2004).

One of the key goals of the IPA program is to better integrate traditional knowledge and skills into management practice to enhance biodiversity conservation (DEWHA 2008b). The research participants acknowledge that both contemporary and Aboriginal knowledge and skills are vital for managing country (Ch. 4.3.1). Sithole et al. (2007) indicate that the level of support for Aboriginal knowledge is of real concern. Considering this, the Northern Tanami IPA provides an opportunity to better incorporate traditional knowledge and skills in management practice in a desert environment. Supporting processes for knowledge and skill transmission through the IPA would not only meet the goals of the IPA Program, but would fulfil one of the most important aspirations Warlpiri people have for maintaining the health of country and culture – the transfer of traditional knowledge and skills (Ch. 4.3-4).

5.6.2 Structure and function of the Wulain Ranger group

The Wulain Rangers are a highly valued group of young men because of the role they play in helping to manage country (Ch. 5.4.1). The fact that some of the Rangers are not Traditional Owners for country within the IPA was not of immediate concern to the senior men and women. This is very different to governance issues raised in relation to Top End ranger groups:

“...some traditional owners are contesting membership of the [ranger] groups by ‘non Traditional Owners or adopted people’” (Sithole et al. 2007).

This contestation relates to rangers overstepping their bounds and speaking for country that is not traditionally theirs. Rather, amongst the Warlpiri research participants, having a group of men who are interested in and motivated to learn

about and manage country was of more importance²⁰⁵. This is extremely significant because of the concerns elders have about youth interest in country and culture (Ch. 4.3.3). The Wulain Ranger group is therefore seen to be a conduit that can successfully engage young Warlpiri men in managing country. The role the Rangers have in carrying out on-ground management and the decision-making role of the Management Committee (from which the Rangers take direction) is fully acknowledged by the research participants (Ch. 5.4.2), even if these roles are not occurring effectively in practice (Ch. 5.5.1).

The structure and function of the Wulain Ranger group is not static. They are a group of men involved whose core numbers and management activities fluctuate with need at any one time. Allowing for flexibility is important in adaptive management approaches (Bauman and Smyth 2007; Sithole et al. 2007). One main concern raised by the senior men about this group was the lack of mentoring provided by elders:

“one problem is that they are young boys... Rangers have to train with elders”.

An appropriate mentoring model for the Wulain Rangers was identified by Teddy Morrison (CLC 2001):

“...got to follow in the footsteps of your father and your grandfathers. They could look out for the middle-aged men, who in turn would train the young men. There should be Rangers here, one-middle aged man and the one young man working beside him. So there should be four Rangers maybe”.

Having a place for the Rangers to be based was considered important for maintaining Rangers identity and a place for education and development to occur when not on country:

“...we need a place for professional development and people to meet... a Ranger house, *yuwayi*”²⁰⁶.

Land management training and capacity development should occur in response to community demand, and in full recognition of people’s traditional knowledge skills (Muller 2000).

²⁰⁵ Unknown men (IPA Management Committee), interview notes 23 July 2007

²⁰⁶ Steve Jampijinpa Patrick (IPA Management Committee), interview 8 May 2007

Supervision, in the form of elders being present on country when management is carried out is also an issue (Ch. 5.4.2). During data collection, the engagement of elders and young men together in this way was limited within the IPA. The development and modification of ranger groups in consultation with Traditional Owners and in line with their aspirations is a key success factor in ranger group stability and formalisation (Sithole et al. 2007). The Management Committee and Rangers both signify the importance of intergenerational country visits for fostering knowledge transfer (Ch. 4.3, 5.4.2 & 5.6.1), and recognise the potential for them to be adopted as a management standard within the IPA (Ch. 5.4.3)

5.6.3 Partnerships with DEWHA

Throughout this research I noted limited engagement between DEWHA staff and Warlpiri people involved in the management of the IPA (Ch. 5.3). Interactions between DEWHA and CLC staff were more common (Ch. 6.4.1.4). These interactions related mostly to funding and contractual obligations and negotiations. Collaborative links between Aboriginal people and agencies involved in NCRM must be established and maintained to ensure fairness in resource use and management (Walsh 1995). Within the Northern Tanami IPA, improved engagement between DEWHA, and CLC staff and Warlpiri people would contribute towards a better understanding of government interest and roles in administering the IPA, which is limited amongst many of the research participants (Ch. 5.3 and 5.4.2). Improved engagement would also enhance:

- knowledge of current government policy directions for Aboriginal management of country;
- provision of support and advice on contemporary national and regional land management issues which Aboriginal managers should be considering when managing their traditional lands (Rose 1996a; Muller 2003);
- cross-cultural learning opportunities to improve DEWHA staff understandings and knowledge on Warlpiri practices and concerns for managing country (as identified in Ch. 5.3); and
- longer-term partnerships between Aboriginal people and organisations, and Federal and State/Territory Government departments, which are often hard

for whole of government processes to build and sustain over time (Gilligan 2006; Putnis et al. 2007).

Gilligan (2006) notes that partnership creation through the IPA program is “at best variable, and often tenuous”. A strong collaborative relationship with DEWHA is reported at Dhimurru²⁰⁷. This relationship has developed since 1992 through regular contact and DEWHA staff involvement on the Dhimurru IPA Advisory Group (Smyth 2007). The establishment of an Advisory Committee to provide support and advice to the Northern Tanami IPA Management Committee is a requirement of the program (Ch. 2.3.2.1). However, whilst this research was underway, no Advisory Committee had been established for the Northern Tanami IPA. Such a Committee would provide a space for DEWHA (and other Agency) staff to engage with and develop relationships with Traditional Owners on the IPA Management Committee. Community partnership development within the Northern Tanami IPA is discussed further in Chapter 5.6.5.

5.6.4 Women’s involvement

Warlpiri women are engaged at a different level from the men within the IPA, operating more informally and being under-represented in formal decision-making processes (Ch. 5.4.2). Even amongst themselves, some women are unaware of the role they can play in the IPA:

“...some women think that only rangers is for men... in other communities’ men and women working as rangers”²⁰⁸.

The under-representation of Aboriginal women in NCRM decision-making and management roles has been noted across the literature. Muller (2003:22) found that in the Nantawarrina IPA “women have been marginalised in their participation in the IPA program at Nantawarrina to date”. Davies et al. (1999:86-7) write that resource management should operate “under gender equity because spheres of knowledge,

²⁰⁷ Dhimurru Land Management Aboriginal Corporation is an Aboriginal organisation established in northeast Arnhem Land by Yolngu traditional landowners in 1992. Dhimurru aims to ensure that land is being managed according to the natural and cultural land management priorities of traditional owners (Dhimurru Aboriginal Corporation 2010).

²⁰⁸ Margaret Nungarrayi Martin (IPA Management Committee), interview 23 April 2007

rights and responsibilities in Aboriginal cultures are equal and complementary”. The Strategy for Aboriginal Managed Lands in South Australia report (SAMLISA Steering Committee 2000:8) also notes the importance of gender equity in resource management:

“...the prominence of women’s business in recent prominent land and cultural resource management issues in South Australia is indicative of the importance of women’s roles, the value of Aboriginal women’s skills and capabilities as a resource for sustainable resource management, and the need for Aboriginal women, as well as men, to be integrally involved in sustainable resource management activities” .

The research participants agree that it is necessary to engage women to make sure gender responsibilities for country are met (Ch. 5.4.2). Having a female employed to work with the senior women was considered one of the best ways to facilitate this. Top end Traditional Owner experiences and perceptions documented in Sithole et al. (2007) shows similar findings; female coordinators are preferred to work with women and male coordinators with men. However, it can be a challenge to attract and sustain resources and funding for parallel ranger groups and coordinators (Putnis et al. 2007).

5.6.5 Broader community benefits and participation

Muller (2000:48) writes that when people refer to community, it is necessary to recognise the “multiplicity of interests... not assume a ‘community interest’”. For the Northern Tanami IPA this is certainly true. The senior men, women and Rangers have all indicated a diversity of interest in and benefits from involvement in the IPA. Many family and kin groups are represented through the Ranger group and Management Committee, thereby creating a suite of community benefits such as employment, education and reconnection with country. Other community benefits have occurred to date, such as weed control and dust suppression around the settlement of Lajamanu (CLC 2001).

However, opportunities, such as partnerships with the Lajamanu CEC (local school) have not been effectively established²⁰⁹. The research participants indicate that the Lajamanu CEC in particular is a vital partnership which needs to be developed for coordinating intergenerational country visits and sustaining the Junior Wulain Rangers Program:

“...that school country visit program... more Junior Rangers could be getting skilled. They stopped that in the school”²¹⁰.

Partnerships with the Wulain Resource Outstation Centre are strong where outstation management is carried out. This is aided by the fact that many families represented on the IPA Management Committee own these outstations.

Despite the Wulain Rangers being widely known, one concern is that there is little community knowledge of the IPA program overall:

“...all people... all families need to know [about the IPA]”²¹¹.

This limits future community development opportunities that can be incorporated within the IPA. Cultural tourism, for example, is a long-term vision which some of the men on the Management Committee would like to develop²¹². This would provide additional livelihood opportunities for people in Lajamanu. Cultural tourism is a viable economic opportunity for Aboriginal settlements across desert Australia (Tremblay 2008). Practical ideas, such as community video nights showing Ranger work documentaries, were put forward by some of the research participants as a way to improve community awareness and knowledge of the IPA²¹³. Before such opportunities can be considered, concerns over the lack of knowledge, autonomy and engagement of the Management Committee in planning and decision-making processes need to be rectified. Long-term sustainable benefits will only be possible if there is a strong and effective governance structure (Muller 2000; Bauman and Smyth 2007).

²⁰⁹ Field notes 4 May 2006, 23 April, 2007, 28 July 2007

²¹⁰ Wulain Rangers, interview 7 May 2007

²¹¹ Jerry Jangala Patrick (IPA Management Committee), interview 8 May 2007

²¹² Field notes 4 May 2007

²¹³ Unknown men (IPA Management Committee), interview notes 8 May 2007 and Wulain Rangers, interview notes 7 May 2007

5.6.6 Funding

The Rangers are involved in a variety of management activities (Ch. 5.4.1). This variety exists because funding provided through the IPA program is allocated annually for activities identified in the plan of works (Alexander). The plan of works is based on the management objectives outlined in the Draft Plan of Management, with funding allocated for conservation works from government funding guidelines (Rose). Knowledge of the Draft Plan is limited amongst the research participants (Ch. 5.5.2). The Plan is also geared principally towards contemporary conservation interests, as is government funding. Activities that are commonly funded include fire, feral animal and weed control. The periodic allocation of funding in this manner has implications for the achievement of Warlpiri management aspirations. Warlpiri aspirations are based principally on traditional management interests (Ch. 5.4.1), and in the case of the senior women, occur informally within the IPA at present (Ch. 5.4.2).

As the IPA program provides only seed funding for the Rangers, contract work and sourcing other NCRM funding is also required to sustain the IPA and Ranger group each year. The annual funding cycle and limited funds available for each IPA are issues raised throughout the literature on the program (Muller 2003; Gilligan 2006). These issues are commonly associated with funding for many Aboriginal land and sea management programs (Altman and Whithead 2003; Bauman and Smyth 2007; Sithole et al. 2007). With the change of Federal Government, the annual funding regime for established IPAs changed to a five-year contract period (DEWHA 2008a). This allows for greater long-term planning and stability for IPAs. Funding for the Northern Tanami IPA is discussed further in Chapter 6, where CLC and DEWHA staff consider it a major challenge for on-ground management.

5.7 Achieving Warlpiri aspirations for country?

The analysis of management activities in Chapter 4 shows that cultural resource management is still the main focus for the research participants. However it was indicated throughout the interviews and field notes that cultural management of country was not occurring to the extent people would like:

“...not enough cultural stuff, like skin group... language”²¹⁴.

The research participants see the IPA as a structure that can help Warlpiri people meet their aspirations for managing country (Ch. 5.2). This is a key goal of the IPA program; to “support Indigenous land owners to develop, declare and manage IPAs on their lands” (DEWHA 2008b).

Aboriginal land ownership is certainly recognised through the program. Nevertheless, in this chapter I have shown that there are a number of issues that limit the extent to which Warlpiri capabilities and aspirations are incorporated in management. Concerns such as Traditional Owner involvement in country visits (Ch. 5.6.1), training and mentoring Rangers (Ch. 5.6.2), planning and decision-making processes (Ch. 5.5.1) and funding restrictions (Ch. 5.6.6) indicate that the senior men and women are not fully involved within management practice. The Management Committee has valuable knowledge, skills and management practices that can produce social, cultural and environmental benefits (Ch. 4.4.2.4). Improved incorporation and support for Warlpiri aspirations within day to day management is required if such benefits are to be realised (Ch. 5.2), and if Traditional Owners “are to be active partners in developing and implementing natural resource management and conservation practice, rather than just recipients of such services” (Lane 2002; Whitehead 2002). To improve management, the adoption of processes to enhance engagement, communication and accountability are required, as are processes to reduce the other concerns and challenges identified throughout this chapter (see Table 24, p.188). Gilligan’s (2006:60) review of the IPA program notes that individual IPAs need to allow for differing governance arrangements “to better reflect traditional Indigenous governance”. The processes recommended for enhancing management within the Northern Tanami IPA to better achieve such aspirations are discussed in Chapter 8 (p.287).

²¹⁴ Unknown man (IPA Management Committee), interview 5 May 2007

Table 24: Summary of processes for effective management of the Northern Tanami IPA identified by Warlpiri research participants

<i>Support for Warlpiri management of country</i>
• Government recognition of land ownership (Ch. 5.2) • Government recognition of land management capabilities & aspirations (Ch. 5.2-3) • Improved government education on Warlpiri culture & management practices (Ch. 5.3) • Long term flexible funding (Ch. 5.6.6) • Warlpiri involvement in developing plan of management (Ch. 5.5.2) • Coordinator interested in Warlpiri management aspirations & practices (Ch. 5.4.3)
<i>Gender representation in management</i>
• Male & female Coordinators (Ch. 5.5.1.1 & 5.6.4) • Greater support & resources for the women's ranger group & involvement on Management Committee (Ch. 5.4.2, 5.5.1, 5.5.1.1 & 5.6.4)
<i>Partnership creation and maintenance</i>
• Improved communication & engagement across & within government, regional agency & community levels (Ch. 5.3 & 5.5.1) • Promotion of cross-cultural knowledge transfer (Ch. 5.3, 5.5.1 & 5.5.1.2) • Develop IPA Advisory Group for support & advice (Ch. 5.6.3) • Trusting relationships (Ch. 5.4.3 & 5.5.1)
<i>Effective Ranger group</i>
• Need two-way education & on-ground management ability (Ch. 5.4.1) • Learning from & sharing knowledge with Aboriginal communities & other ranger groups (Ch. 5.4.1) • Involvement in intergenerational country visits (Ch. 5.6.1) • Having an interesting, motivational & trusted Coordinator (Ch. 5.4.1, 5.4.3) • Incorporate people who are motivated & interested in learning about & managing country (Ch. 5.6.2) • Take direction from Management Committee & mentoring by senior knowledge holders (Ch. 5.6.2) • Mentoring for Warlpiri youth e.g. Junior Wulain Rangers (Ch. 5.4.1) • Continued employment (Ch. 5.4.1)
<i>Effective Management Committee</i>
• Needs to be the right people to speak for & about country (Ch. 5.4.2, 5.5.1) • Responsible for maintaining Warlpiri law (Ch. 5.4.2) • Education role – mentor & supervise Rangers (Ch. 5.4.2 & 5.6.1-2), teach Coordinator (Ch. 5.4.3)

• Respect & learn from Coordinator (Ch. 5.4.3, 5.5.1 & 5.5.1.2) • Ensure gender representation • Involvement in developing plan of management (Ch. 5.5.2)
<i>Effective IPA Coordinator</i>
• Cross-cultural understanding & communication skills (Ch. 5.4.3) • Based locally in Lajamanu (Ch. 5.4.3) • Willingness to learn about Warlpiri culture (Ch. 5.6.1 & 5.5.1) • Ability to teach & facilitate training in western knowledge and skills, & motivate Rangers (Ch. 5.4.3) • Facilitate planning & communication with Management Committee & Rangers (Ch. 5.4.3) • Ability to attract funding & resources to sustain Ranger group (Ch. 5.4.3) • Resource & support intergenerational country visit & other Warlpiri management aspirations (Ch. 5.4.3.)
<i>Local autonomy in management and planning</i>
• Ensure collaborative meetings between Management Committee, Rangers & Coordinator (Ch. 5.5.1 & 5.5.1.2) • More frequent meetings (Ch. 5.5.1.2) • Involvement in developing the plan of management (Ch. 5.5.2) • Ranger house as an office & meeting place (Ch. 5.6.2) • Cross-cultural knowledge transfer (Ch. 5.5.1.2)
<i>Ensuring management accountability</i>
• Ensure collaborative meetings (Ch. 5.5.1.2 & 5.5.3) • Involvement of Management Committee in intergenerational country visits (Ch. 5.5.3) • Involvement in development of draft plan of management (Ch. 5.5.2)
<i>Broader community benefits</i>
• Development of long term vision for IPA (Ch. 5.6.5) • Improved partnership creation within the community e.g. Lajamanu CEC & Shire Council (Ch. 5.6.5) • Community information nights to increase awareness (Ch. 5.6.5)
<i>Funding for on-ground management</i>
• Community involvement in developing the plan of management & annual plan of works (Ch. 5.6.6) • Flexible & long-term funding sources (Ch. 5.6.6)

5.8 Conclusion

The aim of this chapter was to examine Warlpiri perspectives on the management of, and government role in, the Northern Tanami IPA. The Northern Tanami IPA is seen as a valuable structure. It provides support for Warlpiri people to manage country, creates livelihood opportunities for people in Lajamanu, and shows government recognition of Warlpiri management practices. Apart from indications of government interest in the IPA because of the ecological health and size of the area being protected, the government's role was generally little understood. This is of concern, as the IPA program is promoted as a 'two-way' program that incorporates Aboriginal and Federal Government management aspirations. Yet, the IPA was seen by the research participants as a beneficial way of improving this relationship by better educating government on Warlpiri culture and management. This is extremely valuable for the continued decolonisation of national protected area agendas.

Perspectives of on-ground management indicate that many benefits are occurring, and are possible, through the Northern Tanami IPA, including improvements in remote employment, education and personal wellbeing. There is not a satisfactory level of knowledge of the role that the Wulain Rangers, Management Committee and the CLC and IPA Coordinator play overall. Rather, individual people have limited levels of knowledge about each other's role and how they are involved in management. This creates an uncoordinated approach to planning and management. As shown throughout the chapter, there are many reasons for this including:

- individual interests in managing country which influences how people engage with the Program;
- gendered management approaches which affect how women and men are involved in management; and
- a lack of community input and control over planning.

Other concerns, such as accountability, partnership creation, and knowledge and skill transfer, further hinder the development of collective Warlpiri knowledge of the IPA and ownership of management. They also influence the extent to which Warlpiri management practices and capabilities are incorporated in management. Such concerns need to be addressed if the Northern Tanami IPA is to better meet Warlpiri

aspirations for country (as outlined in Ch. 4) and truly be part of a two-way program delivering outcomes for Aboriginal people and the nation.

A number of processes identified by the research participants to improve management have been noted throughout this chapter. For example: intergenerational country visits; collaborative meetings; and male and female Coordinators. In Chapter 8 processes for effective management are explored in more detail. In the next chapter I discuss CLC and DEWHA staff perspectives on the management of Northern Tanami IPA; highlighting the opportunities, benefits and constraints they see occurring on-ground. This chapter also includes agency staff understandings of Warlpiri management interests.

Chapter 6

Management agency interests and impressions of the Northern Tanami IPA



Photo 17: Agency staff identify feral animals, particularly horses, as one of the main threatening processes to the biological value of county within the Northern Tanami IPA (Ch. 6.2.2)

6. MANAGEMENT AGENCY INTERESTS AND IMPRESSIONS OF THE NORTHERN TANAMI IPA

6.1 Introduction

This chapter presents my findings on the third key research theme – CLC and DEWHA interests in and perspectives on the management of the Northern Tanami IPA. As with understanding Warlpiri perspectives on management (Ch. 4 & 5), comprehending agency staff perspectives is imperative for the on-going improvement and achievement of multiple management objectives through the IPA program.

In this chapter, agency impressions are divided into the four sub-themes: agency objectives, perspectives on Warlpiri motivations and aspirations, IPA structure and management practice, and the achievement of agency and Warlpiri aspirations (Ch. 3.5.6). Through these sub-themes I compare CLC and DEWHA staff perspectives, showing varied levels of knowledge about and engagement in the management of the Northern Tanami IPA. By analysing staff perspectives, I provide insights into their interests and the benefits they see coming from the engagement of Warlpiri people in IPA management. I also specify concerns that challenge the achievement of agency and Warlpiri management aspirations. Overall, the examination of agency staff perspectives in this chapter provides an opportunity to better understand issues which affect, and processes which can improve outcomes from cross-culturally managed protected areas. As with Chapter 4 and 5, I use direct quotes to demonstrate my analysis and ensure representation of the views of agency staff (see Table 25, p.192). Results are also presented in tables or diagrammatically for ease of reference. Individual staff members are not identified in this chapter, as they preferred to remain anonymous.

Table 25: Number of times informants referenced throughout this chapter

<i>Agency informant</i>	<i>Times referenced in chapter</i>	<i>Location in chapter</i>
CLC staff member #1	42	6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.7, 6.3.1, 6.4.1.1, 6.4.1.2, 6.4.1.3, 6.4.2, 6.5.1, 6.5.2, 6.5.3
CLC staff member #2	30	6.2.4, 6.2.5, 6.3.2, 6.4.1.1, 6.4.1.2, 6.4.1.5, 6.4.2, 6.5.1, 6.5.3
DEWHA staff member #1	26	6.2.2, 6.2.6, 6.2.7, 6.3.1, 6.3.2, 6.4.1.2, 6.4.1.4, 6.4.2, 6.5.1, 6.5.2, 6.5.3
DEWHA staff member #2	23	6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.3.1, 6.3.2, 6.4.1.2, 6.4.1.3, 6.4.2, 6.5.1, 6.5.2, 6.5.3
DEWHA staff member #3	9	6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.3.1, 6.4.2, 6.5.3
DEWHA staff member #4	9	6.2.5, 6.4.1.1, 6.4.1.4, 6.4.2, 6.5.2, 6.5.3

The number of times each informant was quoted in this chapter is listed in Table 25. The CLC staff member who was most often quoted was a long-term employee of the CLC who worked on the establishment of the Ranger Group and IPA from their beginnings in 2001, and provided more detailed historical knowledge of the Northern Tanami IPA than any other informant. Three other informants, one CLC and two DEWHA staff members, are also referenced regularly throughout this chapter. These agency staff have been involved in the IPA program for a number of years. They all have direct knowledge of the Northern Tanami IPA and experience working in land management units for Aboriginal organisations. The two DEWHA staff members that were quoted less frequently had little knowledge of the Northern Tanami IPA, with one staff member being newly appointed to the IPA program at the time. I also had a pre-existing relationship with both CLC employees, which allowed for longer, more detailed interviews to take place.

Individual people's perspectives were not collected for the purpose of typifying the views of other members within their organisation. Rather, the initial focus on individuals within each organisation helps to gain a better understanding of the organisational direction and position in relation to IPA management. The CLC and DEWHA do have differing management roles. DEWHA run the IPA program at the

national level, whereas the CLC administers funding for the IPA at the local level, hosting the IPA Coordinator position in Lajamanu.

6.2 Agency objectives

Despite working at two different levels, CLC and DEWHA staff expressed many similar objectives for management of the Northern Tanami IPA, with key differences between the organisations highlighted below. Benefits of having an IPA, as expressed by the participants, are also documented.

6.2.1 Building the National Reserve System

One of the key factors for DEWHA interest in the Northern Tanami IPA is its land contribution to the NRS:

“...the main benefit to government is that many of these areas [IPAs] are Indigenous owned land, inalienable owned land. They cannot be purchased or managed by government above the will of the landowners. So the benefit is that these lands are being managed for conservation by the landowners”²¹⁵.

Over the last decade, IPAs have contributed approximately 66% of the new land acquisitions to the NRS (Gilligan 2006). Having programs such as IPAs to engage Aboriginal landholders is recognised as essential for the creation of a comprehensive, adequate and representative NRS. It is also vital for the future conservation of many remote parts of Australia (Bridgewater et al. 1999):

“...if you look at the biodiversity maps the only way to do it [have a comprehensive, adequate and representative NRS] is to do it with the cooperation of Aboriginal people... especially in central Australia where whole biodiversity blocks belong to Aboriginal people”²¹⁶.

6.2.2 Biodiversity conservation

The Northern Tanami IPA covers a vast area of land that is of high conservation value (Ch. 2.3.3). As such, biodiversity conservation in this area is a key

²¹⁵ DEWHA staff member (#1), interview 16 March 2007

²¹⁶ DEWHA staff member (#5), interview 12 March 2007

management objective for both the CLC and DEWHA. One of the CLC's initial priorities for the Northern Tanami IPA was to better define the ecological status of the area:

“...we put a lot of effort into the [IPA] feasibility period by building up knowledge of the area... [the IPA] was previously an area that was very little known (sic)... it was one of the big black holes in terms of fauna and flora records, some of the cultural stuff is still known about... but there is not a lot publicly available... so now that's over it's time to knuckle down to the environmental issues”²¹⁷.

Fire and feral animals are considered the most serious threatening processes to the biological value of the Tanami Desert (Ch. 2.3.3.4) and are the principle environmental problems CLC staff focus on:

“...environmental issues... the two big ones in that area [IPA] are feral animals and fire really”²¹⁸.

DEWHA staff state that for them biodiversity conservation is also the key objective:

“That's the main thing; managing the land for biodiversity conservation... that is the stated goal and we are actually doing it”²¹⁹.

Conservation priorities are broadly defined across the program and include activities such as feral animal and weed control, fire and threatened species management, fencing, erosion control and land rehabilitation:

“...there is the reduction of feral animals, the reduction of weeds, there is improved... erosion control by building better roads... in some places they are even ripping up the land to allow natural regrowth”²²⁰.

The flexible and adaptive nature of the IPA program means that each IPA sets individual conservation agendas. A DEWHA staff member states this is necessary to ensure that “...activities in IPAs are aligned with conservation management actions that are coming out of national and regional NRM processes, or... state based planning frameworks”.

²¹⁷ CLC staff member (#1), interview 19 January 2007

²¹⁸ CLC staff member (#1), interview 19 January 2007

²¹⁹ DEWHA staff member (#3), interview 12 March 2007

²²⁰ DEWHA staff member (#3), interview 12 March 2007

6.2.3 Engaging with, and meeting Aboriginal aspirations for country

Another objective common to both CLC and DEWHA staff was the engagement and achievement of Aboriginal aspirations through the IPA. CLC staff claimed that engaging Warlpiri landowners created a better opportunity to utilise local knowledge and skills:

“...most [Warlpiri] people have a broad general knowledge of the countryside, they are not afraid to travel around, they can show you all sorts of things, they can show you where things are in the countryside, if you’re looking for a threatened species or whatever... it’s [the Northern Tanami IPA] a huge, vast area and things are sparsely distributed you know... that is the nature of the desert, but people can take you to where the populations of bilbies, mulgara or jakara are you know”²²¹.

It is becoming more commonly recognised that improved environmental outcomes can be achieved in remote areas through the use of traditional knowledge and practices such as fire management, and consistent, targeted management (Altman and Whithead 2003; Garnett and Sithole 2007). DEWHA staff acknowledged similar opinions about the knowledge and historical connection of Aboriginal people to country, claiming that IPAs are a way of ‘buying this knowledge’ in the pursuit of shared goals for making country healthy²²².

All staff considered that by engaging local people, the achievement of national conservation objectives also occurred in a more cost effective manner. A DEWHA staff member²²³ states:

“...yeah it’s [the IPA program] cost efficient. You know a ranger in National Parks costs you about \$250,000 a year... wages, accommodation, you know... let’s put it this way... we have \$3 million and we have 30 projects... on average that means \$100,000 for one [IPA each year]. You know that’s less, that’s half of one ranger in National Parks”.

The cost effectiveness of the IPA program is frequently mentioned in the literature. Aside from land purchasing costs, there has been little substantiated analysis of the

²²¹ CLC staff member (#1), interview 19 January 2007

²²² Informal discussion with DEWHA staff member (#2), 18 March 2007

²²³ DEWHA staff member (#3), Interview, 12 March 2007

comparative outcomes from investment in IPAs. Rather, opinions are anecdotally based. For example Smyth (2001) writes that IPAs require less funding than national parks because land is not purchased, there are fewer infrastructure requirements, and staffing costs can be reduced through local employment. Likewise, Altman and Whitehead (2003:7) state that many “Aboriginal people are well equipped” to be involved in resource management, as they have local knowledge and skills and are already committed to living and working in the area. A DEWHA staff member had a similar opinion:

“...engaging in using local people in the pursuit of conservation goals is the best value for money, and I think that’s the other benefit... you’ve got local knowledge, you’ve got people that are there, that are a local workforce, economically it makes sense”²²⁴.

More recently some analysis has been carried out on the benefits of Aboriginal engagement in NCRM, such as enhanced livelihoods and health and wellbeing (Burgess et al. 2005; Scrimgeour 2007; Davies et al. 2008; Campbell et al. in press).

Both CLC and DEWHA staff also recognise that IPAs provide Aboriginal landowners with opportunities to gain funding and resources to manage country according to their own interests:

“...other reasons [for having IPAs] which are probably less explicit... are to provide a baseline opportunity for people to continue to look after their own country... we [the IPA program] provide a resource base for people to be able to support the kind of country activities that they’ve [Indigenous landowners] always wanted to do or have always done anyway but have... some extra resources to be able to extend those things more regularly”²²⁵.

Like many other IPAs, the Northern Tanami is declared an IUCN Category VI protected area where sustainable use is the key management objective (Ch. 2.3.1). This allows for local Aboriginal management concerns, strategies and multiple use activities to be easily integrated into management frameworks.

Davies et al. (1999) write that IPAs are already a ‘break through’ in national policy by allowing government investment to be directly targeted at land management by

²²⁴ DEWHA staff member (#2), interview 15 March 2007

²²⁵ DEWHA staff member (#2), interview 15 March 2007

Aboriginal people. By investing in this manner, agency staff see that there are important cultural and social benefits for Warlpiri people:

“...there’s a very close link, there is an inseparable link between Aboriginal land and culture... managing land is part of Aboriginal culture... so IPAs provide cultural, can provide quite strong cultural benefits... such as providing a new context for traditional skills”²²⁶.

By meeting dual objectives, both those of the Warlpiri landowners and the Federal Government, the Northern Tanami IPA was seen as ‘a win-win’ situation. In Chapter 5, however, I have identified Warlpiri people’s concerns over the extent to which their aspirations for managing country are being supported and met.

6.2.4 Information brokering and training

Information brokering and training were identified as two other reasons for CLC engagement in the IPA program. Through administering the Northern Tanami IPA, the CLC staff acknowledged that informed decision-making by Traditional Owners can be enhanced:

“...IPAs are an external concept that has to be put to Aboriginal communities. Aboriginal communities do not know about IPAs or about the fact that the public are willing to pay for conservation management... so the Land Council role is to inform people that this is the case”²²⁷.

More importantly, information brokering was considered necessary for building Warlpiri people’s awareness and interest in contemporary management problems:

“...we try to organise or get the message out about feral animals and the impact/damage they cause within the IPA areas”²²⁸.

Another CLC-identified objective was the increased provision of training opportunities, so that broader employment and economic opportunities could be achieved through the program²²⁹. Rose (1996a) writes that in the past there have been too few organisations and institutions through which Aboriginal people have been able to access such training, information and programs to manage their lands.

²²⁶ CLC staff member (#1), interview 19 January 2007

²²⁷ CLC staff member (#1), interview 19 January 2007

²²⁸ CLC staff member (#2), interview 30 November 2006

²²⁹ CLC staff member (#2), informal discussion 15 April 2007

Like the CLC, DEWHA staff saw the IPA program as helping to enhance landowners' knowledge of management:

“...some people do not realise that the moment you are a land owner you have [extra] responsibilities... you have to go after noxious weeds and feral animals and nobody really ever explained this to Aboriginal people”²³⁰.

Staff also noted that the program provides improved training opportunities for many Aboriginal people:

“...IPAs provide a baseline for training and capacity building... for people to be able to participate in these opportunities [natural resource management]... so examples in the Northern Territory, through an IPA you've got a firearms license, you've got a coxswains license, you can do contract work for AQIS²³¹ ... the basic training they've got through the IPA”²³².

Unlike the CLC staff, DEWHA staff did not identify information brokerage and training as key management objectives. Rather they saw them more as an interest and responsibility to be facilitated by on-ground management staff, such as those from the CLC.

6.2.5 Community development and sustainable livelihoods

For the CLC, community development is one of the most important objectives for engaging with the IPA program. The Northern Tanami IPA is seen as a structure that can provide employment opportunities for Warlpiri people in the remote settlement of Lajamanu. The development of a ranger group was identified in 2001 by Traditional Owners as a strategy to help manage country, with the Northern Tanami IPA established as a long-term funding structure to support this group (Ch. 2.3.2). Managing the Ranger group has been a significant responsibility of the IPA Coordinator ever since:

²³⁰ DEWHA staff member (#3), interview 12 March 2007

²³¹ AQIS is the Australian Quarantine and Inspection Service that is part of the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) (AQIS ND). Some IPAs and Rangers groups across the top end of the Northern Territory have established contract partnerships with such departments.

²³² DEWHA staff member (#2), interview 15 March 2007

“the biggest focus I have had... in the past two years has been to establish and try and make an effective ranger group within Lajamanu, the Wulain Rangers”²³³.

As such the opportunity for a ranger group has been one of the most important social benefits occurring through the IPA:

“...the fellas are getting paid for the work that they do... they’ve got something to do on a day to day basis, it keeps them out of trouble on the streets in Lajamanu”²³⁴.

Alongside employment, IPAs have been found to generate other benefits essential for reducing the disadvantage experienced by many Aboriginal people living in remote areas, such as improving education (Gilligan 2006). A CLC staff member states that IPAs should contribute further to reducing such disadvantage:

“...IPAs should continue to strive to meet some of the federal indices for socio-economic benefits to those land owners”.

The Wulain Rangers engage in fee-for-service work, principally biodiversity monitoring with Newmont Mine (Ch. 5.4.1). Such contracts are important for the economic sustainability of the IPA and Ranger program. Other livelihood opportunities are expected to develop as the IPA becomes better established (Ch. 5.4.1). The IPA was also seen by CLC staff as a way to enhance broader community interest and participation in land management:

“[the IPA is] engaging more people and around town... giving people something to talk about, giving people something to do... making people think about something they may not have had to think about for a long time... land management or inspiring people to visit parts of country they might not have been able to get to... without vehicles or without assistance”²³⁵.

Some DEHWA staff noted that Aboriginal livelihoods were enhanced through IPAs, by improvements in education and capacity, and engagement in broader resource management programs. Such benefits were described as program ‘spin-offs’:

²³³ CLC staff member (#2), interview 30 November 2006

²³⁴ CLC staff member (#2), interview 30 November 2006

²³⁵ CLC staff member (#2), interview 30 November 2006

“...people use IPAs for land management work... which also straightens up their social issues, social problems which I think is a perfect thing to do... we give them money for biodiversity conservation... you know that we are solving a few other problems along the way”²³⁶.

DEWHA staff stated that these benefits were important to recognise and incorporate in IPA reporting, especially as they can attract greater government investment and partnership creation:

“...if we can demonstrate to the government that there are health outcomes and educational outcomes then we can argue... that it’s appropriate to actually fund us with more money”²³⁷.

Nevertheless, staff specified that environmental outcomes needed to remain the key focus of management:

“...so while these other things [e.g. social, economic and cultural benefits] are excellent to mention and they build the case for people supporting the program, we have to be careful... we have to keep in mind... that we’re paying people to deliver environmental outcomes and that’s the reason for our existence”²³⁸.

6.2.6 Whole-of-landscape management

The ability to enhance environmental outcomes by connecting a suite of land tenures was a more recent interest of some DEWHA staff. One DEWHA staff member noted that whole-of-landscape management approaches were vital for national concerns such as climate change:

“[we need to start thinking about] creating better connectivity for conservation outcomes and better... proofing against climate change and species migration and those issues over the next decades and hopefully on into centuries”²³⁹.

Similarly, another DEWHA staff member also recognised the potential of IPAs to contribute to landscape management:

²³⁶ DEWHA staff member (#3), interview 12 March 2007

²³⁷ DEWHA staff member (#4), interview 13 March 2007

²³⁸ DEWHA staff member (#2), interview 15 March 2007

²³⁹ DEWHA staff member (#1), interview 16 March 2007

“...I’m really interested in how IPAs get on well with the climate change agenda... people are announcing things like... the ALPS protected area system to respond to climate change... there’s no reason why Indigenous groups couldn’t do something like that in, like the whole of central Australia and say we’re building... improving the robustness... in central Australia... which means better IPA connectivity, remote country health, ability to respond to change and all those kind of things”²⁴⁰.

6.2.7 Partnership creation

At a national level, being able to engage in partnerships with Aboriginal organisations and communities in land management is a significant goal of the IPA program. This is reflected in the growth of Aboriginal owned lands in the NRS (Ch. 6.2.1) and through partnership creation with organisations such as the Indigenous Land Corporation (ILC)²⁴¹, which some DEWHA staff hope will provide continued capacity building, enterprise development and funds for the management and purchase of land in the future²⁴². Partnerships were also discussed by DEWHA staff as significant for creating other economic and resource management opportunities in remote Australia:

“...partnerships through the IPA provide a bit of a springboard opportunity for other NRM opportunities... because it’s a large and important sector of the economy... it provides a bit of an integrated platform for stuff to happen in places, like involvement with AQIS and the [NT] NRM board”²⁴³.

The CLC staff reflected a similar opinion, that partnership creation through the IPA was a significant opportunity for government:

“...the public want to see land in general across Australia managed better... and there’s an opportunity with Aboriginal communities with land to better

²⁴⁰ DEWHA staff member (#2), interview 15 March 2007

²⁴¹ ILC is a statutory authority set up under the *Aboriginal and Torres Strait Islander Act 2005* to “assist Indigenous people with land acquisition and land management to achieve economic, environmental, social and cultural benefits” (ILC ND).

²⁴² DEWHA staff member (#1), informal discussion 20 March 2007

²⁴³ DEWHA staff member (#2), interview 16 March 2007

engage with the government and the greater public and make something of it”²⁴⁴.

Nevertheless, CLC objectives related to partnership creation were aimed more at local community and regional levels. For example, in establishing relationships with regional resource management agencies for contract work and the community organisations for improved management and engagement. Local partnership creation is discussed further in Chapter 6.4.1.5.

6.2.8 Summary

In the previous sections I have outlined objectives that DEWHA and the CLC staff wish to achieve from the management of the Northern Tanami IPA . These objectives are tabulated in Table 26.

Table 26: Agency objectives for involvement in the Northern Tanami IPA

Management objectives	CLC	DEWHA
Partnership creation	●	●
Biodiversity conservation	●	●
Support Warlpiri aspirations for country	●	●
Facilitation and information brokering	●	
Community development and sustainable livelihoods	●	
Building the National Reserve System (NRS)		●
Whole-of-landscape management		●

The objectives identified by DEWHA staff reflect the broader national interests of the program, particularly enhancing biodiversity conservation through the engagement of Aboriginal landowners across Australia. Some objectives highlighted by CLC staff mirrored those of DEWHA staff, particularly the importance of the Northern Tanami IPA in facilitating biodiversity conservation. CLC staff identified information brokering and training, improved conservation outcomes, and community development and sustainable livelihoods as key objectives for regional and local land management interest. Both CLC and DEWHA staff also considered the engagement of and support for Aboriginal landowners’ aspirations as a management objective. Discussion of this objective centred mostly on the environmental, social and economic benefits of engaging Aboriginal landowners,

²⁴⁴ CLC staff member (#1), interview 19 January 2007

with little dialogue on the role that the IPA plays in actually helping people achieve their own management aspirations. The benefits of the Northern Tanami IPA are summarised in Table 27.

Table 27: Existing and potential benefits of the Northern Tanami IPA as seen by Agency staff

<i>Cultural benefits</i>
• Better funding & resources for Warlpiri to manage country (Ch. 6.2.3) • Better integrated use of traditional knowledge & skills (Ch. 6.2.3) • Recognition of the nexus between country & culture (Ch. 6.2.3)
<i>Social and economic benefits</i>
• Engaging local people is cost-effective (Ch. 6.2.3) • Enhanced livelihoods & health & well-being of Warlpiri people through employment & access to country (Ch. 6.2.3 & 6.2.5) • Sustainable multiple-use activities incorporated in management (Ch. 6.2.3) • Improved decision-making by Traditional Owners (Ch. 6.2.4) • Increased opportunity for training & education (Ch. 6.2.4 & 6.2.5) • Engagement in broader natural & cultural resource management opportunities, such as fee-for-service work (Ch. 6.2.5 & 6.2.7)
<i>Political benefits</i>
• Greater government investment (Ch. 6.2.5) • Improved partnerships between government & Aboriginal organisations and communities (Ch. 6.2.5 & 6.2.7) • Improved partnerships between community organisations & regional agencies (Ch. 6.2.7)
<i>Environmental benefits</i>
• Contribution of land to the NRS (Ch. 6.2.1) • Improved biodiversity conservation on Aboriginal owned lands (Ch. 6.2.2) • Improved environmental outcomes through the use of traditional knowledge & skills (Ch. 6.2.3) • Improved awareness & interest of Warlpiri people in contemporary land management issues (Ch. 6.2.4) • Improved whole-of-landscape management (Ch. 6.2.6)

6.3 Perspectives on Warlpiri motivations and management objectives

A key component of this research was aimed at understanding CLC and DEWHA staff impressions of Warlpiri motivations and objectives for managing country in the Northern Tanami IPA. In this section I provide an analysis of these perspectives.

6.3.1 Warlpiri motivations

Generally, DEWHA and CLC staff acknowledged that biodiversity conservation was not Warlpiri people's primary motivation for involvement in the Northern Tanami IPA:

“...I have no impression that they [Traditional Owners] want to do it because they want to achieve conservation of biodiversity... that's the aim for some of them... but not all”²⁴⁵.

Rather, staff posited that Warlpiri people have many motivations including cultural responsibilities to country, employment, personal wellbeing, and recognition of traditional skills and knowledge. The variety of motivations identified by agency staff is summarised in Table 28 (p.207). The following quote shows this diversity:

“...it's not just people who want funding... it's communities who really have a strong and abiding interest in looking after their place and protecting it and fixing it up... what they're looking for is government recognition and support for their aspirations... and in a more practical sense, I think a lot of them get into it because they've seen it working often”²⁴⁶.

Seven of the fourteen motivations outlined in Table 28 were identified by both the CLC and DEWHA staff. These motivations relate to the need of Warlpiri people to be able to access and manage country according to their own interests, to enhance their values for managing country, and to have their management interests recognised, valued and supported through the IPA. Motivations identified only by CLC staff are likely to reflect a closer engagement with Warlpiri people and a more detailed understanding of their motivations gained through direct contact with people; principally people's interest in the social and economic development opportunities available through the IPA. For example, one CLC staff member noted that a reduction in youth suicide and boredom was a motivating factor for many Warlpiri people:

“... the young men tended to get involved early on as a way of getting out of boredom... they were bored, absolutely bored... it [the IPA and Ranger group] was something to do and it provided a good opportunity”²⁴⁷.

²⁴⁵ DEWHA staff member (#3), interview 12 March 2007

²⁴⁶ DEWHA staff member (#1), interview 16 March 2007

²⁴⁷ CLC staff member (#1), interview 19 January 2007

They also reflect the CLC interests in improving community development and sustainable livelihoods for Aboriginal people across the region (Ch. 6.2.5).

Table 28: Warlpiri people’s motivations for involvement in the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>Warlpiri motivations</i>	<i>CLC</i>	<i>DEWHA</i>
Engagement of Warlpiri youth in meaningful work	●	
Economic benefits from employment	●	
Improved social cohesion within the community	●	
Engage with new people and ideas	●	
Pride and prestige from involvement in management	●	●
Enthusiasm and desire to manage and access country	●	●
Opportunity to transfer traditional knowledge and skills	●	●
Broader recognition of people’s knowledge, skills and aspirations for managing country	●	●
Manage tourists, trespass and damage to important sites	●	●
Support (resources and funding) to manage and access country	●	●
Maintain cultural responsibilities for country	●	●
Voluntary declaration of the IPA		●
Alignment of interests between government and Aboriginal people		●
See or hear about the success of other IPAs		●

Motivations identified by DEWHA staff more commonly reflected perspectives on the broader national interest of Aboriginal people and organisations in engaging with the program:

“... it represents an opportunity for Indigenous people... to stay on country and to be able to do the things that are important to them... we provide a resource opportunity which matches what people’s aspirations are for what they want to do on country... it’s voluntary so it’s people coming to us”²⁴⁸.

This perspective differs from that of the CLC staff. The use of the word ‘Warlpiri’ by CLC staff, and ‘Indigenous’ by DEWHA staff in the above quotes reflect this positioning.

²⁴⁸ DEWHA staff member (#2), interview 16 March 2007

6.3.2 Warlpiri management objectives

CLC and DEWHA staff identified 17 objectives they thought Warlpiri people have for managing country in the Northern Tanami IPA. These are tabulated in Table 29. Many of these relate to traditional management practices, for example intergenerational knowledge transfer and burning country. Other objectives relate to contemporary resource management issues, and social and economic opportunities provided through the IPA. The numbers of objectives identified by agency staff shows they were aware that Warlpiri people have diverse interests in managing country. Diversity in management objectives is considered common for IPAs:

“I don’t think there are many common activities in every IPA... aside from maybe fire... site maintenance... and a shared priority of intergenerational knowledge exchange”²⁴⁹.

Table 29: Warlpiri management objectives for the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>Warlpiri management objectives</i>	<i>CLC</i>	<i>DEWHA</i>
Enterprise development e.g. job creation	●	
Commercial seed harvest	●	
Collect, hunt and manage bush foods and medicines	●	
Burn country	●	
Teach at school/ school country visit program	●	
Tourism management	●	
Make artefacts	●	
Fencing waterholes	●	
Visit and manage outstations	●	
Cross-cultural knowledge transfer	●	
Intergenerational knowledge transfer	●	●
Visit and manage sacred sites	●	●
Maintain and reflect traditional land ownership	●	●
Visit and look around country	●	●
Fire management		●
Weed control		●
Feral animal control		●

There was some difference between the number and type of objectives identified by CLC and DEWHA staff. Only four objectives were identified by staff from both agencies; intergenerational knowledge transfer, management of sacred sites, visit and

²⁴⁹ DEWHA staff member (#2), interview 16 March 2007

look around country, and the maintenance of traditional land ownerships patterns and rights:

“[people] are concerned about the country becoming sort of barren and left alone... people should be out there managing and looking after the place, and when you’re not out there the place becomes uncared for and it needs a bit of TLC... so they really have those interests”²⁵⁰.

In the literature these management interests are commonly noted as important responsibilities for many Aboriginal land managers involved in the IPA program (Gilligan 2006). Agency staff generally recognised these interests as central to the Aboriginal worldview of managing country:

“caring for country I think has its own, is its own sort of idea... I think it’s about maintaining cultural connections to the land, passing on knowledge and the land. I think it’s actively being in the land, walking through it, connecting with it... most communities have a strong cultural driver for all of this”²⁵¹.

Of the remaining objectives, ten were noted by CLC and three by DEWHA staff. Those identified by CLC staff were local people’s interests in managing country according to cultural traditions, and for economic and social development:

“... the protection burning of [around] outstations in the cool time of the year is always of concern... and enterprise development, they want to see more people working on country... getting jobs and getting money and seeing the Rangers being kept busy... that seems to be a fairly high priority in particular for those old blokes [senior Traditional Owners]”²⁵².

Objectives identified only by DEWHA staff focused on contemporary land management problems. These align with the program’s national conservation priorities (Ch. 6.2.2).

6.3.3 Summary

In this section I have shown that CLC and DEWHA have some similar opinions on the motivational factors, and management objectives Warlpiri people have for the

²⁵⁰ DEWHA staff member (#1), interview 16 March 2007

²⁵¹ DEWHA staff member (#1), interview 16 March 2007

²⁵² CLC staff member (#2), interview 20 November 2006

Northern Tanami IPA. I have shown that there are some diverse opinions as well. Opinions common to agency staff were those which focused on the connection of people to country, the importance of traditional knowledge and skills, and the need for Warlpiri people to be able to access country for informed management to take place. Differences occurred where staff reflected local or national level interests, particularly those which aligned more with agency agendas and policies for management. For example, three of the seven Warlpiri management objectives identified by DEWHA focused on national agendas of biodiversity conservation. It is interesting to note however, that staff from both agencies recognised that biodiversity conservation is not a primary motivation for Warlpiri people's involvement, even though it is DEWHA's motivation and primary outcome area.

6.4 IPA structure and management practice

6.4.1 Management structure

In discussions, the CLC and DEWHA staff acknowledged that the management structure of the IPA consisted of a number of levels. In the following sections I provide an analysis of agency views of the role and responsibilities of each identified management level: the Wulain Rangers, the IPA Management Committee and Traditional Owners, the IPA Advisory Committee, DEWHA and other partners. This analysis is diagrammatically represented in Figure 20 (p.211). As the IPA Coordinator's role was critical to the functioning of each level, this role is mainly focused upon within each section.

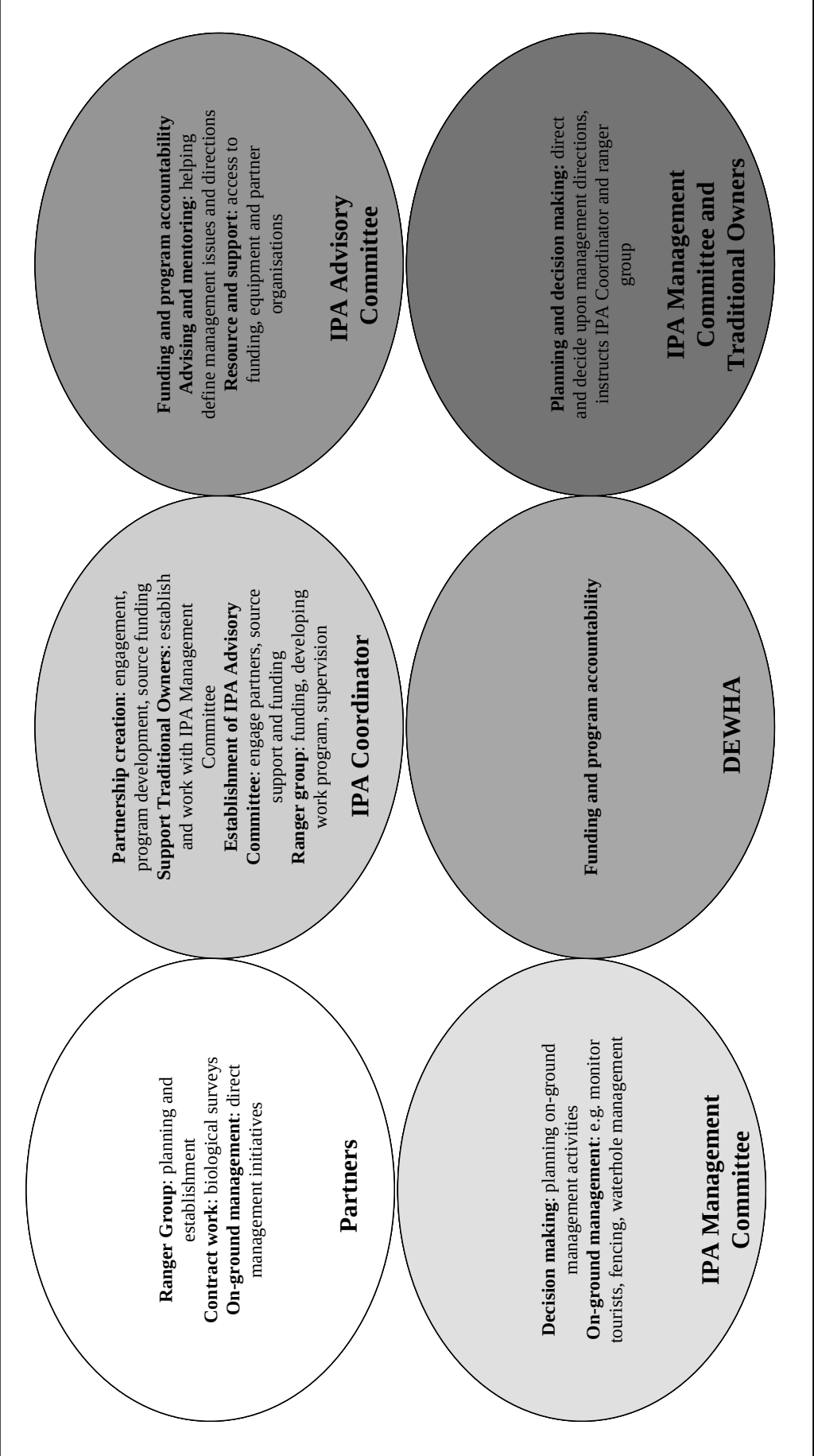


Figure 20: Agency perspectives on the Northern Tanami IPA management structure and roles

6.4.1.1 The Wulaign Rangers

The Wulaign Rangers were initially established to monitor tourists along the Warrego Road from Lajamanu to Tennant Creek:

“...they [Traditional Owners] wanted to develop the Warrego Road as a tourist road...and it was their idea to set up the ranger group and the rangers’ job would have been to primarily rescue people off that road and also to patrol it to make sure that people were not leaving the track and going to sites where they shouldn’t be going... which is really the genesis of the Rangers... but the road was never upgraded so that Rangers weren’t needed to patrol it”²⁵³.

In light of this the CLC Regional Land Management Officer guided activity development to ensure consistent work and funding for the group:

“...I spent a lot of time setting up projects and programs that they [Rangers] could work on”²⁵⁴.

One CLC staff member said that Traditional Owners were happy for an outsider to take on this role as they saw the IPA as ‘a means to an end’ for ameliorating some of the socio-economic problems that people faced in Lajamanu, for example youth-suicide and alcohol. When established, the IPA Coordinator’s role was to continue supervising and supporting the Ranger group in this way.

CLC staff saw the Wulaign Rangers as the key group that carried out management within the IPA. This role has the backing and support of Traditional Owners:

“everybody is thinking about the young Rangers and how it is for them, and how they can make it better for the young Rangers... there’s a real lot of support for the Rangers and making sure they’re doing the right thing”²⁵⁵.

In some cases the Rangers also decided upon management directions:

“...the Rangers do come up with ideas, whether it be fencing a water hole to doing some weed removal, or going to do some burning at a particular place”²⁵⁶.

²⁵³ CLC staff member (#1), interview 19 January 2007

²⁵⁴ CLC staff member (#1), interview 19 January 2007

²⁵⁵ CLC staff member (#1), interview 19 January 2007

²⁵⁶ CLC staff member (#2), interview 30 November 2006

Establishing the Ranger group was not easy. A CLC staff member stated that “it was difficult with different people coming all the time and being involved, we really wanted to get a core work group together that we could start to build up and train”. Both the CLC and DEWHA staff noted that members of ranger groups were often subject to jealousy and peer pressures:

“the young fellas got a bit of jibbing sometimes from some of the other blokes in town who aren’t as compliant to work... there’s always going to be pressure”²⁵⁷.

Over time the Wulain Ranger jobs have become highly prized in the settlement of Lajamanu:

“I think there are about 100 people on CDEP in the community, and about 80 of those want to be rangers... because of all the jobs you can do in Lajamanu... the Ranger jobs are the only ones that are interesting... they want to be involved”²⁵⁸.

DEWHA staff made similar comments about the growing value of ranger groups across the IPA program:

“...the great thing about the ranger programs... it’s amazing how much pride people have in wearing a uniform... it’s [ranger programs] worked... they’re [rangers] out on country, its meaningful work”²⁵⁹.

6.4.1.2 The IPA Management Committee and Traditional Owners

Another part of the IPA Coordinator’s role was to work with and support Traditional Owners through an IPA Management Committee (see Figure 20, p.211). As outlined in the IPA Plan of Management, the Management Committee is the decision-making body for activities and management directions occurring within the IPA. A CLC staff member articulated this well:

“...the Management Committee allows Aboriginal people to have input in the management of their traditional homelands and to be able to see practical outcomes from it... like having a ranger group and having the means to get out to places on country”²⁶⁰.

²⁵⁷ CLC staff member (#2), interview 30 November 2006

²⁵⁸ CLC staff member (#1), interview 19 January 2007

²⁵⁹ DEWHA staff member (#4), interview 13 March 2007

²⁶⁰ CLC staff member (#2), interview 30 November 2006

Initially this didn't occur within the IPA, but the intention to enhance their autonomy was there:

“...we have been trying to get the community, and the Rangers, to take on more... to incrementally take on more of a role in setting the scene on what was going on and what was going to be happening over the coming years... so I tried to divest and divulge the planning role and the coordination role to the IPA Management Committee”²⁶¹.

With the formalisation of the IPA Coordinator role in 2003, the Management Committee became officially established:

“...now we have a Management Committee who can speak for various management zones within the IPA that we established... so all work we want to do will go through the Management Committee... they'll ultimately decide what happens on various parts of country”²⁶².

A DEWHA staff member acknowledged that an IPA Management Committee functioning in this way is a successful decision-making model:

“...in the best model... a group of elders from the community, all representative of the clan groups is the executive sort of decision-making body and they provide their instructions to the operative arm... the project coordinator or manager... who then finds staff and works with Rangers to deliver the outcomes”²⁶³.

Not all IPAs have this model, as country may be owned and managed by individual families²⁶⁴.

Continued support from Traditional Owners is vital for the success of the Management Committee:

“...individual community members bring enormous amounts of goodwill, which is fundamental to landcare really... goodwill, it's the glue that holds the IPA together... it's the community spirit”²⁶⁵.

Some Traditional Owners showed this support from the beginning, others did not:

²⁶¹ CLC staff member (#1), interview 19 January 2007

²⁶² CLC staff member (#2), interview 30 November 2006

²⁶³ DEWHA staff member (#1), interview 16 March 2007

²⁶⁴ DEWHA staff member (#2), interview 16 March 2007

²⁶⁵ CLC staff member (#1), interview 19 January 2007

“...a couple of outstations... had the Rangers going out and working on those outstations... and that’s because those Traditional Owners had been quick off the mark in terms of supporting the IPA, understanding the concept and making use of it”²⁶⁶.

Agency staff think that, over the long-term, benefits such as government recognition will enhance Traditional Owner support and interest in the IPA:

“I think that as time goes on Warlpiri people here will feel very proud of having involvement [on the Management Committee and in the Ranger Group], and having their skills recognised for what they do. That will be the big benefit, they will be proud for being out there working on country”²⁶⁷.

6.4.1.3 IPA Advisory Committee

Another level within the IPA management structure is the Advisory Committee:

“there is an obligation to involve external stakeholders in the management of the IPA from the perspective of having an Advisory Committee... which would include state representative like in the Northern Territory case, Parks and Wildlife and Conservation Commission representatives”²⁶⁸.

A DEWHA staff member describes the role of Advisory Committees as “monitoring but also it’s advising... they’re basically a group of useful people that can meet once a year... to talk about how the IPA is going... and these guys are supposed to be able to give them resources or advice, or mentoring” (see Figure 20, p.211). Establishing the Advisory Committee is part of the IPA Coordinators’ role, with support from DEWHA staff responsible for the Northern Tanami IPA funding contract. This committee had not been established during this research.

A commonly discussed reason for the non-establishment of Advisory Committees across the IPA program is the lack of support given to IPAs at a state and territory level:

“the thing that you need is for those agencies to get really smart and supportive of IPAs”²⁶⁹.

²⁶⁶ CLC staff member (#1), interview 19 January 2007

²⁶⁷ CLC staff member (#2), interview 30 November 2006

²⁶⁸ CLC staff member (#1), interview 19 January 2007

²⁶⁹ CLC staff member (#1), interview 19 January 2007

Within the Northern Territory, the Parks and Wildlife Commission have representatives who sit on the Dhimurru IPA advisory group as a support and technical advice asset. This shows a commitment and interest in IPAs from the Northern Territory Government. DEWHA staff comment that such commitment is not often seen through other state departments:

“it would be nice to have statutory recognition of IPAs but that’s really a matter for the states... but they don’t recognise IPAs... there’s heaps of work that we could do with the states... and it’s been a long standing aspiration”²⁷⁰.

6.4.1.4 DEWHA

There was little talk about the role DEWHA staff play in the Northern Tanami IPA. Discussions that did occur centred on the funding and accountability role of staff at the program level (see Figure 20). These are the primary roles of staff. However, as indicated in Chapter 6.2, they have other interests in the program. These interests, such as greater support for Aboriginal aspirations, and partnership creation, need to be improved. Staff identified challenges such as remoteness and resources which limit the extent to which engagement occurs:

“challenges in this sort of program are in maintaining relationships because of... the distance and the remoteness of communities... it’s not like dealing with other client groups... all of your work is necessarily needing to develop personal relationships”²⁷¹.

DEWHA staff asserted that improved community engagement was vital for enhancing relationships and cross-cultural understanding of management intent and practice:

“we could spend more time in communities to listen to people a bit more, that would be good... we’re actually building up staffing numbers so hopefully in the future we’ll be able to make sure we visit every community that we are in and I think that’s an important thing... you actually go out there and go and see what happens and people’s pride in what they are doing. Part of that pride

²⁷⁰ DEWHA staff member (#2), interview 16 March 2007

²⁷¹ DEWHA staff member (#1), interview 16 March 2007

is actually sharing it... I really believe that's important and part of that time should be sitting down with people and learning to understand what their priorities are, how we can better meet their needs, how the program can be better targeted"²⁷².

This is important, especially when management interests are not well aligned.

6.4.1.5 Local partnerships

Partnership creation within and outside the Lajamanu community was also identified as a role of the IPA Coordinator (see Figure 20, p.211). Some partnerships were more easily established and maintained than others:

"...Wulaign, the resource centre, is probably the most proactive... they were involved in the planning and establishment of the Ranger group. The school has come on board... and I think that will be a healthy partnership as the years go on... the Council²⁷³ has been a bit slow to pick it up, but they have had some management issues lately"²⁷⁴.

Partnerships were also developed with the Victoria River District Conservation Authority (VRDCA) and Newmont Mining through contract work:

"we got a large contract with Newmont at the moment to do that biodiversity monitoring down around the Granites and Tanami mine twice a year, which puts money in people's pockets, helps pay for the upkeep of machinery, vehicles and equipment"²⁷⁵.

Continued partnership creation is one of the CLC's future aspirations for the IPA (Ch. 6.2.5):

"It would be great to encourage more people to become involved in anything productive that we can look at managing from within the IPA... you know there is potential for small eco-tourism ventures maybe... maybe engage

²⁷² DEWHA staff member (#4), interview 13 March 2007

²⁷³ Local government changed in 2008 from individual councils and community councils to municipal and shire councils to streamline services and accountability within the Northern Territory (LGANT ND).

²⁷⁴ CLC staff member (#2), interview 30 November 2006

²⁷⁵ CLC staff member (#2), interview 30 November 2006

local pastoralists in fire management, fence construction, feral animal and weed removal... there's definitely potential there"²⁷⁶.

6.4.1.6 The IPA Coordinator

The link between all of the stakeholders in the IPA is the IPA Coordinator.

Discussed throughout the previous sections, as an employee of the CLC, this role not only involves managing the on-ground works through supervising and supporting the Wulain Rangers, but also establishing partnerships and coordinating the roles of the IPA Management and Advisory committees (see Figure 20, p.211). The Coordinator's role is therefore integral to the success of the IPA management structure as a whole.

6.4.1.7 Summary

Throughout the previous sections I have shown that staff from the CLC and DEWHA recognised various levels of management within the IPA, each with distinct roles and responsibilities. Not all staff had a good knowledge of each level. For example DEWHA staff talked little about the role Wulain Rangers played in the IPA, except for some challenges faced by Rangers, and the positive opinion of ranger groups across the IPA program. Likewise CLC staff rarely discussed the role of DEWHA staff in contributing to IPA management. Staff also noted that some levels of IPA management are not properly incorporated in management or autonomously working. For example, the IPA Advisory Committee has not been established. The IPA Coordinator's role is crucial to the overall success of each level and the IPA more generally. This is a substantial responsibility for one person, especially, as it was noted above, that there was little on-ground support for the IPA Coordinator or engagement with DEWHA staff. There was also no discussion amongst agency staff on the performance and accountability of the different management levels to each other, the development of management directions through sustained long-term planning, monitoring and evaluation processes, or even the creation of the IPA plan of management. This reflects poor processes of collaboration and community control in management. Improvement such as enhanced local partnerships (Ch. 6.4.1.5), better relationships with DEWHA staff (Ch. 6.4.1.4) and greater Traditional Owner

²⁷⁶ CLC staff member (#2), interview 30 November 2006

support and input into management (Ch. 6.4.1.2) are considered ways in which agency staff think the IPA management structure can be strengthened.

6.4.2 On-ground management practice

CLC and DEWHA staff identified 16 management activities that occur on-ground within the IPA, with much diversity in opinion, as can be seen in Table 30. Many activities identified by DEWHA staff, such as plant regeneration and tourism management, were not mentioned by CLC staff, and vice versa. This is likely to reflect the level of knowledge and communication occurring between the CLC and DEWHA staff.

Table 30: Management activities carried out in the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>On-ground management activities</i>	<i>CLC</i>	<i>DEWHA</i>
Education on contemporary land management problems	●	
Visit and manage outstations	●	
Commercial seed harvest	●	
Some cultural management e.g. make artefacts	●	
Cleaning and fencing waterholes	●	
Fire management	●	●
Biodiversity monitoring	●	●
Weed control	●	●
Threatened species management	●	●
Feral animal control	●	●
Tourism management		●
Plant rehabilitation		●
Erosion control		●
Intergenerational knowledge transfer		●
Visit and manage cultural sites		●

Only five of the 16 management activities were mentioned by both agencies. These five activities align principally with national conservation agendas, as do many other activities outlined in Table 30, such as erosion control and plant regeneration. The CLC and DEWHA staff identified a number of reasons that help account for this discrepancy:

- Socio-economic outcomes and not cultural resource management was the initial focus of Traditional Owners when establishing the IPA: “...in the development phase... we really concentrated on building the Rangers up and

getting some commitment... the Management Committee were really just concerned with keeping the whole thing rolling and developing the structure, having a vehicle, and having a Coordinator and have the Rangers working... with a suitable wage”²⁷⁷;

- There was a need to establish and maintain a consistent funding source for the Wulain Rangers and the IPA: “...in my role as a land management officer I made a lot of decisions about structured land management... and that was to integrate, and try and give the Rangers something to go on with and have some interesting work, and also because I know what we could get money for to do types of works... what money was available for feral animals, weeds and threatened species... those type of things”²⁷⁸;
- Fire, weeds and feral animals are amongst the most serious land management issues affecting biodiversity in the IPA and the Tanami Bioregion more generally. Addressing these issues was considered a vital part of management: “... most of the IPAs are in the category of managed resource use protected areas... so there are still other activities happening on the land... but we’re trying to achieve conservation outcomes in terms of bio-management, feral animal management, weed management... you know, contributing to those kinds of things at the broader national level”²⁷⁹.

Notwithstanding this, over time the incorporation of cultural resource management has become a major priority for Traditional Owners (Ch. 4 & 5). As shown in Table 30 some cultural resource management activities were being carried out:

“...the women you [Jane] have been involved with have been developing a little enterprise through their seed collecting... some of the men have got busy collecting materials to make artefacts, bone knives, coolamons, spears, stone axes... through those activities, like seed collecting and the collection of raw materials, all that artefact production, comes the burning and the cultural maintenance of country”²⁸⁰.

These activities occurred because of support and collaboration with other organisations and people, particularly researchers:

²⁷⁷ CLC staff member (#1), interview 19 January 2007

²⁷⁸ CLC staff member (#1), interview 19 January 2007

²⁷⁹ DEWHA staff member (#1), interview 16 March 2007

²⁸⁰ CLC staff member (#2), interview 30 November 2006

“the cultural stuff is the one the community really want to get into but they haven’t cracked it yet... but that’s fine, we really need to have a lot of work done on that and you have been involved in that... it has been really good for the whole program”²⁸¹.

Like the CLC staff, DEWHA staff identified several cultural resource management activities they thought were occurring within the IPA, such as intergenerational knowledge transfer and site maintenance. Cultural resource management is broadly defined and considered a vital part of the IPA program:

“...we do treat funding for cultural activities... as an important part of the project. Taking young people and old people out onto country to pass on knowledge, that sort of stuff, we’ll fund for its own sake as part of the projects”²⁸².

Such activities are commonly carried out across many IPAs but, as indicated by CLC staff, have not at present been successfully incorporated in the management practice of the Northern Tanami IPA.

One reason for this is because in many cases cultural management activities are not directly contracted through the IPA program such as activities like fire management and fencing were²⁸³:

“...there is this kind of administration management category... which is fairly broad and just lets [Aboriginal] people... do some of the things that are priorities for them”²⁸⁴.

This occurs because funding for the IPA program is tied to Federal Government funding guidelines, which focus principally on national resource management priorities:

“...besides contracting [for environmental management] we are not allowed to... allowed money to be used for anything and everything... there are guidelines about what the funds can and can not be used (sic)”²⁸⁵.

²⁸¹ CLC staff member (#1), interview 19 January 2007

²⁸² DEWHA staff member (#1), interview 16 March 2007

²⁸³ DEWHA staff members (#1 & #2), informal discussion 19 March 2007

²⁸⁴ DEWHA staff member (#2), interview 16 March 2007

²⁸⁵ DEWHA staff member (#3), interview 12 March 2007

The limited support for cultural management activities through direct funding was also alluded to by a CLC staff member:

“[often Traditional Owner cultural objectives are not met] because a lot of things that people want the Rangers to do are activities that the Rangers may never do... for one reason or another... because they are not specifically land management stuff we are funded for”.

As such, cultural management in the Northern Tanami IPA occurs as a spin-off from contracted works:

“...the program is specifically funding biodiversity management, but acknowledging the other benefits”²⁸⁶.

This means that cultural management and its outcomes are often not well supported in their own right at the national level, and go unnoticed in IPA reporting.

CLC staff also acknowledged that incorporating cultural management was hard for a number of other reasons, which included:

- the lack of interest amongst Rangers to be involved in cultural management;
- the ability of on-ground staff to support cultural management because of constrained resources and staffing numbers; and
- being able to work collaboratively with the broader community and organisations to better support cultural management.

6.4.3 Summary

In Chapter 6.4.1 I have shown that agency staff identified a management structure that consisted of various levels, each with distinct roles and responsibilities. These levels are interlinked by the role of the IPA Coordinator. When staff knowledge of the management structure is combined, it is evident that issues exist over planning, autonomy and management accountability. The management structure of the IPA needs to be better supported and consolidated. I have also shown in Chapter 6.4.2 that agency staff had similar views about some on-ground management activities occurring within the IPA. Mostly though, perspectives differed. I think this indicates a disconnect between agency knowledge and on-ground management practice. Aside

²⁸⁶ DEWHA staff member (#4), interview 13 March 2007

from several cultural management activities, official perspectives focused mainly on national conservation agendas. Agency staff discussed reasons for this, including access to funding and Traditional Owner interest. Agency staff also identified difficulties in incorporating cultural activities into day-to-day management. As already outlined in this research, the incorporation and recognition of cultural resource management is necessary if management of the Northern Tanami IPA is to better meet Traditional Owner aspirations for country (Ch. 4 and 5). The CLC and DEWHA staff identified a number of challenges that relate to the achievement of on-ground management activities (Ch. 6.4.2), and the functioning of the IPA management structure (Ch.6.4.1). These challenges are summarised in Figure 21.

-
- Ensuring consistent work & funding for the Ranger group (Ch. 6.4.1.1)
 - Maintaining a motivated group of Rangers (Ch. 6.4.1.1)
 - Rangers often face peer pressure & jealousy (Ch. 6.4.1.1)
 - Trying to enhance community ownership & control (Ch. 6.4.1.2)
 - Ensuring continued Traditional Owner support (Ch. 6.4.1.2)
 - Trying to establish community partnerships (Ch. 6.4.1.3)
 - Lack of State & Territory Government support for IPAs (Ch. 6.4.1.4)
 - Program staff engagement with people on-ground was challenged by remoteness & limited resources (Ch. 6.4.1.5)
 - Minimal cultural management has been carried out (Ch. 6.4.2)
 - Management funding is tied to NHT guidelines, which are directed at western conservation agendas (Ch. 6.4.2)
 - Lack of interest amongst Rangers over involvement in cultural management (Ch. 6.4.2)
 - Lack of staff & resources to carry out management on-ground (Ch. 6.4.2)
 - Limited community collaboration to better support cultural management (Ch. 6.4.2)
-

Figure 21: Challenges that affect the on-ground management and functioning of the Northern Tanami IPA management structure, as identified by CLC and DEWHA staff

6.5 Achieving agency and Warlpiri management aspirations

In this section I examine staff perspectives on the extent to which agency and Warlpiri aspirations are being achieved through the management of the Northern

Tanami IPA. This includes discussions on the challenges that constrain management, and processes that can enhance it.

6.5.1 Central Land Council

When asked if CLC objectives were being met through the management of the Northern Tanami IPA, agency staff revealed that most objectives were being partly met (see Table 31), including information brokerage and support for Aboriginal aspirations for country:

“...yes and no... Aboriginal people’s concerns and objectives are being met... we do get to outstations... we could do a lot more cultural site maintenance though... like fencing waterholes”²⁸⁷.

Biodiversity conservation was the only objective staff identified as not being met:

“I don’t think our biodiversity conservation objectives are being really met... I’m not sure when that will happen... I’ve got a feeling that it will be a long way down the track”²⁸⁸.

The objective of partnership creation was not directly discussed within this line of questioning. Nevertheless, staff implied it was occurring, but required greater facilitation (Ch. 6.2.7 & 6.4.1.5). Community development was the only objective indicated as being achieved through youth engagement in the ranger program:

“...we keep those young fellas busy with introduced enterprise... we provide a wage regularly on top of their CDEP pay... so they have an opportunity to earn money on the other side of CDEP through contract work... and working quite hard... on long days”²⁸⁹.

Table 31: CLC management objectives being achieved through the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>CLC management objectives</i>	<i>Met</i>	<i>Partly met</i>	<i>Not met</i>
Biodiversity conservation			●
Partnership creation		●	
Support Aboriginal aspirations for country		●	
Facilitation and information brokering		●	
Community development and sustainable livelihoods	●		

²⁸⁷ CLC staff member (#2), interview 30 November 2006

²⁸⁸ CLC staff member (#1), interview 19 January 2007

²⁸⁹ CLC staff member (#2), interview 30 November 2006

In further discussions on why some objectives were or were not being met, agency staff reflected on a number of challenges that limit management. These challenges have been summarised in Table 32 (p.226) and included issues over resourcing and funding, location and environmental influences, and working cross-culturally in situations where worldviews, knowledge and skill levels differ. Staff also indicated processes that have helped the achievement of some management objectives, as well as others that should be incorporated to better enhance management. These processes are detailed in Table 33 (p.227) and relate to improved support and resources, better cross-cultural understanding and communication, improved engagement of program staff and accountability, and enhanced recognition and support of Warlpiri skills and knowledge.

A noteworthy difference between Table 32 and 33 is that there was no reflection on agency staffs' ability to challenge or influence management. However, agency staffs' ability to communicate, engage and work cross-culturally was posited as an essential management processes. Alongside this, DEWHA staff did not identify any management challenges in Table 32. This probably reflects on the limited level of knowledge DEWHA staff have about the issues faced by on-ground managers, and the communication process occurring between the CLC and DEWHA staff. Throughout the interviews some DEWHA staff showed knowledge of processes that are essential for counteracting management challenges, including the increased availability of resources and improved program staff engagement. Alternatively, DEWHA staff may be more concerned with challenges that affect the program at a national level (Ch. 6.5.2). They are likely to be aware of processes which can successfully improve on-ground management as some of these staff members have had many years experience of working in cross-cultural contexts.

Table 32: Challenges affecting the achievement of CLC management objectives for the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>Challenges</i>	<i>Quotes</i>
Size and extent of the IPA	"...it will take an extraordinary amount of work to actually address these issues [fire, feral animals and weeds] because it is such a huge area of land... the amount of burning for instance that would have to be done on ground, you just can't do it... it's going to have to be a shift to something like the Rangers being involved in aerial incendiary burning before they have a true impact on wildfire... to decrease the frequency of wildfire in that area" ²⁹⁰
Differing value systems between program and Warlpiri interests	"People will always see a difference in motivations and that really just points out the fact that there is an enormous cultural difference between people at Lajamanu and the broader Australian public... and that is a big part of our job in the IPA... to bring those two spheres... those two perceptions together... what Aboriginal people want and what the broader public want and they will never be the same" ²⁹¹
Limited contemporary land management skills and knowledge amongst people	"...if you want to see [conservation] benefits maximized you need to provide things like training and real support... there is a concern that people need capacity building... you can't expect traditional knowledge to solve contemporary management problems and particularly ones of such an enormous scale... basically modern day problems... weeds... threatened species that came about from introduced predators, people aren't living on the land and generating good habitat for those species" ²⁹²
Limited resources for land management training and education	
Limited cross-cultural understanding of program objectives by Warlpiri people	"...without a broader understanding of the program and regional interests, it is very difficult for [Warlpiri] people to see where they're heading and what the big picture is. So that's a big hurdle, because what you are trying to do is a long-term structure and if people don't have the big picture it is hard to aim high and long with their aspirations and keep motivated for the years and years that it takes to build something up" ²⁹³
Having to work within community frameworks	"We're on their terms here, its Aboriginal land... you've got to work within the framework of the community and how the community runs... you need to readjust to how the community operates, work with the community rather than try and change people" ²⁹⁴
Lack of financial support	"it costs financially... its pretty hard country out here and a lot of vehicle damage takes places... it is hard work maintaining vehicles and equipment out here" ²⁹⁵
Climatic conditions	"...we have been hampered by the big rains from the last wet season and we still can't get to a lot of the outstations" ²⁹⁶

²⁹⁰ CLC staff member (#1), interview 19 January 2007

²⁹¹ CLC staff member (#1), interview 19 January 2007

²⁹² CLC staff member (#1), interview 19 January 2007

²⁹³ CLC staff member (#1), interview 19 January 2007

²⁹⁴ CLC staff member (#2), interview 30 November 2006

²⁹⁵ CLC staff member (#2), interview 30 November 2006

²⁹⁶ CLC staff member (#2), interview 30 November 2006

Table 33: Key processes contributing to achieving CLC management objectives for the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>Processes</i>	<i>Quotes</i>
Better resourcing and long term support	Throughout the interviews DEWHA staff discussed that, instead of annual funding, five year funding contracts were being developed for IPAs: “this year is the first year we’re providing multiple year funding contracts... we’ll be looking to provide five year contracts... for declared IPAs” ²⁹⁷
Sharing knowledge and skills	“...hooking up with a broader number of people, mixing with the IPA Coordinator for instance... and having access to his thoughts and ideas... going to forums, meetings, workshops for Rangers, meeting with other agency staff, Parks and Wildlife, Bush Fires Council and all that, helps with the isolation and that insular information flow issue... it gets you into the mainstream more and it really changes peoples perceptions” ²⁹⁸
Improving engagement of program staff with Warlpiri people on-ground	“...I think we [DEWHA staff] need to have a more devolved regional presence... so that we could have much closer on-the-ground relationships with people” ²⁹⁹
Effective cross-cultural communication	“...the whole issue of interpreting the scientific and Indigenous aspirations... you need to sort of interpret one to the other really to find the overlap, the common benefits, common outcomes, so that’s a bit more of a challenge... there has to be this interpretation, this filtration through our engagement but also through organisations that are out there that interpret what the community wants to do back into government speak and vice versa... so that’s a bit of a challenge, you’ve got this filtration system to try and connect up” ³⁰⁰
Program staff accountability to plan of management and Management Committee	“...in some cases Coordinators make a lot of decisions... but they should... those decisions should be informed by the plan of management... so there should be some riding instructions there about what they [Traditional Owners] want to achieve and the Coordinator is to make a go of them” ³⁰¹
Better recognition and use of Warlpiri skills and knowledge	“[Warlpiri people] have a very unique way of looking at the country... the main ones that I have found to be quite amazing and, look, I’m fairly new to the Aboriginal land management game, but the way Warlpiri people look at the landscape and how they view it as, as a resource and how it is managed primarily for food harvesting... through burning... that makes it easier for food gathering... it takes a little bit to get used to that but in that it is a very unique set of skills that Warlpiri people have” ³⁰²

²⁹⁷ DEWHA staff member (#1), interview 16 March 2007

²⁹⁸ CLC staff member (#1), interview 19 January 2007

²⁹⁹ DEWHA staff member (#2), interview 16 March 2007

³⁰⁰ DEWHA staff member (#1), interview 16 March 2007

³⁰¹ DEWHA staff member (#1 interview 16 March 2007

³⁰² CLC staff member (#2), interview 30 November 2006

6.5.2 Department of Environment, Water, Heritage and the Arts

Discussions showed that agency staff initially thought DEWHA program objectives were being met through the program. On closer analysis, results indicate that some DEWHA objectives were being achieved, whilst others were being partly or not met at all (see Table 34).

Table 34: DEWHA management objectives being achieved through the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>DEWHA management objectives</i>	<i>Met</i>	<i>Partly met</i>	<i>Not met</i>
Whole of landscape management			●
Partnership creation		●	
Support Aboriginal aspirations for country	●		
Biodiversity conservation	●		
Building the National Reserve System (NRS)	●		

Three of the five management objectives outlined by DEWHA staff in the interviews were considered to have been met. Of these, the contribution of Aboriginal owned land to the NRS was considered to be exceeding expectations:

“yes I think they [department’s objectives] are being met... the department can say in these identified IBRA regions we have x percentage of protected areas and that’s politically important... one of the main purposes is to increase representation in the NRS, IPAs are doing that”³⁰³.

Similar comments were articulated by CLC staff:

“...one [goal of the program] is to allow areas of land that couldn’t be put under straight forward park management regimes... because of their tenure... such as Aboriginal land, so IPAs like the Northern Tanami are allowing that”³⁰⁴.

The other two objectives, biodiversity conservation and support for Aboriginal aspirations were also deemed as being achieved, but at a slower rate than the staff would have liked³⁰⁵. One DEWHA staff member noted that, despite conservation

³⁰³ DEWHA staff member (#2), interview 16 March 2007

³⁰⁴ CLC staff member (#1), interview 19 January 2007

³⁰⁵ DEWHA staff member (#4), interview 13 March 2007

outcomes being of primary importance, the achievement of such outcomes were not easily monitored and evaluated:

“...I think there are some fairly clear conservation outcomes [coming from the IPA]... but exactly what they are and how they’re measured... is not so clear”³⁰⁶.

Through the DEWHA reporting process, staff evaluate the extent to which IPA contractual obligations are met:

“the contract specifies particular conservation outcomes and the IPA manager reports to us twice a year on their progress against these outcomes... we’re happy to accept other evidence, photos, videos...”³⁰⁷.

This information is linked against a framework for which government funding is given:

“Our monitoring and evaluation framework is built on the NHT scope of works... which has a number of outcomes in its monitoring evaluation framework... they’re everything from endangered species, area of weeds removed, feral animals removed... all sorts of things... so we can say we’ve got an annual report on our outcomes from the program... we can actually break down the IPA outcomes to everything that they have in their categories”³⁰⁸.

This is important for determining the extent to which biodiversity outcomes are achieved, such as feral animal and weed management. Nevertheless, there is very little reference to the achievement of cultural outcomes through this scope of works. Rather than using the NHT scope of works, DEWHA staff indicated that the program successfully supported Aboriginal aspirations because of a number of processes they identified as critical to its success. These processes relate to program flexibility and time, working together to incorporate shared management objectives, supporting community interests, and program staff engagement on-ground, and are summarised in Table 35 (p.230).

³⁰⁶ DEWHA staff member (#2), interview 16 March 2007

³⁰⁷ DEWHA staff member (#1), interview 16 March 2007

³⁰⁸ DEWHA staff member (#1), interview 16 March 2007

Table 35: Key processes contributing to the success of DEWHA in supporting Aboriginal aspirations through the IPA program, as identified by CLC and DEWHA staff

<i>Processes</i>	<i>Quotes</i>
Community identified priorities	"I do believe they [Aboriginal aspirations] are being achieved because people are identifying their own priorities and that's why it's successful. I do believe that if we identify their priorities for them, not much happens" ³⁰⁹
Negotiation to achieve multiple aspirations	"Somewhere in the middle we meet, this domain where we try and find common ground about what our objectives are... and I think that when you overlap community objectives and the governments objectives there's a whole lot of area where there's close benefit, positive stuff on all sides" ³¹⁰
DEWHA staff engaged on ground	"we try and visit every IPA at least once a year and sometimes more... seeing how they're going, whether they've identified a need for us to visit more to give them a hand or whether they've been having some problems that they're not telling us about" ³¹¹
Program flexibility	"...we can successfully bring some of those things together, communities are pretty flexible and government... we can be fairly flexible in the program" ³¹²
Acknowledging and understanding different world views	"I think communities' aspirations are very much tied to a whole lot of other things, living in a place, looking after it, maintaining cultural connection... and we [the program staff] tend to come at the land management stuff from the scientific point of view about managing land use and impacts on land and managing populations of animals and their interaction to try and get an outcome" ³¹³
Allowing time for development	"...the development of the IPAs are fairly slow, there's not an enforced timeframe... some IPAs take four or five years before declaration and then even once they're declared, negotiating the priorities that people are going to get funded against is an ongoing process" ³¹⁴
Voluntary self-declaration	"the continuation of an IPA continues to be voluntary so people could conceivably change their mind for another land use and that hasn't happened... I think that says something" ³¹⁵

³⁰⁹ DEWHA staff member (#4), interview 13 March 2007

³¹⁰ DEWHA staff member (#1), interview 16 March 2007

³¹¹ DEWHA staff member (#2), interview 16 March 2007

³¹² DEWHA staff member (#1), interview 16 March 2007

³¹³ DEWHA staff member (#1), interview 16 March 2007

³¹⁴ DEWHA staff member (#2), interview 16 March 2007

³¹⁵ DEWHA staff member (#2), interview 16 March 2007

Partnership creation was the only DEWHA objective that agency staff indicated was being partly met. Partnerships with Aboriginal communities such as Lajamanu, and Aboriginal organisations, such as the CLC, have been established across much of Australia through the program. Staff indicated that improvements could be made through better inter-sectoral and inter-agency cooperation:

“...maybe what we need to do to improve our program is to improve all the programs and actually work together rather than having lots of silos of funding, have a big pool and actually work cooperatively with other elements of both our own departments and other departments”³¹⁶.

The need for collaboration is growing as people realise that Aboriginal livelihoods, biodiversity conservation and whole-of-government outcomes can be enhanced through partnerships. For example a DEWHA staff member discussed the role of program linkages for improved training outcomes:

“...a lot of aspirations involve things that might not necessarily be within the IPA program’s control. So the program could be better linked to other government agencies. You know, for example, to do training programs, so that when you were coming with the IPA funding support... it comes with a parallel training program that’s fully funded from DEEWR³¹⁷ that meets the needs of the Rangers”³¹⁸.

The last objective outlined in Table 34 (p.228), whole of landscape management, was not talked about in discussions relating to the achievement of DEWHA objectives. DEWHA staff identified it as a future management direction of the program (Ch. 6.2.6), with only the concept of IPA linkages discussed to date.

Throughout this section I have noted several challenges to management identified by agency staff. These include the effectiveness of monitoring and evaluation to record outcomes and the need for improved partnerships with other government departments. Other challenges revealed throughout this chapter include a lack of funding and resources, limited program staff engagement on ground, and the lack of State and Territory Government support and recognition of IPAs (Ch. 6.4.3).

³¹⁶ DEWHA staff member (#4), interview 13 March 2007

³¹⁷ DEEWR is the Federal Government Department of Education, Employment and Workplace Relations.

³¹⁸ DEWHA staff member (#1), interview 16 March 2007

DEWHA staff noted all of these challenges, and the processes outlined in Table 35 (p.230). This likely reflects on agency staffs' interests in meeting their own program objectives at either the national, regional or local level.

6.5.3 Warlpiri people's aspirations

There was a difference of opinion between agency staff on the extent to which Warlpiri aspirations were being met through the program. Some DEWHA staff stated that the program was achieving people's aspirations:

"I think they are or I don't think people would participate in the program"³¹⁹.

Whereas other DEWHA staff indicated that some objectives were being met, whilst others were not:

"...what we're able to fund is only a small proportion of what people want to do... so we're not necessarily meeting all of their aspirations"³²⁰.

CLC staff reflected a similar opinion. Some aspirations, such as employment opportunities and outstation management, were being achieved:

"...the old men and old ladies are really happy that we are engaging the young fellas to do stuff... and getting to outstations"³²¹.

Mostly CLC staff claimed that Warlpiri aspirations were not being met:

"...no, they're [Warlpiri management concerns and objectives] not being achieved yet... and that might be a while before they are"³²².

I have already shown that staff found the incorporation of Warlpiri aspirations, in particular cultural management, difficult because of issues such as ranger group interest and funding restrictions (Ch. 6.4.2 and 6.4.3). Other challenges identified by agency staff related to limited planning, unrealistic program expectations, community and cultural commitments, health and wellbeing and the loss of traditional knowledge and skills (see Table 36, p.233). The CLC staff also noted most of these challenges. This is to be expected since they have a more established relationship and work daily with Warlpiri people to manage the IPA.

³¹⁹ DEWHA staff member (#2), interview 16 March 2007

³²⁰ DEWHA staff member (#1), interview 16 March 2007

³²¹ CLC staff member (#2), interview 30 November 2006

³²² CLC staff member (#1), interview 19 January 2007

Table 36: Key challenges that affect the achievement of Warlpiri aspirations for the Northern Tanami IPA, as identified by CLC and DEWHA staff

Challenges	Quotes
Limited funding and resources	"[people] are limited by the materials or equipment that they have... so I think we need to give communities more money... I think our funding is inadequate to do the enormous tasks that we are asking of communities..." ³²³
Minimal long-term planning	"...a lot of those objectives [management objectives] are off the cuff at a particular time... what people want to do... what's grabbing people's interest at the moment" ³²⁴
People's lack of health and well-being	"...health is a big consideration...a lot of older people would love to be more involved... it would be a big benefit to the IPA to have all the outstations inhabited with people living out there, but they can't because of their health issues" ³²⁵
Community obligations	"communities are asked to do so many things in terms of self-management... people have very little time to be involved in the Management Committee of the IPA... they have so many other different things on... it is hard for people... everything is promoted as being vitally important and you must be at this meeting... so its hard for them to find the time to invest in the IPA as so many other things are going on" ³²⁶
Family and social commitments	"...there's so much going on in your family, of course your extended family, extended on many levels as well, skin group associations, through all sorts of ways you're connected to the broader Aboriginal community... you have a lot of family obligations so that makes it very difficult for you to get the time to come along and be a Ranger and do the work and be there on the day when the work's on... you need to make the system fit the prevailing culture, you can try and make the structure fit the prevailing situation... and that's the challenge for people behind an IPA... a big challenge for people working in them" ³²⁷
Traditional Owner expectations on program delivery	"[often Traditional Owner cultural objectives are not met] because a lot of things that people want the Rangers to do are sometime activities that the Rangers may never do... for one reason or another... because they are not specifically land management stuff we are funded for, or because they are too private in nature" ³²⁸
Loss of traditional knowledge and skills	"...they have finished land management really, it hasn't happened in years and years and years, not since their grandfather's grandfather's time... and they have been in the community doing bugger all except maybe a bit of burning and hunting at specific sites... there are aspects of culture that have been really strong... initiation and those sorts of things are still there, the stories and that... but land management stuff has just died out and a lot of skills have gone" ³²⁹
Individual versus community interests	"...people were coming to me with land management issues which tended to be very personal or individualistic... which is fine, that's the private face of land management... and you've got to deal with that..." ³³⁰
Meeting cultural	"...you will always have cultural business that happens... sorry business, funerals, you can't do anything about... that's just part of life up here, but

³²³ DEWHA staff member (#4), interview 13 March 2007

³²⁴ CLC staff member (#2), interview 30 November 2006

³²⁵ CLC staff member (#1), interview 19 January 2007

³²⁶ CLC staff member (#1), interview 19 January 2007

³²⁷ CLC staff member (#1), interview 19 January 2007

³²⁸ CLC staff member (#1), interview 19 January 2007

³²⁹ CLC staff member (#1), interview 19 January 2007

³³⁰ CLC staff member (#1), interview 19 January 2007

responsibility that is not necessarily a negative impact at all”³³¹

Despite differences of opinion on the extent to which Warlpiri aspirations were being met, agency staff frequently claimed that people were highly respected and committed to the success of the IPA:

“...from what I’ve seen... people are very positive about the program... people really seem to be genuinely interested in the work that they are doing...so they’re committed to what they’re doing, they want to do more”³³².

A CLC staff member also indicated that one of the greatest benefits of the IPA was the sustained ability to improve people’s access to and cultural connection with country:

“...people still have the land and getting people back onto it and getting them involved in it, and getting them to undertake practices that actually make an impact is a really long haul, and the IPA is... that’s what it’s about... it’s a long term thing”³³³.

Processes to better help achieve Warlpiri management objectives are outlined in Table 37 (p.235). These processes relate to improved funding and resources, better cross-cultural understanding, increased access to and cultural management of country, and enhanced community control, autonomy and accountability.

Collectively, DEWHA and CLC staff acknowledged these processes. This shows that staff from both agencies have some awareness of the processes that are required to achieve aspirations at the local level. It is important to note, that processes identified by DEWHA relate principally to the functioning of the IPA management structure and the development of a formal plan of management. Processes identified by CLC staff reflect more on the on-ground delivery of management and the need for greater community control and autonomy.

³³¹ CLC staff member (#2), interview 30 November 2006

³³² DEWHA staff member (#4), interview 13 March 2007

³³³ CLC staff member (#1), interview 19 January 2007

Table 37: Key processes that contribute to Warlpiri people better meeting their aspirations for the Northern Tanami IPA, as identified by CLC and DEWHA staff

<i>Processes</i>	<i>Quotes</i>
Improved training and resources	“People would like more training, they’d like more money, they’d like more equipment... they’d like better recognition for the work that they’re doing... I think that’s really important and something they don’t get” ³³⁴
Increased cultural management	“We could do a lot more cultural site maintenance... we need to do more cultural sites and country visit stuff” ³³⁵
Enhanced community ownership over management	“I think the Management Committee really needs to... have some sort of say where the funding is spent and I think that will make a big difference once people start making decisions about money... for bigger commitment and better ownership over the Rangers... and if people really start to direct the Rangers to do things... more things will get met” ³³⁶
Improved training and education for autonomy	“...it’s a matter of building peoples’ skills up as well... the Rangers and the other guys can be autonomous and building their capacity through training... so they can undertake these tasks [getting out on country, finding sites, fencing waterholes] by themselves” ³³⁷
Improved cross-cultural understanding of staff	“it’s also a matter of coming to terms with how Aboriginals work and how they look at management structures and how they view country, and working through that which I think we’ve done pretty successfully through the establishment of the Management Committee” ³³⁸
Communicating and sharing information between program staff and Warlpiri people on a more regular basis	“[we should be] sitting down on a more regular basis with people and giving them the option to air their ideas for work to be undertaken” ³³⁹ “one way is to try and have regular committee meetings... and another is to try and provide as much feedback as possible after meetings and after work that the Rangers do. It’s to keep people aware that the IPA and ranger program is a long term happening thing” ³⁴⁰
Increased access to and visiting country	“...just the ability to get around country and find out how things are going is a really big thing... people talk about it, just knowing that things are ok out on country, that sites are being visited” ³⁴¹
Continual revision of management plans	“we’re actively asking IPA managers to include in their budgets to revise their plans, update their work plans, plans of management... we’d expect that would help to reset and bring out community concerns” ³⁴²
Improved accountability of the IPA Management Committee	“the Indigenous committee should be representing the community and putting their concerns on the table” ³⁴³

³³⁴ DEWHA staff member (#2), interview 16 March 2007

³³⁵ CLC staff member (#2), interview 30 November 2006

³³⁶ CLC staff member (#1), interview 19 January 2007

³³⁷ CLC staff member (#2), interview 30 November 2006

³³⁸ CLC staff member (#2), interview 30 November 2006

³³⁹ CLC staff member (#2), interview 30 November 2006

³⁴⁰ CLC staff member (#1), interview 19 January 2007

³⁴¹ CLC staff member (#1), interview 19 January 2007

³⁴² DEWHA staff member (#1), interview 16 March 2007

³⁴³ DEWHA staff member (#1), interview 16 March 2007

<i>Processes cont.</i>	<i>Quotes cont.</i>
Improved management accountability of Advisory Committee	“IPAs have Advisory Committees and they’re theoretically accountable to those groups as well... they’re supposed to meet annually, some do, some don’t... that’s another mechanism that tries to keep accountability of IPAs” ³⁴⁴
Community ownership over planning	“the development of the IPA has been a long, slow planning process and that’s been about letting people think that they are the ones that have planned it... which they have to a large extent... the longer people are involved the greater the individual’s investment in the program, so the less likely they are to throw their hands around and say bugger the IPA” ³⁴⁵
Traditional Owner involvement in the plan of management	“...if [plans of management] take seven years so be it... they [Traditional Owners] actually know what they want to do and that’s the important thing... some communities are supported to do this through umbrella organisations, like the CLC in Lajamanu” ³⁴⁶
Improved departmental and partner awareness	“the IPAs have Advisory Committees... which is another opportunity whereby all of the potential partners and people with interest sit around the table or out bush and have the IPA managers tell us what’s been going on... talking about what their issues are” ³⁴⁷
Allowing time for program development and delivery	“and time as well... that’s the answer for people to sort themselves out, the programs will manifest and people will understand that there will be a healthy balance between building cultural activities, enterprise development and people’s role become more defined through the Rangers, the Management Committee and traditional owners... things will get ironed out a little more and work that happens on the ground will incorporate different people’s aspirations about land management activities” ³⁴⁸
Allowing for gendered management approaches	“I think over time there will be a different style of approach from the men and women, but from what I’ve seen their [management] concerns seem similar” ³⁴⁹
Working within community processes	“to some extent the feedback from the communities is the result of whatever democratic process they’ve got in the communities themselves, and we’re not fiddling with those in any way... we’re providing and proposing, requiring an Advisory Committee... but really it’s kind of up to the democracy in the community... and the structures that they set up that control their IPA, to have feedback from the community into the project” ³⁵⁰

³⁴⁴ DEWHA staff member (#2), interview 16 March 2007

³⁴⁵ CLC staff member (#1), interview 19 January 2007

³⁴⁶ DEWHA staff member (#3), interview 12 March 2007

³⁴⁷ DEWHA staff member (#1), interview 16 March 2007

³⁴⁸ CLC staff member (#2), interview 30 November 2006

³⁴⁹ CLC staff member (#2), interview 30 November 2006

³⁵⁰ DEWHA staff member (#1), interview 16 March 2007

6.5.4 Summary

Throughout the previous sections I have shown that there are many differing perspectives on the extent to which agency and Warlpiri management aspirations have been met. Overall, staff indicated that most agency objectives were being met, or partly met. When compared, a difference of opinion between agencies exists about the extent to which biodiversity conservation outcomes and support for Aboriginal aspirations were being achieved. CLC staff indicated that biodiversity conservation objectives were not being met, and support for Aboriginal aspirations was only partly met. DEWHA staff indicated that both of these objectives were being achieved. Differences of opinion also existed over the extent to which Warlpiri aspirations were being met; some staff indicated they were and others that they were not.

Of the objectives that were not met, or only partly met, agency staff identified a number of challenges to management, such as environmental issues, differing values and program expectations, and limited funding and resources. Likewise, staff identified many processes that are contributing to the achievement of some management objectives, or could enhance these objectives. Again, these processes vary from ones to assist in cross-cultural understanding and engagement to IPA accountability and management functions. These differing perspectives appear to reflect the level of engagement and knowledge exchange occurring between Warlpiri people and the respective agencies involved in IPA management. They also reflect staff involvement and interest in program delivery at the national, regional and local level.

6.6 The picture overall: performance, challenges and processes

The analysis of staff perspectives on the management objectives of Warlpiri people and agencies shows diversity in interpretations of the extent to which objectives have been achieved. This diversity is due in part to varying interests of CLC and DEWHA in the IPA across management levels, and the knowledge exchange processes occurring between these levels. It is also the result of an ineffective management

structure, where planning, community control and monitoring and evaluation have not been well developed. On examination of the number of challenges identified throughout this chapter (see Table 38, p.239), it is evident that achieving multiple management objectives has not been easy. As a result, only some agency and some Warlpiri objectives have been met through the program to date.

Regardless of the challenges facing management, agency staff are positive that the IPA can better achieve multiple objectives. From my analysis, the adoption of processes to boost cross-cultural and inter-agency engagement and understanding, a strengthened and more autonomous management structure, improved planning and accountability, and the enhanced cultural management of country are required. Throughout this chapter staff suggested many processes to improve management in line with this analysis. These are summarised in Table 39 (p.240).

Table 38: Challenges which limit the extent agency and Warlpiri management objectives were being achieved for the Northern Tanami IPA

<i>Environmental</i>
• Size, extent and location of IPA (Ch. 6.4.1.4 & 6.5.1) • Climatic conditions (Ch. 6.5.1)
<i>Working cross-culturally</i>
• Differing value systems between program & Warlpiri interests (Ch. 6.3.1-2 & 6.5.1) • Limited cross-cultural understanding of program objectives by Warlpiri people (Ch. 6.5.1) • Traditional Owner expectations on program delivery (Ch. 6.5.3) • Working within community frameworks (Ch. 6.5.1) • Limited program staff engagement on ground (Ch. 6.4.1.4, 6.4.1.7 & 6.5.2)
<i>Education and training</i>
• Limited contemporary land management skills & knowledge amongst people (Ch. 6.2.4 & 6.5.1) • Limited resources for land management training & education (Ch. 6.5.1)
<i>Funding, support and partnerships</i>
• Ensuring consistent work & funding for the Wulain Rangers (Ch. 6.4.1.1) • Lack of funding, resources & staff numbers (Ch. 6.4.1.4, 6.4.2, 6.5.1 & 6.5.3) • Lack of State & Territory Government support & recognition of IPAs (Ch. 6.4.1.3 & 6.5.2) • Limited partnerships & engagement of government departments (Ch. 6.5.2) • Limited knowledge exchange between DEWHA & CLC staff & Warlpiri people (Ch. 6.4.2) • Trying to establish community partnerships (Ch. 6.4.1.5) • Funding tied to NHT guidelines (Ch. 6.5.2)
<i>Planning, management and accountability</i>
• Maintaining a motivated group of Rangers (Ch. 6.4.1.1) • Ensuring continued Traditional Owner support (Ch. 6.4.1.2) • Lack of autonomy of Management Committee (Ch. 6.4.1.7) • Significant role of IPA Coordinator (Ch. 6.4.1.7) • Effectiveness of monitoring and evaluation to measure outcomes (Ch. 6.5.2) • Limited long-term planning (Ch. 6.4.1.7 & 6.5.3)
<i>Cultural management</i>
• Limited cultural management occurring on-ground (Ch. 6.4.2) • Limited direct funding for cultural management activities (Ch. 6.4.2) • Loss of traditional knowledge and skills (Ch. 6.5.3) • Lack of Rangers interest in cultural management (Ch. 6.4.2) • Limited community support (Ch. 6.4.2) • Direct focus on national land management agendas (Ch. 6.4.2)
<i>Community, cultural and social issues</i>
• People's lack of health & well-being (Ch. 6.5.3) • Community obligations (Ch. 6.5.3) • Family and social commitments (Ch. 6.5.3) • Individual versus community interests (Ch. 6.5.3) • Rangers face peer pressure & jealousy (Ch. 6.4.1.1) • Meeting cultural responsibilities (Ch. 6.5.3)

Table 39: Processes to enhance the achievement of agency and Warlpiri management objectives for the Northern Tanami IPA

<i>Funding, support and partnerships</i>
• Better resourcing & long term support (Ch. 6.5.1) • Enhanced local partnerships (Ch. 6.4.1.5) • Engagement in fee-for-service work (Ch. 6.2.5) • Improved inter-sectoral & inter-departmental partnerships (Ch. 6.5.2)
<i>Working cross-culturally</i>
• Sharing knowledge & skills (Ch. 6.5.1) • Improving engagement of program staff on-ground with Warlpiri people (Ch. 6.4.1.4, 6.5.1-2) • Effective cross-cultural communication (Ch. 6.5.1) • Better recognition & incorporation of Warlpiri skills and knowledge (Ch. 6.2.3, 6.4.1.2 & 6.5.1) • Negotiation to achieve multiple aspirations (Ch. 6.4.1.4, & 6.5.2) • Acknowledging & understanding different world views (Ch. 6.5.2) • Improved cross-cultural understanding of program staff (Ch. 6.5.3) • Greater support for Aboriginal aspirations (Ch. 6.4.1.4) • Communicating & sharing information between program staff & Warlpiri people on a more regular basis (Ch. 6.5.3) • Improved departmental & partner awareness (Ch. 6.5.2-3)
<i>Planning, management and accountability</i>
• Program staff accountability to plan of management & Management Committee (Ch. 6.5.1) • The establishment & improved management accountability of Advisory Committee (Ch.6.4.1.3 & 6.5.3) • Traditional Owner involvement in the plan of management (Ch. 6.4.1.7 & 6.5.2) • Continual revision of management plans (Ch. 6.5.3)
<i>Time and program flexibility</i>
• Program flexibility (Ch. 6.2.2 & 6.5.2) • Allowing time for program development & delivery (Ch. 6.5.2 & 6.5.3)
<i>Community autonomy</i>
• Voluntary self-declaration (Ch. 6.5.2) • Community identified priorities (Ch. 6.5.2) • Enhanced community ownership over management (Ch. 6.5.3) • Community ownership over planning (Ch. 6.5.3) • Working within community processes (Ch.6.5.3)
<i>Education and training</i>
• Improved training & resources (Ch. 6.2.4 & 6.5.3) • Improved education for autonomy (Ch. 6.5.3)
<i>Cultural management</i>
• Increased cultural management (Ch. 6.5.3) • Allowing for gendered management approaches (Ch.6.5.3) • Increased access to & visiting country (Ch. 6.5.3)

6.7 Conclusion

The aim of this chapter was to examine CLC and DEWHA staff's interests in and perspectives on the management structure and practice of the Northern Tanami IPA, as against Warlpiri management interests. Staff outlined many objectives for engaging with Warlpiri people to manage the Northern Tanami IPA. Some objectives were similar between agencies, whilst others differed. The perspectives of agency staff on Warlpiri management objectives showed similar results. Overlaps occurred where Warlpiri people's connection to country and interest in traditional management practices were discussed. Differences occurred when staff focused more on their own level of management interests.

In discussions on the IPA management structure, the many levels of management and the roles and responsibilities of people in those levels were the main focus. Problems identified regarded the autonomy of levels and the overall efficacy of the management structure. This has implications for continued management practice and accountability. Issues over knowledge exchange between agencies and a management agenda driven by national conservation interests were highlighted throughout the analysis of on-ground management practice. Few cultural management activities were occurring on-ground through the IPA, and those that were, were facilitated mainly through research collaborations. Such a management approach does little to decolonise national agendas of protected area management.

There were also differing opinions on the extent to which management objectives were being achieved. Objectives considered to have been met or partly met were mostly those of the CLC and DEWHA. Agency staff considered Warlpiri management agendas, particularly cultural management interests, difficult to incorporate and achieve. Likewise, some agency management objectives were not met. Challenges such as agency knowledge exchange, limited funding and support and cross-cultural working environments constrained the extent to which objectives have been attained. Such challenges need to be addressed if management is to better reflect and achieve multiple management aspirations. A number of processes to improve management have been proposed throughout this chapter. These include

improved planning and management accountability, better training and education, and greater local control and autonomy.

In the next chapter the results of this chapter are compared and contrasted with those of the Warlpiri research participants from Chapters 4 and 5 to examine management efficacy within the Northern Tanami IPA.

Chapter 7

Comparative experiences of IPA management



Photo 18: Senior women on the IPA Management Committee planning a country visit, Lajamanu, July 2006

7. COMPARATIVE EXPERIENCES OF IPA MANAGEMENT

7.1 Introduction

In Chapter 3, the WCPA evaluation framework and its application as the analytical framework for this research was outlined. In this chapter I apply the framework to examine themes relating to management efficacy that emerged from my discussions in Chapters 4, 5 and 6. Table 40 provides a summary of these themes. First, I explore management intent by looking at Warlpiri and agency management interest and values, as well as the political and management environment that influences management. Secondly, I examine management practice. Management practice includes discussion of the adequacy of resources available for management and the sustainability of current management practice. I conclude this chapter by looking at the gap between management intent and practice, and why this has influenced the achievement of multiple management agendas for the Northern Tanami IPA. Overall this chapter gives a picture of management efficacy of the Northern Tanami IPA to date. Figure 22 (p.245) outlines how the chapter is structured through the application of the WCPA evaluation framework.

Table 40: Themes relating to management intent and practice

<i>Management intent</i>	<i>Key chapter sections</i>
Values and interests in management	4.2, 4.4, 5.2, 6.2
Perspectives on stakeholders and their roles	5.4, 5.6.2, 6.4.1
Institutional challenges	5.6.3, 5.7, 6.4.1, 6.4.2, 6.5.2
Management planning and evaluation	5.5.2, 5.5.3, 6.4.1, 6.4.2, 6.5.1- 3,
Spatial design	6.2.1, 6.2.2, 6.2.6, .5.1, 6.5.2
<i>Management practice</i>	<i>Key chapter sections</i>
Funding and support	4.4, 5.4.2, 5.6.6, 6.2.4, 6.4.2, 6.5.2, 6.5.3, 6.6.6
Cross-cultural management	5.3, 5.4, 5.5, 6.3.1-3, 6.4.2, 6.5
Effective partnerships	5.3, 5.6.3, 5.6.5, 6.2.7, 6.4, 6.5.2
IPA governance	5.4.1-3, 5.5.1-3, 5.6.2, 5.6.4, 5.6.6, 5.7, 6.4.1-2, 6.2.4, 6.5.1, 6.5.3
Traditional knowledge and skills management	4.2-4, 5.4.1-2, 5.6.1-2, 6.2.3, 6.4.1-2, 6.5.3
Capacity, training and skills development	4.3.1-2, 4.4.3, 5.4.1, 5.4.3, 5.5.1, 5.6.1-2, 6.2.4, 6.4.1, 6.5.1, 6.5.3

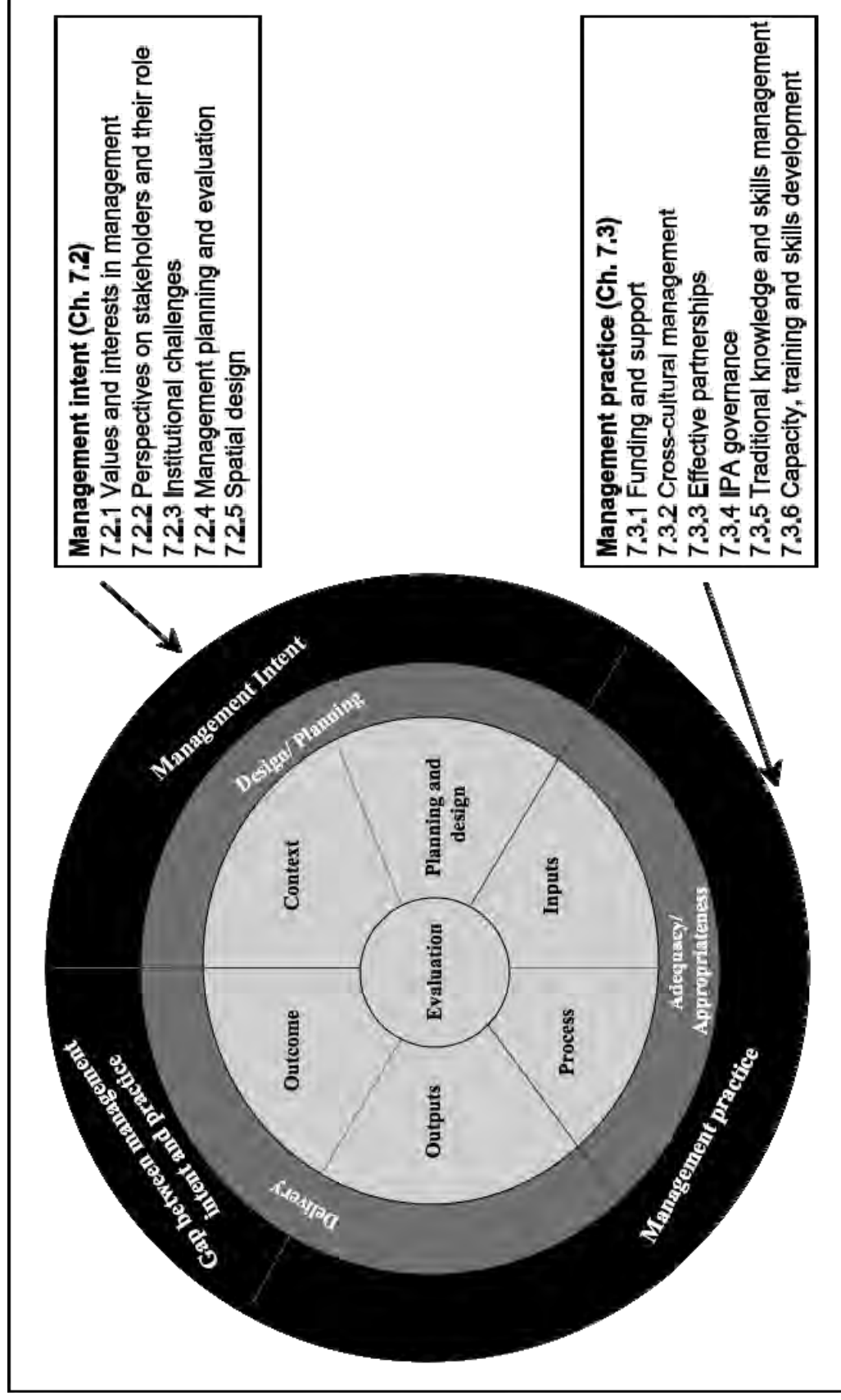


Figure 22: Themes relating to management intent and practice discussed in this chapter

7.2 Management intent

Discussions of management intent provide an understanding of the stakeholders, values, threats and the opportunities for which the Northern Tanami IPA is managed (Ch. 3.3). It also provides details on the management and political environment in which the IPA operates. Themes that relate to management intent were identified in the previous chapters (see Table 40 and Figure 22) and are discussed below.

7.2.1 Values and interests in management

In this study, differences in values and interests for managing country were clearly evident. For Warlpiri people the health of country is intertwined with people and underpinned by values related to cultural tradition, identity, emotional and physical well being, and spiritual connection (Ch. 4.2). This worldview directs how Warlpiri people understand, interact with and manage country, and relies on being able to access and use the land and its resources. Warlpiri research participants have interests in the IPA because it provides for improved support and recognition of Warlpiri management of country and can help promote livelihood opportunities (Ch. 5.2). This is significant at a local level because of the cultural, social, economic and environmental benefits that can be generated through appropriate management (Ch. 5.4.4). At a national level, the IPA is seen as politically important because of the improvements in government understanding and recognition that Warlpiri management capabilities and land ownership can bring.

In contrast to this, nearly all agency staff interests were underpinned by the need to maintain or improve the ecological value of the Northern Tanami IPA. Most interests were focused on the need to protect and enhance the biological diversity and landscape function of country within the IPA by, for example expanding the NRS, improved biodiversity conservation, information brokering and training, whole-of-landscape management and partnership creation (Ch. 6.2). Agency staff were interested in engaging with and meeting Aboriginal aspirations for country but even this was underpinned by the primacy of the ecological benefits of incorporating traditional knowledge and skills in management practice (Ch. 6.2.3). All of these agency interests were considered significant at the national level for the creation of a

comprehensive, adequate and representative NRS. Agency staff were also aware that cultural, social and economic benefits were being locally and regionally derived through the IPA. This was a stronger priority for CLC than for DEWHA staff. It is reflected principally through CLC interests in improved community development, sustainable livelihoods and partnership creation.

The key management interests of participants in this research are summarized in Figure 23 (p.248). This shows diversity amongst stakeholders, with little alignment of interests. Such diversity reflects the differing value systems that underpin interests. Diversity in stakeholder objectives is commonly noted in NCRM programs and literature on co-management within Australia (Walsh 1995; Howitt 2001; Ross et al. 2004; Smyth et al. 2004; Nursey-Bray and Rist 2009). For example Sithole et al. (2007:29), in their review of Aboriginal land and sea management programs across the Top End of Australia, have shown that such programs “involve multiple stakeholders who have multiple scales of interaction and who are holders of often contrasting objectives and activities”.

Of the objectives outlined in Figure 23, support for Warlpiri management of country is the only objective common to the three research groups (i.e. Warlpiri people, CLC and DEWHA staff). This is of particular importance because if there are such divergent interests and values for country, then how do agencies and Warlpiri people work together to overcome these differences and achieve these multiple agendas? And why, if Warlpiri management of country is the only common objective, is it not being achieved?

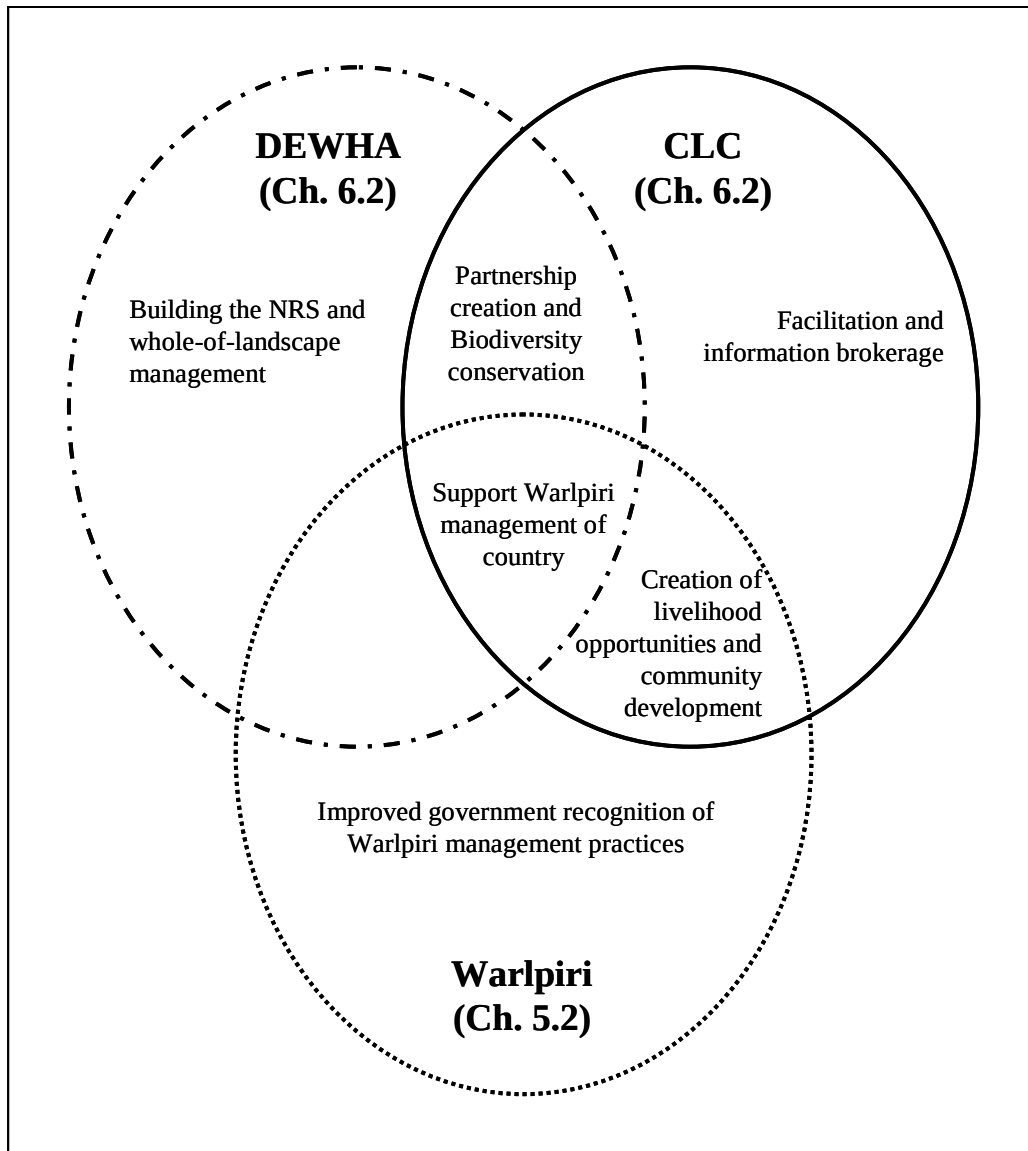


Figure 23: Management interests for the Northern Tanami IPA: Warlpiri people, CLC and DEWHA staff

Dodson (1995) and Howitt (1998; 2001) argue that understanding and integrating Aboriginal views, approaches and experiences can better achieve the national concept of resource management. Historically, Aboriginal values and interests in protected area management have been sidelined in the wake of regional and national agendas of biodiversity conservation (Lawrence 1996; Corbett et al. 1998; Davies et al. 1999; Davies et al. 2000). A contributing factor to this is the limited cross-cultural pluralistic understandings of values and interest (Ghimire and Pimbert 1997a; Lane 1997; Howitt 2001; Aslin and Bennett 2005). Pluralism is a key concept for ensuring that multiple 'views and voices' are heard in collaborative management arrangements (Borrini-Feyerabend et al. 2000).

Carter and Hill (2007) describe the development of communities of practice when cross-cultural knowledge exchange, understanding and negotiation occur effectively between agencies and community groups. Communities of practice represent the sharing and application of formal and informal knowledge and management practice between people to build networks. This is where cultural schisms can be crossed and compromises occur (Aslin and Bennett 2005). It is evident from my research that the Northern Tanami IPA community of practice needs to be developed to incorporate the different knowledge bases, interests and skills of Warlpiri people and agency staff. Bringing different knowledge and capabilities together for improved management can be difficult. Where it occurs, trust and social capital are built, management becomes more resilient and conflicts are reduced (Grimble and Wellard 1997; Carter and Hill 2007; Berkes 2009b). Cross-cultural management is discussed further in Chapter 7.3.2 as a key theme affecting management efficacy within the Northern Tanami IPA.

7.2.2 Perspectives on stakeholders and their roles

Stakeholder analysis is important as it shows how people and ‘groups’ of people influence management and relate to each other (Mahanty 2002). Such an analysis is useful for resource management practitioners as it helps identify areas of conflict, which can lead to improved mediation and negotiation for the development of equitable policies and management practice (Grimble and Wellard 1997). A complete stakeholder analysis was not carried out in this research. Nonetheless, three themes related to stakeholder involvement and knowledge has emerged. These themes show that Warlpiri people and agency staff have differing ideas about and knowledge of: 1) who the stakeholders are; 2) what their roles and responsibilities are; and 3) the scales at which they operate. These are considered in turn. Figure 24 (p.252) and Figure 25 (p.253) diagrammatically represent Warlpiri and agency perspectives on stakeholders in the IPA.

Warlpiri people did not identify many of the stakeholders that agency staff did. For example Warlpiri people did not identify DEWHA and the IPA Advisory Committee. The main reasons for this are:

- Warlpiri people's limited understanding of DEWHA's role in the IPA (Ch. 5.3) which may be the result of limited engagement between DEWHA staff and Warlpiri people (Ch. 5.6.3); and
 - The IPA Advisory Committee was not established (Ch. 5.5.1.1 & 6.4.1.6).
- Neither Agency staff nor Warlpiri people identified the CLC as a stakeholder either. Instead the role of the CLC was intertwined with that of the IPA Coordinator (Ch. 6.4.3 & 6.4.1.6). Even though the CLC hosts the IPA Coordinator position, it is an important stakeholder and should be considered as such in its own right. In the adaptive co-management literature, the CLC would be considered a 'bridging organisation'. It brings together differing institutions, levels of knowledge, and information and resources in order to create management opportunities based on trust, social learning and collaboration (Berkes 2009b).

It is also evident that the research participants see stakeholders as relative to their own scale of management interest. Scale is used here to describe the spatial relationship between stakeholders and place (Gibson et al. 2000; Howitt 2001; Mahanty 2002). For Warlpiri people, stakeholders are people or organisations with whom they interact with on a regular basis, or who they want more support from to manage country (see Figure 24, p.252). For example, the Wulaign Resource Outstation Centre is an Aboriginal owned organisation in Lajamanu that Rangers and Traditional Owners work collaboratively with to manage outstations. The Lajamanu CEC is the local school that Warlpiri people wish to work more closely with in the future. The identification of these stakeholders also reflects Warlpiri people's individual interests in managing country. For example, the senior women are heavily involved in the language and culture program in the school and would like the IPA to help support the country visit component of this program (Ch. 5.6.5). Country visits provide the women with better access to country to carry out a range of activities such as hunting and passing on traditional knowledge and skills (Ch. 4.4.2.1). The stakeholders identified by agency staff (see Figure 25, p.253) included a broader range of government departments and organisations that were seen as being able to provide financial resources and advice to help improve management (Ch. 6.4.1). This reflects national and regional agency interests in developing inter-governmental partnerships and information brokering for improved conservation outcomes (Ch. 6.2).

Differing scales of interest come about because different people are subject to (or are presented with) differing norms and rules that influence their decision-making (Ostrom 1990). In this research the cultural value of country underpinned Warlpiri interests and decision-making processes, whereas it was the ecological value and organisational mandate of DEWHA and CLC that influenced the management interests and decision-making of agency staff (Ch.4, 6.2 & 7.2.1). Due to such diversity, collaborative management arrangements need to be managed as multi-scale systems. If this is not recognised, understood and valued, uninformed and inappropriate management interventions result (Berkes 2006).

A common theme that arose in this research project was that few people had a good overall perspective on the role and responsibility of each stakeholder in the IPA (Ch.5.4.4 & 6.4.1.7). This is thought to have occurred for a number of reasons including: the promotion of individual interests in managing country; limited engagement and knowledge exchange between stakeholders; the inadequate development of a collaborative management direction; and unequal power sharing.

The three differences in stakeholder perspectives outlined in this section are evidence that the IPA community of practice needs further development (Ch. 7.2.1). If social learning within and across scales was occurring, people's stakeholder knowledge should be more comprehensive. This is where bridging organisations, such as the CLC, and leaders, such as the IPA Coordinator, have a role in facilitating knowledge exchange so that scale boundaries are crossed to inform and enhance management (Cash et al. 2006). The role of bridging organisations and leaders is discussed further in Ch. 7.3.4 as it relates directly to management practice.

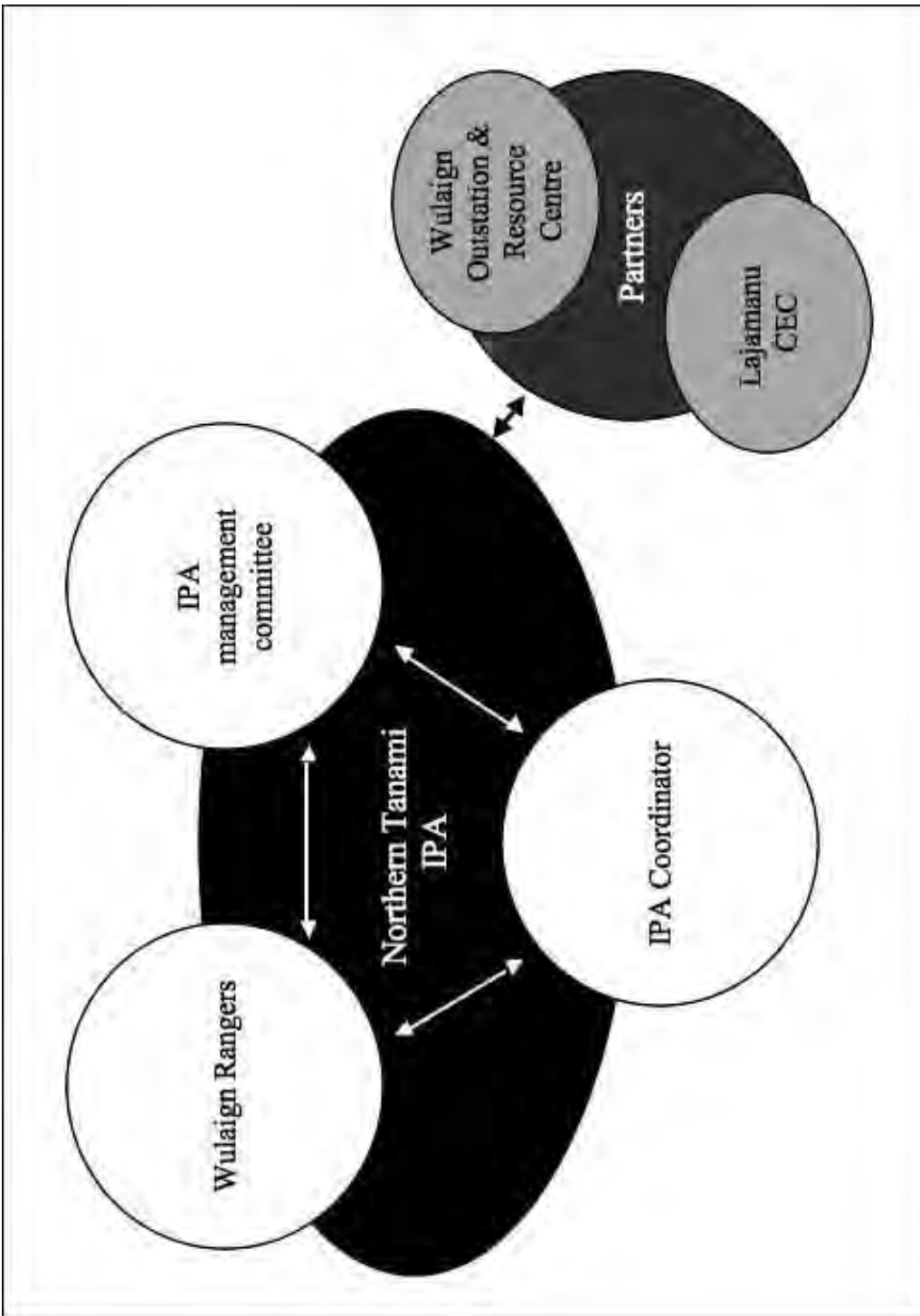


Figure 24: IPA stakeholders, Warlpiri perspectives

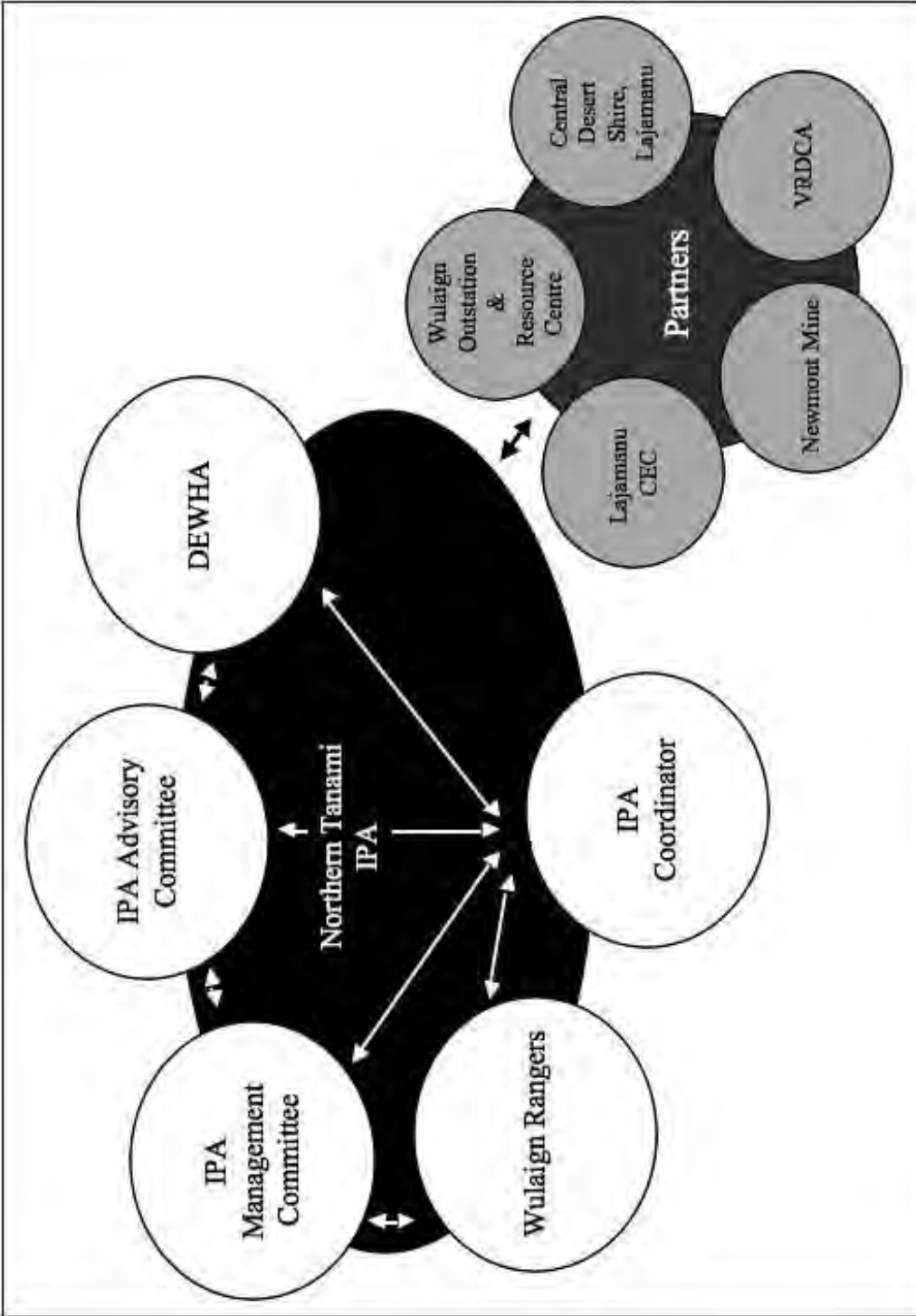


Figure 25: IPA stakeholders, CLC and DEWHA staff perspectives

7.2.3 Institutional challenges

A number of key issues relating to the institutional context of the IPA program were identified in Chapters 5 and 6. These included limited program support for Warlpiri management aspirations (Ch. 5.7 & 6.4.2) and the limited legal status of, and State and Territory Government partnerships with, IPAs (Ch. 5.6.3, 6.4.1.3 & 6.5.2). It is important to understand the institutional context in which the IPA program operates as it greatly influences IPA management.

7.2.3.1 Policy and program support for Warlpiri management aspirations

IPAs are predicated on being able to support Aboriginal people to manage country for “cultural biodiversity and conservation, permitting customary sustainable resource use and sharing of benefit” (Davies et al. 1999; Smyth 2006; DEWHA 2010a). The Australian policy context for protected area management was discussed in Chapter 2, and varies across the continent because of differences in Aboriginal rights to land within State, Territory and Federal Jurisdictions (Bauman and Smyth 2007). Such policy has been criticised as hindering outcomes from management on Aboriginal owned lands because it is fragmented, continually developed without the involvement of Traditional Owners as ‘active partners’ and rarely innovative (Lane 2002; Whitehead 2002; Altman and Dillon 2004; Lloyd et al. 2005; NTG 2005a; Sithole et al. 2007).

Current Australian policy supports Aboriginal involvement in protected areas, principally through the incorporation of traditional knowledge and skills, the addition of Aboriginal owned land for conservation purposes and cultural site management (Ch. 2.2.1). The incorporation of traditional knowledge and the contribution of Aboriginal owned lands into the NRS are two of the main objectives for agency interest in the Northern Tanami IPA (Ch. 6.2.1 & 6.2.3). There is little protected area policy and program support within Australia that directly reflects Aboriginal interests beyond this, especially in relation to the social aspects of resource management (Figgis 2006). Nonetheless, improved livelihoods are a principal objective for Warlpiri people in their engagement with the IPA program (Ch. 5.2).

Sustainable livelihoods for Warlpiri people are underpinned by their need to culturally manage country for values of health and wellbeing, identity, and spiritual connection (Ch. 4.2). This is recognised by agencies involved in managing the Northern Tanami IPA, but sustainable livelihoods are more of an interest for the CLC than DEWHA. DEWHA staff acknowledged that broader socio-economic benefits are generated through IPAs, but are reluctant to see the program move away from its primary focus of biodiversity conservation (Ch. 6.2.5). This does not align with IUCN principles of community based protected area management, which are predicated on the rights and needs of Aboriginal people to be able to use and manage the land and its resources in line with cultural values, traditions and laws (Berkes 2009a).

The Northern Tanami IPA is a cultural landscape that has formed over many thousands of years from Aboriginal use and management. It is declared as an IUCN category VI protected area, a protected area with sustainable use of natural resources (Dudley 2008). This category fully supports the integration of differing cultural approaches to resource management, with sustainable livelihood creation at the fore (Ch 1.2). “The cultural, spiritual and economic significance of land for the improved economic development of Indigenous peoples” is recognized through the IPA program (Muller 2003:30-1); nevertheless program support needs to move beyond recognition. There is no reason why Warlpiri aspirations and practices for managing country cannot be legitimately supported and included within the program in their own right (Ch. 5.7 & 6.4.2). In fact, Thackway and Brunckhorst (1998:175) write “any conservation partnership between Indigenous people must be based upon the premise that Indigenous cultural objectives take priority over environmental issues”. In Ch. 7.3.1.2, I discuss how program funding has made Warlpiri management aspirations vulnerable in the Northern Tanami IPA.

If the IPA program is to better support Aboriginal land management aspirations there needs to be a stronger and more supportive policy context in which it operates (Hill 2006; Bauman and Smyth 2007). This is important particularly to bridge the gap between the national scale at which the IPA program operates and the local scale of Aboriginal interest (Ch. 7.2.1). Generally, policy formation does not successfully integrate these levels, particularly when considering the nexus between health and

wellbeing and management of country (Johnston et al. 2007; Agrawal and Redford 2008). Improvements in the IPA policy context are contingent on the:

- continued decolonization of Government perspectives on the varied ways that country is viewed and managed by Aboriginal people (Altman 2003; Muller 2003);
- more inter-disciplinary, evidence-based research on the multiple benefits derived from Aboriginal management of country (Altman 2001; Burgess et al. 2005; Garnett and Sithole 2007); and
- improved adoption of international best practice standards, such as considerations for poverty reduction and sustainable livelihoods, for community based resource management within the IPA program and broader NRS principles so that both cultural and natural management are integrated more successfully (Figgis 2006; Altman and Larsen 2007).

7.2.3.2 The legal status of IPAs and partnerships with State Government

The legal status of IPAs and partnership with State and Territory Government conservation agencies are another two themes that arose in relation to the institutional context in which the IPA program operates (Ch. 5.6.3, 6.4.1.3 & 6.5.2). These are national and regional level issues that affect the level of support and resources available to individual IPAs.

Partnership creation between IPAs and State and Territory Governments was intended as a mechanism to help provide additional support for Aboriginal self-management of country (Smyth 2006). Benefits of partnership creation are considered to be the:

- increased acceptance of Aboriginal people as protected area managers by conservation agencies;
- development of long-term partnerships for protected area management between Aboriginal people and organisations, and government agencies;
- improved cross-cultural understanding of management similarities and differences; and

- improved bio-regional planning and management of protected areas across Australia (Bridgewater et al. 1999; Smyth 2006).

These benefits are contingent on the full cooperation and support of State and Territory conservation agencies.

The strong engagement that once occurred between State, Territory and Federal Governments through the development of the IPA program has significantly weakened over time (Gilligan 2006). A contributing factor is considered to be the historically poor relationships that have existed between Aboriginal people and organisations and the government (Davies 1999). Another reason identified by Smyth (2006:14) is that IPAs are not seen as legitimate by State conservation agencies because they are not conserved “in perpetuity under legislation”. These were significant issues raised by DEWHA staff interviewed during this research (Ch. 6.4.1.3).

A recommendation put forward in the 2006 IPA review by Gilligan (2006) was that IPAs needed legal recognition in reserve systems if State and Territory Government support and partnerships are to develop. It needs to be remembered that one of the main incentives for Aboriginal engagement in the program is the voluntary declaration of lands; not declaration tied to government legislation through means such as joint management (Bridgewater et al. 1999; Smyth 2001). Altman and Larsan (2007) assert that if legal recognition is to happen, it needs to be through “appropriate changes in legal and policy regimes”, and “where communities choose so”. It also needs to occur in a way that does not interfere with Traditional Owner control over management and decision-making (Gilligan 2006). There has been little examination into how partnerships are being, or not being, developed through the IPA Program. The Dhimurru IPA is one documented case of successful partnership creation between the Northern Territory Government and Traditional Owners. Through a formal agreement under the *Territory Parks and Wildlife Conservation Act*, Traditional Owners retain management responsibility for the IPA, whilst the Territory and Commonwealth Government have agreed to joint involvement in a “formal advisory and support role” (Bauman and Smyth 2007:111-2).

The lack of on-going funding and management capacity of IPAs was identified as another reason why State and Territory Government agencies are not engaging in partnerships (Gilligan 2006). Limited funding of State and Territory Governments for partnership creation has also been identified as an issue (Figgis 2006). An important way that partnerships can be encouraged is through the development of IPA Advisory Committees. These are contractual requirements of the Program. The Advisory Committees' main purpose is to bring together multiple agencies that have access to diverse funding sources and expertise. The engagement of State and Territory Government representatives on these Committees would also help enhance collaborative policy and management of protected areas through improved recognition and support of Traditional Owner contributions to the NRS (Figgis 2006; Gilligan 2006). It would also create opportunities for improved training, education and employment, and technical support and resourcing (Thackway and Brunckhorst 1998; Muller 2000). The Northern Tanami IPA Advisory Committee needs consolidation and should be furthered at the regional level by the CLC and the IPA Coordinator if improved partnerships are to be developed through the program (Ch. 7.3.2.1).

7.2.4 Management planning and evaluation

7.2.4.1 The IPA plan of management and planning processes

Over the decades, resource management planning has moved towards the trends of “participation, social learning and decentralized decision-making” (Lane 2001:667). This is important so as not to remove decision-making from the local context in which it should be situated (Hibbard et al. 2008). Throughout the history of protected area management in Australia, planning has been considered a process of consultation rather than full managerial participation (Lane 1997; Davies et al. 1999). One of the strongest elements of the IPA program is thought to be the support given to IPAs to ensure community participation and control over planning (Davies et al. 1997; Gilligan 2006). In her research on the Nantawarrina IPA in South Australia, Muller (2003:36) confirmed this; the development of the IPA plan of management through the direct involvement of the Nepabunna community led to “community control of management priorities”.

In contrast, this research has found a lack of informed involvement by Traditional Owners in the development of the Northern Tanami IPA draft plan of management. First, there was little knowledge of the draft plan amongst the Warlpiri research participants, which has led to power imbalances in decision-making and management (Ch. 5.5.2). Second, despite the plan identifying some cultural management objectives, on closer examination, management issues, outcomes and actions reflect more on biodiversity conservation (see for example Figure 26, p.260). Warlpiri people share some of these interests, but as shown throughout Chapters 4 and 5, cultural management activities are still the dominant interest. Finally, the IPA draft plan is the framework directing management actions and activities. If Warlpiri people are unaware of the plan's existence, and their aspirations are not appropriately included, it is doubtful that their interests will ever be achieved (Ch. 5.7). Following from this, if activities are not outlined in the plan they are unlikely to be funded. Limited funding for cultural management has made the achievement of Warlpiri management aspirations vulnerable to date (Ch. 7.2.1).

Management planning was considered to be a responsibility of the CLC and IPA Coordinator (Ch. 6.4.1.2), but was rarely discussed by agency staff (Ch. 6.4.1.7). When mentioned, the draft plan was described as needing to represent Traditional Owner aspirations and be a result of sustained long-term planning (Ch. 6.5.1-3). In reality this has not occurred.

Pretty and Smith (2004) and Berkes (2009b) argue that social learning which occurs through participation and knowledge exchange in planning is a key starting point for developing collaborative and informed management directions. This contributes to the generation of equal power sharing arrangements that are more likely to encourage agencies to continue to develop negotiation-orientated approaches to management (Mahanty 2000; Pretty and Smith 2004). The lack of knowledge about the draft IPA Plan of Management indicates that there has been limited opportunity for social learning between Agency staff and Warlpiri people through planning processes. This explains some of the diversity in cross-cultural understanding and knowledge of stakeholder values, interests and roles (Ch. 7.2.1). Cross-cultural barriers are considered to be one of the main constraints to Aboriginal participation in planning

(Lane 2001). This is where, once again, bridging organisations and leaders have an essential role in enhancing collaborative management.

Management Zone 4**Issues:**

Proximity to pastoral operations and better soils of this catchment lead to specific environmental concerns. Cattle ‘graze out’ along the water course of the creek with large numbers concentrating in the floodout while water persists. A variety of weeds, including introduced pasture species have been dispersed by stock throughout this zone. Stock does considerable damage to the wetland and surrounding plains. No threatened species such the greater bilby and great desert skink have been recorded here. Fire is not a major issue in this zone, rather suppression of fire as a result of uncontrolled grazing has lead to vegetation thickening in many areas. Access within the area is highly limited making active management difficult and costly. Although of obvious regional significance, the wetlands associated with the floodout are currently unclassified.

Desired Outcomes:

- Increase the frequency and extent of burning in communities adjacent to the watercourse and terminal wetlands.
- Reduce the impact of feral stock on a regionally significant wetland.
- Implement standardised monitoring of threatened species, traditional resource species and general environmental condition to inform future management and evaluate outcomes of IPA management efforts.
- Reduce weed densities in the floodout and riparian zone to improve the environmental integrity of important wetlands.

Management Actions:

- Strategic weed control and monitoring (Parkinsonia, grader grass, Mossman river grass and couch grass and other serious environmental weeds as encountered).
- Prescribed burning around arid wetlands.
- Monitoring of key biodiversity indicators (threatened species, waterbirds, small mammals and reptiles and rare plants) at two wetland sites.
- Control of feral stock.
- Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts or wildlife.

Figure 26: Example of Northern Tanami IPA Draft Plan of Management issues, outcomes and actions for Management Zone 4

Throughout this chapter I have noted that the CLC, as a bridging organisation, plus the IPA Coordinator, as a leader, need to guarantee social learning occurs within the Northern Tanami IPA (Ch.7.2.2). Their role in facilitating and ensuring appropriate local participation in management planning needs to be advanced. However, a lack of resources, time and organisational capacity can be barriers to effective planning (Hibbard et al. 2008; Walsh 2008). The substantial role of the IPA Coordinator limits

the time available for engagement, planning and management. Also the skill level required of one person to be able to deliver on multiple management requirements, from planning to education to mentoring, is demanding. For coordinators to work effectively, bridging organisations need to ensure that they appropriately resource and support on-ground staff.

7.2.4.2 Monitoring and evaluation of IPA outcomes

Part of the planning cycle is the monitoring and evaluation process. There was no discussion amongst the participants about the development of a monitoring and evaluation framework for the IPA. This can be linked to the fact that the Northern Tanami IPA Draft Plan does not have a framework identified for a) how monitoring and evaluation is to occur over time and b) the process by which the results of monitoring and evaluation are fed back into management decisions (Ch. 5.5.2). Muller (2003:36) writes that monitoring and evaluation is not a “prescribed aspect of the IPA program”. This is of concern because without such frameworks there is little chance that adaptive management will occur to improve outcomes, especially where little baseline data exists on the natural and cultural values of IPAs. This is certainly the case for the Northern Tanami IPA, as well as much of the country declared as IPAs across desert Australia. This research has been the first assessment of what has or has not been achieved in the Northern Tanami IPA. It only examines challenges to and improvements that can be made in management process, not the actual measurement of management outcomes. Often external monitoring and evaluation is unwelcomed by agencies because of potential negative feedback and criticism about program delivery and achievements (Kleiman et al. 2000). In the case of this research, the broader results of contributing to improved management and organisational learning and change were considered valuable to the research participants.

I have also shown that there is little standardized monitoring and evaluation of management outcomes from IPAs occurring at the national level. Agency staff indicated that they believed outcomes were being achieved, but were unsure as to what extent, as outcomes are not easily monitored and evaluated (Ch. 6.5.2). Measured program outcomes were linked to the NHT scope of works that underpin

program funding. This scope of works is focused on national agendas of conservation, with little inclusion of Aboriginal management aspirations beyond engagement, use and transfer of traditional knowledge and skills, and cultural heritage protection. This means that IPA success in contributing to the achievement of broader social and cultural outcomes of interest to Aboriginal people, such as those indicated by Warlpiri people in this research, goes unnoticed in the program (Ch. 6.4.2).

Successful measuring of management outcomes is a problem consistent across protected area systems. A common critique is that measured outcomes usually pertain to biological diversity, with little consideration of social and cultural outcomes from management (Ch. 3.2). There has been some work on developing indicators to measuring these outcomes (Smyth and Beeron 2004; Wilson et al. 2005). However, they are not well integrated into protected area monitoring and evaluation processes (Ch. 3.2). Another constraint shown through this research is that stakeholder interests in protected areas are varied and multi-scaled (Ch. 7.2.1 & 7.2.2). Therefore the creation of standardized monitoring and evaluation processes can be difficult to achieve across protected area systems. Current research suggests that monitoring and evaluation of conservation activities would be better suited at individual site rather than system levels (Stoll-Kleeman 2010:381).

Despite these challenges, a key to ensuring the recognition of the range of outcomes and benefits achieved through the IPA program is to guarantee that the diversity of stakeholder values and interests are incorporated in monitoring and evaluation frameworks (Adams and Hutton 2007; Bauman and Smyth 2007). For the IPA program this means the integration of outcomes from Indigenous management, which is contingent on the improved support and recognition of Indigenous interests and practices within management (Ch. 7.2.3). It also requires the participation of Indigenous people in monitoring and evaluation design, implementation and analysis (Stem et al. 2005). This would help ensure that their interests in the national delivery of the program are identified, measured and included (Coakes 1998).

At the local level, a monitoring and evaluation framework needs to be developed for the Northern Tanami IPA. This would ensure that the context-specific aspirations of

stakeholders are being achieved and that on-ground management is occurring in an equitable and collaborative manner. It is also essential so that adaptive management can be achieved through an ongoing cycle of doing, learning and reviewing (Borrini-Feyerabend et al. 2000). The essential elements of learning and reviewing are not apparent in the Northern Tanami IPA management cycle (Ch. 6.4.1.7). The development of an ongoing monitoring and evaluation process for the Northern Tanami IPA would allow for the continued assessment of and growth in understanding of both management strengths and weaknesses, and of factors critical for improved management success over time. Assessing management performance in the NRS is the responsibility “of the jurisdiction in which the protected area is declared, or the private landowner in collaboration with the covenanting authority” (DEWHA 2009:57). As such, the IPA program needs to ensure that the development of monitoring and evaluation frameworks, and ensuing performance assessment, is integrated in planning and management processes for individual IPAs.

7.2.5 Building the NRS and whole-of-landscape management

Protected area policy within Australia requires the incorporation of Aboriginal owned lands into the NRS. This is occurring successfully through the IPA program and is a significant benefit of the program (Ch. 6.2.1). Many of these IPAs are on lands with high conservation values, which are not or cannot be conserved through other protected area governance arrangements. Some of these IPAs, such as the Northern Tanami, are also amongst the biggest protected areas in Australia and can contribute to improved landscape scale management across Australia. In the case of the Northern Tanami IPA, it is the only declared protected area in the Tanami bioregion and due to its size, can contribute greatly to reducing regional threats such as wildfire and feral animals (Ch. 6.2.2, 6.2.6, 6.5.1-2).

Agency staff that I interviewed indicated that achieving whole-of-landscape management was an aspiration of the program (Ch. 6.2.6). Partnership creation to coordinate conservation and management across various land tenures is vital for such management (DEWHA 2009). For the Northern Tanami IPA this would include working collaboratively with other IPAs in the region, NT Government managed parks and private landowners. A recent policy initiative of the NT Government

supporting landscape scale conservation is the Arafura to Alice Eco-links initiative. This initiative requires the cooperation of government and non-government agencies to work with landholders to promote conservation links across all land tenures (NTG 2008). Such an initiative could help improve and support partnership creation between IPAs and Government Departments and between individual IPAs. (Ch. 7.2.3).

The incorporation of Aboriginal owned lands into the NRS and associated partnership creation are also significant steps for landscape scale management. The success of landscape scale management is not just based on land acquisition. It also requires an analysis of how effectively these lands are being managed to achieve outcomes related to landscape scale management, including the human dimensions of development alongside conservation (Fabricuis et al. 2004; Wells and McShane 2004; Adams and Hutton 2007; Agrawal and Redford 2008). Within the NT this includes issues such as climate change, sustainable resource use and Aboriginal disadvantage. The Northern Tanami IPA and the IPA program overall do not have a systematic and thorough monitoring and evaluation framework to assess management effectiveness at either the local or national level (Ch. 7.2.4). The establishment of “nationally agreed protocols for monitoring ecological condition and management effectiveness” is required to ensure consistent and rigorous reporting on the performance of the NRS (DEWHA 2009:56). Without such protocols it will be difficult to assess if whole-of-landscape management is being achieved through the contribution of IPAs to the NRS; or any other protected area for that matter.

7.3 Management practice

Management practice includes an examination of resource availability and management processes. Throughout this research, a number of themes related to management practice were identified (see Table 40, p.244, and Figure 23, p.248). These themes are discussed in turn.

7.3.1 Funding and support

7.3.1.1 Long-term program funding and support

Limited long-term funding for the Northern Tanami IPA has been identified as a significant impediment to management (Ch. 5.6.6, 6.2.4, 6.4.2 & 6.5.2). Since its inception, the Northern Tanami IPA has had annual funding through the IPA program. As such, engagement in fee-for-service work was required to counteract shortfalls in wages and management funding (Ch. 6.6.6 & 7.2.5). This created additional administrative loads for the IPA Coordinator, who is responsible for managing numerous budgets and contracts. High administrative workloads due to multiple, short-term funding contracts are consistent across NCRM programs run by Aboriginal groups (Putnis et al. 2007). Short-term funding also often does not allow for investment in capital, wages and training, which are required for effective program development and delivery (Putnis et al. 2007). At the time of this research, only one staff member was employed to administer the Northern Tanami IPA. With only one vehicle, little funding and limited on-ground support, it is not surprising that management was under pressure (Ch. 5.4.2 & 6.4.2). Like other ICCAs around the world, limited funding and inadequate resourcing greatly affects program implementation (Wells and McShane 2004).

Only recently has the annual funding for the IPA program been extended to a five-year funding contract (Alexander) allowing for improved longer-term planning and stability. Similarly, since this research started, annual funding has been sought to sustain the Wulain Ranger group into the future. The Working on Country (NT) program, an element of the national Caring for our Country (CfoC) program, and the ILC Real Jobs program provide funding for employment of Aboriginal people as Rangers in remote communities.

Despite longer contracts, government investment in the NT is still considered to be behind the pace of “growth of natural and cultural resource management issues and the increasing number of Indigenous land and sea management groups” (Putnis et al. 2007:82). Like all government funded programs, the IPA program and program funding are vulnerable to changes in government policy and commitment in any year. There are no guarantees that funding for on-going management will continue to

be allocated into the longer-term. The development of NCRM fee-for-service contracts is considered one opportunity through which IPAs, such as the Northern Tanami, can diversify their funding sources and enhance sustainability (Luckert et al. 2007; Putnis et al. 2007).

7.3.1.2 Cultural management of country

One of the biggest critiques of IPA funding is that it principally addresses contemporary biodiversity conservation issues such as fire, feral animal and weed control. Even though it is recognised as an important part of the program³⁵¹, cultural management of country has been poorly funded and supported through the Northern Tanami IPA (Ch. 5.6.6, 6.4.2 & 6.5.2). Cultural management most often occurs as a ‘spin-off’ when other management activities are carried out. As such it often goes unnoticed in IPA reporting and monitoring (Ch. 7.2.4). This has significant implications for the achievement of Warlpiri management aspirations, which focus principally on the cultural management of country (Ch. 4).

IPA program support and policy needs to better incorporate and recognise cultural management as a legitimate resource management practice and fund it accordingly (Ch. 7.2.3 & 7.3.9). Altman and Whitehead (2003:1) write that public and policy-makers poorly understand Aboriginal customary management activities because they are often unrecognized and ignored. Still today there is an on-going struggle for the ‘recognition, respect and remuneration’ for Aboriginal management of country (Muller 2008a:140). There is little literature on the examination of Aboriginal interests and outcomes from protected area management in Australia. The literature that does exist focuses mostly on one issue or interest, for example feral animals control, fire management, tourism and hunting (Hill 2003; Robinson et al. 2005; Nursey-Bray 2009). There is little that critically examines the multitude of Aboriginal interests, such as those identified by Warlpiri people involved in the Northern Tanami IPA, and very little in relation to IPAs. Without such knowledge, the IPA program and supporting policy cannot be negotiated, designed and funded to provide equitable directions, processes and outcomes from management.

³⁵¹ “Both CLC and DEWHA staff also recognised that IPAs provide Aboriginal landowners with opportunities to gain funding and resources to manage country according to their own interests” (see Ch. 7.2.3).

7.3.2 Cross-cultural management

In an earlier section I discussed how differing values and interests in management exist between Warlpiri people and agency staff (Ch. 7.2.1). Alongside this, differences in and limited cross-cultural understanding of these values and interests has become evident. Interviews with Warlpiri people suggest that they have little understanding of government interests in the IPA (Ch. 5.3). By contrast they recognised CLC interests as supporting Warlpiri people to access and manage country, and improve livelihoods (Ch. 5.4.3). Warlpiri people also felt that Government did not necessarily understand Warlpiri management (Ch. 5.3). Where agency staff perspectives aligned, Warlpiri values and interests were indicated as being based on cultural management interests and access to country, not biodiversity conservation. When agency staff perspectives differed, the stated Warlpiri values and interests were seen to be more aligned with their own agency's regional and national management agendas (Ch. 6.3.1-3). This indicates that management is impeded by limited cross-cultural understandings of management intent. Warlpiri people do not fully understand agency interests. Even though agency staff recognise that biodiversity conservation is not the primary aim of Warlpiri people, there is little reflection of Warlpiri management aspirations in on-ground actions and planning documentation (Ch. 5.5.1-2, 6.3.2 & 6.4.2). The allocation of funding for on-ground management also reflects poorly on the cross-cultural management capability of the IPA (Ch. 7.3.1).

Nursesey-Bray (2009:451) writes that unless such differing discourses of management are “visible, recognised and dealt with”, management process will always privilege one discourse over another. This renders cross-cultural management ineffective and inequitable. In many cases it is the Western scientific paradigm of management that is privileged above that of Traditional Owners in protected area management (Palmer 2004; Aslin and Bennett 2005; deKoninck 2005; Carter and Hill 2007; Nursesey-Bray and Rist 2009). Limited cross-cultural management within the Northern Tanami IPA can be linked back to social learning and planning processes where knowledge exchange and negotiation should have occurred (Ch. 7.2.1 & 7.2.4). Working towards a common understanding of management is a critical step in adaptive cross-cultural management.

7.3.3 Effective partnerships

Partnerships with State and Territory Government agencies have already been discussed within this chapter as having significant influence on the legitimacy of IPAs and on the level of support and resources available for management (Ch. 7.2.3). In this section I further the partnership discussion by examining the relationships between DEWHA, the CLC and Warlpiri people, as well as other organisations and community programs and the IPA. Here the discussion relates to on-ground management process.

7.3.3.1 DEWHA, CLC and Warlpiri people

A lack of partnership engagement and communication between DEWHA staff and Warlpiri people has been revealed throughout this dissertation. Warlpiri people reflected this through their limited discussions about and knowledge of DEWHA (Ch. 5.3, 5.6.3 & 5.6.5). From an agency perspective many of their discussions focused on the challenges of engaging and building relationships with Aboriginal people (Ch. 6.4.1.4 & 6.5.2). Further, in this chapter I have already outlined the importance of bridging organisations and leadership (Ch. 7.2.2). While the CLC and the IPA Coordinator have an invaluable role in ensuring social learning and the development of communities of practice through sustained partnerships, there are problems influencing the CLC and IPA Coordinator's roles in partnership creation. These include the availability of program staff to be engaged on-ground, the remote location of the IPA, and the cross-cultural communication skills of staff (Ch. 6.4.1.4, 6.4.3, 6.5.2 & 7.3.6). The non-formation of the Northern Tanami IPA Advisory Committee has also contributed to the lack of engagement and communication between IPA program staff and Warlpiri people (Ch. 6.4.1.3). Sithole et al (2007:66) outlines similar opinions:

“government is not connected to the people on the ground and information is lost through various buffers (facilitators and other mechanisms) that limit direct consultation between government and Traditional Owners”.

Partnerships and understanding partnerships across management scales is essential for ensuring that multiple agendas are realised and negotiated in a cross-cultural context (Ch. 7.3.2). It also helps ensure shared responsibility, equal power relations

and benefit sharing (Sithole et al. 2007; Nursey-Bray 2009). These do not seem to be visible within the management of the Northern Tanami IPA at present.

7.3.3.2 Other organisations and community programs

Partnerships have the potential to support management through additional funding and resourcing, as well as helping to build community interest and capacity into the future. At present, the Wulain Rangers partake in biodiversity monitoring contracts at Newmont Mine on an annual basis. Other contracts have been negotiated with regional NRM bodies, but these have been small-scale one-off contracts to date. Likewise, apart from some engagement with the Wulain Resource Outstation Centre, there has been minimal local partnership creation through the IPA. Partnership creation at the local and regional level is one of the many responsibilities of the IPA Coordinator.

Aside from the constraints of the coordinator's role, there are other issues surrounding local partnership creation. The high turnover of staff within any community or government organisation means that partnerships between programs can be derailed for periods of time whilst new people are 'educated' and adapt to community life (Sithole et al. 2007). For example, the Lajamanu CEC had a Junior Wulain Rangers program that became inactive when the teacher administering the program left. Also changes in policy can greatly affect partnerships between local programs and organisations. For example, Traditional Owners on the IPA Management Committee wish to engage with the school to pass on their traditional knowledge and skills to the younger generations through a school country visit program. Recently, changes in the NT education policy require that English be taught in the first four hours of every school day (Wilkins 2008). This means there is little time and support for the intergenerational transfer of traditional knowledge and skills through government education systems. Another issue that greatly affects local partnerships is the power relationship between non-Aboriginal people administering programs and running organisations at the community level. The importance of this has become evident during my research. Individuals within community organisations can greatly influence community politics and program acceptance. In relation to the

sustainability of programs within Aboriginal communities across desert Australia, this an area requiring further research.

7.3.4 IPA governance

Governance is concerned with who is making decisions, how, with what authority, and to what level of accountability (Ostrom 1990; Ostrom and Field 1999; Brechin et al. 2002). In this research a number of issues surrounding governance were uncovered. These include: community control and autonomy of the IPA Management Committee; individual versus the communal interest of Traditional Owners on the Management Committee; the role and power of bridging organisations and leaders; and the accountability of management levels to each other within the IPA.

7.3.4.1 Community control and autonomy

One of the key reasons for Warlpiri people engaging with the IPA program was to ensure access to resources to manage country without the loss of autonomy (Ch. 5.2). The intention to enhance community³⁵² autonomy through the IPA Management Committee was indicated (Ch. 7.4.1.2), but there have been many challenges to achieving this (Ch. 5.7 & 6.4.1.2). Key challenges limiting community control in the Northern Tanami IPA that I have identified are:

- the lack of collaborative meetings, resulting in reduced cross-cultural knowledge exchange, understanding and negotiation (Ch. 5.5.1.2);
- unequal power sharing, with the IPA Coordinator role and the CLC being in positions directing and driving management to a large extent (Ch. 5.4.3, 5.5.3 & 6.4.1.6);
- the limited involvement of Warlpiri people and knowledge exchange occurring through planning processes (Ch. 7.2.4). This in turn has impacted on the allocation of management funding (Ch. 7.3.1), resulting in few Warlpiri management aspirations being carried out on country (Ch. 6.5.3); and

³⁵² Where I refer to community in relation to the Northern Tanami IPA throughout this chapter, I mean the community of Traditional Owners who have custodial rights to the area, not the community of people collectively living in Lajamanu, unless otherwise stated.

- the inadequate reflection of Warlpiri decision-making and management processes. For example, the inequitable involvement of women in management, and the lack of engagement of young people and elders on country together (Ch. 5.4.2, 5.5.1, 5.6.2, 5.6.4, 5.7 & 6.4.2).

Ensuring strong, local governance “involves the devolution of management rights and power sharing that promotes participation” (Folke et al. 2005:449). It does not mean abandoning wider scales of management interest and knowledge. Regional and national interests, and other knowledge and skills, are required to enable management process to respond to wider scale issues and to mediate diverse interests across multiple levels. Lockwood (2010:755) writes that “establishing and maintaining good governance” across scaled management is “critical for the future of protected areas”. Being able to negotiate and respect divergent interests is an important requirement for community control in multi-scaled management environments (Lane and MacDonald 2005:727-8). This research shows that power imbalances, limited social learning, and poor planning and decision-making processes have resulted in a situation where Traditional Owners participate in but do not control planning and management direction. Muller (2003) and Braham (2007) identified similar experiences in relation to Aboriginal autonomy in the Nantawarrina IPA; both suggesting that greater self-determination for informed decision-making is required. For the Northern Tanami IPA, agency staff felt that greater involvement and ownership of the program by Traditional Owners would be achieved through mechanisms such as longer-term engagement, empowerment and improved knowledge exchange (Ch. 6.5.3).

7.3.4.2 Individual versus cooperative Traditional Owner interests

Traditional Owners accept that they only have the right to speak for and about the country for which they have inherited responsibility (Ch. 4). Because of the establishment of an IPA across lands belonging to many Traditional Owner family groups, planning, decision-making and management also needs to be discussed in a cooperative manner. The IPA Management Committee was established to ensure that this occurred. Agency staff noted that Traditional Owner support and interest in the Management Committee has varied since the inception of the IPA (Ch. 6.4.1.2), with

some engaging and benefiting more than others (Ch. 6.5.3). This is where issues arise over individual Traditional Owner self-interest versus cooperative Traditional Owner interest in the IPA.

The development of a Management Committee does not conform to traditional Warlpiri law and customs for managing country. It is important then that the non-Aboriginal notions of ‘committees’ incorporate social and cultural norms that enable appropriate Aboriginal representation and decision-making processes to be applied (Howitt 1993; Lane 1997; Brechin et al. 2002). Warlpiri people have indicated that if the following processes govern the functioning of the Management Committee, cooperative management can occur:

- people who sit on the Committee have to have the right, experience and knowledge to make decisions about country (Ch. 5.4.2);
- the Committee has to be gender representative so that male and female responsibilities for country are considered and achieved (Ch. 5.4.2 & 5.5.1); and
- there is a need for the IPA Coordinator and Management Committee to respect, trust, communicate and share knowledge for informed decision-making (Ch. 6.5.1). This contributes to enhanced social capital and learning, as discussed earlier in this chapter (Ch. 8.2.1 & 8.2.2).

Following such processes is necessary so that a strong cultural basis for cooperation is created and based on the interdependent relationships of skin-groups for managing country.

Aligned with this is that through the IPA planning process, a three-tiered decision-making model emerged (see Figure 27, p.273). It outlines different management actions requiring different levels of involvement and consent based on: individual Traditional Owner’s responsibilities; or that of the Management Committee; or the whole Traditional Owner landowner group for the IPA. This decision-making model shows that both individual and cooperative interests are trying to be achieved through the IPA to reduce conflict and achieve varied outcomes. Supporting individual interests is important as it helps ensure that local meaning and practices are not superseded by others’ notions of democratic decision-making and management approaches. I have already shown that it is a priority for Warlpiri

people to be able to manage country according to their law and culture (Ch. 4). This requires that family based land management practices and laws of hereditary descent are maintained.

This decision-making model also ensures that cooperative behaviour is built to support broader landscape scale management, and community interest and benefit. In multi-level management environments, such as the Northern Tanami IPA, cooperation through negotiation and social learning is critical to move management towards achieving a range of stakeholder outcomes (Berkes 2006; Carter and Hill 2007; Ostrom 2007). This is particularly important in dealing with contemporary management problems, such as feral animals and weeds, where traditional knowledge, skills and management practices cannot be applied (Ch. 4.5). Finding the balance between individual and community interests is not that simple however. It requires time, facilitation and the willingness of individual Traditional Owners to negotiate.

Level 1: Activities requiring CLC mediated consultations with broad traditional landowner group

- Decisions relating to commercial ventures
- Systematic feral animal control e.g. horses and donkeys
- Cultural site protection or maintenance
- Activities that may adversely affect land or land owners outside the IPA
- Decisions to change the area of the IPA or alter the role of the Management Committee

Level 2: Activities requiring Northern Tanami IPA Management Committee approval

- Exotic predator control e.g. fox and cats
- Small-scale feral animal control
- Collaborative work with external agencies
- Prescribed burning
- Weed control
- Weed and feral animal monitoring
- Country visits with school groups

Level 3: Activities also requiring consent of key land owners(s)

- Work on or at outstations
- Site specific feral animal control

Figure 27: Northern Tanami IPA three-tiered decision-making model (CLC 2006)

7.3.4.3 The role and power of bridging organisations and leaders

The role of the IPA Coordinator and the CLC in administering and supporting the Northern Tanami IPA has been previously discussed (Ch. 5 and 6). Most of this discussion centred on the leadership responsibility of the Coordinator and reliance on this position for program success (Ch. 5.4.3 & 6.4.1.6). The role of the CLC as a bridging organisation was not frequently recognised (Ch. 7.2.2). In this section I concentrate on how the role of bridging organisations and leaders affect management processes within the IPA.

The CLC is an important bridging organisation and needs to be considered as such (Ch. 7.2.2). In the Northern Tanami IPA, the CLC facilitates and supports the engagement of Warlpiri people in the IPA program through information brokering and advocacy and aspirations for sustained community development (Ch. 6.2.4). Without bridging organisations such as the CLC it is unlikely that government, or other resource management programs or services would be known about, received, properly utilised or adopted at the local level. Other Aboriginal organisations across the Top End, such as NAILSMA, Northern Land Council (NLC), Balkanu and the Kimberley Land Council (KLC), play a similar role to the CLC in brokering and supporting resource management opportunities in remote Aboriginal communities (Hill et al. 2007). The CLC as a bridging organisation needs to be able to bring together multiple stakeholders who operate at different scales of management so social learning can occur. This is one of the key elements leading to adaptive co-management. Berkes (2009b:5) writes that bridging organisations are imperative to knowledge exchange processes, especially where “local knowledge is based on a different epistemology and worldview than government science”, as is the case for the Northern Tanami IPA (Ch. 7.2.1).

Leadership by individuals within any bridging organisation is a key part for ensuring strong management process through knowledge exchange (Cash et al. 2006; Olsson et al. 2007). The IPA Coordinator, as the intermediary between Warlpiri people, the CLC and DEWHA, needs to be able to work within and across these differing scales to ensure participation and negotiation. If leadership in this form does not occur, the structures and processes to support multi-scale collaborative arrangements will not

emerge and power imbalances will occur (Cash et al. 2006). The role of the IPA Coordinator in ensuring social learning and supporting management process is therefore critical to the management success of the IPA. Power imbalances in the governance structure of the Northern Tanami IPA have been revealed through this research (Ch. 7.2.1-2 & 7.3.4). For example, the IPA Management Committee has limited autonomy and control over management planning and decision-making. The IPA Coordinator on the other hand is in a position of great power. This position is the link between all the management layers and is critical to the success of each layer in achieving their aspirations and being able to work collaboratively together (Ch. 5.4.3 & 6.4.1.7).

Reliance on and the level of responsibility of this one position have led to management vulnerability within the Northern Tanami IPA. This has occurred because of under-resourcing, limited on-ground support and over-extension of job requirements (Ch. 5.4.3, 5.4.1.6-7, 7.2.4 & 7.3.1). It has also occurred because an effective community of practice has not developed to deal with management vulnerabilities. For example, Sithole et al. (2007:49-52) write that without the key role of a facilitator, many Aboriginal ranger groups across the Top End of Australia become unstable. In 2007 and 2008 there have been two changes in Coordinators for the Northern Tanami IPA, making the program inactive for months at a time. This is where building social capital within and between scales of management is imperative for ensuring strong governance, balanced power relations and, ultimately, management resilience (Pretty and Smith 2004; Folke et al. 2005; Berkes 2009b). Resilience can be defined as “the amount of change or disturbance that can be absorbed by a system before it is reconstituted into a different set of processes and structures” (Lockwood 2010:762).

7.3.4.4 Accountability

Although there is a growing emphasis on protected area accountability, there has been little analysis of it to date (Dearden et al. 2005). Accountability is about the responsibility and performance of different levels within a management structure (Brechtin et al. 2002; Child et al. 2004:128). This research indicates that the accountability of the Northern Tanami IPA has been weighed towards the

achievement of national conservation priorities, as revealed through discussions on policy and program support (Ch. 7.2.3); management planning (Ch. 5.5.2 & 7.2.4); the allocation of management funding (Ch. 5.6.6 & 7.3.1); support for cultural management interests (Ch. 6.4.2, 6.5.3 & 7.3.1); and the IPA governance structure (Ch. 5.4.1-4, 5.5, 6.4.1-3 & 7.3.4). Ensuring national outcomes from publicly invested money is an important accountability issue, as is ensuring the accountability of other management levels.

Accountability occurring in a one-way direction ensures that only funding recipients are answerable (Macdonald 2004:323). This does little to encourage agency responsibility to local agendas. In the case of the Northern Tanami IPA, all management levels should be operating in an interconnected manner. Accountability in all levels of management is important in multi-scaled systems, as “they are all intrinsic parts of a vertical and horizontal information and decision-making system” (Laban 2005:5). In an Australian Aboriginal setting, accountability has been criticised as being dominated by state-based, economic and democratic notions of accountability, which are “not socially relevant... or meaningful” to Aboriginal groups (Macdonald 2004; Marika et al. 2009:400; Sullivan 2009). Marika et al. (2009:400) suggest that conforming to mainstream accountability structures has “served to erase Indigenous defined versions of accountability to their own laws”. This undermines the local setting of self-determination and governance and leads to misalignment between government and local management objectives (Child 2004:243-5). In the Northern Tanami IPA the following quote indicates that management accountability is geared more towards the national program level rather than local interests:

“...[Traditional Owners] were coming to me with land management issues which tended to be very personal or individualistic... which is fine but that’s the private face of land management... and you’ve got to deal with that...”³⁵³.

I have already discussed the importance of ensuring that both individual Traditional Owner and community interests are incorporated in management (Ch. 7.3.4.1). This would help ensure and improve downward accountability.

³⁵³ CLC staff member (#1), interview 19 January 2007

For Warlpiri people, accountability for managing country is based on their worldview of people, country and culture (Ch. 4). Warlpiri law and kinship systems define who has the right to speak for and about country and to manage that country. Aboriginal traditional law is a rigorous accountability system (Muller 2008a). Some accountability can already be seen in the IPA, such as the rules surrounding people's inclusion for involvement on the IPA Management Committee. Nevertheless, there needs to be an improvement in participation to facilitate accountability and transparency at the local level. This is important so that the costs and benefits of protected area management are shared across all management levels. It is also important so that management of the IPA does not discursively change the whole local meaning and practice of managing country for Warlpiri people (Ch. 7.3.4.2). Ensuring governance arrangements "are as close as possible to those people who are most affected by decisions" is one way for achieving enhanced accountability (Lockwood 2010:760). Another crucial process is the development and adoption of an effective monitoring and evaluation system (Child 2004:247). This is missing within the IPA at present (Ch. 7.2.4.1).

7.3.5 Traditional knowledge and skills management

Warlpiri aspirations for managing country have not been incorporated successfully in on-ground management in the Northern Tanami IPA. I have suggested a number of reasons for this, including: differing values and interests in managing country among stakeholders (Ch. 7.2.1); limited cross-cultural understandings of management intent (Ch. 7.3.2); a lack of institutional and government support for community based natural and cultural resource management (Ch. 7.2.3); deficient planning and monitoring and evaluation processes (Ch. 7.2.4); limited long-term funding and support (Ch. 7.3.1); and inadequacies in IPA governance (Ch. 7.3.4). In this section I examine how the continued loss of traditional knowledge and skills challenges the on-ground achievement of Warlpiri management aspirations.

Warlpiri livelihoods have relied upon detailed knowledge and skill sets that have developed over thousands of years from observation and interactions with country. This research shows Warlpiri people's perspectives on the need to make sure such

knowledge and skills are passed onto younger generations (Ch. 4.3). Traditional knowledge and skills are integral for maintaining Warlpiri people's sense of culture, place and ownership (Ch. 4.2). Recently traditional knowledge and skills have been applied more broadly to enhance the practical delivery of resource management outcomes on Aboriginal and non-Aboriginal owned lands. For example Putnis et al. (2007:124) write that traditional knowledge and skills are applied across the Northern Territory to enhance environmental understanding on "climate-related change, use of fire, knowledge of plant and animal species and water values and integrity". Christie (2007:86) indicates that while knowledge and skills applied in this manner are "relatively easy for western scientists to document and objectify, other aspects are ignored and marginalized".

To Warlpiri people traditional knowledge and skills are part and parcel of a worldview that is holistic and integrated. Knowledge and skills are not used in isolation but are a reflection of the land and people's connection and interaction with it. Such a worldview is described by Christie (2007:87):

"In an Indigenous epistemology, knowledge is something which is by no means limited to human agency. The land itself contains and reveals knowledge, as do the species which keep it alive. In many contexts, explanations have no more special privilege than actions. The Yolngu fire ecologists can do land management for sustainability, they can teach it, they can tell stories about, they can sing and dance it... the knowledge underlying an integrated fire strategy is not necessarily consciously held. It can be embedded and integrated in complex practices in which burning itself may not necessarily be a focus".

If traditional knowledge and skills are to be incorporated in resource management activities then they need to be considered, transferred and applied through such worldviews. If they are not, knowledge and skills will continue to be lost.

Within the Northern Tanami IPA there has been little incorporation of traditional knowledge and skills in on-ground management processes. Agency staff indicated that much traditional knowledge and many skills have been lost over time and were little practiced and used as a result (Ch. 6.5.3). Other reasons for limited knowledge and skill transfer identified in this research are:

- the process of knowledge exchange that traditionally occurred on country has broken down through permanent settlement and reduced access to country (Ch. 4.3.2);
- knowledge transfer is affected by lifestyle problems, such as chronic disease and social dysfunction, which affects the health and well-being of many people (Ch. 4.4.3 & 6.5.3);
- a lack of youth interests and opportunity for engagement in knowledge transfer (Ch. 4.3.3);
- there has been a lack of funding and on-ground support for cultural management activities (Ch. 5.6.1, 5.4.2 & 7.3.1.2); and
- Warlpiri people's social and community commitments greatly limit their time for investing in program management (Ch. 4.3.3.2 & 4.4.3).

Similar issues were mentioned in the Aboriginal land and sea management report by Sithole et al. (2007). A summary of these issues is provided in Figure 28.

-
- Limited number of Traditional Owners who hold traditional knowledge strongly
 - Traditional Owners are passing away before traditional knowledge can be transferred
 - Young people are afraid to hold traditional knowledge
 - Young people do not value traditional knowledge
 - Traditional knowledge can not be passed onto just anyone
 - Limited funding & support for traditional knowledge transfer
 - Traditional knowledge has been passed onto non-Aboriginal people & is not being returned
 - The right Aboriginal people are not involved in NCRM & consultation processes where traditional knowledge can be applied
 - There is little integration of traditional knowledge in 'both-ways' management
-

Figure 28: Limitations to traditional knowledge integration in Aboriginal land and sea management programs across the top end of the NT (Sithole et al. 2007:55-7)

Associated with reduced knowledge and skills transfer is the limited interest of Warlpiri youth in engaging with and learning knowledge and skills (Ch. 4.3.3, 4.4.3 & 6.4.1.1). Contemporary community life provides youth with too many other interests and distractions. I have shown that the traditional process of knowledge exchange does not engage youth well in this day and age (Ch. 4.3.3.4). Where knowledge has been transferred, methods such as the use of multi-media

technologies have been the conduit for engagement between generations. Similar results have been found through digital knowledge management research conducted in the NT (Verran and Christie 2007; Verran et al. 2007). The formation of the Wulain Ranger group has been one successful process of youth engagement through the Northern Tanami IPA. The young men in this group are seen as, and see themselves as, vital to the continuation of Warlpiri cultural management practices (Ch. 5.4.1 & 6.4.1.1).

The development of improved partnerships and collaborations with community organisations, such as the Lajamanu CEC and the recently implemented Mt Theo outreach program³⁵⁴, provide other opportunities for enhanced youth engagement and knowledge exchange. Partnerships between Warlpiri people and organisations need to meet Warlpiri peoples expectations about how they see their future; that is, Warlpiri culture and identity must be at the fore of any partnership and underpinned by customary law, ceremony, language, country and knowledge (Pawu-Kurlpurlurnu et al. 2008). This raises the point that regardless of community organisations' and government agencies' mandates, managing country needs to be seen as an activity relevant to all if improved partnerships and knowledge transmission are to occur. Local partnership creation is an aspect of management requiring greater investment within the Northern Tanami IPA (Ch. 7.3.3.2). Other management processes that need to be built upon to enhance traditional knowledge and skills transfer for improved management of country include:

- greater support and investment in inter-generational country visits (Ch. 5.6.1);
- mentoring of the Wulain Rangers by senior Traditional Owners as part of day-to-day on-ground management (Ch. 5.6.1-2);
- the development of innovative ways to record and transfer knowledge and skills in a community setting (Ch. 4.3.3.4); and

³⁵⁴ The Mt Theo Program originated in the Aboriginal settlement of Yuendumu in 1993 to help with chronic petrol sniffing. Today the program is a youth development and leadership program that provides diversionary, respite, aftercare and rehabilitation support for Warlpiri people in Yuendumu. More recently outreach programs looking at youth development have started in the other Warlpiri communities of Lajamanu, Willowra and Nyirripi (Mt Theo 2008).

- the improved incorporation and adoption of traditional knowledge and skills in program and activity design and on-ground management delivery (Ch. 5.6.1, 6.2.3 & 6.4.2).

Such processes are contingent upon improved cross-cultural management that requires enhanced social learning, planning and governance.

7.3.6 Capacity, training and skills development

Lane and Macdonald (2005:718) write that to have effective management, “considerable social, organisational and ecological knowledge and capability” needs to exist. Training and skills development is an important part of building such capabilities (Putnis et al. 2007:116). A consistent theme throughout this research is the need for improved training and skills development amongst not only Warlpiri people, but also agency staff (Ch. 5.4.1, 5.5.1, 5.6.1, 6.5.1 & 6.5.3).

Participants in this research saw an urgent need for ensuring that training and learning occur as a two-way process. That is, knowledge and skills from both Warlpiri and western land management practices needed to be incorporated, taught and transferred (Ch. 5.4, 5.6.1 & 6.5). Two-way learning is a commonly identified concept throughout the literature on Aboriginal resource management (Young and Ross 1994; Hill 2006; Sithole et al. 2007). Historically, training and skills development provided for Aboriginal people has been geared more towards contemporary notions of land management, without appropriate recognition given to traditional knowledge and skills (Muller 2003:40). Putnis et al. (2007:116) indicate that many Traditional Owners in the NT are still concerned about the limited opportunities available for passing on such knowledge and skills. Part of this concern relates to the lack of pathways through which traditional knowledge and skills are incorporated in NRM training programs and practices (Muller 2003; Sithole et al. 2007). For example, this research has shown that country visits, when elders are engaged, is one of the most appropriate pathways for ensuring that knowledge and skill transfer to younger generations (Ch. 4.3.1-2, 5.4.1 & 5.6.1-2). This needs to happen more readily within the Northern Tanami IPA (Ch.7.3.5).

Alongside traditional knowledge and skills, the research participants accepted the need for Warlpiri people to better understand and learn contemporary management practices. It was openly acknowledged that many Warlpiri people had limited contemporary land management skills and knowledge, but that people were eager to learn and be taught (Ch. 5.4.1, 5.4.3, 5.6.1, 6.2.4 & 6.5.3). The IPA Coordinator was recognised as the link for ensuring the success of cross-cultural educational processes (Ch. 5.4.1 & 6.4.1.1). In relation to contemporary land management training and skills development other researchers have indicated that the following capacity building needs to occur:

- training programs should be owned by and developed with communities in response to their land management concerns and issues (Muller 2000; Miller 2005; Rea et al. 2008);
- training needs to be relevant and meaningful; it needs to be part of a work program where skills can be directly applied and embedded (Putnis et al. 2007; Sithole et al. 2007);
- cultural identity and traditional knowledge and skills should be recognised and incorporated in training programs (Muller 2003; Miller 2005; Sithole et al. 2007); and
- dedicated training coordinators need to be placed within existing governance structures to ensure training and employment goals are achieved in an effective and ongoing manner (Bauman and Smyth 2007; Putnis et al. 2007).

The Warlpiri research participants also identified the need for non-Aboriginal staff to be better engaged in training and up-skilling. It was considered that to improve cross-cultural management practice, the CLC and DEWHA staff should partake in professional development and training to better understand and appreciate Warlpiri cultural practices and skills (Ch. 5.5.1 & 5.6.1). Many non-Aboriginal people working in land management positions in remote communities have backgrounds in biodiversity conservation, often with little cross-cultural, participatory planning, or community development experience or training (Sithole et al. 2007). Walsh (2008:339) came to a similar conclusion in her recent dissertation on Martu land management in Western Australia:

“...the numbers of experienced personnel suited to remote, practical cross-cultural, environmental work were very few”.

This can limit the ability of land management programs to successfully integrate and achieve social alongside ecological outcomes (Sithole et al. 2007:97). Appropriate training should therefore be considered a vital process for helping non-Aboriginal people better appreciate and understand differing worldviews, build relationships and adapt to community life. Wohling (2001:158) writes that “to work in the field of Indigenous land management, one must accept, as an outsider, the sometimes perplexing and paradoxical mix of social, cultural, economic and political factors that exist on Aboriginal land... the most important skills the outsider can develop are listening and observing”. Supporting community-based mentors to work alongside non-Aboriginal people is considered one of the most effective ways in achieving this (Rea et al. 2008). This could in turn help improve the retention of staff working in remote communities.

A major limitation for improved training and skills development in the Northern Tanami IPA has been the lack of available funding and resources (Ch. 6.5.1 & 6.5.3). Other analysts have raised similar concerns, particularly within the last few years (Miller 2005; Putnis et al. 2007; Sithole et al. 2007). Other notable concerns are the lack of suitably qualified training providers available to work in remote locations, and the lack of clear training and employment pathways for Aboriginal people (Putnis et al. 2007; Rea et al. 2008). Indigenous protected areas and ranger groups are both considered strong mechanisms through which training and employment pathways can and should be linked (Muller 2003; Sithole et al. 2007; Muller 2008b).

The other theme relating to effective management is the social and organisational capacity of people to engage in that management. Concerns such as cultural and social commitments were expressed by Warlpiri as limiting people’s capacity for engagement; as were personal challenges such as people’s health and well-being and youth interest levels (Ch. 4.4.3). Agency staff indicated similar problems, but also saw building the professional capacity of Warlpiri people to direct management and decision-making was needed for improved governance (Ch. 6.5.3). Liddle and Young (2001:148) state that Aboriginal people need “accurate and reliable information on agriculture, economics, conservation and environmental aspects” to

better manage their land, and that this information is not easily accessed by them. This is where bridging organisations and leaders play an important role in ensuring social learning. Social learning is central to building capacity through participation in knowledge and skill exchange (Lane and MacDonald 2005). It requires greater adoption within the Northern Tanami IPA (Ch. 7.2.1-2).

Likewise, discussions on capacity relate to how the CLC and DEWHA administer and fund the Northern Tanami IPA. For this IPA the economic and social capacity (in regards to cross-cultural management and intent) of staff and agencies can and has challenged management (Ch. 7.2 & 7.3.1-2). Walsh (2008:346) writes that agencies and their staff “need to recognise their presumptions, spend time amidst local people and actively listen”. This opens the door for better understanding. Baker et al. (2001b:339) suggest “outsiders who fail to make this leap and continue to force their own opinions on people in a paternalistic way are unlikely to advance their own goals and will also often subvert the goals of Indigenous people”. As indicated above, ensuring agency staff capacity to work effectively with Aboriginal people requires investment in cross-cultural training and skills development. Suitable changes in institutional systems and organisational policy and support are consequent upon such interactions and working relationships. Capacity also includes agencies’ ability to properly resource and fund community based staff. Appropriate housing, co-worker support, and periods of and places for ‘down time’ are some of the requirements needed for sustaining staff commitment in remote locations (Walsh 2008:346).

7.4 Conclusion: Achieving multiple management agendas?

In Chapters 5 and 6 I outlined the extent that research participants thought their management agendas were being achieved through the IPA. These discussions indicated that most stakeholder agendas were not being met despite successes in areas such as the incorporation of land into the NRS, improved long-term funding and local employment through the Wulain Ranger program. There was little correlation between management intent and practice in the Northern Tanami IPA. In this chapter I have explored the common themes (in relation to management intent and practice) that impact upon management efficacy. I have shown that management

intent is challenged by: diverse management interests; differing perspectives of stakeholders and their roles; institutional support and partnership creation; spatial design; and planning and evaluation processes. Management practice has also been confronted by: funding and support for on-ground management interests; cross-cultural understanding; local partnership creation; governance and accountability; and knowledge and skills levels. These results show that the Northern Tanami IPA has not been managed as a multi-scaled system, where diverse interests and values are shared and negotiated. This has resulted in limited comprehensive achievement of local, regional and national agendas through management.

Partnership creation has been a common theme that cuts across discussions on management intent and practice in this chapter. As such I conclude that without strong cross-cultural partnerships, inequitable power relationships and imbalanced accountability occurs between Aboriginal managers and partnering agencies. This results in Aboriginal management of community controlled areas, and the achievement of local management agendas, being little attained. Partnerships are imperative for improved understandings and negotiations of management intent amongst stakeholders (Ch. 7.2), and investment in and support of appropriate and effective management practice (Ch. 7.3). In a cross-cultural setting this is crucial for bridging and, where possible, integrating differing worldviews, levels of knowledge and skills, and institutional rules and norms for enhanced management efficacy. Without strong partnerships, management agendas will not be adequately achieved.

Key processes for improving management efficacy have emerged through the results, and this discussion chapter. These processes are outlined in the final chapter of this dissertation, with the aim of narrowing the gap between management intent and practice in the Northern Tanami IPA.

Chapter 8

Learning from the Northern Tanami IPA: Research findings and conclusions



Photo 19: Biddy Nungarrayi Long and Myra Nungarrayi Herbert cooking kangaroo tail on a county visit approximately 40km south-east of Lajamanu, July 2006

8. LEARNING FROM THE NORTHERN TANAMI IPA: RESEARCH FINDINGS AND CONCLUSIONS

8.1 Introduction

The aim of this research was to examine how local management agendas can be better achieved alongside those of partnering agencies through improved management practices within the Northern Tanami IPA. I have done this by applying the WCPA monitoring and evaluation framework to examine the achievement of stakeholders' agendas. A significant gap between management intent and practice within the IPA has been revealed (Ch. 7). It shows that this gap needs to be narrowed if management is to be more effectively achieved. In this chapter I detail the key findings from the case study site in relation to improved management (Ch. 8.2). Implications for protected area management more generally across desert Australia are also considered (Ch. 8.3). In synthesis, these results show that strong cross-cultural partnerships are required to ensure inequitable power relationships and imbalanced accountability does not undermine Aboriginal management of community controlled areas, and the achievement of local management agendas.

8.2 Key research findings: processes for improved management within the Northern Tanami IPA

Key processes for improving management efficacy across and within scales in the Northern Tanami IPA that have emerged from this case study are tabulated in Table 41 (p.288). I have distinguished four broad categories of process required to do this: institutional advancement; adaptive management in scaled environments; the cross-cultural management space; and working within the local context. These categories encapsulate the key findings of this research. They are the means for narrowing the gap between management intent and practice so as to better equate multiple agendas of conservation and development. These categories are discussed in turn below.

Table 41: Categories and processes for enhancing management efficacy within the Northern Tanami IPA

<i>Institutional advancement requires:</i>	<i>Chapter sections</i>
Increase funding, staffing & support for cultural management of country	5.6.6, 6.5.1, 6.5.3, 7.3.1.1, 7.3.1.2, 7.3.6, 7.3.4.3
Improve NCRM policy in line with IUCN principles for community based resource management e.g. improved livelihoods & poverty reduction	7.2.3.1
Enhance partnership creation with State & Territory Governments	5.6.3, 6.5.2, 7.2.3.2
<i>Adaptive management in scaled environments requires:</i>	
Enhance social learning facilitated by bridging organisations & leaders	7.2.1, 7.2.2, 7.2.4.1, 7.3.2, 7.3.4.3
Clearly defined management structure, roles & responsibilities	6.4.3, 7.2.2
Negotiation of multiple agendas	6.4.1.4, 6.5.2, 7.2.1
A revised plan of management to better support multiple agendas	5.5.2, 6.5.3, 7.2.4.1
Develop an IPA monitoring & evaluation system	7.2.4.2
Improve accountability within the management structure	5.5.3, 6.5.1, 6.5.3, 7.3.4.4
<i>The cross-cultural management space requires:</i>	
Develop strong relationships between Warlpiri people & agency staff	5.4.3, 5.5.1, 6.4.1.4, 6.5.1, 6.5.2, 7.3.3.1
Improve engagement between agency staff & Warlpiri people	5.2, 5.3, 5.5.1.2, 6.5.1, 6.5.2, 6.5.3, 7.3.2
Need for more effective cross-cultural communication & understanding	5.3, 5.4.3, 5.5.1.2, 6.5.1, 6.5.2, 6.5.3, 7.3.2
Share knowledge & skills	5.4.1, 5.5.1, 6.5.1, 6.5.3, 7.2.1, 7.2.2, 7.2.4.1, 7.3.2
Improve capacity, training & skills development amongst agency staff & Warlpiri people	5.4.1, 5.4.3, 6.2.4, 6.5.3, 7.3.6
Allow time & flexibility for program development & delivery	6.2.2, 6.5.2, 6.5.3
<i>Working within the local context requires:</i>	
Work within Warlpiri worldviews & traditional governance frameworks	5.4.2, 5.5.1, 5.6.2, 6.5.3, 7.3.4.1, 7.3.4.2, 7.3.4.4
Ensure Warlpiri ownership over planning & management directions	5.5.2, 6.4.1.7, 6.5.2, 6.5.3, 7.2.4.1, 7.3.4.3
Better recognition & inclusion of Warlpiri skills, knowledge, culture & aspirations for management	5.2, 5.3, 6.2.3, 6.4.1.2, 6.4.1.4, 6.5.1, 7.2.3.1, 7.3.1.2, 7.3.5, 7.3.6
Support for gender representation in management	5.4.2, 5.5.1.1, 5.6.4, 6.5.3, 7.3.4.1
Increase adoption of intergenerational country visits for the cultural management of country	5.4.3, 5.6.1, 6.5.3, 7.3.1.2, 7.3.5, 7.3.6
Support engagement of Warlpiri people motivated & interested in country	5.6.2, 7.3.5
Improve youth engagement	5.4.1, 5.6.1, 5.6.2, 7.3.5
Support mentoring by Traditional Owners within program delivery	5.4.1, 5.6.2, 7.3.5, 7.3.6
Improve community awareness, engagement & participation	5.6.5, 6.4.1.5, 7.3.3.2, 7.3.6
Ensure voluntary self-declaration	6.5.2
Need locally based agency staff interested in Warlpiri culture	5.4.1, 5.4.3, 5.6.1, 5.5.1, 7.3.6

8.2.1 Institutional advancement

Interventions to improve protected area management are often focused on local level concerns, with little knowledge of the underlying national policy and institutional landscape (Wells and McShane 2004; Naughton-Treves et al. 2005). This is pertinent within the Australian desert context, as there is still little understanding and recognition of institutional influences within cross-cultural resource management programs (Walsh 2008:392). There is also the continued tendency for decision-making for desert Australia to be carried out from distant places (Stafford Smith 2008). I have identified that institutional issues at the national level need to be addressed if the IPA program is to better meet stakeholder aspirations for country. Institutional improvements are required in relation to policy, funding and partnership creation (see Table 41). These advancements relate principally to the recognition, resourcing and support of Warlpiri aspirations for managing country (Ch. 7.2.3.1 & 7.3.1.1-2).

Increased support and resourcing of Aboriginal land managers and organisations through the IPA program has been a significant development in protected area policy (Davies et al. 1997; Davies et al. 1999; Ross et al. 2009). However, the case study of the Northern Tanami IPA demonstrates that there have been risks associated with investment. These risks include the marginalisation of Warlpiri management interests and control through externally imposed management and funding priorities (Ch. 7.2.3.1-2); high administrative loads due to the burden of the accountability and reporting systems for small, short-term funding contracts (Ch. 7.3.1.1); and the heavy reliance on a select number of staff to work effectively in cross-cultural environments (Ch. 7.3.4.3 & 7.3.6). Such risks show that regardless of intent, external people and organisations have significantly influenced and shaped local program delivery. So how can national institutions change?

Wells and McShane (2004:516) state that it is important that local people are involved in determining policy that impacts upon their lives. This is considered a pre-condition for successful adaptive, co-management (Armitage et al. 2009:101). Such engagement is necessary to improve management interventions by reducing conflict, giving control back to the local level and to allow space for local

management agendas. Aboriginal policy and programs within Australia are often driven by external political agendas (Garnett and Sithole 2007:26). Building partnerships with local people to encourage and inform policy change is important to decolonize this process (Ch. 7.2.3.2). Partnerships are necessary for ensuring improved understanding, resourcing and support at the local management level, as well as policy integration across Federal, State and Territory Government levels. Partnerships are reliant upon developing relationships across scales and cross-cultural spaces. This is critical for the ideals and attitudes of people and organisations to be reflected upon and negotiated (Berkes 2007). More often than not, agencies and their staff do not consider or recognise their own presumptions and the consequences of their actions upon program delivery. Scaled management and working in cross-cultural spaces are discussed later in this chapter (Ch. 8.5.2-3) as they have emerged as areas of management requiring greater consideration.

Alongside partnerships, increased funding and support and untied funding streams create flexibility within program delivery. These allow for a wider array of management interests to be implemented, management structures to be strengthened, and better outcomes to be achieved. In the case of the Northern Tanami IPA, untied funding would allow space for many Warlpiri aspirations to be incorporated in practice (Ch. 7.3.1.2). This has implications for the achievement of environmental as well as broader socio-economic outcomes from community based NCRM programs (Burgess et al. 2005; Garnett and Sithole 2007). Improved and untied funding should be serious considerations at the program level. In his review of the IPA Program, Gilligan (2006:59) recommended increased funding to improve management efficacy. As already noted in this dissertation, program funding has increased (Ch. 7.3.1.1), but so have the number of IPAs across Australia in the last few years. There is still a finite bucket of government funding, and this raises some questions: How many IPAs can be funded to ensure program sustainability? How are funds distributed amongst IPAs to ensure equity? What level of investment is required to achieve management outcomes? What level of dependence does government funding create for IPAs? How can inter-sectoral and inter-level government and non-government partnerships help improve funding commitments and support to the program? These are all important research questions for the future.

8.2.2 Adaptive co-management in scaled environments

Management responsibility and practice within the Northern Tanami IPA is spread across numerous scales of stakeholders (Ch. 7.2.2 & 7.3.3-4), who have diverse management interests (Ch. 7.2.1) and management authority (Ch. 7.3.3-4). This demonstrates that, rather than being self-governed by Warlpiri people, the Northern Tanami IPA is a co-managed system. Co-management has occurred by default rather than design. The intention for Warlpiri self-management is there, but has not occurred due to challenges such as governance, planning and accountability. Adaptively co-managing protected areas in scaled environments can lead to improved management by building resilience (Berkes 2009b). However, rather than building resilience, management in the Northern Tanami IPA has been constrained as processes have not been properly instituted (Ch. 7.3). In order for management practice to evolve and better achieve outcomes, adaptive co-management requires the integration of management planning, implementation, and monitoring and evaluation in an iterative cycle of learning by doing (Folke et al. 2005; Olsson et al. 2007). If co-management is instituted in such forms then Warlpiri goals for management can be better supported. The processes required to adaptively co-manage the scaled environment of the Northern Tanami IPA are discussed in this section (see Table 41, p.288).

Adaptive co-management of the Northern Tanami IPA should have begun in the planning stage through processes of social learning, network building, negotiation and conflict resolution (Ch. 7.2.1-2, 7.2.4.1 & 7.3.3-4). A factor critical to the success of planning is facilitation by bridging organisations and leaders. In the case of the Northern Tanami IPA, the CLC and the IPA Coordinator provide the opportunity to bring together Warlpiri and agency knowledge and skill bases and management interests and practices. Like many other Aboriginal organisations, the CLC and its staff already act as intermediaries for the delivery of government NCRM programs and funding into many remote Aboriginal communities (Hill et al. 2007). In Chapter 7.3.4.3 I concluded that the bridging role of CLC and the leadership role of the IPA Coordinator in planning had not been entirely effective. Limited local knowledge of the IPA draft plan of management is a reflection of this (Ch.7.2.4.1). This has contributed to the inequitable achievement of many management agendas,

as little shared learning and negotiation of priorities has occurred. Equity in resource support and decision-making is considered essential for democracy through participatory planning (Lane and MacDonald 2005:716). Figure 29 (p. 293) outlines the bridging functions that should be carried out by the CLC and the IPA Coordinator to ensure that this happens.

Alongside planning, emphasis needs to be given to the implementation process of management. Successful implementation is reliant on strengthening the capacity to deliver on-ground management (Wells and McShane 2004:516). For the Northern Tanami IPA this means having a management structure with clearly defined roles and responsibilities, as well as improved downward management accountability. In Chapter 7 I showed that there was little overall knowledge of stakeholder roles and responsibilities within the Northern Tanami IPA and no downward accountability for program delivery. This has led to power imbalances within the management structure. For example, there is little control and autonomy at the local level (Ch. 7.3.4.1). As a result, the implementation of national conservation priorities has prevailed. Employing skilled staff, improved training and capacity development, adopting processes of two-way management and providing sufficient resources and support for management are required to improve implementation processes. These factors all contribute to what I call the cross-cultural management space. This is the space in which on-ground management occurs within the Northern Tanami IPA. I further this discussion in Ch. 8.2.3 as cross-cultural management is integral to management efficacy.

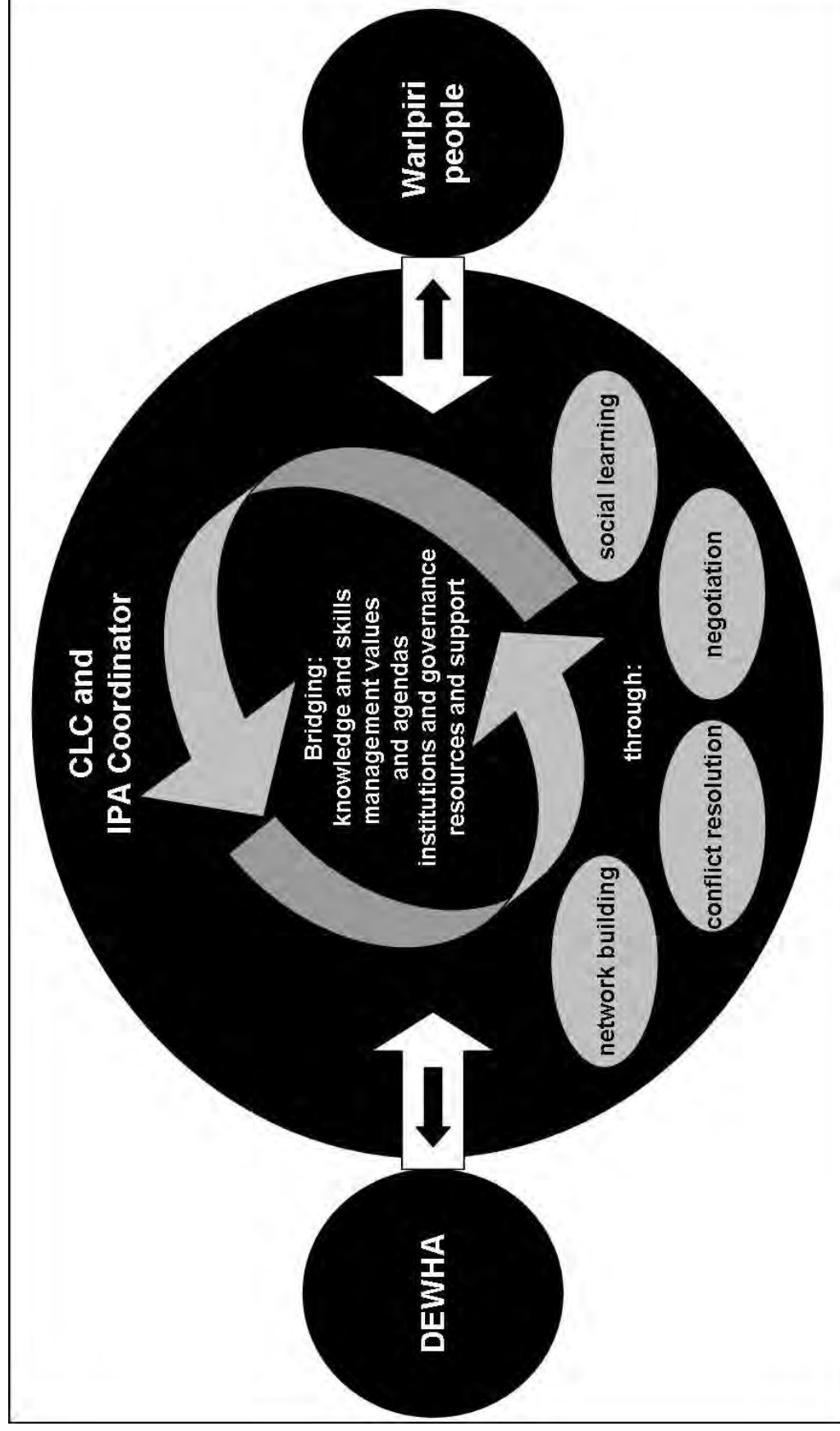


Figure 29: The role of bridging organisations and leaders within the Northern Tanami IPA

The final element in the adaptive co-management cycle is monitoring and evaluation. There is no comprehensive monitoring and evaluation system for the Northern Tanami IPA or the IPA program as a whole (Ch. 7.2.4.2). This has implications for the achievement of management agendas as there are no means for determining management success or failures. Olsson et al. (2007:84) note that involving local people in assessment is an incentive for people to learn from and adapt better management practice at the local scale. It is also important that assessment occurs at more than just the local scale (Wells and McShane 2004:517; Armitage et al. 2009:99). This is needed to ensure that appropriate interventions are instituted to change or shape behaviour within and between differing management scales. It also creates opportunities for ensuring downward accountability, which is too commonly ignored within Aboriginal resource management programs (Marika et al. 2009).

Monitoring also needs to occur across management disciplines (Armitage et al. 2009:99). Assessment needs to be cross-disciplinary and ensure that biophysical, socio-economic, cultural, institutional and procedural aspects of management are examined. This makes the development of a comprehensive monitoring and evaluation system difficult (Ch. 3.2). It is essential that whatever system is developed, it is a reflection of management interests and values negotiated across scale levels, but starting with the local (Adams and Hutton 2007:168). This ensures that local capacity is built and reliance on partnering organisations is reduced. This is a challenge that needs to be addressed in the immediate future (Ch. 7.2.4.2). Lastly, appropriate feedback needs to ensue from any monitoring and evaluation process, so that management planning and any required interventions are based on processes of social learning, negotiation, conflict resolution and network building. The cyclical progression of adaptive co-management within the Northern Tanami IPA, as discussed in this section, is diagrammatically summarised in Figure 30 (p.295).

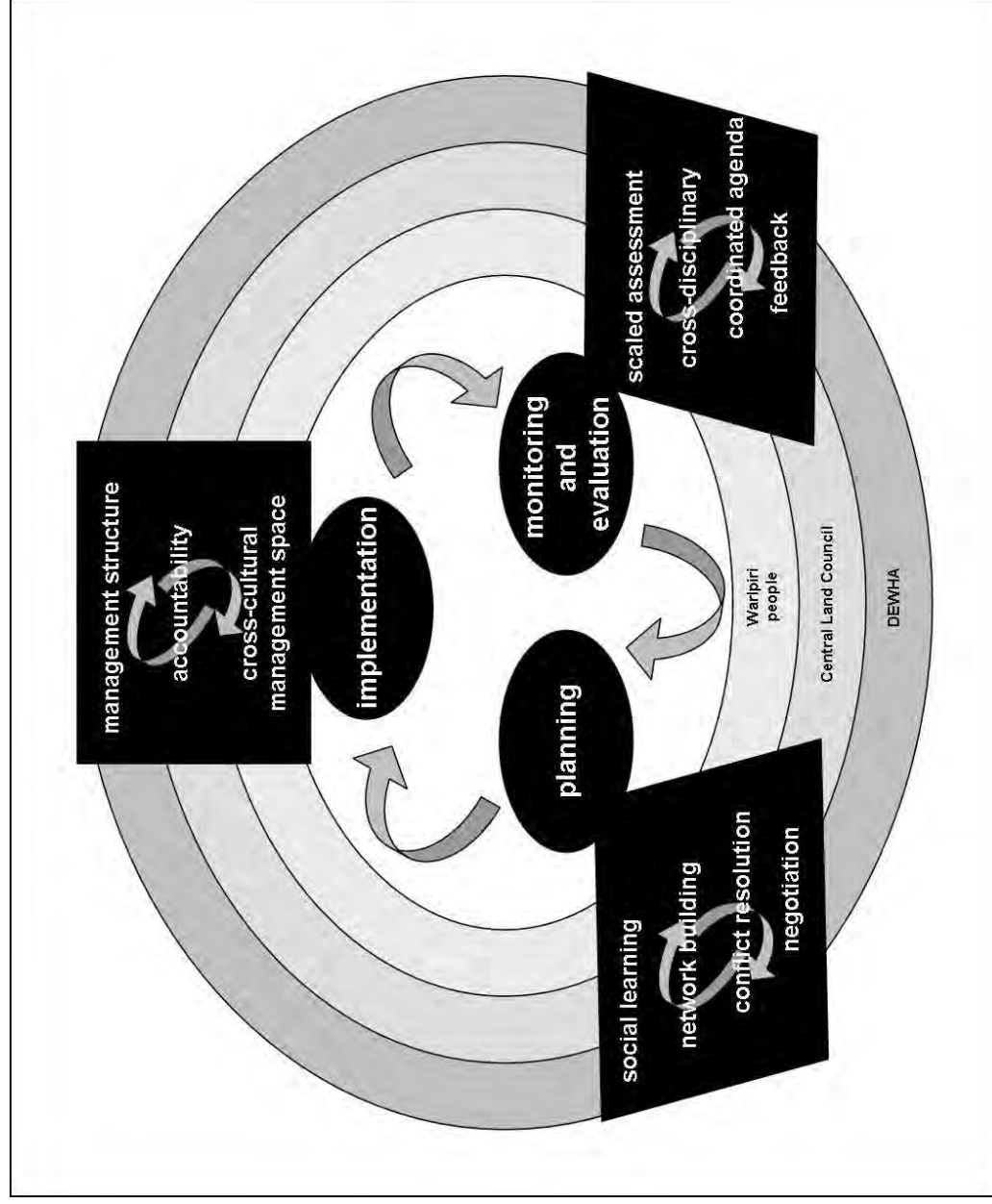


Figure 30: Processes required for adaptive co-management within the Northern Tanami IPA

8.2.3 The cross-cultural management space

Cross-cultural management has been defined as valuing and utilising cultural difference to achieve better performance (Lane et al. 2000:26). From this research I propose that cross-cultural management is about managing and sustaining relationships so that cultural hybridity in management practice emerges. Cultural hybridity can be considered a “celebration of difference...” through which contested, dynamic landscapes are negotiated to ensure “representation and understanding” (Maclean 2009:460-1). More often than not, this requires greater attention in co-management arrangements (Mahanty 2002; Lloyd et al. 2005; Nursey-Bray and Rist 2009). Through this research I have shown that the cross-cultural management space of the Northern Tanami IPA has challenged management efficacy (Ch. 7.3.2). For example, low levels of communication and engagement between agency staff and Warlpiri people has limited partnership creation and management understanding (Ch. 7.2.1 & 7.3.3.1). Deficient skill and knowledge levels of agency staff and Warlpiri participants have influenced on-ground management capacity and practice (Ch. 7.3.6). In this section processes requiring implementation to improve the cross-cultural management space of the Northern Tanami IPA are discussed (see Table 41, p.288). These processes are diagrammatically represented in Figure 31 (p. 298).

Relationships are central to cross-cultural resource management in Australia (Horstman and Wightman 2001; Wohling 2001). Relationships need to be built on trust and respect for there to be any likelihood that equitable practices and benefits will be achieved through management. Relationships start at the engagement phase, where effective cross-cultural communication and understanding needs to occur. Approaches such as *karparti*³⁵⁵, which Hortsman and Wightman (2001:102) write is “an analogy for an unhurried and respectful approach...” allows for cross-cultural understanding to develop through open discussion and communication. In cross-cultural situations people bring different worldviews, capacities, knowledge and skills to management. These need to be shared, listened to and continuously built upon. I have shown in this research that the capacity, knowledge and skills levels of

³⁵⁵ *Karparti* “is based on the Kriol word for the expression ‘cup of tea’... for us *karparti* with Traditional Owners invokes remote localities, tucker boxes, shady trees, boiling billies, story telling, and making the time available to properly discuss plants and animals, land and sea management, and a range of related issues” (Horstman and Wightman 2001:102).

agency staff and Warlpiri people in a cross-cultural context needs developing (Ch. 7.3.6). This refers to Warlpiri people's knowledge of contemporary land management issues, as well as agency staff's ability to work in with and support Warlpiri cultural aspirations. Personal and professional flexibility and support are required to do this, as is time. From his experience working with Anangu, Wohling (2001:168) states "spending time listening to people and developing relationships is not wasting time but, rather, part of the paradigm of Anangu and land. It is integral not irrelevant". More often than not, funding commitment timeframes confine NCRM agendas. This creates issues in a cross-cultural management space where time and program flexibility need to reflect local situations and agendas so that relationships can be built.

From my experience successful relationships develop mostly in the local space of management when time is spent with people travelling to or on country, not through institutionalised, formal planning or management workshops. It is in these spaces that insight into people, their culture, management interests and practices are developed. This is why it is invaluable that regional and national agency staff spend time actively listening to people at the local management scale. This is when the gulf between 'outsider' ideals and 'local' realities can be bridged (Walsh 2008:343). For example, throughout this research I spent most of my time working with and developing strong relationships with senior Warlpiri women from Lajamanu. These relationships have been built over a five-year period, principally from spending time together on country. In 2008 I had the chance to present a paper with two of these women, Myra Herbert and Margaret Martin, at a protected area conference in Noosa, Queensland. It was the first time that these women had the opportunity to see where I grew up and meet my extended family. By sharing this experience, Myra and Margaret better understood my background, worldview and culture, resulting in a deepened working relationship. This is where the concept of *Ngaparrtji Ngaparrtji* is important in the cross-cultural management space. It means I give you something, you give me something (Wohling 2001:156). Reciprocity helps strengthen relationships.

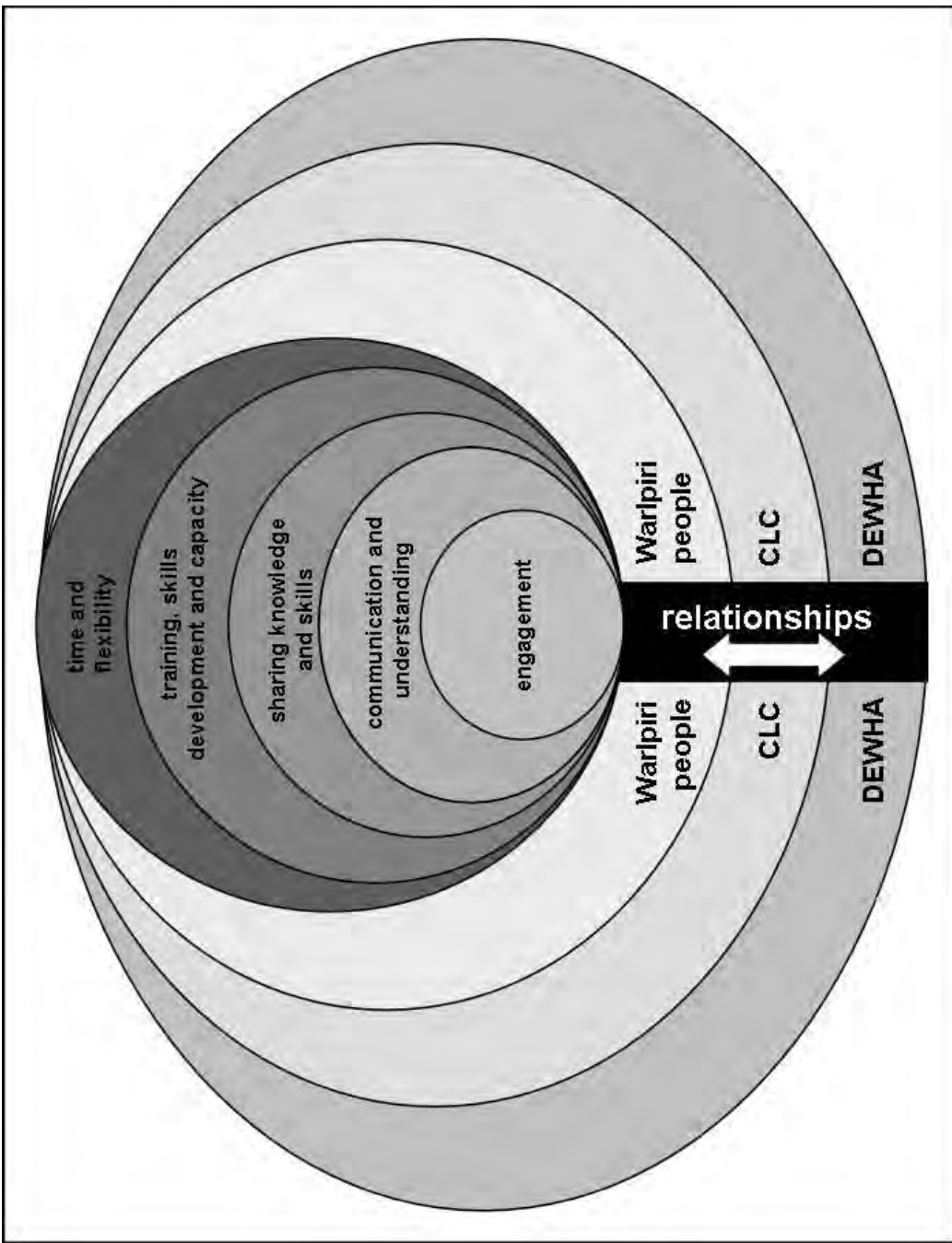


Figure 31: Processes required for working effectively in the cross-cultural management space of the Northern Tanami IPA

Part of the success (or failure) of relationships across scales in co-management arrangements is usually the ‘individual’ who is the intermediary between scale levels. In this case it is the Northern Tanami IPA Coordinator. People in such positions generally have the strongest local relationships and provide the opportunity for better communication and understanding across scales. Walsh (2008:346) notes that there are few people who work well in these ‘trans-cultural’ spaces; people are faced with many personal and professional expectations and pressures. I find that these expectations and pressures are often little understood and supported within the institutional context of co-management. This indicates that cross-cultural management can be a fraught space in which to work. In the Northern Tanami IPA for example, the high turn over of agency staff has required Warlpiri people to continually build relationships, and educate new staff on culture and country. This requires significant personal commitments from people who already have very busy, heavily committed and often stressful lives. Such education is also based on the premise that agency staff have an interest in learning about and working in this cultural domain. This is not always the case. Quite often the pressures of cross-cultural management and community life erode initial enthusiasm. Sometimes this enthusiasm never existed, and sometimes agency staff are just so far removed from the local realities of management that relationships never develop. This is why time is so crucial for ensuring relationship sustainability within the cross-cultural management space: time to find the right people who are capable and willing to work cross-culturally; time to engage, communicate and develop shared understanding across management scales; and time to ‘train’ and develop capacity and knowledge where it is needed. There is also the added assumption that adequate and appropriate funding and support underlies such personal investment in cross-cultural management. This is not always the case.

8.2.4 Working within the local context

From his experience of working in desert Australia, Wohling (2001:160) writes that “...Indigenous land management has become a concept colonised by whitefella values; it implies a combination of Western and traditional ideas”. In many Australian cases, co-management has disempowered Aboriginal people because western notions of management have prevailed. This has been evident through this

research. I found that national conservation agendas have dominated local ones (Ch. 7.3.1.2). This has occurred for a number reasons including: institutional constraints (Ch. 7.5.1); lack of adaptive management (Ch. 7.5.2); and challenges within the cross-cultural management space (Ch. 7.5.3). It has also occurred because management has not been people-centred. Throughout the literature on community based NCRM, the theme of people-centred management has become prevalent (Ghimire and Pimbert 1997b; Baker et al. 2001a). This is because management is about human-decision-making (Langton 1998:74); it is about the social, cultural and political domains in which resources and country are used, managed and owned (Howitt 2001; Brechin et al. 2002). This is the lens through which co-management needs to be viewed in Australia. In the case of the Northern Tanami IPA, it is the Warlpiri people's cultural obligations and commitments to country that dominate their worldview of management (Ch. 4.4.1.1). Management that better reflects and incorporates this local context is required to ensure that Warlpiri notions of management are more effectively integrated and achieved. In this section I discuss the processes necessary to do this (see Table 41, p.288).

Where Aboriginal community ownership and autonomy exist, positive outcomes from co-management arrangements can be derived. Ownership and autonomy are created as a result of strong governance. Within the Northern Tanami IPA this requires strengthening the role and decision-making ability of Traditional Owners on the IPA Management Committee so that current power imbalances are corrected (Ch. 7.3.4.3). This involves redefining management to make it more relevant to the values and interests of local Warlpiri people. In their discussion paper on working with Warlpiri people, Pawu-Kurlpurlurnu et al. (2008:36) state that project design based on "the elements of world view and culture that are important to the moral order and identity of local people" have a better chance of contributing to the healthy functioning of Warlpiri people and country. In this research context, managing country is about following Warlpiri law. This includes ensuring that the Management Committee structure reflects Warlpiri family and kinship systems (Ch. 7.3.4.1); appropriate gender representation occurs in all levels of management (Ch. 7.3.4.2); inter-generational engagement is supported (Ch. 7.3.6); and traditional knowledge and skills are transferred and used to manage country (Ch. 7.3.5). It also includes the active involvement of people in management practice on-country (Ch. 7.3.5).

Warlpiri people need to interact and experience country if they are to learn from it and manage it properly (Ch. 4.4.2). This is the space through which cultural management occurs. For example, I am often told by senior men and women about the need to pass on ceremony to younger generations. Ceremony has occurred on every country visit where I have seen both young and old Warlpiri people engaged together; whether these country visits be for the purpose of hunting, burning or biodiversity survey work. Ceremony can be described as the time when people are taught how 'to walk' in their country (Pawu-Kurlpurlurnu et al. 2008:31). Being on country is the motivator for activities like ceremony to occur; and it is through such activities that traditional knowledge and skills are observed, taught and transferred (Palmer et al. 2006). Ceremony is just one of the many activities that make up the Warlpiri worldview of managing country (Ch. 4.4.1.1).

This local context does not come without its problems. There are many limitations to the extent to which Warlpiri people can, and are willing, to be involved in managing country (Ch. 4.4 & 6.5.3). These include family and community commitments, poor health and wellbeing and social dysfunction. Not all local contexts are the same. It is imperative the IPAs and other protected areas are negotiated and managed on an individual basis. This also applies to the local meaning of management. Aboriginal communities are not homogenous. In relation to the Northern Tanami IPA this is clearly seen through the diversity of Warlpiri management interests (Ch. 4.4.4.1). Diversity needs to be appreciated, accepted and negotiated. This is why it is essential that people working in the cross-cultural management space take the time to learn, share and understand (Ch. 7.2.3). Having locally based agency staff allows greater opportunity for this to occur.

It is also important the non-Aboriginal people acting as 'mediators' in facilitator or coordinator positions are aware of the power they have in shaping the success or failure of NCRM programs. Supporting local people's capacity to better govern protected areas is one of the best ways to improve power imbalances and program sustainability (Dodson and Smith 2003). This requires financial and personal investment in training and management support. Finding areas of overlap in management interest are the spaces through which knowledge, skills and capacity can best be shared and built upon (Walsh 2008:381). The areas of overlap between

agency staff and Warlpiri interest in the Northern Tanami IPA include fire management and the recording and transfer of traditional knowledge and skills. Through these activities, Warlpiri ownership over planning and management direction can be enhanced. For example, many senior men and women on the Management Committee have knowledge and skills in fire management. By using these skills in designing and directing on-ground management practice, ownership over program delivery is created. This can be as simple as developing a fire management strategy for the IPA based on parameters such as sustaining hunting grounds and the protection of sacred sites and infrastructure (e.g. outstations). Burning can then be carried out by family groups on their own country.

8.3 Further thoughts and questions

This has been an applied, cross-cultural research project where a combined case study and ethnographic methodology was used to understand: Warlpiri views on managing country (Ch. 4); Warlpiri perspectives on the management of the Northern Tanami IPA (Ch. 5); and Agency impressions and interests in the IPA (Ch. 6). I did this to examine the imbalance between what stakeholders wanted to achieve at the local level and what was actually happening through management of the IPA. By adopting the WCPA monitoring and evaluation framework I have been able to show that Warlpiri and agency interests and values in IPA management do not often align, and that management agendas are not being fully met as a result of poor engagement, knowledge sharing and negotiation in management planning, design and practice (Ch. 7). From these results I conclude that strong cross-cultural partnerships are needed so that inequitable power relationships and imbalanced accountability between Aboriginal managers and partnering agencies does not occur.

To better achieve local management agendas alongside those of partnering agencies (the aim of this research as identified in Ch. 1.1), I have outlined four main areas within the Northern Tanami IPA management environment that need greater investment. First the institutional context in which the IPA program sits needs to be more supportive and inclusive of Aboriginal notions and interests in managing country (Ch. 8.2.1). This requires improvements in program funding and policy. Secondly, the Northern Tanami IPA is not a self-governed protected area (Ch. 8.2.2).

Rather it needs to be viewed as a multi-scaled, co-management arrangement. To effectively achieve co-management, an adaptive cycle of planning, implementation and monitoring and evaluation needs to be instituted. Thirdly, improved cross-cultural management is required within the IPA (Ch. 8.2.3). It is through successful relationships that management values and interests are shared and negotiated. Relationships in this cross-cultural space require significant personal commitment and professional support. Finally, it is imperative that management reflects the local context in which it is situated (Ch. 8.2.4). By doing this, autonomy and control can be built in a way that supports and manifests Warlpiri worldviews and frameworks for managing country. This is critical to the process of self-determination and the continued decolonization of protected area management within Australia. These results, as applied through the WCPA evaluation framework, are represented in Figure 32 (p.304).

So what further thoughts and questions has this research raised more generally for me in relation to cross-cultural management of protected areas where Aboriginal people, representative agencies and the State are partners?

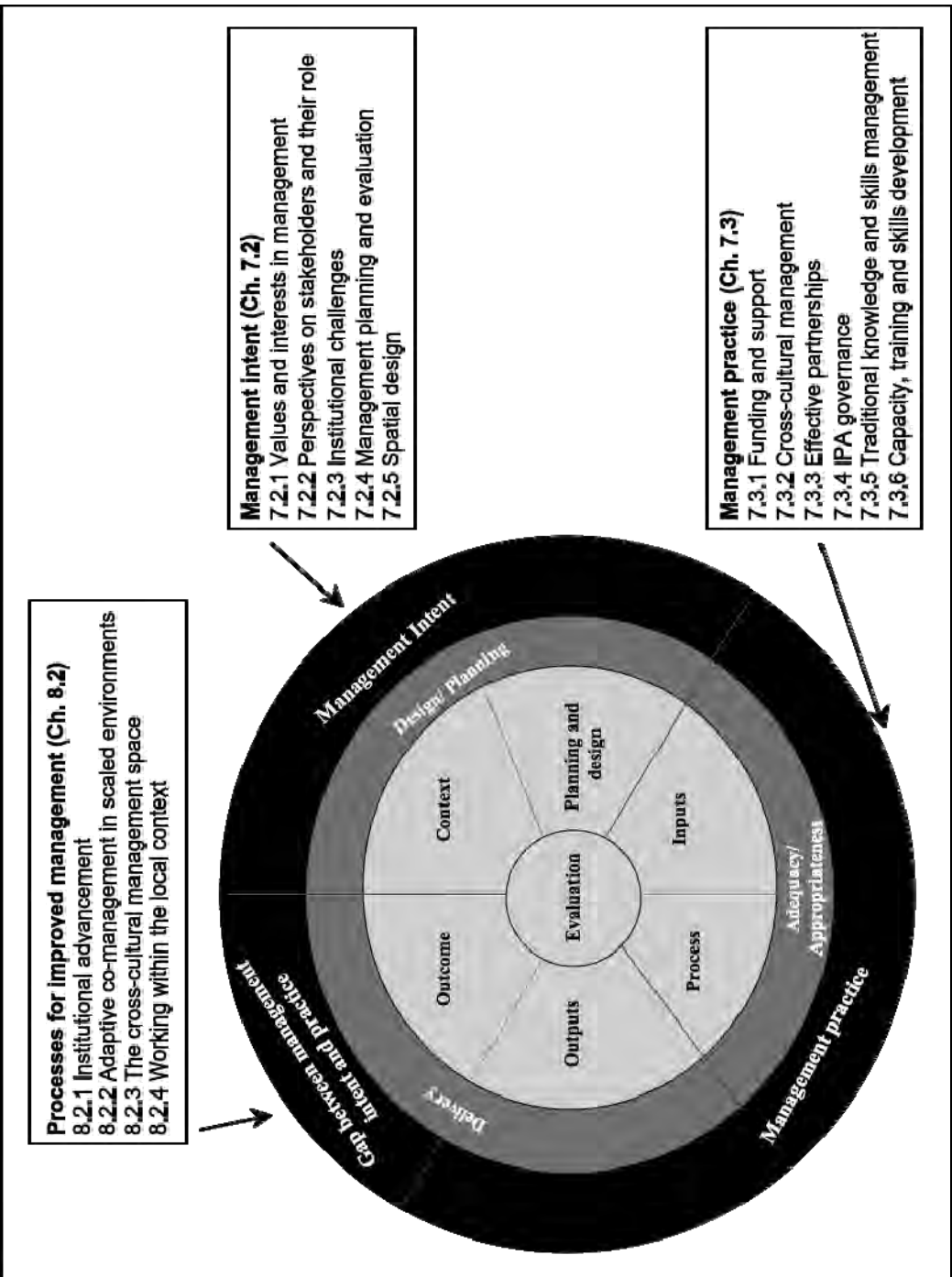


Figure 32: Processes for improving management of the Northern Tanami IPA

First, protected area evaluations need to be seen as a valuable part of management practice. This is essential for understanding and recognizing what has or has not been achieved through the management practice of differing governance regimes (Jacobson et al. 2008). IPAs, for example, are making some headway in integrating conservation and development through improved livelihoods (e.g. employment, health and wellbeing and keeping culture strong) and economic development for Aboriginal people (Muller 2000; Braham 2007). This research has shown, however, that issues commonly noted throughout Australia's history of protected area management, and those of the globe, still confront management success. These are concerns over self-determination, governance, partnership creation, the integration of traditional knowledge and skills, and resourcing and support for cultural management practices (Ch. 1.2 & 2.2). Because of such concerns, formal inclusions of ICCAs in national protected area systems are commonly critiqued as resulting in altered powered relations (Ch. 1.2.7). That is because local control and authority is undermined by the State. Evaluations, such as the one carried out in this research, are important to reflect on if, and if so how, State and representative agencies are influencing the local context of management.

Understanding institutional influence is essential so that improvements in policy and best practice approaches for incorporating conservation and development agendas are better integrated with local values and interests, and for ensuring that bridging organisations, which commonly act as brokers for government funding and programs in remote Aboriginal communities, are accountable to the local people they are acting on-behalf of, or with (Ch. 8.2.2). It is also important for the adoption of locally appropriate governance regimes. For example, although IPAs are presented as being self-managed by Aboriginal people, an examination of the Northern Tanami IPA has shown that this is not being matched in practice. In this case, adaptive co-management, if properly instituted, provides a governance model that will more likely meet the goals of Warlpiri management (Chapter 8.2.2). The important message here is that, regardless of which governance arrangement people willingly choose, or occurs by default, there should be no risk to the achievement of local agendas and outcomes (Chapter 8.2.4). IPAs need to be able to reflect the degree of self or co-management that Aboriginal people want, and support it accordingly. An

examination of other IPAs would continue to shed light on the successful achievement of Aboriginal self-management through the program.

Second, participation of not only Aboriginal people, but also other stakeholders, is necessary to reflect differing values and interests in management and use. This is required so as to better incorporate the human dimensions of management alongside those for assessing biodiversity conservation outcomes (Ch. 1.2.1-6). The lack of congruence between Warlpiri and agency interest in the Northern Tanami IPA is a clear indication of this need (Ch. 7.2.1). Participation is advocated in an attempt to stop passive consultation, which is commonly seen through the planning and management of many of the world's protected areas (Ch. 1.2.3). Passive consultation, more often than not, results in the achievement of State driven agendas. By using a participatory approach, multiple knowledge sources, perceptions and interests in development and conservation can be shared and understood (Carter and Hill 2007). This is the cross-cultural space in which management needs to be considered and negotiated (Ch. 8.2.3). Defining areas of mutual interest through sharing knowledge and negotiation will result in improved co-management success. This is because the focus is on common interests, rather than areas of difference (Walsh 2008:381).

Management change is also more likely to occur where there is stakeholder involvement in evaluations. This is critical for redefining power imbalances and conflicts that exist within scaled management systems such as the Northern Tanami IPA (Ch. 8.2.2-3). Most protected areas in desert Australia would exhibit some degree of scaled management as a result of collaborations with brokering agencies, such as land councils or NRM organisations, or with State and Territory or Federal Government departments³⁵⁶. Further research on stakeholder roles and interactions would contribute to a better understanding on how and why processes of participation and negotiation thrive or fail within co-managed governance regimes in desert Australia.

³⁵⁶ For example many national parks within the Northern Territory are co-managed by Traditional Owners and Federal or Northern Territory Governments; declared IPAs such as the Ngaanyatjarra, Watarru and Walalkarra and IPA consultation projects such as the Southern Tanami and Katiti-Petermann Ranges are all administered through Aboriginal Land Councils or corporations.

Third, it is important for Aboriginal managers and agencies to accept that not all management interests will be achievable through current protected area governance regimes in Australia. Negotiations will continue to result in trade-offs, especially where funding is not supportive of broader development agendas. This is particularly pertinent for the IPA program, which is put forward as being able to successfully integrate Aboriginal interests and practices in management (Ch. 1.1 & 2.2.3). The growth of the program over desert Australia, and the country as a whole, in the last decade indicates the desire of Aboriginal peoples to have their rights to and interests in country recognised and supported at a Federal Government level. Interests in knowledge and skills transfer, fire management, and cultural site management are some of the more common land management practices incorporated in protected area management practices to date. This research has shown that program funding and policy does not reflect and support the diverse cultural, economic and political interests of Warlpiri people in the Northern Tanami IPA (Ch. 8.2.1). This is of course impeded by other factors relating to on-ground management practice, which is influenced by the regional and local contexts of management. For example, local people's desire to be involved in management (Ch. 8.2.4) and regional agency staffs' ability to work successfully in cross-cultural environments (Ch. 8.2.3). Questions still need to be asked about the extent to which Aboriginal land management interests and practices should be instituted in national protected area programs and policies. This is a pertinent question because it greatly affects the level of independence and autonomy that Aboriginal people have over management. At what level do Aboriginal people want to be held accountable to the government for cultural resource management practices? And what are the risks and benefits that the institutionalisation of such practices would bring?

Finally, improved management practice needs to be people-centred. It should be the local space where management is decided upon and actions implemented (Ch. 8.2.4). If management does not reflect this, or it is never instituted in the first place, there will be no effective local scale engagement with Aboriginal people. It is the perceived outcomes related to health and wellbeing, cultural maintenance or other sustainable development interests of Aboriginal peoples that will be negatively affected, and there will certainly be no improvements in Aboriginal self-management. Devolved management requires a significant investment from all

parties. It requires: agency staff to reflect critically on their roles and that of their institutions in influencing local management (Ch. 8.2.1); locally based staff skilled in cross-cultural management (Ch. 8.2.3); and significant resourcing and support through all stakeholder management scales (e.g. people, money, equipment). Mostly, however, it requires substantial personal and professional commitment from those working at the local level to engage and build trusting relationships over time (Ch. 8.2.4). More often than not it is inappropriate timescales and lack of resourcing that challenge the speed at which relationships are developed and sustained (Putnis et al. 2007; Sithole et al. 2007; Walsh 2008). This has a flow-on effect, resulting in inappropriate and ineffective decision-making and management implementation. This is usually at the expense of local management agendas (Smyth 1996; Borrini-Feyerabend et al. 2000; Pimbert and Pretty 2003; Borrini-Feyerabend et al. 2004). People, and the relationships between people, need to be appropriately invested in. Traditionally, such ontology is not well reflected within bureaucracies (Macdonald 2004; Muller 2008a). The IPA program is an example of where such a change has been attempted (Muller 2003; Szabo and Smyth 2004; Smyth 2006). For example, in this research there has been informed insight amongst the participants about aspects of on-ground and program management that can be improved, including enhanced partnerships creation and improved local engagement and relationships. Further research would better determine the extent to which such ontological change has occurred through the program and at what scales of management.

Such research shows that with improved management the resilience of cultural landscapes managed as protected areas can be enhanced (Ch. 1.2.4). Resilience is reliant not only on ensuring the biological value of a system is sustained or adapted when challenged, but also the social value and dimension of management (Folke et al. 2005; Lebel et al. 2006). It requires the recoupling of the social, ecological and economic spheres of stakeholders values and interests (Hoole and Berkes 2010). This is the nexus for better achieving sustainable development and conservation agendas through protected area management (Ch. 1.2.1 & 1.2.2). As shown in this research, such a nexus requires interplay between multi-scaled governance, accountability and adaptive management. Much of this interplay is based on the need for appropriate participation and interaction of stakeholders across management scales, where trust, social learning and social capital are built (Gruber 2010). Ensuring appropriate

participation so that Aboriginal rights and interests in the management and use of protected areas are brought to the fore needs to be a central tenet in improving protected area governance (Ch. 1.2.3, 1.2.5-6). Without strong governance there can be no cycle of adaptive management instituted, and certainly no room for developing effective, collaborative partnerships between Aboriginal people, representative agencies and the State.

8.4 Conclusion

Like other analyses of ICCA approaches around the world, this research has shown that management of the Northern Tanami IPA has not been resilient enough to “...address the complex and diverse interests of people and institutions...” (Mahanty 2002:514). This is not considered to be the result of ‘flawed theory’ on the integration of conservation and development within protected areas (Mahanty 2002; Agrawal and Redford 2008); but, as I have identified in this research, to be the result of breakdowns in communication, planning and program implementation because of under-developed partnerships. Overall this research shows the importance of investing in and supporting cross-cultural partnerships for improved management.

Such findings provide an insight into negotiating a more equitable process for achieving multiple agendas through better understandings of management success or failures. Governance regimes, such as the IPA program have made significant progress in the arenas of Aboriginal engagement, livelihood creation and economic benefits. However, further advancements in management resilience are still required to better achieve both biodiversity conservation and sustainable development. As this research indicates, trying to negotiate a shared management agenda across numerous management scales, where differing worldviews and interests exist and where relationships need to be developed, valued and built on trust, is still a significant challenge for protected area governance regimes in Australia. It will continue to be unless Aboriginal participation and management interests are better advocated and supported in policy, planning and implementation processes. Such advancements in management are reliant upon improved cross-cultural partnerships where shared understandings and negotiations of management intent and practice are at the core.

8.5 Epilogue

As I sit down to write this section, I have been thinking about my ‘research’ journey over the past 6 years to get this point – a complete dissertation. I moved to Alice Springs in 2005 as a PhD student with CDU and DKCRC to examine Aboriginal involvement in desert Australian protected areas. Today, I am living in the Aboriginal community of Lajamanu, not only completing this research, but being employed by the Central Land Council as the Coordinator of the Northern Tanami IPA. This shift to Coordinator at the end of 2008 was greatly facilitated through my experience of doing research in a cross-cultural setting. As an ‘outsider’ (in a research position) I worked hard to build and maintain relationships by spending time on country with people, listening to their stories, learning and reflecting. It is these relationships that made my transition to an ‘insider’ (through the IPA Coordinator role) more straightforward.

My role as IPA Coordinator has also given me valuable insights into this research. From my findings I can concur that working cross-culturally to achieve a variety of management outcomes can be confronting. Sustaining relationships and support for management requires significant personal and professional investment, not only of myself, but also from the many others with whom I collaborate. It also requires time and support, which is not always available. Equally, working cross-culturally brings much optimism. There is an enormous amount of goodwill and commitment from Aboriginal and non-Aboriginal colleagues in moving forward and entrusting younger generations with ownership and the right knowledge and skills for managing country. Primarily, optimism comes from people reconnecting, visiting and using country. The worth of country visits is one of most valuable lessons I have acquired from this research. Intergenerational country visits occurring in many formats (e.g. school visits, hunting trips, survey work, cultural site visits, burning) have become a mainstay of the Northern Tanami IPA work program today.

My hope for the future is that Aboriginal and non-Aboriginal peoples’ commitment and optimism continues to grow the management efficacy of not only the Northern Tanami IPA, but also the IPA program as a whole. It is a positive opportunity

through which Aboriginal and non-Aboriginal people can continue to work side-by-side, learning and growing together.

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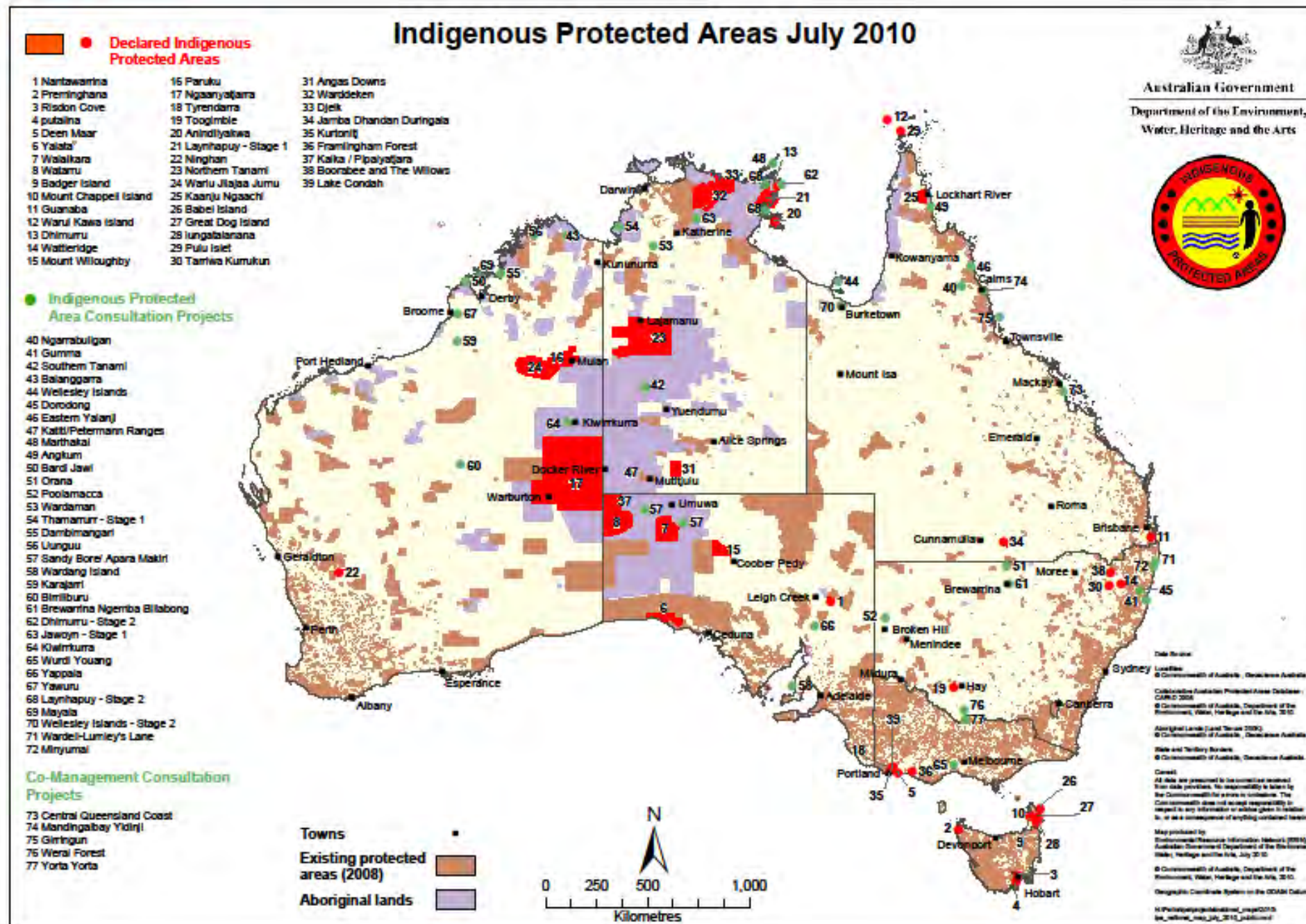
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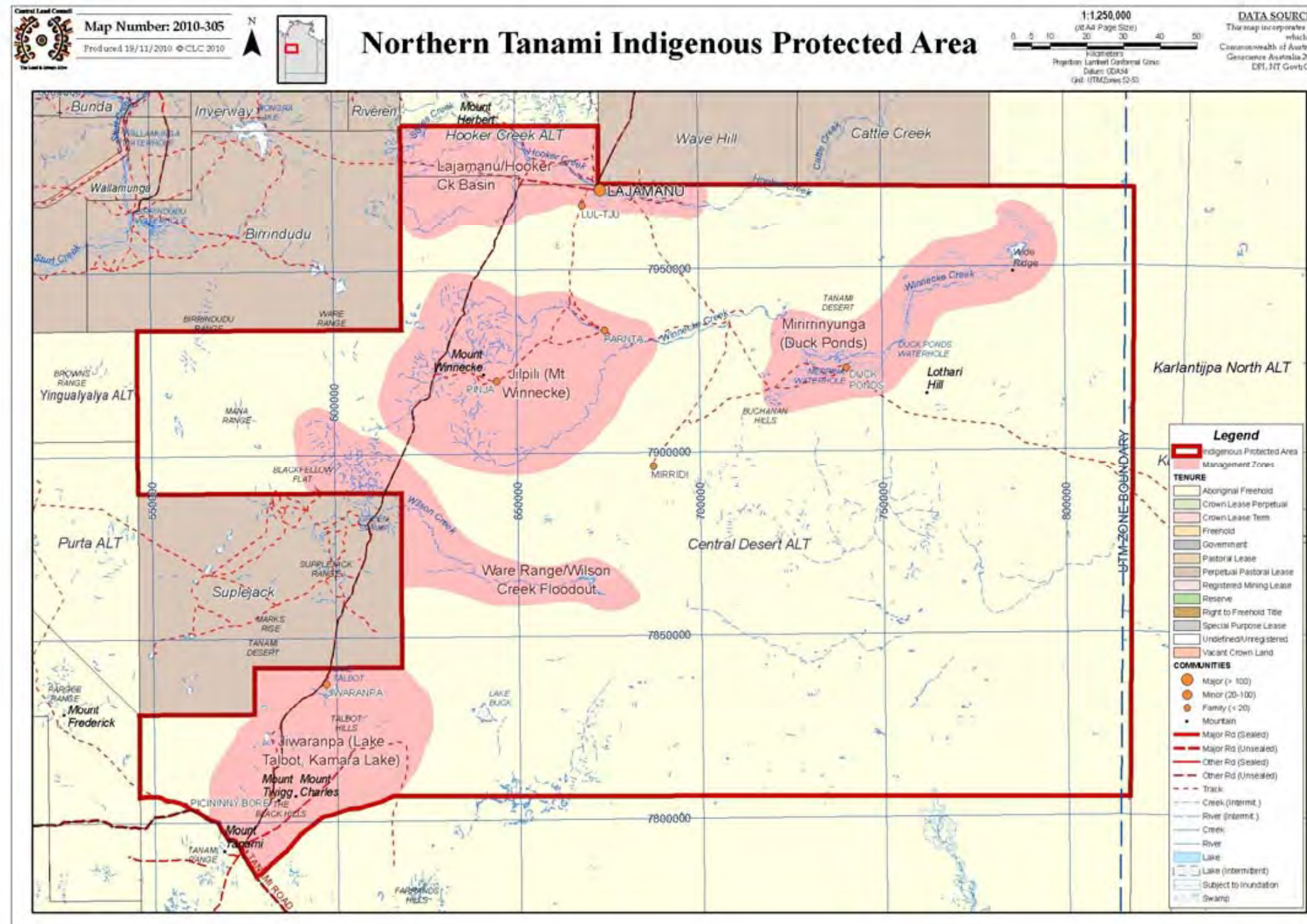
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10. APPENDICES

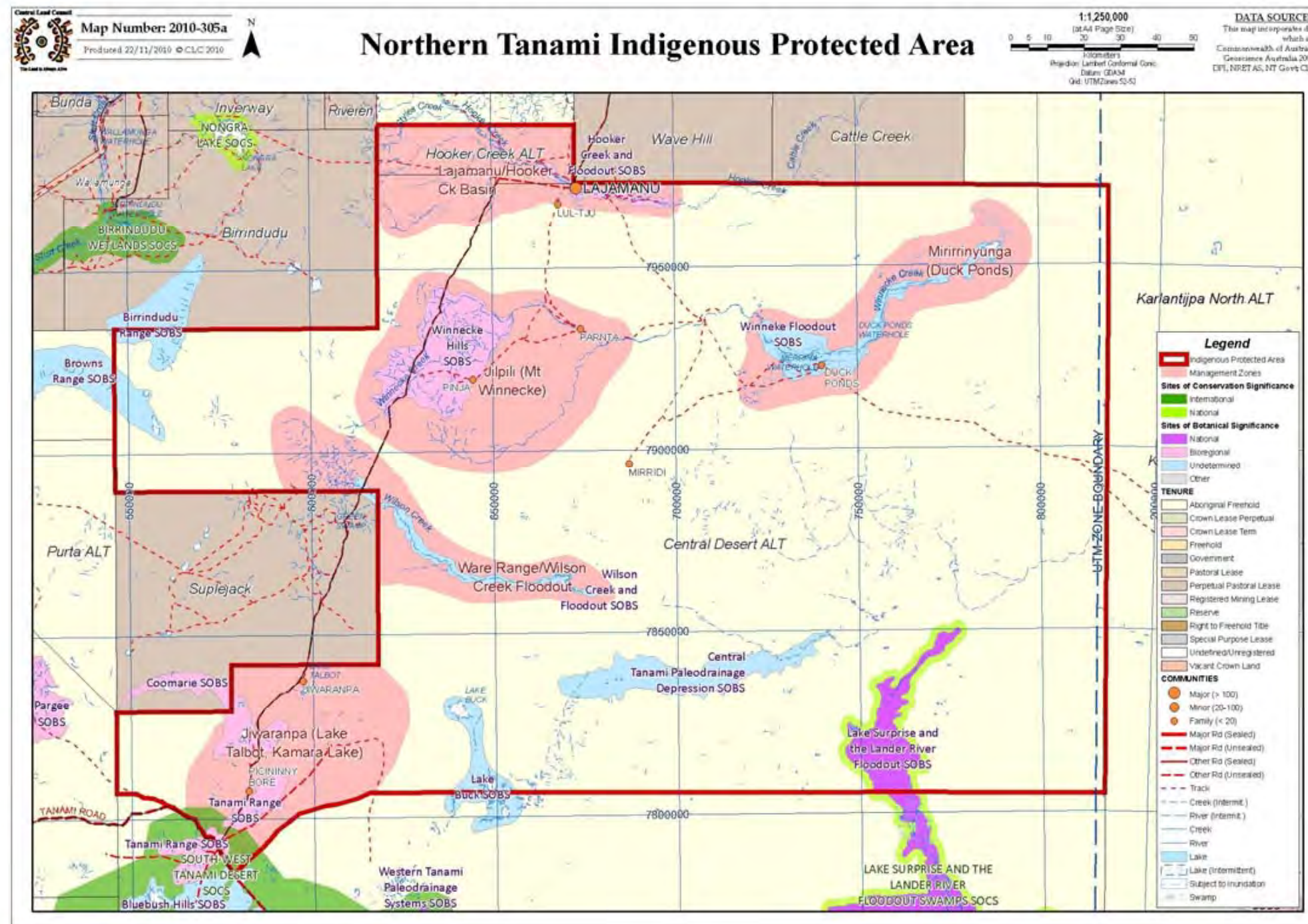
Appendix 1. Map of Indigenous Protected Areas in Australia (DEWHA 2010e)



Appendix 2. Map of the Northern Tanami IPA



Appendix 3. Map of the Northern Tanami IPA: management zones & sites of botanical significance



Appendix 4. Description of the key management zones of the Northern Tanami IPA

Kiwinyi (Hooker Creek basin), Management Zone 1

Kiwinyi management zone is in the top northwest of the IPA and represents the northern edge of the Tanami desert, with a mixture of semi-arid and tropical savanna species present. Large watercourses and near permanent waterholes also occur. There are significant human impacts on country around the community of Lajamanu and the Lul-tju outstation. These impacts include localized hunting, wood harvesting and irregular burning. Weed invasion, feral stock impacts, erosion and over-burning are also of ecological concern. Kiwinyi is Gurindji country that is largely cared for by the Lajamanu community. Environmental issues specific to Lajamanu include dust suppression, rubbish dumping, weed invasion and shade provision.

Desired outcomes	Management actions
• Reduce uncontrolled fires in the area	• Prescribed burning to protect and enhance Hooker Creek and floodout, Lajamanu community and environs
• Reduce noxious weed infestations	• Weed mapping and control in riparian zone and floodouts (rubber bush, Neem, Parkinsonia, Noogoora Burr and other serious environmental weeds as encountered)
• Reduce feral stock impacts on wetland communities and culturally important waterholes	• Feral horse and donkey impact mitigation (develop community awareness and Rangers' capacity to control)
• Support and encourage external agency initiatives in managing threatened species, e.g Gouldian Finch and Greater Bilby	• Monitor identified threatened species populations in the savanna/desert interzone
• Dust reduction and enhanced shade within the Lajamanu community	• Initiate or support community-based projects to increase shade and reduce open dust prone areas
	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife

Mirrinyungu (Duck Ponds), Management Zone 2

Mirrinyungu is in the north-eastern section of the IPA and encompasses the Winnecke Creek floodout and adjacent sandplains and includes many semi-permanent billabongs. The only settlement in this management zone is the Duck Ponds outstation. The Warrego track from Lajamanu to Tennant Creek passes the outstation. Duck Ponds is regularly used by traditional landowners. Wildfire damage is evident in some botanical communities. However traditional burning generally protects many of the floodout areas. Other threats to biodiversity include feral animal and plant invasion.

Desired outcomes	Management actions
• Reduce impact of unplanned fires	• Prescribed burning within and adjacent to Winnecke Creek Floodout and around Duck Ponds Outstation
• Protect outstation infrastructure and reduced likelihood of wildfires originating from outstations	• Provide relevant information to outstation residents on contemporary land management issues
• Reduce indiscriminate killing of waterbirds	• Monitor condition of wetlands, waterbird populations and other notable species
• Protect the area from weed infestations	• Weed mapping and control in riparian zone and floodplains, including rubber bush, parkinsonia couch grass
• Mitigate the impact of introduced predators on threatened species populations	• Implement fox and cat control at key sites for threatened species
	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife

Jirlpili (Mt Winnecke area), Management Zone 3

Jirlpili is the largest management zone in the IPA and includes the Mt Winnecke, which includes many natural springs and rockholes. The biology of the area is relatively unknown to western science. The area includes two outstations, Pinja and Parnta. The area is of cultural importance and access is restricted to many areas including the Pinja outstation. Due to permanent water sources, feral animals are present all year round.

Desired outcomes	Management actions
• Further define natural and cultural significance of the area	• Continue biological and cultural surveys
• Protect cultural sites and areas from unauthorized visitation	• Monitor and protect cultural sites
• Reduce unplanned fires and feral stock damage on cultural sites and habitats	• Prescribed burning around cultural sites, significant vegetation and outstation infrastructure • Fence-off rockholes from feral animals • Provide information to outstation residents on contemporary land management issues
• Manage noxious weeds, particularly those spread by feral animals	• Provide information to outstation residents on contemporary land management issues
	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife

Kartarta (Wilson Creek basin), Management Zone 4

The Kartarta management zone is located south of Jirlpili and includes the Ware Range and the Wilson Creek floodout, which is a site of regional biological significance. The Lajamanu road cuts through this area, and is bordered to the south-west by Supplejack Station. Cattle grazing and introduced pasture and weed species are of environmental concern for the wetland and surrounding plains, including vegetation thickening due to fire suppression. The area is densely vegetated with little road access, making management difficult and expensive.

Desired outcomes	Management actions
• Increase traditional burning • Reduce the impact of feral stock	• Prescribed burning around arid wetlands • Control of feral stock
• Monitor threatened species, traditional resource use species and environmental condition	• Monitor wetland biodiversity, in particular threatened species, waterbirds, small mammals, reptiles and rare plants
• Reduce weed densities	• Strategic weed control and monitoring, including Parkinsonia, grader grass, Mossman river grass and couch grass
	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife

Jiwaranpa (Lake Talbot and Kumari area), Management Zone 5

Jiwaranpa management zone is located in the south-west corner of the Northern Tanami IPA. The zone extends to the Tanami Highway and includes the areas of Lake Talbot, Kumari Lake, Piccaninny Bore, Talbot Well Outstation, Groundrush open-cut mine, Tanami mine and Commarie Spring. The area is bordered by Supplejack Station. Fire activity is high in this area due to good road access and multiple settlements. Weed infestations and high dingo populations are of concern. The Wulaing Rangers are involved in local mine rehabilitation and monitoring in the area.

Desired outcomes	Management actions
• Reduce unplanned fires	• Prescribed burning around wetlands, springs, culturally important sites and outstations
• Monitor threatened species, traditional resource use species and environmental condition	• Monitor biodiversity, in particular threatened species, waterbirds, small mammals, reptiles, weeds and fire impact
• Assess weed infestations impacts in wetland and riparian areas	• Monitor weeds including Mossman river grass, Parkinsonia, grader grass and couch grass
• Assess status and protect sites of historical and cultural significance as required	• Continue cultural and historical surveys
	• Provide information to outstation residents on contemporary land management issues
	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife

Other land within the IPA

The country outside of the management zones includes two outstations, Mirridi and Jangalangpa, and many other wetland systems and low ranges. The biology of the area is relatively unknown to western science with management challenged by remoteness and poor access to the area. Broad scale management issues include feral animal and weed infestations, wildfire and reduced traditional Aboriginal management. Much of the area is subject to mining exploration and licensing, which can help to improve access through the creation of roads into other inaccessible areas.

Desired outcomes	Management actions
• Reduce extent and impact of wildfire	• Opportunistic early burning, particularly along tracks and roads
• Facilitate off-park conservation management	• Support and engage with approved scientific research and external conservation agency initiatives
• Increase community land management capacity	• Support cultural programs run by Lajamanu CEC and Warlpiri Triangle • Facilitate senior traditional owner involvement in land management activities
• Promote the use and retention of traditional ecological knowledge and skills	• Support cultural programs run by Lajamanu CEC and Warlpiri Triangle • Facilitate senior traditional owner involvement in land management activities • Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife
• Protect cultural sites	• Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife
• Reduce unauthorized hunting	• Scrutiny of trespass and unauthorized activities on Aboriginal land, including hunting, site desecration and fire lighting
• Increase outstation use, associated traditional ceremony, traditional land use and management	• Facilitate senior traditional owner involvement in land management activities • Support traditional owners in their efforts to reside on outstations within the IPA • Support customary land management practices, intergenerational transfer of traditional knowledge and maintenance of culturally important sites, artefacts and wildlife
• Increase community awareness of contemporary land management issues	• Disseminate information on contemporary land management issues and solutions amongst broader Warlpiri community • Facilitate senior traditional owner involvement in land management activities
• Reduce weed infestations and impacts	• Record and map weed infestations
• Increase understanding of feral animal demography and ability for ground control	• Record and map feral animal occurrence

Appendix 5. Area of land for Tanami Bioregion and Northern Tanami IPA

Total size of Tanami bioregion	258224 km ²	% within the NT	88.4%
Area of the bioregion within the NT	228261 km ²	% of the NT area	16.9%
Area of the Northern Tanami IPA	40050 km ²	% of total bioregion	15.5%
		% of bioregion in NT	17.5%
Other areas reserved in total bioregion	4070 km ²	% of total bioregion	1.6%
Total area reserved in entire bioregion	44120 km ²	% of total bioregion	17.1%
Total size of the NT	1352158 km ²		
Total size of conservation estate in the NT (NT parks, CGA parks, private and IPAs)	119268 km ²	% of the NT area	8.8%
		% of conservation estate contributed by Northern Tanami IPA	33.6%

(NRETA 2005b; ABS 2006)

Appendix 6. Floral species of significance occurring within the Northern Tanami IPA

Scientific Name	Common Name	Bioregional Significance	Northern Territory Significance
<i>Acacia abbreviate</i>	Tanami flying saucer bush	✓	✓
<i>Acacia adoxa</i> var. <i>adoxo</i>		✓	
<i>Acacia crassifructa</i>		✓	
<i>Acacia kempeana</i>	Witchetty bush	✓	
<i>Acacia lycopodiifolia</i>		✓	
<i>Acacia maconochieana</i>	Salt wattle		✓
<i>Acacia minutifolia</i>	Small leaved flyer saucer bush	✓	
<i>Acacia pachycarpa</i>			✓
<i>Acacia stellaticeps</i>		✓	✓
<i>Acacia stenophylla</i>	Belalie	✓	
<i>Acacia stipulosa</i>			✓
<i>Acrachne racemosa</i>			✓
<i>Aenictophyton reconditum</i>		✓	
<i>Ampelocissus frutescens</i>		✓	✓
<i>Brachyachne prostrate</i>			✓
<i>Brachychiton multicaulis</i>		✓	✓
<i>Cleome oxalidea</i>			✓
<i>Coleocoma centaurea</i>		✓	
<i>Corymbia pachycarpa</i> subsp. <i>glabrescens</i>		✓	
<i>Corymbia sphaerica</i>		✓	✓
<i>Croton aridus</i>		✓	
<i>Dampiera candicans</i>		✓	
<i>Dentella asperata</i>	Airy shaw	✓	
<i>Drosera derbyensis</i>		✓	
<i>Elatine macrocalyx</i>	Claypan waterwort		✓
<i>Enneapogon purpurascens</i>	Purple nine-awn, purple bottlewasher	✓	
<i>Eragrostis laniflora</i>	Hairy flowered woollybutt	✓	
<i>Eucalyptus cupularis</i>	Halls Creek whitegum		✓
<i>Fimbristylis eremophila</i>	Desert fringe-rush	✓	
<i>Gomphrena diffusa</i> subsp. <i>arenicola</i>		✓	
<i>Goodenia goodeniacea</i>	Sandplain goodenia	✓	
<i>Heliotropium parviantrum</i>		✓	✓
<i>Heliotropium pulvium</i>			✓
<i>Indigofera ammobia</i>		✓	✓
<i>Isotropis atropurpurea</i>	Poison sage	✓	

Scientific Name	Common Name	Bioregional Significance	Northern Territory Significance
<i>Jacksonia aculeate</i>			✓
<i>Lechenaultia filiformis</i>		✓	
<i>Leptosperma anomalum</i>		✓	
<i>Mnesithea rottboellioides</i>	Cane grass	✓	
<i>Neobassia astrocarpa</i>		✓	
<i>Newcastelia cladotricha</i>	Lambs tail		✓
<i>Owenia reticulate</i>	Desert walnut	✓	
<i>Pluchea ferdinandi-muelleri</i>		✓	
<i>Portulaca oleracea</i>	Common purslane	✓	
<i>Sclerolaena glabra</i>		✓	
<i>Sida</i> A88271 Rabbit Flat		✓	
<i>Solanum chenopodium</i>	Wild tomato, goosefoot, potato bush	✓	
<i>Solanum diversiflorum</i>	Bush tomato	✓	
<i>Sporobolus virginicus</i>	Salt couch		✓
<i>Terminalia savannicola</i>			✓
<i>Teucrium integrifolium</i>	Green germander	✓	
<i>Trachymene villosa</i>			✓
<i>Triodia epactia</i>		✓	
<i>Uranthoecium truncatum</i>	Flat-stem grass	✓	
<i>Velleia panduriformis</i>	Cabbage poison		✓

(NRETA 2005b; NTG 2005c; CLC 2006; CGA 2007)

Appendix 7. Sites of botanical significance in the Northern Tanami IPA

<i>Name of Conservation Hotspot</i>	<i>Site within the Northern Tanami IPA</i>	<i>Botanical Significance</i>	<i>Brief description</i>
Lajamanu, North Tanami	Browns Range	Undetermined	Includes low sandstone hills to the southwest of the Birrindudu Range and fringing, sublinear lakes.
	Winnecke Creek Floodout	Undetermined	Site of potential interests that supports diverse habitats.
	Hooker Creek and Floodout	Bioregional	Poorly known site of botanical interest. The site has populations of <i>Corymbia pachycarpa</i> subsp. <i>glabrescens</i> that are endemic to the Tanami. Type location for <i>Tephrosia brachycarpa</i> .
	Birrindudu Range	Undetermined	Are supports some of the most northerly stands of <i>Acacia aneura</i> and possibly <i>Adansonia gregorii</i> .
	Winnecke Hills	Bioregional	Remote area where flora of the Victoria River region and the Tanami overlap. Includes type localities of <i>Levenhookia chippendalei</i> and <i>Acacia stipuligera</i> .
Lake Surprise and Lander River	Wilson Creek and Floodout	Undetermined	Poorly known area.
	Lake Surprise and Lander River Floodout	National	This is a diverse area rarely visited. Known to support <i>Eucalyptus camaldulensis</i> var. <i>obtus</i> stands. Type location for <i>Corymbia sphaerica</i> and <i>Bonamia deserticola</i> .
	Tanami Range	Bioregional	Area important for <i>Acacia abbreviate</i> conservation and is the type location for this species.
	Bluebush Hills	Undetermined	<i>Corynotheca asperata</i> is found within the area and is of national significance.
	Lake buck	Bioregional	Saline lake system that has not been botanically recorded. Notable stands of <i>Acacia maconochieana</i> to the south.
Other hotspots	Central Tanami Paleodrainage	Undetermined	Extensive paleodrainage system that requires exploration.
	Coomarie	Bioregional	Area of springs, ephemeral lands and sandstone hills. Type location for <i>Heliotropium parviantrum</i> .

(Harrison 2003; NRETA 2005a; NRETA 2005c; NRETA 2005b)

Appendix 8. Summary of data from the Tanami Desert Biological Survey, 1981 to 1983

<i>Taxa</i>	<i>Species Number</i>	<i>Abundant to common</i>	<i>Uncommon</i>	<i>Rare or unknown</i>
Mammals	34	17	7	10
Birds	152	40	52	60
Reptiles	70	34	14	22
Amphibians	11	4	6	1
Fish	1	1	0	0
Total	268	96	69	93

(Gibson 1986:78)

Appendix 9. Mammals from the Tanami Bioregion now known to be extinct in the wild

<i>Scientific name</i>	<i>Common name</i>
<i>Bettongia lesueur</i>	Burrowing bettong
<i>Chaeropus ecaudatus</i>	Pig-footed bandicoot
<i>Dasyurus geoffroii</i>	Western quoll
<i>Isoodon auratus</i>	Golden bandicoot*
<i>Lagorchestes asomatus</i>	Central hare wallaby
<i>Lagorchestes hirsutus</i>	Mala
<i>Macrotis leucura</i>	Lesser bilby
<i>Notomys amplus</i>	Short-tailed hopping mouse
<i>Onychogalea lunata</i>	Crescent nailtail wallaby
<i>Perameles eremiana</i>	Desert bandicoot
<i>Phascogale calura</i>	Red-tailed phascogale
<i>Zyzomys pedunculatus</i>	Central rock-rat*

*Species still present in other NT bioregions
(Gibson 1986; Harrison 2003; NRETA 2005b; CGA ND)

Appendix 10. Number of vertebrate species found within the key management zones of the Northern Tanami IPA

<i>Management zone (MZ)</i>	<i>Number of vertebrate species</i>				
	Birds	Frogs	Mammals	Reptiles	Total
MZ1. Kiwinyi (Hooker Creek basin)	60	5	10	26	101
MZ2. Mirrinyungu (Duck Ponds)	101	1	18	23	143
MZ3. Jirlpili (Mt Winnecke area)	78	3	18	31	130
MZ4. Katarta (Wilson Creek basin)	72	2	10	11	95
MZ5. Jiwaranpa (Lake Talbot and Kumari area)	98	6	17	29	150
All areas of the Northern Tanami IPA	150	9	31	67	257

(CLC 2006:53-68)

Appendix 11. Significant vertebrate species found within the Northern Tanami IPA

<i>Scientific Name</i>	<i>Common Name</i>	<i>Northern Territory Status</i>	<i>National Status</i>
Mammals			
<i>Dasycerus cristicauda</i>	Mulgara	Vulnerable	Vulnerable
<i>Macrotis lagotis</i>	Greater bilby	Vulnerable	Vulnerable
<i>Lagorchestes conspicillatus</i>	Spectacled hare-wallaby	Near threatened	Not listed
<i>Onychogalea unguifera</i>	Northern nailtail wallaby	Near threatened	Not listed
<i>Pseudomys nanus</i>	Western chestnut mouse	Near threatened	Not listed
Reptiles			
<i>Egernia kintorei</i> *	Great desert skink	Vulnerable	Vulnerable
<i>Varanus panoptes</i>	Floodplain monitor	Vulnerable	Not listed
<i>Aspidites ramsayi</i>	Woma python	Near threatened	Not listed
<i>Morelia bredli</i>	Centralian carpet python	Near threatened	Not listed
<i>Antaresia childreni</i>	Children's python	Data deficient	Not listed
<i>Cryptagama aurita</i> *	Gravel dragon	Data deficient	Not listed
<i>Pogona mitchelli</i>	North-west bearded dragon	Data deficient	Not listed
Birds			
<i>Erythrura gouldiae</i> *	Gouldian finch	Endangered	Endangered
<i>Ardeotis australis</i>	Australian bustard	Vulnerable	Not listed
<i>Dromaius novaehollandiae</i>	Emu	Vulnerable	Not listed
<i>Rostratula benghalensis</i>	Painted snipe	Vulnerable	Vulnerable
<i>Calyptorhynchus banksii</i>	Red-tailed black cockatoo	Near threatened	Not listed
<i>Falco hypoleucos</i>	Grey falcon	Near threatened	Not listed
<i>Heteromunia pectoralis</i>	Pictorella mannikin	Near threatened	Not listed
<i>Lophoictinia isura</i>	Square-tailed kite	Near threatened	Not listed
<i>Malurus leucopterus</i>	White-winged fairy-wren	Near threatened	Not listed
<i>Phaps histrionica</i>	Flock bronzewing	Near threatened	Not listed
<i>Conopophila whitei</i>	Grey honeyeater	Data deficient	Not listed
Frogs			
<i>Limnodynastes ornatus</i>	Ornate burrowing frog	Data deficient	Not listed

*Species recorded adjacent to the Northern Tanami IPA and considered likely to occur within the IPA due to habitat range
(CLC 2006; NTG 2006c; NTG 2006b; NTG 2006d; NTG 2006a; CGA ND)

Appendix 12. Flora and fauna species known to have been used by the Warlpiri people (Meggitt 1962:5-15)

Scientific Name	Common name	Warlpiri Name	Uses
Flora			
<i>Acacia aneura</i>	Mulga	Mandja	Edible seeds; wood for implements
<i>Acacia coriacea</i>		Banguna	Edible seeds; wood for implements
<i>Acacia dictyophleba</i>		Bilbirinba	Leaves used medicinally
<i>Acacia estrophiolata</i>		Jadanbi	Wood for implements and sacred objects
<i>Acacia kempeana</i>	Witchetty-bush	Nalgiri	Edible seeds, trunk harbours witchetty grubs
<i>Acacia notabilis</i>		Mandala	Edible seeds, gum; wood for implements
<i>Acacia sp.</i>		Badudu	Wood for spear shafts
<i>Acacia sp.</i>		Budjubanda	Edible seeds
<i>Acacia sp.</i>		Ganalarambi	Wood for spear shafts
<i>Acacia sp.</i>		Jalbiljaru	Trunk harbours witchetty grubs
<i>Acacia sp.</i>		Minjana	Edible seeds; wood for implements
<i>Acacia spondylophylla</i>		Bundaldji	Trunk harbours witchetty grubs
<i>Acacia tetragonophylla</i>		Gurara	Edible seeds
<i>Aristida sp.</i>		Jibiri	Edible seeds
<i>Atalaya hemiglauca</i>		Wanaguru	Trunk harbours witchetty grubs
<i>Bauhinia hookerii</i>		Gundji	Nectar from flowers eaten
<i>Boerhavia diffusa</i>		Waijibi	Edible roots
<i>Callitris glauca</i>		Wanari	Wood for implements
<i>Callitris hugelii</i>		Wanari	Wood for implements
<i>Calocephalus platycephalus</i>		Julbaiyi julbaiyi	Dried flowers produce down for decorations
<i>Canthium latifolium</i>		Jauwagi	Edible fruit

Scientific Name	Common name	Warlpiri name	Uses
Flora cont.			
<i>Capparis mitchelli</i>		Wadagi	Edible fruit
<i>Capparis</i> sp.		Djugurru	Edible fruit
<i>Carissa lanceolata</i>		Managidji	Edible fruit; wood for spearheads
<i>Carissa artemisioides</i>		Warii	Leaves for ritual decoration
<i>Carissa desolata</i>		Bunada	Leaves for ritual decoration
<i>Carissa eremophila</i>		Warii	Leaves for ritual decoration
<i>Carissa pleyrocarpa</i>		Galbigalbilba	Leaves for ritual decoration
<i>Casuarina decaisneana</i>		Gulgabi	Wood for implements
<i>Clerodendrum floribundum</i>		Dadubidji	Edible roots
<i>Cymbopogon</i> sp.		Jindjiri	Shafts for children's toy spears
<i>Cyperus rotundus</i>		Djanmara	Edible roots
<i>Duboisia</i> sp.		Djunbunbu	Chewed as narcotic
<i>Eremophila freelingii</i>		Mianba	Edible flowers, leaves
<i>Eremophila latrobei</i>		Janjilini	Edible flowers and leaves
<i>Eremophila longifolia</i>	Emu bush	Nalulbu	Leaves for ritual decorations and uses
<i>Eremophila</i> sp.		Wadianu	Edible flowers
<i>Eremophila</i> sp.		Wagabadari	Edible flowers
<i>Erythrina vespertilio</i>		Jenindi	Wood for implements
<i>Eucalyptus camaldulensis</i>		Nabiri	Edible flowers; wood for implements
<i>Eucalyptus gamophylla</i>		Jilangurunju	Wood for implements
<i>Eucalyptus microtheca</i>		Wabalingi	Wood for implements
<i>Eucalyptus pachyphylla</i>		Walaju	Wood for implements
<i>Eucalyptus papuana</i>		Wabanungu	Wood for implements
<i>Eucalyptus</i> sp.		Wadaruru	Medicinal use of leaves
<i>Eucalyptus</i> sp.		Wambalba	Wood for implements
<i>Eucalyptus</i> sp.		Walandja	Wood for implements

Scientific Name	Common name	Warlpiri name	Uses
Flora cont.			
<i>Eucalyptus</i> sp.		Wuralu	Wood for implements; trunk harbours wild bees
<i>Eucalyptus</i> sp.		Gidji baridji	Wood for implements
<i>Eucalyptus terminalis</i>	Bloodwood	Wilgali	Wood for implements; trunk harbours native bees
<i>Ficus platypoda</i>	Wild fig	Widjirgi	Edible fruit
<i>Grevillea</i> sp.		Djirindi	Leaf-ash chewed with tobacco; wood for implements
<i>Grevillea striata</i>	Beefwood	Jildilba	Wood for implements
<i>Hakea intermedia</i>		Jargambi	Edible flowers
<i>Hakea lorea</i>		Biriwa	Edible flowers
<i>Hoya Australia</i>		Naljabi	Stems used as rope
<i>Ipomea costata</i>		Jala	Edible tubers
<i>Ipomea muelleri</i>		Judadjidi	Edible seeds
<i>Loranthus</i> sp.	Mistletoe	Njanjagiri	Edible flowers
<i>Marsdenia australis</i>	Bush banana	Jubali	Edible leaves, fruits
<i>Melaleuca lasiandra</i>	Paper bark	Bagali	Bark used for blankets, packages, coverings
<i>Melothria micrantha</i>		Julgari	Juice used medicinally
<i>Nicotiana inquilba</i>	Tobacco	Djunarai djunarai	Leaves and stems chewed as narcotics
<i>Nicotiana</i> sp.		Djanjunu	Leaves and stems chewed as narcotics
<i>Pandorea doratoxylon</i>	Spear-bush	Winbiri	Wood for spear shafts
<i>Podaxon</i> sp.	Fungus	Jagiraru	dried powder used for decoration
<i>Portulacca</i> sp.		Maraguru	Dried flowers produce down for decoration
<i>Portulacca</i> sp.	Pig-weed	Wagadi	Edible seeds, stems
<i>Santalum lanceolatum</i>	Plum-bush	Mugagi	Edible fruit
<i>Santalum</i> sp.	Plum bush	Moiju	Edible fruit
<i>Scleroderma</i> sp.	Truffle	Wiljari	Edible
<i>Solanum ellipticum</i>	Desert raisin	Garaba	Edible fruit
<i>Solanum</i> sp.		Wangi	Edible fruit

<i>Scientific Name</i>	<i>Common name</i>	<i>Warlpiri name</i>	<i>Uses</i>
Flora cont.			
<i>Tecoma</i> sp.		Juwunbiri	Wood for spear-shafts
<i>Tinospora smilacina</i>	Vine	Waraldji	Stems used as rope
<i>Triodia pungens</i>		Jibiri	Resin used as adhesive
<i>Ventilago viminalis</i>	Supplejack	Walagari	Wood for implements
<i>Vigna lanceolata</i>		Wabidi	Edible roots
Fauna			
<i>Anas superciliosa</i>	Black duck	Gidingidinba	An uncommon but highly prized food
<i>Barnardius zonarius</i>	Port Lincoln parrot	Labadji	Often eaten
<i>Calyptorhynchus banksi</i>	Black cockatoo	Jirandi	Eaten, plumes prized
<i>Cracticus</i> sp.	Butcher bird	Njurba	Occasionally eaten
<i>Dendrocygna arcuata</i>	Whistling tree-duck	Djibilagu	Highly prized food
<i>Dromaius novae-hollandiae</i>	Emu	Galaija	Highly prized food, plumes highly valued
<i>Egretta alba</i>	White egret	Galwa	Occasionally eaten, plumes prized
<i>Ephianura tricolour</i>	Crimson chat	Djindjiwanu	Rarely eaten, ritually important
<i>Eupodotis Australia</i>	Bustard	Barulga	Highly prized food
<i>Eurostopodus guttatus</i>	Nightjar	Jingadagudagu	Rarely eaten, ritually important
<i>Falco berigora</i>	Brown hawk	Gilgilari	Occasionally eaten, plumes prized
<i>Fulica atra</i>	Black coot	Galadjaraburuburu	An uncommon but prized food
<i>Geopelia cuneata</i>	Diamond dove	Gulugugu	Occasionally eaten
<i>Haliastur sphenurus</i>	Whistling eagle	Gilgilandji	Occasionally eaten, plumes prized
<i>Histriophaps histrionica</i>	Flock-pigeon	Wadugulbari	Prized food
<i>Kakatoe leadbeateri</i>	Major Mitchell cockatoo	Gagalala	Occasionally eaten, plumes prized
<i>Kakatoe sanguinea</i>	Corella	Banara	Occasionally eaten, plumes prized
<i>Leptolophus hollandicus</i>	Cockatiel	Djarula djarula	Occasionally eaten
<i>Lophophaps plumifera</i>	Spinifex pigeon	Juburu	Prized food
<i>Megalornis rubicundus</i>	Brolga	Worgali	Highly prized food

Scientific Name	Common name	Warlpiri name	Uses
Fauna cont.			
<i>Melopsittacus undulates</i>	Budgerigar	Gumiljuru	Frequently eaten
<i>Merops ornatus</i>	Bee-eater	Djubudu	Occasionally eaten
<i>Ninox sp.</i>	Owl	Gurulgurulba	Occasionally eaten, plumes prized
<i>Notophyx novae-hollandiae</i>	Blue crane	Galwa	Occasionally eaten
<i>Notophys pacifica</i>	Heron	Galwa	Occasionally eaten
<i>Ocyphaps lophotes</i>	Crested pigeon	Nabajgiri	Prized food
<i>Pelecanus conspicillatus</i>	Pelican	Jundjari	Eaten but rarely encountered
<i>Podargus sp.</i>	Frogmouth	Gabululu	Rarely eaten, ritually important
<i>Podiceps ruficollis</i>	Grebe	Wilanana	Prized food
<i>Querquedula gibberifrons</i>	Grey teal	Djibilagu	Prized food
<i>Smicrornis sp.</i>	Wee-bill	Bimiri bimiri	Occasionally eaten
<i>Taeniopygia castanotis</i>	Zebra finch	Jindjinmari	Occasionally eaten
<i>Turnix velox</i>	Quail	Bundaru	Frequently eaten
<i>Uroaetus audax</i>	Wedge-tailed eagle	Walauparu	Rarely eaten, plumes prized
<i>Bettongia sp.</i>	Wallaby	Mala	Prized food
<i>Dasyercus cristicauda</i>	Crest-tailed mouse	Dadjina	Often eaten
<i>Felis catus</i>	Feral cat	Naija	Occasionally eaten
<i>Largochestes sp.</i>	Wallaby	Wombana	Prized food
<i>Macropus robustus</i>	Euro	Ganala	Highly-prized food
<i>Macropus rufus</i>	Red kangaroo	Malu	Highly-prized food
<i>Macrotis sp.</i>	Bandicoot	Walbadjiri	Prized food, tails used for decoration
<i>Mus musculus</i>	Mouse	Djunanba	Occasionally eaten
<i>Notomys sp.</i>	Hopping-mouse	Djunanba	Occasionally eaten
<i>Notoryctes typhlops</i>	Mole	Bidjabidjaba	Prized food
<i>Oryctolagus sp.</i>	Rabbit	Jurabidi	Prized food
<i>Perameles sp.</i>	Bandicoot	Baguru	Prized food

Scientific Name	Common name	Warlpiri name	Uses
Fauna cont.			
<i>Petrogale sp.</i>	Wallaby	Waguljari	Prized food
<i>Phascogale macdonnellensis</i>	Fat-tailed mouse	Ganagalimbai	Frequently eaten
<i>Pseudomys sp.</i>	Bush mouse	Minini	Frequently eaten
<i>Tachyglossus aculeate</i>	Echidna	Jinalini	Highly-prized food
<i>Trichosurus vulpecula</i>	Possum	Djananba	Highly-prized food
<i>Amphibolurus barbatus</i>	Bearded dragon	Jungadi	Frequently eaten
<i>Amphibolurus maculatus</i>	Lizard	Galabara	Frequently eaten
<i>Amphibolurus reticulatus</i>	Reticulated dragon	Ganari	Frequently eaten
<i>Amphibolurus sp.</i>	Lizard	Galandjiri	Frequently eaten
<i>Amphibolurus sp.</i>	Lizard	Ganu	Frequently eaten
<i>Amphibolurus sp.</i>	Lizard	Djininandji	Frequently eaten
<i>Aspidites melanocephalus</i>	Black-headed python	Muljugunja	Frequently eaten
<i>Ceramodactylus sp.</i>	Gecko	Ragalara	Frequently eaten
<i>Chiroleptes sp.</i>	Burrowing frog	Janagiri	Squeezed to produce liquid
<i>Diplodactylus sp.</i>	Gecko	Nuwa	Rarely eaten, ritually important
<i>Diplodactylus strophurus</i>	Gecko	Walura	Frequently eaten
<i>Dtella sp.</i>	Gecko	Walwara	Frequently eaten
<i>Egernia kintorei</i>	Skink	Warana	Frequently eaten
<i>Gymnodactylus sp.</i>	Gecko	Juduwaruwaru	Frequently eaten
<i>Liasis childreni</i>	Snake	Radalba	Frequently eaten
<i>Limnodynastei spencerii</i>	Burrowing frog	Djaldji	Squeezed to produce liquid
<i>Lygosoma sp.</i>	Lizard	Liwiringi	Frequently eaten
<i>Nephrurus aspa</i>	Gecko	Jumarimari	Frequently eaten
<i>Nephrurus levis</i>	Gecko	Jumarimari	Frequently eaten
<i>Physignathus sp.</i>	Lizard	Gandjinari	Frequently eaten
<i>Python sp.</i>	Snake	Jarabiri	Prized food

Scientific Name	Common name	Warlpiri name	Uses
Fauna cont.			
<i>Sphenomorphus</i> sp.	Skink	Borli	Frequently eaten
<i>Tiliqua occipitalis</i>	Skink	Lungara	Frequently eaten, fat a purgative
<i>Varanus acanthurus</i>	Goanna	Njindjiri	Prized food
<i>Varanus giganteus</i>	Perenti	Bulalba	Prized food
<i>Varanus</i> sp.	Goanna	Bildja	Prized food
<i>Varanus</i> sp.	Goanna	Djarambai	Prized food
<i>Varanus</i> sp.	Goanna	Luwadjiri	Prized food
<i>Varanus</i> sp.	Goanna	Warungaruna	Prized food
<i>Varanus</i> sp.	Goanna	Wilina	Prized food
<i>Cerambycidae</i> larvae	Witchetty-grub	Mijamija	Prized food
<i>Cossidae</i> larvae	Witchetty-grub	Nalgari	Prized food
<i>Eutermes</i> sp.	White ant	Jarinju	Occasionally eaten
<i>Eutermes</i> sp.	Flying ant	Bandjidi	Occasionally eaten
<i>Melophorus inflatus</i>	Honey ant	Jirambi	Prized food
<i>Melophorus</i> sp.	Honey ant	Jagula	Prized food
<i>Psyllid lerp</i>	Manna	Jiljalbu	Frequently eaten
<i>Trigona</i> sp.	Native bee	Munagi	Honey prized food, wax for adhesive
	Grasshoppers	Djindilga	Occasionally eaten
	Cicadas, crickets	Lirinba	Occasionally eaten
	Weevils, lice	Lodu	Occasionally eaten

Appendix 13. Key pastoral stations within the Tanami

Desert

<i>Pastoral station</i>	<i>Date established</i>	<i>Tenure</i>
Stirling	1917, with additions until 1951	NT pastoral lease
Mt Doreen	13 June 1930	NT pastoral lease
Willowra	9 September 1940	Successful land claim under the ALRA, land title handed back to Wirliyajarrayi Aboriginal Land Trust
Mt Denison	5 July 1948, additions in 1956	NT pastoral lease
Mt Barkly	6 February 1951	NT pastoral lease
Suplejack	8 February 1961	NT Pastoral Lease
Chilla Well	6 January 1964	Successful land claim under the ALRA, land title handed back to Mala Aboriginal Land Trust
Tanami Downs	30 June 1965	Successful land claim under the ALRA, land title handed back to Mangkururpa Aboriginal Land Trust

(Gibson 1986; NTG ND-a)

Appendix 14. Land claimed under the *ALRA (NT) 1976* that is within the Northern Tanami IPA

<i>Claim Area</i>	<i>Status prior to claim</i>	<i>Granted</i>	<i>Current name</i>
Warlpiri and Kartangarurru-Kurintji	Unalienated Crown Land	June 1982	Central Desert Aboriginal Land Trust
Lajamanu (Hooker Creek)	Aboriginal Reserve	December 1976	Hooker Creek Aboriginal Land Trust

(CGA 1976:40-41; Gibson 1986:35)

Appendix 15. Guide interview questions for DEWHA and CLC staff

Opening and personal background

What research is about?

Informed consent

Name

Employment/position

IPA Background and Role

What do IPAs want to achieve?

What are the benefits of IPAs?

What are the costs of IPAs?

What are the conservation outcomes that IPAs would like to achieve?

Do IPAs achieve broader social, economic and cultural outcomes?

What is the role of the CLC/DEH in IPA management?

IPA Management (what experience are you drawing from?)

Who currently makes the decisions about looking after country in the IPA area?

What are their key management concerns/objectives?

What are your key management concerns/objectives?

What management activities are being carried out on country?

What management activities are the most important for your concerns/objectives?

Are your objectives/concerns being addressed?

Indigenous Involvement (what experience are you drawing from?)

Why are Aboriginal people involved in IPAs? What motivates them?

What skills and knowledge do Aboriginal people bring to IPAs?

Are there any benefits/concerns about involving Aboriginal people (and use of knowledge and skills) in IPA management?

Are there factors that influence/limit the participation of Aboriginal people in decision-making and on-ground management?

What opportunities do IPAs provide for Aboriginal employment/improved livelihoods in remote areas?

Are there any other opportunities/benefits that IPAs create for Aboriginal people?

IPA Evaluation

How is management accountability monitored?

Are your management concerns/objectives being met?

Are the management concerns/objectives of Aboriginal people being met?

Can the IPA program be improved to better meet concerns/objectives of Aboriginal people?

Can the IPA program be made more effective in any other way?

Finishing Questions

Is there anything that I have not asked you about that you think is important for sustainability of IPAs?

Appendix 16. Guide interview questions for community people

Opening

What research is about?

Informed consent

Personal Background

Name

Employment/position

People and Activities

What are the jobs of CLC staff out here e.g. Nic and Jamie?

Talk about the minister's visit?

Rangers group?

Women's Rangers conference in Yirrkala?

Hunting, burning and collecting seed?

Women's conference in Alice Springs?

Bilby tracking?

Words

Indigenous Protected Area?

Caring for country/looking after country?

Rangers group?

Management committee?

Looking after country

Why is looking after country important to you?

Can anyone look after country?

What needs to be done to look after country?

What are you doing to help look after country?

Is there anything that makes it hard for you to look after country?

Ranger Group Management Committee

What does the Ranger group do?

What did people do before the Ranger group?

What skills/knowledge do the Rangers have or need to look after country?

Is there anything that makes it hard for people to be in the Ranger group? (what affects people involvement)

Has anything changed with the Ranger group?

Where do they work, what activities do they do, what resources do they use?

When do they go out?

Management Committee

What does the management committee do?

Is there anything that makes it hard for people to be in the Management Committee? (what affects people involvement)

How does the committee help look after country?

Has anything changed with the Management Committee?
Where do they work, what activities do they do, what resources do they use?

Indigenous Protected Area

Is it important?
What is good about the Indigenous Protected Area?
What activities are people doing on country?
How can you tell its working?
Is there anything that is not working well?
Is there a difference between how things used to be and how they are now?
Why do you think the government wants to help look after country?
Are you happy with the Indigenous Protected Area? Why?
Is there anything that can be done to make it easier for you to get out on country and look after country?

Finishing Question

Is there anything that I have not asked you about that you think is important for looking after country?

Appendix 17. Community information sheet and consent form

Looking after Country around Lajamanu Information Sheet

My name is Jane Walker and I am from Charles Darwin University in Alice Springs. This research is supported by the Central Land Council (CLC). This research is also part of the Desert Knowledge Co-operative Research Centre (DK-CRC) *Livelihoods inLandTM* project. *Livelihoods inLandTM* wants to find out how natural and cultural resource management contributes to the livelihoods of desert people.

For this research, I want to speak to you about the Northern Tanami Indigenous Protected Area (IPA). I want to learn more about what you think of the idea of IPAs. I want to learn about how the Ranger group helps keep country healthy. I want to know what you think about the Ranger group working on your land and what benefits you think the Ranger group and IPAs bring to you, the community and to the land.

This project is about backing up people who are looking after country and keeping it strong. It will show how the Ranger group is helping to do this. It will also help show the government how you are looking after country and provide more support for you as land managers. Central Land Council and DK-CRC are supporting us because they want to help back up people who are looking after country.

I would like to take you out on country to see what you and the Rangers do and sit down and talk to you about this. I will provide vehicles for the trip and food. After these trips, I might like to speak to you further, so I would like to be able to visit you back in your community as well. I will not be paying you for your time.

On some of these bush trips, I would like to involve students and staff from the Lajamanu School. This would be a great chance to involve the students in bush trips and for you to talk to them about country and keeping country strong by looking after it. I would like the students to do some filming and make some short movies of their time out bush with you. You can have a copy of these movies if you would like.

I will ask you if we can take photographs, videos, tape recordings and field notes of what you say to us on these trips and back in the community. This information will be used to make a story about what you tell us and what we do on the bush trips. I will give you a copy of the story before it is finished so you can make sure it is right. When the story is finished I will give you a copy to keep.

I would also like to give a copy of these stories to the school and show them to other Aboriginal people and government and non-government people who might be interested in what we are doing. I will ask you about who we can show the story to. You can say NO to showing the story to other people.

Any pictures, video, tape recordings and field notes taken by the research team on bush trips and in the community will be used to write a thesis to be given to the Charles Darwin University. Science articles and other reports will be written to show people and organizations, such as the Department of the Environment and Water Resources (DEW), Central Land Council (CLC) and Desert-Knowledge Co-operative Research Centre (DK-CRC), about what is important to you about keeping country strong around Lajamanu.

I will ask if we can use your name with the photos, video, tape recordings and field notes. I will only use the information you provide to us if you give us permission. I will not sell the photos, video, tape recordings or field notes from the project. No other person will be allowed to see and use these photos, video, tape recordings or field notes without your permission. I will also ask if your interview transcripts and photos can be used for the participatory modeling within the DK-CRC *Livelihoods in Land*TM project. You can say NO if you like. You and other people that you suggest can also see the thesis, reports and articles at any time.

I would be very happy if you were involved in our project. You do not have to be involved and can say NO. You can also withdraw from the project at any time. You just need to let us know.

Do you want to be involved in our project?
To be involved please fill out the consent form.

If you have any questions or problems about this project or throughout the duration of the project please contact Jane on 08 89 595 222, or her boss Donna Craig on 08 89 595 256. You can also contact the Executive Officer of the Charles Darwin University Human Research Ethics Committee on 08 8946 7064 or by email on hemali.seneviratne@cdu.edu.au if you have any concerns with the project.

Looking after Country around Lajamanu Consent Form

Please complete this form to show that you agree to be involved in the research project.

My name is:

My address is:

My phone number is:

I understand what this project is about: YES NO

I would like to be involved in this project: YES NO

I am happy to be videoed, audio-taped and/or photographed as part of project:

YES NO

I am happy for the research team to take notes about what I say in this project:

YES NO

I am happy for you to use my name in papers and reports: YES NO

I am happy for the information collected from me to be kept with Jane at the university in Alice Springs: YES NO

I would like a copy of any recordings/photos taken: YES NO

I am happy for my interview transcript and some photos to be used in the DK-CRC *Livelihoods inLand*TM participatory modelling? YES NO

Do you have any questions about this project?

Signature of participant: _____

This form was explained to you by: _____ on ____/____/____

Witnessed by: _____ on ____/____/____

Other comments:

Appendix 18. DEWHA and CLC staff information sheet and consent form

Dear

Project title -

The Culture of Conservation: valuing Aboriginal land management in arid Australia's protected areas

I am a PhD research student with Charles Darwin University. This PhD research examines if Aboriginal management enhances conservation outcomes within protected areas, specifically Indigenous Protected Areas. The project examines the following:

- values and outcomes important to Aboriginal people involved in protected area management;
- participatory processes for developing key performance indicators to measure protected area effectiveness;
- how Aboriginal identified values, outcomes and performance indicators relate to current national approaches; and
- if the inclusion of Aboriginal identified values, outcomes and performance indicators enhances protected area sustainability.

The research looks at Indigenous Protected Areas (IPAs), specifically focusing on the Northern Tanami IPA in the Tanami Desert, Northern Territory. This project involves working with the Central Land Council (CLC), the Warlpiri community in Lajamanu and the Gurindji community in Kalkarindji and Dagaragu. The Department of the Environment and Heritage (DEH), as the main funding body for IPAs nation wide, also have an interest in the project. The project is funded and further supported by the Desert Knowledge Co-operative Research Centre (DK-CRC).

You can help in this project by consenting to be interviewed. The interview should take not more than a couple of hours, with the possibility of a follow up interview if required. The interview will be recorded with your consent. The interview will contain questions relating to:

- the background, role and expected outcomes of IPAs;
- your observations of management practice and effectiveness;
- the involvement of Aboriginal peoples in management practice; and
- the benefits and costs of IPAs.

At the end of the research this information will be used in a PhD to be submitted to Charles Darwin University, Darwin, Northern Territory. I will also present the aggregate results in a series of reports to the DK-CRC and CLC. I may also write articles for publication in scientific and academic journals.

All information and stories told during the interviews are confidential and will not be released to any person except at your request. You can choose to withdraw your consent from the project at any stage, in which event your participation will cease

immediately and any information obtained will be returned to you or destroyed at your request.

If you have any questions about this project please contact either myself, Jane Walker, on 08 8959 5215, or my principle supervisor, Professor Donna Craig, on 08 8959 5256. You can also contact the Executive Officer of the Charles Darwin University Human Research Ethics Committee on 08 8946 7064 if you have any concerns with the project.

If you are willing to participate in this study could you please complete the following consent details?

-

I _____ acknowledge that I have read the information above and understand the purpose of the research. Any questions I have asked have been answered to my satisfaction. I voluntarily and freely agree to take part in this research with the understanding that I may withdraw at any time.

I agree that the information collected from my interview will be used for research purposes and may be published.

I consent/ do not consent to my name being used in such documents.

I agree/ do not agree to this interview being taped.

I understand that all information collected is confidential and will not be disclosed to any other party unless I give permission.

Signature: _____ Date:

Investigator: _____ Date:

Interview Number:
Date:

Appendix 19. Description of techniques used for ensuring research validity in this study

Member checking

Following the data analysis, I presented the initial findings back to research participants for discussion and feedback. This process is called member checking, and is used to ensure authenticity and dependability of the research findings and interpretations (Lincoln and Guba 1985:314-16; Dunn 2000:103). Howitt and Stevens (2000) state that member checking is essential in cross-cultural research. It allows for feedback and clarification; provides alternative information for analysis; and allows for discussions on the use and application of the research findings (Howitt and Stevens 2000:47). Member checking also ensures researcher reflexivity by seeking opinions on analysis and interpretations. This is essential to manage researcher subjectivity. Member checking took place in Lajamanu in March 2008. By doing this I was making sure that I had captured the 'right story' and had approval to write about it. I presented the information in two focus group sessions, one with the male participants and the other with female participants. An interpreter was used again to help facilitate this process, with each session video taped for later review. The information collected throughout this process was also analysed, contributing depth and audibility to the research results.

Quotations and photographs

Quotations and photographs help ensure research validity by presenting real world perceptions, experiences, and events (Creswell 1998:212). This gives the research authenticity. In this research I have not given research participants anonymity; people were happy to be identified where direct quotes and photographs are used. By doing this I bring the voice of the participants 'into' the research, letting them be represented through their own words and actions (Dunn 2000:103). This technique is common in ethnographic methodologies (de Laine 1997:280). I am aware that naming participants can be harmful, so each quote and photograph was approved through member checking to ensure that they were used appropriately and in context. This adds to the authenticity of the reporting stage in the research process.

Photographs also contribute to research auditability as they verify experiences and events that happened throughout the data collection process.

Triangulation

Triangulation is essential for ensuring research validity and is one of the most common techniques used in case study and ethnographic methodologies (Lincoln and Guba 1985; Yin 1994; de Laine 1997; Creswell 1998; Patton 2002; Creswell 2003). By combining methods, research bias is reduced and dependability is enhanced. As discussed in Section 3.4, I have used participant observations, semi-structured interviews and informal discussions as the main research methods.

Field diaries

Field diaries contribute to research validity by providing rich descriptions of participants, and events and experiences as they happened (Creswell 1998). This enhances the transferability of the research by allowing readers to determine the applicability of results to other documented cases (Creswell 1998:203). Field diaries allow for reflexivity as the researcher should include personal experiences, interactions and feelings on the research process, events and relationships (Lincoln and Guba 1985). This is essential for managing researcher subjectivity (O'Leary 2004). Auditability can also be followed through field diaries (de Laine 1997). I used field diaries to help document methods and research principles, raw data and preliminary interpretations and impressions.

Engagement and observation

An extended period of engagement and observation with research participants enhances research validity. It gives dependability and authenticity to the research by providing in-depth understandings of the phenomena being studied (Creswell 2003; O'Leary 2004). In conducting this research I spent a total of 5 months in and around Lajamanu and a month in Canberra, and a further week member checking. Lincoln and Guba (1985:301) state that it is essential that researchers spend prolonged periods in the field engaging with and observing participants to build trust, learn the culture and test for misinformation. This occurs until saturation; “when additional data no longer adds richness” to the phenomena under study (O'Leary 2004:114). Saturation was reached in this research after nearly two years of engaging with and

observing people. At this point I interviewed participants after which I realized that no further data collection was required.

Peer de-briefing

Peer-debriefing is another technique used for establishing validity (O'Leary 2004). There is no set formula for the process; however it generally involves discussions with 'peers' to explore the dependability of methodologies and data interpretations (Lincoln and Guba 1985). For this research I discussed research principles and methods with a number of people who have been involved in research or Indigenous engagement in central Australia for a number of years. In particular Fiona Walsh³⁵⁷, Miles Holmes³⁵⁸ and Josie Douglas³⁵⁹ provided valuable feedback on engagement, methodological, analytical and report writing approaches and issues. Academic supervision also contributed greatly to this process.

Regular meetings and discussions with CLC staff were also valuable in keeping me 'honest' (Lincoln and Guba 1985:308). Continual engagement with the CLC meant that the principles and ethics of cross-cultural research, which I had identified in my research proposals and permit applications, were being followed. This helped to manage my subjectivity. I also consider presentations on the research to be a de-briefing process. To date I have delivered three formal presentations on the research to public and academic audiences, as well as a number of informal presentations to industry and government audiences. Presentations provide a platform by which the research methods and results can be examined and discussed. This adds credibility to the research overall. Peer de-briefing can, however, have a negative effect if critiques and discussions are not constructively and insightful delivered (Lincoln and Guba 1985).

³⁵⁷ Fiona Walsh is an ethno-ecologist, currently working for CSIRO in Alice Springs. Fiona has a history of involvement in cross-cultural research and participatory planning throughout central Australia, see Walsh and Mitchell (2002).

³⁵⁸ Miles Holmes is currently a doctoral student with the University of Queensland. Miles has a background in social anthropology and has worked with Warlpiri people in Central Australia for 8 years.

³⁵⁹ Josie Douglas is an Indigenous Research Fellow with Charles Darwin University and CSIRO where she is involved in social science research looking at Indigenous education in the Northern Territory and Aboriginal harvest of traditional bush foods. She has lived in central Australia for 17 years and has a background in publishing, and Indigenous engagement and collaboration.

Case study selection

Case studies contribute to research validity through their ability to be transferable (O'Leary 2004). One case study site was selected for this research; therefore generalisations about protected areas managed by and with Aboriginal people cannot be extrapolated to the general population. Instead the strengths of a single case study are in the contextual exploration of the problem (Yin 1994; Stake 2005). Case studies provide rich descriptions of the research process and methods. Lessons or conclusions drawn from this one case study can inform and are likely to be applicable in similar situations (Lincoln and Guba 1985). The transferability of single case studies is reinforced by Flyvberg (2006:228) who claims that “formal generalization is overvalued as a source of scientific development, whereas ‘the force of example’ is underestimated”.

Purposeful sampling

Purposeful sampling gives rigor to the research by enhancing dependability through the identification of key informants who can provide in-depth understanding of the research problem (Patton 2002:230). The emergent sampling strategy used in this research aligns with Aboriginal cultural protocols about who can speak for and about country. Traditional owners and other community people involved in the management of the Northern Tanami IPA, or those that have an interest in management, were identified as research informants. Collecting information from a range of non-Aboriginal people involved in the management of the IPA also allowed for multiple realities to be examined, giving dependability to the sampling strategy (O'Leary 2004:58).

Interview guides, transcripts and video and audio recordings

Interview guides were used to help maintain focus throughout the interview process, contributing to systematic data collection and research dependability (Patton 2002:343-4). Research auditability is improved through the use of audio and video recordings and verbatim interview transcripts as they provide a hard copy of the informants' words captured throughout the fieldwork period (Patton 2002:380). They are the raw data that data analysis and interpretations are validated against (Lincoln and Guba 1985:313).

Theme coding and NVivo

Research dependability and auditability can be enhanced through the use of standardized and documented analysis processes and tools (O'Leary 2004:63). Theme analysis is commonly used in qualitative research, and is the key analysis method used in this research to identify themes and sub-themes. It has well-defined, documented techniques that enhance research dependability (Strauss and Corbin 1990; Strauss and Corbin 1994; O'Leary 2004). As the theme analysis was done by hand, it enhances auditability as the analysis path can be clearly shown, see Section 3.5. In this research NVivo was used to assist the analysis process (Patton 2002:442). I used NVivo to store, locate, and compare and contrast research data. This promotes reliability and trust in the data analysis process, enhancing auditability (Peace and Hoven 2000).

Appendix 20. Plant and animal resources talked about and used by the senior Warlpiri women in this research

Plant and animal resource			Use (and other information)
Common name	Warlpiri name	Scientific Name	
Acacia seeds	Ngurlu/ Kalkardi	<i>Acacia colei</i> <i>Acacia cogleana</i>	Collect to eat and sell; ready when bloodwood flowers; process to collect seeds; where and when to collect; paint Dreamings; skin relations
Apple bush	Juju-minyi- minyi	<i>Pterocaulon</i> <i>sphacelatum</i> or <i>Dysphania kalpari</i>	Bush medicine
Bean tree	Yinimti	<i>Erythrina vespertilio</i>	Cut them to make nulla nulas, digging sticks, dancing sticks; make coolamans; big knot in tree used for deep eater holding coolamans (mardu)
Bilby	Warlpajirri	<i>Macrotis lagotis</i>	Track them; used to eat them but not now; ladies track them; teach children tracks
Black headed python	Mulyu-kuna	<i>Aspidites melanocephalus</i>	Hunt to eat
Blue tongue lizard	Julurliya	<i>Tiliqua multifasciata</i>	Hunt to eat
Budgerigar	Ngatijirri	<i>Melopsittacus undulatus</i>	Ceremony - dance and song; kin relations; paint Dreamings; eat
Bush banana	Yuparli	<i>Marsdenia australis</i>	Collect to eat; grows after rain
Bush coconuts	Karnta	<i>Corymbia opaca</i>	Collect to eat; Dreamings; life cycle of grub (found on bloodwood trees)
Bush honey	Ngarlu		Collect to eat; don't find it much anymore; collect in cold time; Dreaming and kin relations
Bush peanut	Miyaka	<i>Brachychiton paradoxum</i>	Seeds collected to eat; season to collect

<i>Plant and animal resource cont.</i>			<i>Use (and other information) cont.</i>
<i>Common name</i>	<i>Warlpiri name</i>	<i>Scientific Name</i>	
Bush plum	Mukaki/ marrkirdi	<i>Santalum lanceolatum</i>	Collected to eat
Bush tomato	Wanakiji	<i>Solanum chippendalei</i>	Collect to eat
Bush turkey	Jurlaka	<i>Ardeotis australis</i>	Hunt to eat; paint dreaming; track them for survey
Bush yams	Yarla	<i>Ipomoea costata</i>	Collect to eat; grows after rain; parents collected them; kids like to collect them; ceremony - songs and dance
Cole's wattle		<i>Acacia colei</i>	Bush medicine for smoking mother and newborn baby
Conkerberry (black berries)	Marnakiji	<i>Carissa lanceolata</i>	Collect to eat
Coolibah tree		<i>Eucalyptus victrix</i>	Bark ash used for rolling tobacco in
Curlew		<i>Burhinus grallarius</i>	Track them for survey
Desert fringe-rush	Lukarrara	<i>Fimbristylis eremophila</i> and <i>F. oxystachya</i>	Use to collect seed to make into bread
Desert raisan	Yakajirri	<i>Solanum centrale</i>	Collect to eat; make into balls and store to eat later; too much fire; collect after rain
Desert walnut	Marrarnki	<i>Owenia reticulata</i>	Collect and eat nuts
Dogwood seeds	Warngirli	<i>Acacia coriacea</i> ssp. <i>Sericophylla</i>	Collect them and make into paste; young trees have water in them; make drink out of seed (ngungkari); collect green bean and roast them
Dogwood	Wakirlpirri	<i>Acacia coriacea</i> ssp. <i>sericophylla</i>	Used for making nulla nulla; digging sticks, dancing sticks, clap sticks, dancing coolamans; burn leaves to roll tobacco in
Donkey	Tangkiyi	<i>Equus asinus</i>	Need to know all about them; shoot for dog food
Echidna	Yinargli	<i>Tachyglossus aculeatus</i>	Hun to eat; habitat and when to collect
Feral cats	Minija	<i>Felis catus</i>	Hunt to eat

<i>Plant and animal resource cont.</i>			<i>Use (and other information) cont.</i>
<i>Common name</i>	<i>Warlpiri name</i>	<i>Scientific Name</i>	
Firewood			Collect for cooking and warmth
Grass seed sp.			Ants collect seed around nests and women collect to make bread, not collected
Horse	Nantuwu	<i>Equus caballus</i>	Used for dog food; don't like shooting them
Red kangaroo	Marlu	<i>Macropus rufus</i>	Hunt to eat; laws for hunting
Unknown	Kulinjirri	<i>unknown</i>	Tree used for making coolamans
Lemon grass	Kalpalpi	<i>Cymbopogon ambiguus</i>	Bush medicine for colds, aches and fevers
Rabbit	Mujurnku	<i>Oryctolagus cuniculus</i>	Hunt to eat
Rainbow serpent			Talked about dreamings and landforms
Rufous hair wallaby	Mala	<i>Lagorhstes hirsutus</i>	Tracking near Willowra; paint Dreamings
Sand monitor	Wardapi	<i>Varanus gouldii</i>	Collect to eat; anatomy
Small dragon sp. (unknown)			Hunt to eat
Snake (unknown)			Need to know how to track them, which way they are going; paint dreaming; track for survey
Snake vine	Ngalipi	<i>Tinospora smilacina</i>	Used to carry mardu (coolaman)
Soft spinifex	Manyangampa	<i>Triodia pungens</i>	Resin (palya) used for making handles for stone knives
Mushrooms			Kids paint faces with it
Unknown	Watiya-warnu	<i>Acacia tenuissima</i>	Use to collect seed for making breads and medicinal wash; when and where to collect; not collected anymore
Witchetty grub	Wardingi	<i>Cossidae larvae</i>	Collect to eat; knowledge of habitat in which they live <i>Acacia</i> sp.
Yellow goanna	Karlawurru	<i>Varanus panoptes</i>	Hunt to eat; know habitat and behaviour