

Table of Contents

Foreword	7
Executive Summary.....	8
Structure of the report.....	11
Acknowledgements.....	12
1.0 Introduction	13
1.1 Terms of reference	13
1.2 The North Australian Indigenous Land and Sea Management Alliance (NAILSMA)..	14
1.3 Indigenous people, sustainable development and natural resource management ...	16
1.4 Approach, methods and report structure	20
2.0 Tropical river research and management and Indigenous people.....	25
2.1 The physical and social setting of tropical river systems	25
2.2 Tropical rivers research	27
2.3 The significance of tropical rivers, wetlands and water to Indigenous people	28
2.4 Statutory land rights, native title and inland waters	29
2.5 Water reform, the National Water Initiative and Indigenous property rights.....	33
2.6 Natural resource management and Indigenous institutions.....	35
3.0 Issues of importance to Indigenous organisations arising from interviews	37
3.1 Introduction	37
3.2 Indigenous uses and values	38
3.2.1 Fundamental importance to daily life.....	38
3.2.2 Access to resources	40
3.3 Indigenous knowledge and management	41
3.4 Indigenous views of river health	43
3.4.1 Anxiety about river degradation and resource depletion	43
3.4.2 Fish stocks	46
3.4.3 Salt water intrusion.....	47
3.4.4 Groundwater issues.....	47
3.4.5 Monitoring	47

3.5	Management issues.....	48
3.5.1	Development pressures and interconnections in catchments.....	48
3.5.2	Indigenous management initiatives	50
3.5.3	Involvement in formal management structures	52
3.5.4	Lack of frameworks and regulatory power to control recreationand tourism.....	54
3.5.5	Capacity in Indigenous land management organisations and groups.....	57
3.6	Aspirations for the future	57
3.6.1	Research and information	58
3.6.2	Baseline research to understand environmental change.....	59
3.6.3	Social impact baselines and socio-economic assessment of benefits/costs of development scenarios.....	60
3.6.4	Livelihoods research.....	61
3.6.5	Water extraction and allocation.....	61
3.6.6	Sacred sites research – databases and knowledge management	61
4.0	The Indigenous research reform agenda	63
4.1	Issues relating to research process raised during the interviews	66
4.1.1	Understanding research objectives and processes	66
4.1.2	Benefits of research should be clear	67
4.1.3	Reporting back.....	67
4.1.4	Importance of building research relationships early in the research development phase and remaining flexible.....	68
4.1.5	Control and transfer of knowledge.....	69
4.1.6	Successful research experiences.....	70
4.2	Recommendations relating to research processes, protocols and brokering.....	72
5.0	Areas of research interest.....	75
5.1	Inventories, baseline research on ecological processes and socio-ecological systems.....	75
5.1.	Social impact assessment	76
5.2	Institutional arrangements.....	76
5.2.1	Scale and Indigenous governance	77
5.2.2	Participation and visioning tools.....	80
5.2.3	Evaluation	80

5.3	Natural resource-based enterprises	81
5.4	Water reform and the National Water Initiative (NWI)	82
5.5	Incentives for Indigenous natural and cultural resource management	83
5.6	Tourism: regulatory systems to manage competition and conflict	85
5.7	Access to rivers on Crown Land.....	85
5.8	Water quality indicators	86
6.0	References	87
7.0	Appendices	99
	Appendix 1	99
	Indigenous interests in the Murray Darling Basin.....	99
	Appendix 2	101
	Distribution list for tropical rivers brochure and introductory letter explaining Indigenous Interests in Tropical Rivers scoping project.....	101
	Plain English information pamphlet.....	101
	Appendix 3	106
	The significance of water to Indigenous people	106
	Indigenous occupation and historical environmental change	107
	Indigenous cosmology and myth	110
	Appendix 4	112
	Land management pressures, responses and Indigenous institutions.....	112
	Management issues	112
	Natural resource-based enterprises	116
	Indigenous land and sea management organisations in north Australia.....	117
	The Kimberley Land Council's Land and Sea Management Unit	118
	The Northern Land Council's Caring for Country and Caring for SeaCountry Programs	121
	Carpentaria Land Council.....	124
	Northern Gulf Savanna Indigenous Group.....	126
	Balkanu Cape York Development Corporation	128
	Appendix 5	130
	Case studies: Introduction	130
	Kowanyama and the Mitchell River, Gulf of Carpentaria, Queensland: Indigenous management of waterscapes	131

Daly River, Northern Territory	136
Introduction	136
Catchment planning and water allocation processes	137
The significance of water to Daly Aboriginal communities	138
Indigenous representation and the Daly River Community Reference Group	140
Ord River, WA: agricultural water use and Indigenous interests	143
Fitzroy River, WA.....	148
Introduction	149
River country: a cultural view	151
Nyikina side	151
Ngarinyin side	153
Desert groups and the river	155
Common cultural elements.....	156
Named places.....	156
Living water and unggud/yungurrungu.....	156
Conception – jariny, wunggurr, unggud.....	157
Seasonal cycle.....	157
Protecting the water sources	158
Working with scientists.....	158
Documenting environmental change	159
Planning for the future.....	161
Appendix 6	162
Guiding questions for framing interviews.....	162
Appendix 7	164
Australian Institute of Indigenous and Torres Strait Islander Studies	
Guidelines for Ethical Research in Indigenous Studies	164

2.0 Tropical river research and management and Indigenous people⁴

2.1 The physical and social setting of tropical river systems

Northern Australia's rivers are characterised as generally short, arising in coastal catchments where rainfall is higher than further inland. The rivers tend to have highly seasonal flow regimes with much of their annual flow between November and May (Hamilton and Gehrke 2005). Climatic features such as the monsoon, contribute to the variable nature of tropical river-flow regimes.

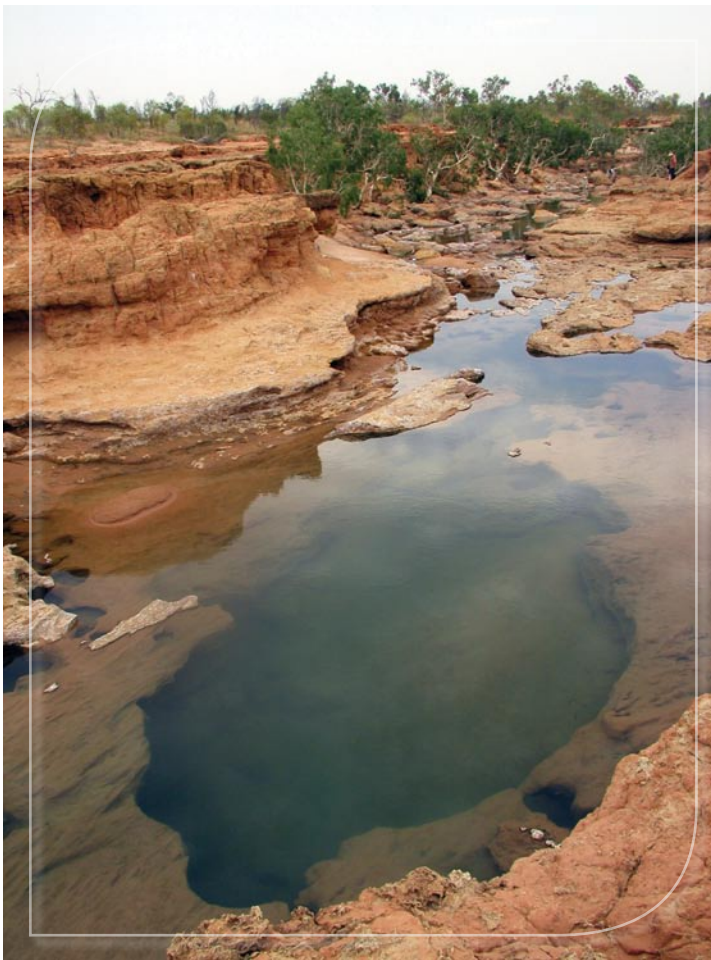


Figure 4 Kalayanmayi Pool on Geegully Creek: a permanent spring-fed pool of great cultural significance, Fitzroy Basin, Kimberley. Photo: Sarah Yu

Tropical rivers flow through the customary estates of scores of Indigenous language groups resident in north Australia (Langton 2002). Yu describes the cultural landscape of the lower Fitzroy River in the Kimberley region of north-western Australia, which is home to many language groups:

Whilst each group has distinct cultural responsibilities and articulates their relationship in varying ways, the groups are united through a system of Law that weaves together complex narratives and rituals required for the sustenance of the river country and its complex ecosystems. There is no single name for the river except marduwarra, which is a generic word for river. Rather, the Fitzroy River is

⁴ Parts of this section draw heavily on material published in Jackson (2004, 2005) and Jackson, Storrs and Morrison (2005).

conceptualised as a series of linked narratives which arise from the many permanent pools along the riverbed and, which are subjected to the seasonal processes of flooding (warramba) and receding waters (2005: 1).

In comparison to Australia's temperate river systems, our tropical river systems are poorly understood by the scientific community (Hamilton and Gehrke 2005). Tropical catchments contain greater biodiversity than found in southern Australia and many of the rivers continue to experience natural flow regimes. The estuaries in this region tend to be in near pristine condition in contrast to the relatively degraded estuaries of southern Australia (ibid). Many industries are dependent on the natural resources provided by these systems. The natural resources are also highly valued in the social and cultural life of residents and visitors.

Hamilton and Gehrke (2005) identify two primary drivers for development of tropical catchments: social pressures to provide regional development opportunities and economic pressures for agricultural enterprises seeking to expand or relocate from southern Australia. The relative abundance of northern freshwater resources is of considerable value:

... large scale development of water resources to support expansion of irrigated agriculture, or to provide increased security for water supplies to metropolitan centres outside the tropics, continues to be discussed as a development alternative (2005: 243).

Concerns have been raised by scientists, non-government environment groups and some communities (e.g. Daly River Community Reference Group) about the limited ability of the current knowledge base to inform decisions and avoid the potential impacts of development (Hart 2004; Australian Tropical Rivers Group 2004; Storrs and Finlayson 1997). Certain tropical rivers have already been substantially altered including the Ord River in the Kimberley region of Western Australia and the Burdekin and Fitzroy Rivers of Queensland. There is the potential for detrimental effects from upstream activities such as dams, mining, agriculture and tourism to be felt on estuarine and inshore fisheries, particularly through their impact on nutrients and pollutants. In addition to large-scale development arising from increased water use for agriculture, water resources are subject to gradual deterioration under the influence of existing conditions, the spread of weeds, feral animals and global environmental change (Hamilton and Gehrke 2005).

In many parts of north Australia there is significant pressure on riparian zones from grazing, feral animals and changed fire regimes. According to the Northern Gulf Regional NRM Plan:

Riparian zones are most at risk, with increased pressures during the dry periods, combined with the invasion of exotic pests such as rubber vine and feral pigs (2004: 146).

In relation to the NT's wetlands, Storrs and Finlayson (1997) add that pollution and contaminants, tourism and recreational activities are also a direct or emerging threat to wetlands.

2.2 Tropical rivers research

Research effort has been uneven across northern Australian rivers, with a significant focus on the rivers draining into the Great Barrier Reef lagoon and the rivers and wetlands of the Alligator Rivers region of the Northern Territory⁵. Hamilton and Gehrke (2005) report on the areas that have received the greatest emphasis in previous and current biophysical research efforts, but note that

The patchy research coverage of such a geomorphologically diverse region precludes development of a robust synthesis of ecosystem processes and functions (2005: 245).

Reporting on the proceedings of a conference on tropical rivers held in 2004, Hamilton and Gehrke identify a number of knowledge gaps:

- Sustainable human appropriation of fresh water;
- Hydrological, biogeochemical and ecological linkages at landscape scales;
- Ecosystem processes and services afforded by tropical river systems, and
- Climate change (2005:248).

Three key measures to advance the knowledge base for tropical river management were nominated:

- better institutional arrangements (partnership, collaboration, including local communities);
- capacity-building within the tropics, combined with collaborative research contributions from organisations outside the region, and
- development of an integrative capacity to assess system-wide implications of changes in land use and water development (ibid).

⁵ A better understanding of the state of current knowledge may be obtained from LWA's Tropical Rivers Program Prospectus (Land and Water Australia 2005) and from the 2005 special edition of *Marine and Freshwater Research* (Volume 56).

They also confirmed the value of traditional ecological knowledge to enhance scientific understanding of tropical ecosystems.

Current efforts to establish a Tropical Rivers and Coastal Knowledge Research Consortium⁶ seek to address these and other gaps to advance the measures identified above. The Consortium has identified Indigenous values and Indigenous enterprise development as key research themes.

2.3 The significance of tropical rivers, wetlands and water to Indigenous people

Diverse and enduring Indigenous customary systems of land tenure and social organisation contribute to a complex social and institutional environment in north Australia. There is considerable variation between the jurisdictions and sub-regions that comprise the study area. It is beyond the scope of this report to address these matters in detail (see Langton (2002) for a valuable overview). The previously mentioned socio-economic profile being conducted by CSIRO and James Cook University will describe in detail the demographic pattern of the Program area.

Following the High Court's *Mabo* judgement and the passage of the *Native Title Act 1993 (Cth)*, more land has been claimed by Indigenous Australians. It is now estimated that close to 20% of Australia is Indigenous owned, and a large proportion of that land base is found in the tropical rivers region (Pollack 2001). Indigenous communities have a large and growing land base coming under their control. In the Northern Territory, for instance, approximately 85% of the coastline and 44% of the total land mass is held under Indigenous title. In the Kimberley, Indigenous people hold a significant proportion, about one third, of the total number of pastoral leases. Recently determined native title claims cover approximately 30% of the Kimberley land area (Bergman 2005). Seventeen claims are awaiting hearings or decisions by the Federal Court.

Northern catchments are characterised by a distinct spatial pattern where most Indigenous people are located in relatively small settlements, invariably remote, while the vast majority of the non-Indigenous population resides in larger urban centres or cities (see Taylor 2003). Indigenous and non-Indigenous people do not operate in completely separate or independent socio-political and cultural spheres, rather they co-exist in an intercultural domain (Merlan 1998; 216). In some regions Indigenous people comprise the majority of the population, for example in the Kimberley they make

⁶ A consortium of Australia's leading tropical riverine and coastal researchers has been working for the past 18 months to develop a co-ordinated program of research that will underpin the sustainable management of northern Australia's tropical rivers and coasts. The Tropical Rivers and Coastal Knowledge (TRACK) consortium includes over 50 researchers from 15 agencies including Charles Darwin University, Griffith University, University of Western Australia, CSIRO, AIMS, *eriss* and the Northern Territory, Queensland and Western Australian Governments.

around 50% of the population and 90% of all people living outside major Kimberley towns (Bergman 2005). Approximately 60% of the NT's Indigenous population speaks an Indigenous language as their first language (Caring for Country Unit 2004).

In any given catchment there may be numerous Indigenous groups with rights and interests in particular river locales, and a high reliance on riverine environments. Langton attributes this alliance to the 'multivalence' of water in Australian Indigenous traditions (2002: 46). For example, in the Kimberley region, there are 34 language groups (Western Australian Department of Indigenous Affairs 2006). These rights and interests may be recognised under land rights statute or not yet be formally determined by the National Native Title Tribunal as a result of a successful native title case.

Aquatic resources constitute a vital part of the non-market Indigenous customary economy. Fish are very highly valued by Indigenous people, many of whom have low incomes. The recently completed National Recreational and Indigenous Fishing Survey 2003 revealed a 92% fishing participation rate for the surveyed Indigenous population in north Australia. Approximately 38,000 fishers participated in 420,000 fisher days harvesting almost 3 million fish in total (North Australian Indigenous Land and Sea Management Alliance 2004).

Appendix 3 contains further detail on:

- Indigenous occupation and historical environmental change, and
- Indigenous cosmology and myth.

2.4 Statutory land rights, native title and inland waters

There is considerable variability in the degree of control that traditional owners can assert over their customary estates across northern Australia, largely as a result of differing land rights regimes in each of the three northern jurisdictions. Traditional owners in the Northern Territory have the greatest say in determining how rivers and wetlands will be used wherever they hold freehold title under the *Aboriginal Land Rights (Northern Territory) Act 1976* (ALRA). Complementary Northern Territory legislation provides a statutory basis to enforcing the right to control access, through a permit system, to privately owned wetlands if they are located on Aboriginal land. It is an offence for a person who is not an Aboriginal, to enter Aboriginal land in the Northern Territory except in accordance with a Northern Territory law⁷. Access along river courses via the water is more complicated however, given common law rights guarantee public access to rivers.

⁷ The NT Legislative Assembly is given the power under the Land Rights Act to make laws regulating or authorising the entry of persons onto Aboriginal land (Reeves 1998). The Northern Land Council, for example, requires separate application forms for tourists, transit travellers, workers and those wishing to conduct any research or media activities on Aboriginal land (http://www.nlc.org.au/html/visit_general.html).

In the Northern Territory, a grant of land to an Indigenous Land Trust under the Aboriginal Land Rights Act does not include water because this Act reserves all mineral to the Crown and word minerals is defined to include water (Reeves 1998). During decades of legal debate over Indigenous rights to water in the Northern Territory, the focus has been largely on maritime waters. A number of claims have been lodged to different maritime elements or zones⁸ raising many complex legal questions about the definition of land and water under the Aboriginal Land Rights Act, the extent of Northern Territory jurisdiction off-shore, the definition of 'low-water' and the nature of 'property' in the aquatic environment (see Jackson 2004b). However, two Land Commissioners hearing claims under the Aboriginal Land Rights Act have concluded that the beds and banks of certain rivers (Daly River and Robinson River) in the NT were unalienated Crown land and therefore available for claim. The legal position with respect to surface, flowing and subterranean waters on Indigenous land has not yet been definitely determined by the judiciary (O'Donnell 2002).

Western Australia has no statutory land rights regime while grants to land can be made to Indigenous groups in Queensland under the *Indigenous Land Act 1991*. Of course the Commonwealth's Native Title Act applies to all States and Territories. In Queensland, the *Aboriginal Land Act (1991)* is based loosely on the Commonwealth's legislation applying to the Northern Territory (Queensland Government 2005). The Queensland Aboriginal Land Act provides for deeds of grant in fee simple (Aboriginal freehold) over lands that are successfully transferred or claimed. This form of tenure has restrictions not normally associated with ordinary freehold as the title cannot be sold and the ability to lease the land is limited in certain ways. This Act makes it clear that beds and banks of a watercourse or a lake can be claimed only if the beds and banks are both within the external boundaries of available Crown land and capable of being owned in fee simple by a person other than the Crown (Tan 1997). In 1997 there was one such claim in Queensland to the beds and banks of a water course within the land claimed at Cape Melville (ibid).

Native title was recognised by the High Court in *Mabo*, when the majority of the Court held that:

The common law of this country recognises a form of native title which, in the cases where it has not been extinguished, reflects the entitlement of the Indigenous inhabitants, in accordance with their laws or customs, to their traditional lands (cited in Neate 2004; 178).

⁸ In 1998 there were 22 outstanding claims to banks and beds of rivers, 10 to the intertidal zone, and 17 to the seas and sea beds (Jackson 2004a). Few have been heard in the intervening period.

Soon after the *Mabo* decision of 1994, the *Native Title Act 1993* was passed to provide certainty to existing title-holders and to recognise and protect native title. Subsequent legal cases (e.g. *Ward and Yorta Yorta*) have confirmed the view that native title rights and interests 'must be construed as deriving from traditional law and custom. The common law recognises those rights and interests through the concept of native title' (Neate 2004: 191).

When the *Native Title Act* was passed the scope of native title was defined to include rights over water. Rights of hunting, gathering and fishing have also been recognised in legislation as including in rights and interests comprising native title (Tan 1997). The term 'waters' has been defined in the Act to include:

(a) sea, a river, a lake, a tidal inlet, a bay, an estuary, a harbour or subterranean waters; or

(b) the bed or subsoil under, or airspace over, any waters (including waters mentioned in paragraph (a)).

The Act does not confer full property rights in fresh water to native title parties, rather the right is only partial, covering customary use rights (Altman 2004). Several claims to native title over both land and water have been filed since the enactment of the legislation (Tan 1997). A key issue is whether there is sufficient evidence of customary practice to establish ownership of flowing water and groundwater (Tan 1997). A further issue is the extent to which water resource developments impair or extinguish native title. According to D'souza of the National Native Title Tribunal, persons who presently hold validly granted water interests generally have precedence in the exercise of their rights under the grant over the rights of any native title claimants (2002: 3). Lane (2002) argues that where native title exists, doubts remain about the ability of the Native Title Act to protect it adequately. As O'Donnell concludes:

The Crown or State or Territory Governments in each case have passed legislation, which allows them to regulate, manage and control inland waters. In some cases, this would appear to include the actual ownership of waters and so potentially all Indigenous rights and interests may be extinguished with respect to such waters (2002: 104).

As with other Australian regions, the nature and extent of native title rights and interests⁹ in northern rivers remains uncertain. The tenure of land holdings adjacent to a river system is likely to be an influential factor in a successful native title claim, although

⁹ Native title is defined in the *Native Title Act 1993* as 'the communal, group or individual rights and interests of Indigenous peoples or Torres Strait Islanders in relation to land or waters' (see s. 223(1)).

not necessarily determinative of the existence of native title rights and interests (Behrendt and Thompson 2004). Indigenous rights to hunt, fish, and gather living natural resources, such as crocodiles and turtles, may arise in association with a native title claim to particular lands and waters, or by virtue of customary practice independent from any association with native title claims to land (Meyers 1995).



Figure 5 Fishing at Barred Creek, Dampier Peninsula, Kimberley. Photo by Sue Jackson

Clearly there will be implications for living resources management and water policy as governments examine to what degree native title rights may affect the right of the Crown to manage the allocation, development and conservation of those resources (Meyers 1995). For example, Behrendt and Thompson's observation has implications for the determination of environmental flows:

It is unlikely that Australian Courts will recognise Indigenous ownership of flowing water but that does not mean that native title rights and interests will not be affected by alterations to river flows and be therefore entitled to a remedy for that alteration... The process of translating Indigenous spiritual connections into legal rights and interests is in its formative stages and there remains a considerable amount of uncertainty as to what will be the complete range of rights and interests that will be recognised in those cases (2004: 78).

2.5 Water reform, the National Water Initiative and Indigenous property rights

To date, Indigenous interests in water have not been acknowledged in the national reform agenda that commenced over ten years ago when the Council of Australian Governments (COAG) introduced a raft of institutional changes to water management (McKay 2002). Lane, a Member of the National Native Title Tribunal said:

It is not clear just what impact the water reform proposals will have. Even if it amounts to another layer of regulation, it does not appear from the various reports whether any consultation with Traditional Owners has occurred in the development of the proposal or whether there will be any degree of consultation with Indigenous people in implementing the reforms (2000: 13).

Tan also observes that the native title aspects of water law had been neglected:

No mention has been made of the possible existence of Indigenous rights to water resources in various policy documents discussing the reform of the water industry. This is surprising given that Indian water rights in the United States of America have been the subject of much attention (1997: 178).

These dramatic shifts in water policy and law precipitated a redefinition of water resource values and management systems. Specifically, COAG reforms include general principles for the pricing of water services, a system of water allocations separated from land titles, allocations for the environment, trading of water entitlements and management guidelines for ensuring environmental quality.

Commentators such as Altman and Cochrane (2003) have nominated the separation of land and water titles and the creation of and trade in new property rights as key issues for Indigenous people. A further consideration relates to matters of procedural justice: the need for effective Indigenous participation in the developing areas of integrated catchment management and water resource planning, including water quality management (Jackson 2005).

A number of provisions of the National Water Initiative (Commonwealth of Australia 2005) relate to Indigenous access to water, particularly the requirement that water planning processes take account of the existence of native title rights to water. In some instances, steps have been taken by water resource agencies to consider Indigenous interests in water allocation planning, for example, in the Ord River region of Western Australia, and the Daly River region of the Northern Territory. Both are discussed in section 3.

A key question arising from the multifaceted re-evaluation of water resources is how are Indigenous cultural values and requirements to be addressed and protected by the contemporary water resource framework? A number of resource management mechanisms have been adapted to recognise cultural values, most notably the concept of an environmental value or beneficial use under the National Water Quality Management Strategy (Jackson 2006). Others include the notion of a 'cultural flow' emerging from contributions to the Living Murray Initiative from the Murray Darling Basin's Indigenous Nations (Morgan 2003 *et al.*) and New Zealand's Cultural Health Index designed to accommodate Maori measures of river health (Tipa and Teirney 2003).

Altman (2004) raises the prospect of Indigenous people suffering a detriment if customary property rights are alienated through the introduction of new water property regimes. He turns to historical precedent in support of his argument that Indigenous interests are at some risk of being adversely affected by the water reform agenda:

All too often the alienation ... has occurred because an Indigenous voice has not been heard in newly-emerging debates about efficient and equitable allocation of property rights (2004: 29).

Altman further argues that the collective nature of native title interests has clear implications for potential trade in any newly-created water markets.

In the absence of information and knowledge about the implications of the National Water Initiative, and the opportunities that might arise from engagement, there is considerable risk that Indigenous interests will be poorly considered, even neglected, giving rise to conflict, socio-economic exclusion and inequity, as well as inefficiencies in water use. Significant and continuing legal uncertainties in the contested area referred to by Langton as a 'new legal frontier' (2002: 45) are unlikely to be resolved quickly.

Efforts to redress the low awareness of Indigenous interests, values and institutions relating to water use and management were made by ATSIC in 2001. A set of discussion papers was produced the following year (Lingiari Foundation 2002). More recently, Land & Water Australia's Social and Institutional Research Program has acknowledged the poor state of current knowledge of these issues (Land and Water Australia 2005b).

There was an extremely low awareness of the National Water Initiative amongst the Indigenous organisations and groups surveyed during the course of this study. Only one respondent referred to the implications of water allocation decisions and native title:

In the Kimberley through native title people are claiming rights to water. The Bardi people have native title rights to use freshwater but there needs to be some clarification about what this means in terms of water allocation or activities which might negatively affect water use. How do these impacts interact with people's native title rights and how can this be negotiated (Mardling and Wurm, Kimberley Land Council)?

NAILSMA has recently received funding under Land and Water Australia's Social and Institutional Research Program to redress the very low capacity within the north Australian Indigenous organisations to respond to the National Water Initiative and plan for their own water use.

2.6 Natural resource management and Indigenous institutions

Many Indigenous people in the tropical rivers region continue to live on their land and to engage in customary activities that rely on interactions with riparian environments and use of riparian resources¹⁰. Fulfilling responsibilities to country and kin gives Indigenous groups the chance to observe their own custom (Sharp 1998). Indigenous resource management practice draws 'mostly on long-standing customary knowledge and skills' (Altman and Whitehead 2003: 3) and considerable emphasis is placed on traditional resource rights and ownership as the basis for local and regional community planning (Davies and Young 1996).

Property rights and influence over management decisions are intertwined, as observed by the authors of a paper on Indigenous interests in NSW rivers:

For Indigenous people, having involvement in the manner in which resources are managed is as much an incident of ownership as the recognition of ownership of the soil itself. It is also a crucial component of the enjoyment of many traditional activities... A right to be involved in the management of country clearly falls within the fields of operation of international instruments relating to the protection of property interests and the right to enjoy Indigenous cultural heritage (Behrendt and Thompson 2004: 64).

¹⁰ It is estimated that 72% of the NT's Indigenous population resides on Indigenous land (Altman and Whitehead 2003).

A number of customary practices contribute to the achievement of natural and cultural resource management goals, not least the obligations to care for country. Some may be unrecognised by the formal resource management sector. Practices include:

- living on country at outstations and moving throughout the landscape to exploit resources;
- hunting and gathering;
- conducting ceremony and ritual;
- fire management, and
- obtaining and distributing resources according to local rules.

Environmental degradation of water bodies and riparian landscapes from pastoralism, tourism and other European land uses is a source of consternation to Indigenous people in north Australia, as are the impacts of water resource developments (Jackson *et al.* 2005; Storrs 1999). Appendix 4 describes in further detail the environmental pressures of concern to many Indigenous groups across northern Australia, the land management actions being taken and the Indigenous land management institutions that have developed so rapidly over the past five years or so.



Figure 6 Dhimurru Land Management Aboriginal Corporation, National Indigenous Land Management Conference, Ross River, NT 2005