

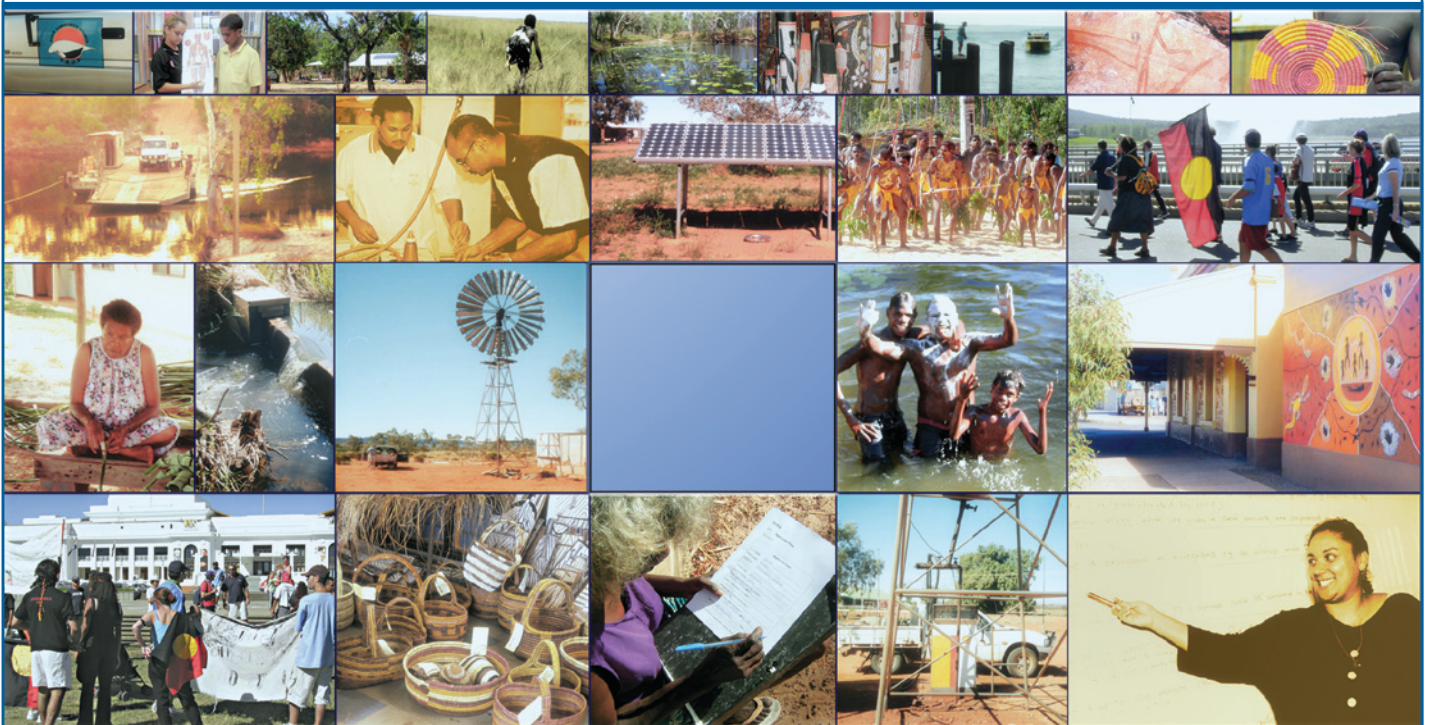
CENTRE FOR ABORIGINAL ECONOMIC
POLICY RESEARCH



Social Benefits of Aboriginal Engagement in Natural Resource Management

J. Hunt, J.C. Altman & K. May

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ABSTRACT

This paper examines the social benefits of Aboriginal engagement in natural resource management (NRM) in New South Wales (NSW). It first explores what may be meant by Aboriginal engagement in NRM and then outlines the NSW policy context in which that occurs. Before examining the social benefits evident in NSW, the paper reviews the literature on social benefits emerging internationally and in other Australian jurisdictions. Returning to NSW, the paper outlines the scope of Aboriginal involvement in natural resource management across the state, on Indigenous-owned land, public lands and private land. It also explores opportunities which native title claims have provided to date, Aboriginal involvement in threatened species management, and briefly canvasses issues relating to in relation to water rights as well as sea country, forestry and pastoral industries and the sustainable use of wildlife. The paper then identifies the range of socio-economic benefits emerging in NSW from these activities, among them cultural and spiritual, social, economic, environmental and capacity building benefits, with a number of valuable case studies that illustrate the way these are combined in each unique location. The final sections of the paper canvass a range of opportunities for strengthening Aboriginal engagement in cultural and natural resource management, generating greater social benefits as a result; the paper presents a number of specific recommendations for action.

Keywords: natural resource management; Aboriginal engagement; co-management; protected areas; land rights; native title; NSW; Indigenous development; land and sea management; socio-economic benefits; cultural heritage; water rights; Aboriginal employment.

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ABBREVIATIONS AND ACRONYMS

ABS	Australian Bureau of Statistics
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ANRA	Aboriginal Natural Resource Agreement
ATSI	Aboriginal and Torres Strait Islander
CAEPR	Centre for Aboriginal Economic Policy Research
CDEP	Community Development Employment Program
CMA	Catchment Management Authority
CNRM	cultural and natural resource management
COAG	Council of Australian Governments
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAA	Department of Aboriginal Affairs (NSW)
DECC	Department of Environment and Climate Change (NSW)
DKCRC	Desert Knowledge Cooperative Research Centre
DPI	Department of Primary Industries
ERP	Estimated Resident Population
FATE	Future of Australia's Threatened Ecosystems Program (UNSW)
GBRMP	Great Barrier Reef Marine Park
INCRM	Indigenous Natural and Cultural Resource Management
ILC	Indigenous Land Corporation
ILUA	Indigenous Land Use Agreement
IPA	Indigenous Protected Area
LALC	Local Aboriginal Land Council
LRA	Land Rights Act
MLDRIN	Murray Lower Darling Rivers Indigenous Nations
MOU	Memorandum of Understanding
MP	Marine Park
MPA	Marine Parks Authority
NAILSMA	Northern Australia Indigenous Land and Sea Management Alliance
NATSISS	National Aboriginal and Torres Strait Islander Social Survey

NP	National Park
NPW(AO) Act	<i>National Parks and Wildlife Amendment (Aboriginal Ownership) Act 1996</i> (NSW)
NPWS	National Parks and Wildlife Service
NRAC	Natural Resources Advisory Council (NSW)
NRM	Natural Resource Management
NSW	New South Wales
NSWALC	New South Wales Aboriginal Land Council
UNHCHR	United Nations High Commissioner for Human Rights
UNPFII	United Nations Permanent Forum on Indigenous Issues
USA	United States of America

EXECUTIVE SUMMARY

This report examines the social benefits of Aboriginal engagement in natural resource management (NRM) in New South Wales (NSW). It notes that Indigenous people do not generally separate natural resources from cultural heritage, but refer to both in a holistic way when talking about 'looking after country'. To obtain social benefits from engagement in NRM, Indigenous peoples must be able to engage in NRM effectively through culturally-relevant processes.

NSW is the State with the largest Aboriginal population in Australia. This is a young and rapidly growing demographic. Approximately 5 per cent of employed Aboriginal people are engaged in NRM. The NSW State Plan, particularly F1, relating to better health and education outcomes for Aboriginal people, and E4, relating to better environmental outcomes for the State, provide a policy basis for Aboriginal engagement in NRM. NSW policy recognises the inherent rights of Aboriginal people in NSW to maintain their culture and identity and to participate in the management of traditional lands, waters and natural resources.

THE SOCIAL BENEFITS IDENTIFIED INTERNATIONALLY AND IN NORTHERN AUSTRALIA

Internationally, Indigenous involvement in cultural and natural resource management (CNRM) has been through agreement-making, and there is a significant international literature about such co-management agreements. However, the literature focus is almost entirely on the co-management arrangements themselves, the power dynamics within them, some of the conflicting values which they confront, and the environmental benefits they generate. Very little research documents the social benefits which have been derived by Indigenous peoples from them. The key benefit identified is that Indigenous peoples have a voice in the management of natural resources on which they depend, and there is a reduction in problems arising from state and Indigenous systems operating separately. Many of these agreements rest on well-established treaty-based Indigenous rights. One area where the economic benefits are documented relates to Indigenous fishing rights; these have delivered very significant returns to Maori and indigenous Canadians. For example some 40 per cent of the landed value of the Canadian salmon catch is earned by Indigenous fishers, and Maori control some 40 per cent of the New Zealand seafood industry.

In Australia, where Indigenous rights are not recognised in any treaty arrangements, the situation is very different. Some of the benefits Indigenous people have identified from co-management arrangements in Australia include:

- title to land (where that has been provided)
- participation in policy, planning and management
- maintaining cultural practices and managing cultural heritage
- ensuring the application of Indigenous land management knowledge and expertise

- enabling Indigenous people to interpret their culture and manage tourist visitors at appropriate levels
- providing an economic base, and
- symbolic recognition of Indigenous rights.

For conservation agencies, the benefits can include:

- mitigating the negative social impacts of conservation
- access to local Indigenous knowledge, and
- development of important partnerships in conservation (Corbett, Lane & Clifford 1998).

Preliminary research emerging from remote northern and central Australia, largely on Indigenous-owned and managed land, indicates the following social benefits of engaging Indigenous people in looking after their country.

Indigenous income and employment

NRM provides meaningful work opportunities for Indigenous people. Some 500 Indigenous people are employed in Indigenous land and sea management groups in the Northern Territory. The current value of fee-for-service contracts they manage is estimated at around \$4–6 million per annum. The Northern Australia Indigenous Land and Sea Management Alliance (NAILSMA) is developing the idea of a culture-based economy with business enterprises in CNRM in northern Australia. Subsistence wildlife harvesting and commercial harvesting for the native foods industry are other economic benefits in Northern Territory, although the value of these is not estimated. Ecotourism benefits are also evident in some locations.

Health and well-being benefits, and projected health cost savings

There is strong evidence emerging about the health benefits of engagement in CNRM. The most recent study in the Medical Journal of Australia links Indigenous engagement in CNRM to more frequent exercise, lower rates of obesity, lower rates of diabetes, lower rates of renal disease, lower rates of cardio-vascular disease, and less psychological stress (Burgess et al. 2009). Davies, LaFlamme and Campbell (2008) estimate the reduced cost savings for primary treatment of three chronic conditions in a desert settlement of 1,200 with more active engagement on country as \$120,000 per annum—or approximately \$2 million over 25 years (net present value). That is a 40 per cent saving on current costs of \$308,000 per annum. While such levels of saving may be less dramatic in NSW, the public as well as private benefit is tangible and potentially significant.

Social benefits

Research indicates links between Indigenous engagement in NRM and improved school engagement and educational outcomes. In particular, engagement of young people with elders on country produces

educational motivation and job-readiness outcomes; it can stimulate interest in science, literacy and numeracy. Other benefits involve training and skill development, including skills in business management, reduced substance abuse, more functional families, improved early childhood development, increased social harmony and increased community pride.

Cultural benefits

The cultural benefits are extremely important to Indigenous people themselves and include cultural heritage protection, intergenerational cultural knowledge transmission, and an increased sense of identity and confidence, especially for young people. Davies has suggested that the reason Indigenous land management plays such a key role is the foundational impact it has on the social determinants of health and participants' sense of control over their lives (Davies 2008). Davies argues that investments in other services (such as health and housing) will achieve better outcomes if combined with engagement in looking after country, rather than being dealt with in isolation. A more systemic approach based on an understanding of how multiple components of complex human systems interact to produce better outcomes is required.

Environmental benefits to the nation

Indigenous NRM work is also reaping environmental benefits for the nation, including feral animal control, weed control, and fire management—leading to reduced habitat impact and greenhouse gas mitigation, biodiversity monitoring, and threatened species protection. Gilligan (2006) found that the national Indigenous Protected Area (IPA) program had been extremely cost effective in contributing to national biodiversity and conservation goals.

THE SCOPE FOR ABORIGINAL INVOLVEMENT

The scope for Aboriginal involvement in NRM in NSW may not be as extensive as in northern Australia, largely due to the small amount of Aboriginal-owned land in NSW (0.5%) compared to northern Australia (in Northern Territory approximately 50%). However there are a number of avenues for Aboriginal involvement in NRM, despite this relative lack of land-holding. The report provides examples of NRM on Indigenous-owned land¹ and where Indigenous Land Use Agreements have been negotiated arising from native title claims. It then explores Aboriginal involvement in management of public and privately-owned land, through co-management agreements and Memorandums of Understanding (MOUs) with National Parks, involvement in Catchment Management Authorities (CMAs), and engagement in water policy and access to water licences, as well as threatened species management. Other Aboriginal involvement in marine resources, forestry, rangelands pastoralism and sustainable use of wildlife, as well as a number of other activities, are discussed.

SOCIAL BENEFITS OF ABORIGINAL ENGAGEMENT

At present there is no process to systematically record the social benefits of Aboriginal involvement in NRM in NSW, and no study of the benefits has been undertaken across the State. However, literature and the people interviewed qualitatively identified a broad range of cultural and spiritual, social (particularly health, education and training), economic, environmental, and capacity building benefits, which are consistent with those identified elsewhere.

Cultural/spiritual benefits

Access to country in NSW enables individual and community healing, cultural reinvigoration and ability to practice cultural activities and care for sites and landscapes of cultural importance. Cultural camps enabling younger people to learn about their culture are highly valued activities. Access to country also facilitates customary economic arrangements among tribal groups, and maintains the potentially economically valuable intellectual property of their local knowledge. Other related benefits include language recovery and a greater sense of identity/pride in Aboriginality, all of which can lead to a greater sense of personal and collective empowerment. Recognition of cultural traditions, laws and customs is a further benefit, when people feel they are treated as equals in land management. These benefits may also provide the essential underpinnings for other social, economic and environmental benefits of particular interest to State and Federal governments and their policy priorities.

Social benefits

There are educational and health benefits strongly associated with Aboriginal involvement in CNRM in NSW. Such participation has facilitated increased access to education, better retention (e.g. to Year 12, or university), more opportunities for formal training

(e.g. Certificate I-IV courses in a variety of areas) and informal education for younger people by elders and traditional knowledge-holders. Aboriginal engagement in CNRM also contributes to the education of non-Indigenous people about Indigenous knowledge and capacities, and is making a contribution to reconciliation. More positive social interactions between non-Indigenous and Indigenous people contribute to a virtuous circle of improved social relations and greater opportunities for Indigenous people.

Health improvements anecdotally reported relate to people with heart conditions feeling considerably healthier, weight reduction, and lower blood sugar levels for people with diabetes. Other social benefits identified in NSW relate to access to land for social housing, reduced anti-social behaviours, building social networks, and reduced community conflict. Use of land for diversionary programs for young offenders or other young people at risk is one strategy being used to assist young people to gain positive direction in their lives and reduce recidivism.

Economic benefits

Benefits recorded in NSW include: full and part-time employment (e.g. some 400 people are employed in 60 Green Teams in the Many Rivers area), training and increased qualifications leading to improved job or career prospects; contracting opportunities (e.g. with local Shires, other NRM bodies), some limited business development in CNRM; limited eco- and cultural tourism; and access to customary harvesting/fishing to supplement incomes. Apart from employment in conservation roles on Aboriginal or public land, some involvement in natural resource-based industries such as forestry, fisheries and aquaculture, and pastoralism exists. Other limited benefits to date in NSW, or immediately adjacent areas across State borders, include involvement in scientific research, bush medicine and bush foods development, weaving and papermaking.

Environmental benefits

The contribution of Indigenous knowledge to CNRM through land, freshwater and marine environment restoration and conservation, as well as biodiversity and threatened species protection, is clearly evident in NSW. Other environmental benefits include restoration of wetlands, bush regeneration, feral animal and weed control, fire hazard reduction and decontamination (the latter two particularly on Aboriginal-owned lands) and carbon abatement and trading activities undertaken by Aboriginal people and organisations.² Aboriginal people also report increased cultural heritage management and protection when they have access to their country.

Capacity building benefits

Engagement in CNRM in NSW has led to development of Indigenous capacities for negotiation, partnership with governments and others, and governance, as well as greater understanding of western governance and scientific systems and, over time, an increased ability to insert Indigenous perspectives and policy ideas into them. Other capacities developed through NRM initiatives may include grant seeking, proposal writing and reporting, and related business skills.

FACTORS WHICH SUPPORT OR CONSTRAIN THE ACHIEVEMENT OF SOCIAL BENEFITS THROUGH ABORIGINAL ENGAGEMENT IN NATURAL RESOURCE MANAGEMENT

This report goes on to indicate a number of factors that people we interviewed identified as leading to successful Aboriginal engagement in NRM and subsequent social benefits. These include having a clearly identifiable Aboriginal group which is relatively unified in its purpose; effective governance, management and decision making structures; Aboriginal commitment and passion and effective Aboriginal leadership; government officials working in flexible and innovative ways; adequate and consistent funding; and in a small number of cases, partnerships with environmental non-government organisations. The constraints identified include: the low proportion of Aboriginal-owned land; knowledge and attitudinal factors in the

non-Indigenous community; attitudes towards conservation and development (i.e. regarding sustainable use); knowing who to engage with (who speaks for country?); governmental complexity and a 'silo approach'; constrained approaches to landscape planning and NRM; and impacts of historical exclusion and dispossession.

OPPORTUNITIES TO EXPAND ABORIGINAL ENGAGEMENT IN NATURAL RESOURCE MANAGEMENT AND THE ASSOCIATED SOCIAL BENEFITS

The report offers a range of ways that Aboriginal involvement in natural resource management in NSW could be expanded in order to attain greater social benefit, based on international best practice principles and frameworks. Possibilities are discussed in relation to public land such as extending Indigenous land ownership by expedited transfer of certain lands, extending involvement based on rights such as native title rights, and extending the use of co-management agreements. The opportunities on Indigenous-owned land discussed are the new biobanking scheme, carbon-offsetting, and Indigenous engagement in the carbon market. It is argued that such schemes need to be coupled with better information, resources and support to enhance Aboriginal people's capacity to manage their own land. Opportunities on privately-owned lands involve enhancing the efforts of CMAs and promoting the use of Aboriginal Natural Resource Agreements (ANRAs) between Aboriginal groups and private landholders. The report then discusses the opportunities that government can provide through changes in policies and programs, for instance, providing a whole-of-government policy approach to Aboriginal development through CNRM; coordinating business development and employment strategies around CNRM; enhancing procurement and tendering arrangements; promoting a livelihoods approach to development and sustainable use of natural resources; supporting climate change mitigation strategies; better protection of Aboriginal cultural heritage; and supporting State or regional Aboriginal network(s) to build capacity. The recommendations which follow reflect these opportunities and identify clear steps which could be taken in NSW.

RECOMMENDATIONS

The following recommendations accept that existing international and national experience and the limited NSW evidence indicates that investment in Aboriginal engagement in natural resource management is likely to yield a wide range of social benefits for the Aboriginal community of NSW and contribute effectively to the State's social and environmental goals. Overall this report recommends extension of Aboriginal engagement in natural resource management in NSW. The following recommendations address the need for a better evidence base in relation to the social benefits of Aboriginal engagement in natural resource management in NSW.

1. Develop a process to systematically monitor, record and evaluate the social benefits of Aboriginal engagement in natural resource management across NSW

At present there is no system of data collection which would enable policy makers or researchers to systematically identify the social benefits of Aboriginal engagement in natural resource management in NSW. To establish a firmer evidence base, it is necessary to establish a simple but effective system to systematically capture social data relating to NSW's broad social and economic goals for Indigenous people through Aboriginal engagement in natural resource management, to complement data collected about progress towards environmental outcomes. Evaluation of programs involving Aboriginal engagement in natural resource management should assess social as well as environmental benefits.

2. Extend the Indigenous estate in NSW

Opportunities for Aboriginal engagement in natural resource management and for generating social benefits will be greater where opportunities can be taken to extend the Indigenous estate by expediting land claims, proactively facilitating national park handbacks, supporting Indigenous Protected Areas, and transferring Travelling Stock Reserves and other appropriate Crown land, such as certain State forests, to Aboriginal ownership. In particular no further sales or transfers of Travelling Stock Reserves should occur without local Aboriginal traditional owners and Local Aboriginal Land Councils being informed. In every case, adequate funding and governance support must accompany such extension to support Aboriginal land management.

3. Recognise that Aboriginal landowners need assistance to manage their estates: provide appropriate sources of support for them

Most Aboriginal landowners are socioeconomically disadvantaged, and lack finance and other capacity, including technical know-how, to address the many NRM issues they need, or are required, to address on their land. This support must be easily accessible and culturally sensitive. They also need appropriate governance support from the earliest stages.

4. Extend joint management to all protected areas.

Whilst NSW has made some steps in this direction, it could set a goal of negotiating agreements with the appropriate Aboriginal traditional owners for the management of a significant proportion of its protected areas (land and marine) by 2013, the date of the next World Parks Congress, and the remaining areas by 2015. In the interim, arrangements should enable traditional owners to participate in the development of management plans as they are renewed.

5. Ensure equitable funding for management of the Indigenous conservation estate in NSW compared to non-Indigenous protected areas

The national Indigenous Protected Area program—which has expanded significantly across northern Australia in particular, and appears set to expand considerably in NSW—is providing a range of environmental services such as biodiversity protection, weed control, fire management, and (in NSW) wetlands recovery for the nation. Funding has not kept pace with the growth of the Indigenous Protected Area program, and in NSW the loss of Community Development Employment Program (CDEP) exacerbates this situation. Whilst the Australian Government has introduced the new Working on Country program to fund new positions across the nation, there will be a need to expand such employment opportunities and better finance the Indigenous Protected Area program, so that existing and new NSW Indigenous Protected Areas are adequately and equitably resourced in comparison to other protected areas.

6. Extend Aboriginal natural resource management on privately-held land in NSW through enhancing the efforts of catchment management authorities and promoting Aboriginal Natural Resource Agreements

Much of NSW is already held in freehold title or as perpetual leases. To extend the arena for Aboriginal natural resource management, opportunities for Aboriginal people to access their country, contribute to conservation and cultural heritage management, and facilitate intergenerational knowledge transfer can be facilitated through:

- enhancing the capacity of catchment management authorities to provide opportunities for Aboriginal participation, by learning from the experiences of the most successful catchment management authorities, and
- promoting Aboriginal Natural Resource Agreements negotiated with landholders. A small fund to facilitate the negotiation of such agreements could provide valuable practical support.

7. Recognise Indigenous property rights in existing and emerging natural resource markets

Protracted disputes about Indigenous access to natural resources (such as occurs in relation to fisheries) could be avoided by greater legal recognition of Indigenous interests in new forms of property rights in emerging markets such as fresh water, carbon, and biodiversity. Whilst NSW has gone some way to recognise water rights (though not in terms of allocations of cultural flows in the Murray Darling Basin, for example), in other areas there remains a lack of clarity about property rights. Legislative action could clarify rights and provide the basis for new cultural and natural resource management opportunities.

8. Develop a whole-of-government policy and approach to support Indigenous development through cultural and natural resource management

An overarching State-wide strategy for Aboriginal development through cultural and natural resource management is necessary. Such a strategy would need to recognise the diversity of Aboriginal circumstances and aspirations across the State and embrace business development and employment as well as sustainable livelihoods approaches. One way of exploring what is required, would be to undertake a trial in one or more interested Two Ways Together Partnership Communities to examine how various agencies could be coordinated around a comprehensive local or regional plan for Aboriginal development through cultural and natural resource management.

9. Develop a CNRM-based Aboriginal employment and business development strategy

CNRM appears to be generating a significant number of jobs and business opportunities for Aboriginal people in NSW. More could be achieved if employment and business development initiatives were specifically focused into a strategy around cultural and natural resource management, so as to leverage more development opportunities from existing activity. Aboriginal organisations, local governments and private sector stakeholders should be involved in developing and implementing such a strategy. An education and career development strategy for Indigenous land and sea managers should be included. The Many Rivers Regional Partnership Agreement should be monitored closely as a potential model to extend to other regions.

10. Adopt a livelihoods strategy for development through sustainable use of natural resources

Various opportunities exist for Aboriginal livelihoods to be developed based on sustainable use of natural resources. These may include wildlife and wild foods harvesting for a range of subsistence or sale purposes, or cultivation of native species for commercial development. There is no government policy or economic support which could facilitate and support such development across NSW. Planning and impact assessment processes need to take these uses into account.

11. Recognise customary marine tenure and aspirations to manage coastal country

NSW Aboriginal people want a primary role in the management of coastal and marine resources—both in the commercial fishing industry and in co-management of the coastal and marine zone. There is a need for more robust implementation of the Indigenous Fisheries Strategy, follow-up to the 2003 workshop with commercial Indigenous fishers, and a consistent policy across Fisheries and Marine Parks to support sustainable customary use of marine resources. The Great Barrier Reef Marine Park Authority concept of Traditional Use of Marine Resources Management Agreements could be explored more fully in NSW.

12. Respect the contributions that local Aboriginal knowledge can make to addressing environmental problems, and resource the reproduction and transmission of this knowledge

There are Aboriginal people in NSW keen to maintain and rediscover Aboriginal cultural and natural resource management knowledge and ensure its transmission to younger generations. Support for Junior Green Team activities and inclusion of local Aboriginal knowledge of cultural and natural resource management in schools, and the development of more programs to record, codify and integrate Aboriginal and western knowledge systems could all be valuable. The need for support to develop blended customary and western institutions for Aboriginal governance of CNRM is also necessary.

13. Consider a fundamental rethink of the NSW approach to Aboriginal cultural heritage to ensure it meets international best practice standards for protecting Aboriginal cultural heritage

Indigenous people do not separate natural resource management from cultural heritage protection in their country. The existing Aboriginal cultural heritage regime is inadequate for such protection and greater protections are urgently required. An Aboriginal Heritage Act could be considered.

14. Support the development of an Aboriginal network or networks across the State with interests in cultural and natural resource management issues

Aboriginal people in NSW need opportunities to learn from each others' experiences and to develop and articulate their own priorities to State and Federal agencies for their engagement in cultural and natural resource management. Support for conferences, networks and possibly a State-wide cultural and natural resource management network if that were desired, could contribute to Aboriginal capacity building and provide valuable opportunities for dialogue between Aboriginal people engaged in cultural and natural resource management and non-Indigenous agencies.

INTRODUCTION

In March 2009 the Centre for Aboriginal Economic Policy Research (CAEPR) won a select tender from the NSW Natural Resources Advisory Council (NRAC) to undertake a short consultancy on the 'Social benefits of Aboriginal Engagement in Natural Resource Management (NRM) in NSW'. The purpose of this consultancy was to provide the diverse members of the NRAC with a common, high-level understanding of the issue and to enable them to formulate advice on actions to promote community social development through Aboriginal involvement in NRM (for details of the Contract Brief, please see Appendix A). The report was submitted in July 2009, and this paper reflects the situation at that time.

The task involved a broad literature review of the linkages between Indigenous involvement in NRM policy and implementation, and social and economic outcomes, from international, national and NSW experience. It also involved strategic and selective consultations with a very limited number of key players in NSW engaged in Indigenous NRM.³ We are conscious that many more people could have made valuable contributions but the limitations of time and resources meant that many who will feel they could have contributed have not been able to. There will be others who feel that detailed issues they raised have not been adequately canvassed, but the broad scope of this report required us to selectively focus on issues we considered to be of most strategic significance. There is certainly scope for more focused research on particular aspects of this topic. Our study has drawn out and illustrated opportunities to improve Aboriginal social and economic outcomes, particularly those sought in the NSW State Plan, through Aboriginal participation in NRM. We offer some strategic recommendations for NRAC to consider.

ABORIGINAL ENGAGEMENT IN NRM

NRM is not a term used by most Indigenous people, even today. In NSW they talk instead about 'looking after country'. Indigenous people have a holistic meaning for 'country', which encompasses land and landforms, water and marine resources, the plants, trees, animals, and other species which the land and sea support, and cultural heritage sites. The whole cultural landscape and the interrelationships within the ecosystem are encompassed in the term 'Country', and these relate to landowners under customary law in diverse ways, for example through links to totemic species. Indigenous people talk about 'looking after country', with the expectation that country will in turn look after or care for them (Kingsley et al. 2009; see also Baker, Davies & Young, 2001). This is a somewhat different perspective from one of 'managing' natural resources, which is a paradigm suggesting human dominance of the ecosystem, rather than the reciprocity and inter-relationship which Indigenous terms and perspectives reflect (Arabena 2008; Birckhead, De Lacy & Smith 1993; Bird-Rose 2003; Howitt & Suchet-Pearson 2006).

As a result, the western separation between cultural heritage management and NRM does not sit comfortably with Indigenous notions. For Indigenous people, looking after their country implies looking after the sites and sacred places within the whole landscape (Bird-Rose 2003). They also do not separately categorise the

land and sea (Cozens 2003; Hemmingsen & Marshall 2008). It is all 'country', though the intercultural term 'sea country' is now in common use (Morphy & Morphy 2008). The jurisdictional separations in resource agencies' administration of 'country' therefore present challenges for Indigenous people. For this reason we will refer to cultural and natural resource management (CNRM) wherever relevant in this report to reflect Indigenous practice.

WHAT IS ENGAGEMENT?

Research indicates that the ability to engage successfully with Indigenous people is an essential prerequisite to achieving social benefits from such engagement, and that achieving social and economic outcomes is a feature of effective NRM engagement.

'Engagement' may have a wide range of interpretations and meanings. As Smyth, Szabo and George (2004: 9) recognise, 'Often the process of Indigenous engagement starts from a position of extreme marginalisation from existing NRM decision making', in which, rather than being able to exercise their cultural obligations and rights, Indigenous people are seen 'at best as merely another stakeholder group' (see also Bruce Callaghan and Associates Pty Ltd 2002). Engagement often implies concepts of representation, consultation and participation, each of which emerge from theories of democracy and can range in practice from tokenism to effective participation. There are particular challenges of engagement between two very different systems of authority, those of traditional Indigenous owners, and those of government bureaucracies, at an interface which is imbued with a range of power dynamics (Anderson-Smith 2008).

Lane and Williams (2008) observe that intensive dialogue among Indigenous people may be necessary before they can engage with other stakeholders and that consensus rather than a representative style of decision making is used. Various authors have reported that one of the major constraints to Indigenous engagement in CNRM relates to the way in which authorities engage with Indigenous people. Often such engagement is last-minute and rushed, rather than designed from the outset with adequate time, resources and appropriate processes (Lane & Williams 2008). This leads to the frustrations Indigenous people often experience in relation to the ways they are consulted, and constrains opportunities for their genuine participation (Goodall 2001). Research conducted in the Murray-Darling Basin indicates that Aboriginal people are concerned about the processes of engagement as well as the outcomes, and while governments focus on consultation, what Aboriginal people are seeking is control (Forward NRM & Arrilla-Aboriginal Training and Development 2003).

In practice, 'engagement' can mean:

- control—full decision making authority (such as in relation to an Indigenous Protected Area (IPA), freehold land, Local Aboriginal Land Council (LALC) land or land purchased by the Indigenous Land Corporation (ILC) under local Indigenous control)
- shared decision making through joint management (co-management of national parks). In this case there may be some difference between those situations where the land is Aboriginal owned and leased back, or where native title has been determined and an Indigenous Land Use Agreement (ILUA) has been negotiated, compared to those where the land remains the property of the State and a Memorandum of Understanding (MOU) is the basis of the co-management
- control or authority in relation to specific aspects of CNRM, but not to managing 'country' as a whole (e.g. water rights, rights to hunt/gather, access to cultural heritage sites, rights to know in relation to native title future acts)
- advisory roles, such as consultation regarding CNRM, or invited program engagement, including board membership in a minority position, or an informal advisory body (e.g. Fisheries Strategy, Marine Parks Authority (MPA))
- employment within CNRM activities/industries (e.g. Forestry, Department of Environment and Climate Change (DECC), 'Green Teams' in CMAs). Such employment may be in Indigenous-controlled or other contexts
- consultation about CNRM matters, such as in relation to the proposed Aboriginal Land Management Framework.

The Aboriginal people we have spoken with are most interested in strong involvement in decision making, setting policy and determining governing arrangements about land/sea, as well as active implementation of NRM activities whether paid or voluntary. As Smyth, Szabo and George (2004) note, the shift of NRM responsibility to regional bodies which occurred in NSW in 2003–04 may either entrench Indigenous marginalisation due to tense race relations in some rural areas, or may provide a more appropriate level for Indigenous engagement. In terms of their study of engagement in NRM planning, they identified critical success factors to be:

- early and adequate timing which respects and supports Indigenous processes
- dedicated and adequate resources (human and other)
- effective Indigenous and non-Indigenous leadership
- recognition that Indigenous people have special relationships to country, and that they have diverse interests and opinion

- capacity building of all involved
- effective and continuing communication
- a scale of engagement relevant to the country for which particular Indigenous groups have responsibility, and
- the need to achieve social and economic objectives at the same time.

Social benefits are more likely to flow from Aboriginal engagement in CNRM where these conditions exist.

ABORIGINAL PEOPLE IN NSW AND THE POLICY FRAMEWORK FOR NRM

ENGAGEMENT

The Indigenous population of NSW is 152,685,⁴ over 2.2 per cent of the total NSW population, and 28.7 per cent of the total Australian Indigenous population. NSW has the highest Indigenous population of all Australian States and Territories. As with the national Indigenous population, the Aboriginal population in NSW is very young, some 57 per cent being under 25, and is growing faster than the non-Indigenous population. The population growth rate is accelerating, and by 2021 it is estimated that the Aboriginal and Torres Strait Islander population will be 211,265 (New South Wales Aboriginal Land Council (NSWALC) 2008a: vii).

Whilst the largest absolute number of Indigenous people live in the Sydney region, they represent less than 1.5 per cent of the total population there. However, in western NSW 16.9 per cent of the population is Indigenous, although the total number (just under 9,000) is smaller than in many other regions. For example, north coast and mid-western NSW have Indigenous populations of 20,600 and 16,500 respectively. With the long-term trend of outmigration of non-Indigenous population from western NSW occurring, the Indigenous proportion of the population is set to rise. Some western towns are already predominantly Indigenous—for example, Wilcannia is already 64 per cent Indigenous (Taylor & Biddle 2004).

The total adult Indigenous population (16–64 years) is 86,615, of whom a total of 35,275 were employed at the time of the 2006 Census, including through the Community Development Employment Program (CDEP); some 8,400 were unemployed, and 43,700 Indigenous people were not in the labour force. Approximately 1,060 Indigenous people are employed in NSW in industry sectors related to NRM, such as agriculture, forests and fishing and 343 in mining (Australian Bureau of Statistics (ABS) 2007). In addition a number are employed in the public sector through agencies such as the DECC with some 300 Indigenous staff, and Department of Primary Industries (DPI) (approximately 30).⁵ Thus the total number of Indigenous people employed in natural resource-related activities in NSW appears to be between 1,700 and 1,750 or approximately 5 per cent of employed Indigenous people.

The NSW State Plan provides the policy framework for Aboriginal engagement in NRM, especially its priorities F1 'improved health and education for Aboriginal people' and E4 environmental goal 'better environmental

outcomes for native vegetation, biodiversity, land, rivers and coastal waterways', and in particular the community level objectives of building capacity of natural resource managers 'to contribute to regionally relevant NRM'. This is in line with the Standing Committee on Social Issues Report (2008) on Overcoming Indigenous Disadvantage in New South Wales, which recommends 'political commitment and willingness to engage Aboriginal communities in true, equal partnerships' (Standing Committee on Social Issues 2008: xii). Aboriginal affairs policy in NSW recognises the inherent rights of Aboriginal people—as the first people of NSW—'to determine their social, economic and political futures and the right to maintain their culture, language and identity' (Department of Aboriginal Affairs (DAA) n.d.(b): 2). This includes their rights 'to participate in the management of traditional lands, waters and natural resources' (NSW Government 2006: 81).

Related to the overall NSW State Plan is a strategy of building community well-being, led by the DECC, which promotes Aboriginal cultural identity and connection to Country and supports community leadership and decision making (DAA n.d.(b)). However, 'Two Ways Together' (see below) notes that Aboriginal people still lack adequate access to traditional lands, waters and natural resources to maintain their culture.

The NSW Aboriginal-specific Two Ways Together plan is designed to implement the State Plan and complement it in some relevant priority areas for Aboriginal people, and this is led by the DAA. The Two Ways Together Plan has four key objectives relating to family safety, pre-school readiness to learn, access to environmental health systems and Aboriginal employment, with a strong emphasis on the last. Opportunities to boost Aboriginal employment through CNRM may satisfy both environmental and employment policy goals.

NSW State policy sits within a broader national policy framework, which may be summarised as 'mainstreaming' most Indigenous services as part of the Closing the Gap approach, whilst also promoting Indigenous land management and the provision of environmental and other services through programs such as 'Caring for our Country' and 'Working on Country'.

The Closing the Gap targets agreed by the Council of Australian Governments (COAG) in October 2008 aim to:

- close the gap in life expectancy between Indigenous and non-Indigenous Australians within a generation
- halve the gap in mortality rates for Indigenous children under five within a decade
- ensure all Indigenous four years olds in remote communities have access to early childhood education within five years
- halve the gap in reading, writing and numeracy achievements for Indigenous children within a decade
- halve the gap for Indigenous students in year 12 attainment or equivalent attainment rates by 2020, and
- halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (COAG 2008).

'Caring for our Country' is an Australian Government NRM program which began in July 2008 and 'aims to integrate delivery of the Commonwealth's previous natural resource management programs, including the Working on Country Indigenous land and environmental program' which began in 2007, and the IPA program which began in 1997' (Caring for our Country 2008a). 'Working on Country' funding currently only applies to Indigenous-owned lands. However, over the next five years, across the nation, 'Caring for Our Country' plans to extend the number of its partnerships with Indigenous communities, use 'traditional ecological knowledge' to develop management plans for 32 new IPAs, increase the areas dedicated as IPAs by two million hectares per year, and support the recording of Indigenous traditional knowledge (Caring for our Country 2008a). Thus at the Commonwealth level, NRM-related projects may also contribute to health, education and employment goals, although there is currently no explicit evaluation built into their NRM programs which would capture that evidence.

Altman (2009a: 7) has suggested that Closing the Gap policy could be subject to a diverse array of critiques, most notably that it risks destroying Indigenous cultures 'in the name of improvement, individualism and the market'. In the context of remote Australia he argues for greater recognition of diversity beyond the mainstream labour market option; acceptance of the reality of a hybrid economy comprising an intersecting State, market and customary economy; and a 'livelihoods' approach to thinking about economic development, whereby Indigenous people are involved in harvesting game, producing art, and providing environmental services for the public and private sector, rather than being employed (or not) in 'mainstream' jobs. The extent to which such a strategy would be relevant in NSW will be considered later in this report.

SOCIAL BENEFITS OF INDIGENOUS PARTICIPATION INTERNATIONALLY AND IN NORTHERN AUSTRALIA

There is a growing international literature about Indigenous participation in CNRM but this survey will limit itself largely to research which has linked Indigenous engagement in CNRM with social benefits. Terminology used internationally and in northern Australia tends to emphasise the link between management of cultural and natural resources through use of the term 'cultural and natural resource management' (CNRM). Internationally, a major approach to Indigenous engagement in CNRM has been through agreement-making, in relation to property rights, in particular regions or particular species, and in relation to mining (Hibbard, Lane & Rasmussen 2008) and this approach has been followed in Australia (Langton & Palmer 2004; Langton et al. 2004). However, internationally, many of these agreements rest on prior, well-established treaty-based or constitutionally recognised Indigenous rights (Langton et al. 2004). This is significantly different to the Australian and NSW situation where no such rights are entrenched.

CO-MANAGEMENT AGREEMENTS

There is a significant international literature about co-management agreements, mainly in comparative contexts with Canada, United States of America (USA) and New Zealand, but its focus is almost entirely on the co-management arrangements themselves, the power dynamics within them, some of the conflicting values which they confront, and the environmental benefits they generate. Very little focuses on the tangible benefits which have been derived by Indigenous peoples from them, other than that they are at the negotiating/decision making table, although it does indicate some of the necessary conditions to achieve some success in how they operate. Since successful processes are essential to effective social and economic outcomes, this research is briefly summarised below.

Factors in successful co-management agreements overseas

Genuine power sharing and valuing of Indigenous knowledge and culture are key factors in successful agreements according to international research. Natcher, Davis and Hicky (2005) explored cross-cultural aspects of co-management in The Yukon, and found that cultural differences and colonial histories underpinned many conflicts in these arrangements, and that success depended on 'the ability to engage rather than subvert differences in knowledge and cultural experiences' (Natcher, Davis & Hicky 2005: 248). Tipa and Welch (2006) also found differing interpretations of co-management among Maori and others in New Zealand, particularly in relation to the differential status of Indigenous people within the wider community of stakeholders and the extent to which traditional Indigenous knowledge is taken into account. Craig (2002) has also explored the way co-management regimes in Canada and Australia recognise Indigenous rights, observing real gains for Indigenous people where power-sharing is genuine, but noting that this does not often occur, and arrangements based on Indigenous self-determination are sometimes confused with a weak form of collaborative management in which little power is devolved. Going further, Stevenson (2006) observes how readily Aboriginal peoples in Canada have adopted western NRM language and cultural frames in an effort to participate in NRM processes, but in so engaging, people have been substantially disempowered, sharing management of their successfully claimed lands with others who have competing interests or no sense of obligation to the Indigenous community, and creating 'almost insurmountable barriers to the inclusion of their values, understandings, knowledge and institutions into these processes' (Stevenson 2006: 172).

Cahill and Cornell (n.d.) analysed 101 agreements between Indigenous nations in North America and the USA or Canadian government agencies—they refer to these as Intergovernmental Resource Management Agreements (IRMAs)—reflecting the power equality in the relationship which should exist between Native Nations which have, or should have, treaty rights and significant control over natural resources. They note that since the 1970s there has been a growing assertion of Indigenous decision making rights generally and a challenge by Indigenous groups to governments over their right to make CNRM decisions without Indigenous participation. This conflict has led to IRMAs with varying degrees of power sharing, relating to

management of wildlife resources such as caribou and marine mammals, watersheds or other geographical areas.

Benefits of co-management internationally

Cahill and Cornell's research (n.d.: 15) found that IRMAs are 'adding considerably to Indigenous influence in the management of transjurisdictional resources'. However, like other work in this area, they have not indicated what other social benefits these agreements might generate. However, as Notzke (1995) points out, co-management has enabled Indigenous people in Canada at least to 'regain considerable influence over the management of resources they depend on (Notzke 1995: 1). Osherenko (1988: 32) found that co-management regimes relating to wildlife in the Arctic can resolve problems 'caused by the operation of separate State and Indigenous systems' but cautioned that this happened when the partnerships enabled user groups to have both a stake in, and a sense of responsibility for, the effectiveness of the regime. However Kruse et al. (1998) found that an increased management presence on the ground was also necessary, as traditional user representatives on boards were not resourced to communicate the work of the co-management boards with their communities, hence at very local levels cooperation with wildlife management restrictions was less evident.

Factors in success of co-management: Australian studies

Research conducted in Queensland in the late 1990s about Indigenous involvement in the then new Wet Tropics World Heritage Area indicated that, 'the principal flaw was a failure to appreciate the importance of Aboriginal social and territorial organisation in understanding patterns of political participation' (Lane 1997: 109). This led to marginalisation of some key players with traditional and historical links to the land because the management agency failed to distinguish clearly between welfare and regional representative organisations and Indigenous descent groups in its dealings, and hence failed to properly engage with Indigenous groups for potential mutual benefit. Lane (1997) notes that the interests of World Heritage and Indigenous interests may not coincide, as the latter's rights and interests may be subordinated. More recently, Hill (2006) explored the use of an ILUA relating to voluntary conservation zones and a fire management protocol as tools for a more inclusive approach to protected area management in the Wet Tropics, but found that inadequate funding and legal arrangements which do not give proper recognition to customary law and Indigenous knowledge as the basis for protected area management were significant constraints. In relation to the fire management protocol there were also conflicting interpretations, with Indigenous people assuming that it implied recognition of their rights, and National Parks Authority officials viewing it as a more informal advisory arrangement.

Similar impediments to Indigenous engagement in biodiversity were also identified in a Queensland and Northern Territory study in the late 1990s by Gillespie, Cooke and Taylor (1998). Successful initiatives included features such as: decision making power and agenda-setting by the community; commitment to a balance between Indigenous and non-Indigenous concepts of wildlife management (see also Altman &

Cochrane 2002) recognising the essential importance of both traditional ecological knowledge and traditional spiritual relationships to species and habitats; linking the pace of institutional growth with the extent and degree of community participation and recognition of useful tools to encourage community 'ownership'. They also noted a number of impediments to Indigenous involvement in biodiversity conservation that are also apparent today. These include: power imbalances; inability to reoccupy and use traditional estates; lack of understanding of the social and cultural context for conservation; lack of recognition of traditional management principles and Indigenous communities' viewpoints about land, sea and resource use philosophy; lack of respect for traditional systems of knowledge and the ownership of information; lack of capacity, meaning the aggregation of human, financial and physical resources within an organisational structure, and lack of a coordinated approach to funding and action by government (Gillespie, Cooke & Taylor 1998: 2-3). Young et al. (1991) also highlight the problem of access to mainstream land management programs.

Benefits of co-management in Australia

Some of the benefits Indigenous people have identified from co-management in Australia generally include: title to land (where that has been provided), participation in policy, planning and management, maintaining cultural practices and managing cultural heritage, ensuring the application of Indigenous land management knowledge and expertise, enabling Indigenous people to interpret their culture and manage tourist visitors at appropriate levels, providing an economic base, and symbolic recognition of Indigenous rights. For conservation agencies, the benefits can include mitigating the negative social impacts of conservation, access to local Indigenous knowledge, and development of important partnerships in conservation (Corbett, Lane & Clifford 1998). However in NSW there have been frustrations and difficulties along the way (Savigny, Thompson & Bourke 1990), not all processes are adequate (Giotis 2007) and as Corbett, Lane and Clifford (1998) pointed out over 10 years ago, there is often more than one claimant group associated with co-management opportunities, and in such situations time for those groups to form a representative body, and in all cases, for claimants to gain a realistic and clear set of aspirations, is necessary prior to entering into negotiations with other parties. These and subsequent processes, such as clarifying the values to be managed, take a very long time, and historical relationships and other factors may shape the tenor of negotiations. The framework for negotiation processes needs to be clearly agreed, as processes are critical to establishing sound relationships for ongoing collaboration. Bird-Rose (2003: 51) notes that co-management is 'dynamic, that it will change all parties to the interaction, and that it has the potential to change Australian environmental culture'.

It should be noted that not all co-management agreements in NSW offer title to land, and where title is gained through this process it is encumbered (Weir 2000) (see below). Hibbard, Lane and Rasmussen (2008) conclude that the evidence on the success (however defined) of agreement-making in Australia is mixed but in an alternative approach, Indigenous community-based planning on Indigenous lands, there are some positive developments which assist Indigenous people to regain control of their land and their lives. Bauman and Smyth's (2007) study of three jointly-managed protected areas, one of which was Booderee National Park—

technically in Australian Capital Territory (ACT), but on the NSW south coast—found that land ownership was 'a critical foundation' for protected area partnerships and found other success factors, which related to: the commitment of all parties to continuing respectful partnerships; the commitment of the Indigenous participants to their country and its Indigenous values, and to community and individual development, while recognising that protected area management would not solve all their problems; secure annual core funding; an incremental approach to capacity building of everyone involved; effective governance and communication processes and enough resources for really participatory community development (Bauman & Smyth 2007: 131-2). As Smythe and Ward (2008: 2) observe, the success of co-management agreements requires finding a balance between competing interests: 'co-management agreements represent a trade-off between the rights and interests of Indigenous peoples and those of the wider community, as well as biodiversity conservation'.

SOCIAL BENEFITS IN REMOTE AUSTRALIA

The research from remote northern Australia indicates that Indigenous people on Indigenous-owned land engaged in looking after their country gain a number of benefits, among them the obvious ones of income and employment, but also cultural and social benefits, particularly apparent health benefits. Their work is also reaping environmental and related benefits for the nation (see for example Altman 2003; Altman & Larsen 2006; Altman, Buchanan & Larsen 2007; Burgess & Johnson 2007; Craig 1999; Garnett & Sithole 2007; Greiner et al. 2005; Luckert et al. 2007; Northern Land Council 2006; Roughley & Williams 2007).

Land and sea management groups

Some 500 Indigenous people work in Indigenous land and sea management groups in the Northern Territory. As Putnis, Josif and Woodward (2007) note,

These groups are working on all major cultural, environmental and biodiversity issues in the Northern Territory, including fire management, feral animal and weed control, biodiversity monitoring and threatened species protection. They are also working on border protection threats, including quarantine control and the illegal movement of people and goods, including foreign fishing (Putnis, Josif & Woodward 2007: 3).

These are all matters which essentially contribute to national benefit. Most notably Garnett et al. (2008) have identified lower prevalence of hot dry season fires and much lower prevalence of exotic weeds on Aboriginal tenures in the Northern Territory, although feral animals remain a significant problem. Burning country, as Davies (2008) notes, also creates better conditions for customary food, as animals return to fresh growth. Similarly, Altman and Whitehead (2003) note that people accessing country gain economic benefits through wildlife and feral animal harvesting and engage with the market through sale of art and crafts produced using natural resources. As Bowman and Robinson (2002) note, in their study of Aboriginal buffalo hunting in Arnhem Land, 'assumptions that disconnect Aboriginal hunting from Aboriginal management'

are problematic, as are assumptions about which animals or species are perceived as feral by Indigenous people.

Putnis, Josif and Woodward (2007) were unequivocal in their finding that many Indigenous organisations and government agencies regard Indigenous land and sea management groups as among the most important and productive organisations in communities. They are achieving a broad range of environmental, cultural, social, educational, health, employment and economic development outcomes. This research found that the current value of contracts and fee-for-service work undertaken by these Indigenous groups 'is conservatively estimated at \$4-6 million per annum' (Putnis, Josif & Woodward 2007: 3). One land and sea management tool developed in Aurukun, an ethnobiology database under Indigenous control which gives equal value to local and scientific knowledge systems, is also seen as having a range of social benefits, among them: its use by Wik youths who are promoting this knowledge through eco-tourism; improved inter-cultural communication and environmental sustainability; the potential for improved health through promotion of bush foods and medicines; and intergenerational knowledge transmission (Edwards & Heinrich 2006).

Research by Burgess and Johnston (2007) and Garnet and Sithole (2007) sought to determine the link between participation in Indigenous Natural and Cultural Resource Management (INCRM)⁶ and indicators of health and well-being. In each case their findings confirm that Indigenous people actively involved in ICNRM are demonstrably healthier than those who are not. Specific benefits noted included reduced risk of chronic diseases such as cardiovascular disease and diabetes. The latter report also details the ancillary benefits of ICNRM in terms of education, employment, governance and the economy. This report offers strong evidence of the multi-dimensional benefits of ICNRM programmes for Indigenous communities. Overall, Aboriginal informants in this study supported the idea that the majority of benefits from ICNRM, both health benefits and benefits to landscape health, derive from the sense of well-being that comes from maintaining or re-establishing cultural connections to country and the more obvious influences of a more nutritious diet and more exercise. The most recent study of 298 Indigenous adults aged 15-54 years in Arnhem Land, published in the *Medical Journal of Australia*, links Indigenous engagement in CNRM to more frequent exercise, lower rates of obesity, lower rates of diabetes, lower rates of renal disease, lower rates of cardio-vascular disease, and less psychological stress (Burgess et al. 2009).

As Ganeshrajah (2009) recognises, two key themes are emphasised in these Northern Territory research studies, 'identity' and 'autonomy'. Caring for country activities appear to affirm Indigenous peoples' identities as Indigenous people, carrying out their cultural obligations, looking after a sentient landscape; and autonomy may derive from shifting from 'being looked after to looking after others', through carrying out valued environmental services (Ganeshrajah 2009: 10-11).

Indigenous livelihoods

Land and Water Australia is conducting a range of research projects related to the engagement of Indigenous Australians in CNRM, in particular exploring Indigenous livelihoods through CNRM, including tourism, pastoral management, kangaroo harvesting, and fire and water management. While they have published

findings, these do not yet document many of the social benefits obtained, although in relation to two fire management projects they note that the cross cultural innovations they are engaged in are likely to result in 'more predictable landscape scale fire behaviour, leading to reduced habitat impact and greenhouse emissions' (Roughley & Williams 2007: 27). Their work highlights a number of success factors which are important to consider in the context of NSW:

...desired NRM outcomes cannot be achieved without the right cross cultural approach. Building strong and ongoing relationships of mutual trust with Indigenous people and incorporating both Indigenous and western knowledge are strongly emphasised (Roughley & Williams 2007: 16).

Much of the work which has been the subject of this research has resulted from the initiatives of Indigenous people, and more recently, the formation of the Northern Australia Indigenous Land and Sea Management Alliance (NAILSMA) which is working towards developing business enterprises in CNRM and a 'culture-based economy' derived from existing mining and pastoralism and emerging sectors of the northern economy (e.g. cultural and eco-tourism, carbon sequestration and abatement, conservation management), building on Indigenous knowledge and land assets so that the Northern Territory sustains Indigenous culture in a contemporary way' (Armstrong, Morrison & Yu 2006: 4).

Davies and others at the Desert Knowledge Cooperative Research Centre (DKCRC) are also conducting a range of research studies related to sustainable livelihoods in Central Australia. This sustainable livelihoods approach emphasises the capabilities, assets and activities that enable people to make a living. Sustainable livelihoods approaches aim to strengthen assets and reduce vulnerabilities, enabling the livelihood strategies to endure (Davies, LaFlamme & Campbell 2008).

Davies and her colleagues have identified 'complementary benefits' to Indigenous land management, namely: health and well-being of Indigenous people, bush food production, cultural heritage protection, biodiversity conservation and protection of threatened species, and greenhouse gas mitigation (Davies 2008). For example Campbell's (2008) research on joint supply of health and environmental services has shown that 'supporting Aboriginal involvement in land management activities can be a cost-effective way of jointly delivering health and environmental services in desert Australia' (Campbell 2008:1). Protected area management at Nantawarrina IPA led to increased employment, health, and increased community pride and well-being. However, there were a number of equity issues related to family control, fair distribution of jobs and governance capacity (Anderson-Smith 2008, 2009; Davies 2009). The DKCRC's bush foods research focuses mainly on the supply chain for bush tomatoes. It is expected that this work will lead to more people getting income and jobs from bush tomato production, developing business skills and achieving 'greater respect in the industry for Aboriginal people's role, traditional and local knowledge' (Cleary, Grey-Gardner & Josif 2009).

Davies (2008: 6) explains that the reason land management plays a key role is the foundational impact it has on the social determinants of health (see also Anderson, Baum & Bentley 2004).

This is through recognition of strengths of remote Aboriginal landowners in traditional knowledge, ways of organising productive activity that are based on still-strong social norms of customary owner/manager rights and responsibilities. These foundations engender participants' sense of control over their lives, bring outside recognition, and form or strengthen new skills, confidence, and a sense of identity, particularly important for young people.

Thus she argues, investments in other services (such as health, housing) will achieve better outcomes if combined with engagement in looking after country, rather than being dealt with in isolation. In particular, engagement of young people with elders on country produces educational motivation and job-readiness outcomes. It can stimulate interest in science, literacy and numeracy. A more systemic approach, based on an understanding of how multiple components of complex human systems interact to produce better outcomes is required. Davies, LaFlamme and Campbell (2008) estimate the reduced cost savings for primary treatment of three chronic conditions in a desert settlement of 1,200 people with more active engagement on country as \$120,000 per annum—or approximately

\$2 million over 25 years (net present value).⁷ This represents a 40 per cent saving on current costs of \$308,000 per annum. While such levels of saving may be less dramatic in NSW, the public as well as private benefit is tangible and potentially significant.

Garnett et al. (2008) emphasise that there is a strong evidence-base for cross-agency investment in ICNRM, since the outcomes go well beyond the environmental, to include health, education and employment benefit, as well as increased social harmony, through people being able to get out of townships.

Social and economic benefits of wildlife management

In a major study of Indigenous community wildlife management in Australia, Davies et al. (1999) reported on the activities of 26 initiatives mostly (though not exclusively) in northern Australia where Indigenous people were involved in wildlife management or scientific research activities relating to wildlife. The conclusions of the study emphasised that Indigenous people see subsistence use of wildlife as more important than commercial use, and identified the lack of effective government support for Indigenous community wildlife management, noting that under 'mainstreaming', government services are not delivered to Indigenous people in ways that meet their specific needs (Davies et al. 1999: 101). A host of constraints and issues were identified, which can be summarised as the need for government to support a holistic concept of wildlife management involving Indigenous people. Work by Altman, Bek and Roach (1995) and Altman, Roach and Liddle (1997) made a number of recommendations about the conditions under which commercial wildlife utilisation might proceed sustainably in northern Australia to provide economic opportunities (see also Senate Rural and Regional Affairs and Transport Reference Committee 1998). It also demonstrated the importance of wildlife harvesting for subsistence use (see also Bomford & Caughley 1996), and noted

the likely role of native title legislation in providing future property rights to support sustainable wildlife use. Whitehead (2003) also explored commercial development from wildlife by Indigenous people in the Northern Territory, such as ranching of saltwater crocodiles (see also Toohey 2009; Webb, Missi & Cleary 1996) and freshwater turtles. He found regulation intended to protect sustainability posed significant and unnecessary regulatory restrictions on Indigenous people's capacity to generate economic options. He argued that 'integrated systems of support are required' as well as exploration of 'high value niche markets' (Whitehead 2003: 2).

Bush foods

Commonwealth Scientific and Industrial Research Organisation (CSIRO) Sustainable Ecosystems (CSE) is currently working with Indigenous communities to explore opportunities for Indigenous people in the native foods industry, which has a current value estimated at \$14 million annually (CSE 2009). Among the research it is conducting with Australian Native Produce Industries and Aboriginal communities in southern Australia it is investigating quandongs, mountain pepper, bush tomatoes, muntries, ribberries, native citrus and acacias. In central Australia, it is also exploring other produce, much of which is gathered by local Aboriginal people; it is hoped that some varieties can be grown along with other horticultural crops (CSE 2009). Cleary, Gray Gardner and Josif (2009: 15) found that lack of coordination, and difficulty of sharing knowledge about 'marketing, quality management and value-adding opportunities' were hindering development of bush foods and bush products industries. However, one example of an Indigenous organisation in southern Australia which is entering the bush foods market is Mildura Aboriginal Corporation on the NSW/Victorian border, which is a member of Australian Indigenous Foods Ltd, an Aboriginal-controlled not-for-profit company giving eight Indigenous community organisations equity in a large commercial supply chain for the bush foods industry. Mildura Aboriginal Corporation is planning to grow rosella, wild lime, quandong, bush tomato and other products on land with secure water rights (Outback Spirit n.d.).

The concept of 'sustainable use' has gained currency internationally (Cooney 2007), and new concepts of conservation which link it to rural development and community participation are being fostered, with leading work being undertaken in Namibia. The Integrated Rural Development and Nature Conservation organisation works in rural Namibia to achieve improved NRM by local people, development of a diversified local economy, and strengthened civil society groups through developing 'Conservancies', which are registered 'self-defined common property management and social units', which are given rights to use, manage and benefit from a defined area's NRM, including forests, subsistence farming, and economic enterprises, such as tourism, hunting, etc. The Conservancies are supported by the Integrated Rural Development and Nature Conservation organisation and as they have grown, increased focus has been on building business capacities for expanding enterprises. This approach to community based NRM is achieving strong environmental and social outcomes and is growing rapidly in Namibia (Namibian Association of CBNRM Support Organisations 2008).

Benefits identified nationally

Turning to the impact of national programs, Gilligan's (2006) review provided some data on reported social benefits in IPAs across Australia. The IPA Program began in 1997 with the twin objectives of supporting Indigenous land management and contributing to national conservation objectives. There are now 28 declared IPAs covering a total of almost 15 million hectares across the country, two of which are in NSW (see also Department of the Environment Water, Heritage and the Arts 2007). Gilligan's evaluation of the IPA program found that it has been extremely cost effective in contributing to national conservation goals, and provides meaningful work opportunities for Indigenous Australians. The evaluation found that as well as achieving important biodiversity and conservation outcomes, Indigenous communities involved in the IPA Program report significant other benefits. IPAs create pathways to meaningful jobs looking after land and offer opportunities for skills development (Gilligan 2006: 30):

- 95 per cent of IPA communities report economic participation and development benefits from involvement with the Program
- 60 per cent of communities report positive outcomes for early childhood development from their IPA activities;
- 85 per cent report that IPA activities improve early school engagement
- 74 per cent report that their IPA management activities make a positive contribution to the reduction of substance abuse, and
- 74 per cent of IPA communities report that their participation in IPA work contributes to more functional families by restoring relationships and reinforcing family and community structures.

Dockery (2009), using National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2002 data, also found a correlation between reported attachment to traditional culture and reported well-being. He argues that the view that 'culture' hinders the achievement of so-called 'mainstream' economic goals is challenged by his analysis, and as he puts it, 'Indigenous culture should be viewed as a potential part of the solution to Indigenous disadvantage in Australia, and not as part of the problem' (Dockery 2009: 1).

INTERNATIONAL AND OTHER AUSTRALIAN RESEARCH RELATING TO INDIGENOUS USE OF MARINE RESOURCES

The arena of fishing and marine resources stands as one in which international developments far exceed anything in NSW, or indeed in most of Australia (see Kauffman 2004). In Canada and New Zealand in particular Indigenous people have been able to generate significant economic opportunities from participation in commercial as well as 'customary' non-market fishing. Since the early 1980s, Canadian courts have established

jurisprudence relating to both customary and commercial fishing rights, among them an inherent right for Aboriginal people to fish for food, social and ceremonial purposes (s35 Constitution Act 1982) where such rights existed prior to 1982 and have not been extinguished. After conservation, Aboriginal rights have priority over other commercial or recreational fishing (*R v Sparrow*). This case led to a Canadian Department of Fisheries and Oceans allocation policy reflecting this priority in 1999 (Durette 2007).

The law regarding Indigenous rights to trade in fish is more complex, and hinges on Indigenous trading practices prior to colonisation. However, commercial fishing developments have proceeded. In British Columbia, the Nisga'a Nation finalised negotiations on a treaty with the British Columbia Government and the Canadian Government in 2000 through which, among other things, 'the Nisga'a Nation is allocated just over one quarter of the salmon stock in the Nass Valley area, including the rights to sell the catch' (Durette 2007: 5). The Nisga'a Fisheries Program (a partnership with the Canadian Department of Fisheries and Oceans), also established a C\$13 million trust fund for species conservation and the Nisga'a received C\$15 million towards purchase of fishing boats and licenses. This arrangement is generating significant income to Nisga'a fishers and the Nisga'a government, and the Program continues to expand (Durette 2007).

Nationally, Canada has developed an Aboriginal Fisheries Strategy to enhance Aboriginal participation in fisheries, through fishing agreements with Indigenous fishers, a program to transfer licences to them (the Allocation Transfer Program), and an Aboriginal Aquatic Resource and Ocean Management program to support Indigenous engagement in the fishing industry. The Allocation Transfer Program enables commercial licenses to be retired and the equivalent capacity to be reissued as 'communal commercial licenses to eligible Aboriginal groups. Since its launch in 1994, approximately 900 commercial licences have been issued to Aboriginal groups' under the Allocation Transfer Program (Durette 2007: 6). By 2003, there were 595 First Nation-owned or operated fishing vessels in British Columbia and the landed value of First Nations catches amounted to C\$52 million, with some 40 per cent of the landed value of the salmon catch earned by Aboriginal commercial fishers (Durette 2007).

In New Zealand, major changes in Maori fishing rights occurred in the mid-1980s, following legal challenges, including to the quota management system, on the grounds that it did not take into account pre-existing Maori fishing rights. Following legislation in 1992, customary and commercial regimes were established—the former through the Minister designating traditional fishing reserves and a local guardian to manage their use. The commercial regime settled a number of outstanding fishing claims, allocated 20 per cent of new species quota to Maori, provided a fund of NZ\$22 million, delivered increased involvement in management, and most importantly financed the purchase of a 50 per cent share of Sealord Products Ltd, New Zealand's largest fishing company, with 27 per cent of the total resource quota (Durette 2007: 13). The subsequent *Maori Fisheries Act 2004* established Te Ohu Kaimoana to manage the Maori Fisheries Trust, to fund appropriately mandated tribes and to manage Aotearoa Fisheries Ltd which now has a 50 per cent holding in Sealord Products and fully owns three other fisheries-related companies. It is estimated that today 'Maori control an estimated 40 per cent of the New Zealand seafood industry' (Durette 2007: 14).

In Australia, 'customary rights are only recognised where native title has been established' (Durette 2007: 37). However, these rights are non-exclusive and generally weaker than other rights (see Peterson & Rigby 1998). The *Torres Strait Fisheries Act 1984* is the best example in Australia of legislation to protect traditional fisheries and support Indigenous participation in commercial fishing. Through licence buy-outs and allocations, the goal of the Protected Zone Joint Authority is to achieve 70 per cent of its allocation to the Indigenous sector (Durette 2007). In the 1990s the Australian Government supported the development of a national Aboriginal and Torres Strait Islander Fisheries Strategy, which in NSW led to the development of its own NSW Indigenous Fishing Strategy. However, despite a number of other initiatives, the 2005 Securing Our Future fishing industry package made no effort to transfer fishing rights to Indigenous people, nor to specifically assist Indigenous communities affected by fishing industry restructuring (Durette 2007). Instead restructuring based on share increases, rather than output control, contributes to the exclusion of small Indigenous fishers from the industry.

Some support from Indigenous Business Australia to Indigenous fishers in Victoria (abalone) and the Northern Territory (mud crab) indicates that some strengthening of Indigenous commercial engagement is possible, but aquaculture has been assessed as the most likely avenue for Indigenous employment and economic benefit in the future (Durette 2007; Tedesco & Szakiel 2006). International experience suggests that engagement in commercial fisheries could have significant economic impact, but the slow development of common law rights in resources in Australia has been a problematic institutional hurdle compared to the experience of Canada and New Zealand.

The most recent legal development in Australia was in the Northern Territory, where the Blue Mud Bay decision extended land rights under the *Aboriginal Land Rights (Northern Territory) Act 1976* to the low water mark.⁸ The permit system gives traditional owners of the inter-tidal zone power to exclude commercial fishers, and associated leverage for negotiated arrangements, along 80 per cent of the Northern Territory coastline. In this context, Yolngu land and sea country managers have developed their own plan for their 'saltwater country' which acts as an invitation to others to collaborate with them in managing their resources for sustainable development. A process of sea country mapping, using resources provided by other interested stakeholders, met many goals and Yolngu have developed respectful partnerships with other players which enable them to work collaboratively towards their Indigenous aspirations (Muller 2008). The implications of this decision appear unlikely to apply for coastal land rights claims in NSW.

THE SCOPE OF INDIGENOUS PARTICIPATION IN NRM IN NSW WITH OPPORTUNITIES FOR SOCIAL BENEFIT

The social benefits currently being, or potentially able to be, gained from Aboriginal engagement in NRM depends to a large degree on the extent to which Aboriginal people in NSW are engaged in such activities. There is no systematic data collection in NSW on the social benefits to which this engagement contributes,

but international and other Australian evidence suggests that where Indigenous control is stronger or power is shared more equally in co-management regimes, the benefits are likely to be greater.

In NSW the scope for Aboriginal involvement in NRM may not be as extensive as in Northern Australia, largely due to the small proportion of Aboriginal-owned land in NSW compared to the north of Australia. The total national Indigenous estate amounts to some 1.5 million square kilometres, around 20 per cent of Australia (Altman, Buchanan & Larsen 2007), and rising to nearly 50 per cent in the Northern Territory. In contrast, the ILC estimates that only 0.52 per cent of NSW land is Aboriginal-owned, but the total land which is Aboriginal-controlled may now be closer to one per cent of the State (NSWALC 2008b). Compared to northern Australia, this represents a very significant difference in tenure in relation to opportunities for Indigenous land management.

However, there is a variety of avenues whereby Indigenous people in NSW are involved in CNRM despite this relative lack of land-holding, through access to and co-management of lands based on agreements of various types (DAA n.d. (a)), and as a result of their own initiatives, many of which are likely to be undocumented and hence under-recognised.⁹ In the absence of a more comprehensive survey of such initiatives, this section will outline major developments on Indigenous-owned land, or land in which native title rights are recognised, as well as other public and private land-holdings where Indigenous rights are not recognised. It will also explore Indigenous engagement in water and threatened species management, forests, marine environments and rangelands pastoralism.

INDIGENOUS-OWNED LAND

There are three main ways in which Aboriginal rights have been recognised in legislation, through the NSW *Aboriginal Land Rights Act 1983* (NSW Land Rights Act), the Commonwealth *Native Title Act 1993* and the *NSW National Parks and Wildlife Amendment (Aboriginal Ownership) Act 1996*. Land purchases by the ILC have been occurring as part of the package agreed when native title arrangements were put in place, to enable Aboriginal people unable to claim native title to purchase land.

Land claimed under the NSW Land Rights Act

The most significant legislation in NSW is the NSW Land Rights Act, which has led to Indigenous ownership of almost 240,000 hectares,¹⁰ mostly in relatively small parcels of land resulting from over 2,300 successful claims (of a total of 16,830 lodged, with over 9,000 outstanding) (DAA 2008: 51). These are held by LALCs, of which there are some 121 across the State. Unlike land councils in the Northern Territory, membership is based on local residence rather than traditional ownership. In relation to land and cultural heritage matters, this presents a challenge to Aboriginal customary law and can be problematic. The use of such claimed land is varied, some involves housing, but some may be zoned for conservation. In 2007 three conservation reserves, collectively known as the Worimi Conservation Lands, were granted to the Worimi Aboriginal community north of Newcastle as a result of a successful land claim; this is the first time the NSW Land Rights Act has led to a conservation co-management agreement with national parks (NPs).

ILC purchased land

Aboriginal people in NSW also hold some 51 properties purchased by the ILC, totalling over 228,000 hectares. ILC land may be purchased for cultural or commercial reasons. Since early colonisation, Aboriginal people in western NSW had a strong association with the pastoral industry¹¹ and some purchases support the continuance of this association. For example, with the land purchase at Merriman Station (near Brewarrina) Indigenous people have developed a successful Shearer's Training Centre in partnership with Roger Fletcher, Australia's largest sheep exporter: each year 15 shearers are trained and have jobs immediately available in a tight labour market in which shearers are in short supply.

However, there remain problems in the management of some Indigenous-owned land, whether held by a single family or a collective such as a LALC. There appears to be insufficient training and support for NRM on Indigenous-held lands. There is also a lack of awareness among Indigenous groups about where they can access available support for their land management. Yet in many regions LALCs may be among some of the largest private landholders (e.g. Greater Sydney; Hunter-Central Rivers region) (Smyth, Szabo & George 2004).

Indigenous Protected Areas

One way in which Indigenous people can access resources and support to manage their lands is through the Australian Government's IPA Program.

An IPA is an area of Indigenous-owned land or sea where traditional Indigenous owners have entered into an agreement with the Australian Government to promote biodiversity and cultural resource conservation (Department of Environment, Water, Heritage and the Arts n.d.).

Aboriginal people own and manage two areas of land—Wattleridge and Toogimbie—that have been bought using ILC funds, and have been declared as IPAs in NSW (Department of Environment, Water, Heritage and the Arts 2007). A third IPA is being negotiated, the proposed Forrester's Beach (Gumma) IPA on the NSW north coast. There is also expressed interest in developing at least six other IPAs, including on ILC-purchased properties, such as Poolamacca (near Broken Hill), and Wielmoringle Station near Bourke/Brewarrina.

Land handed back under National Parks legislation

There are 16 co-management arrangements for a number of NPs, five of which are Aboriginal-owned with lease-back agreements.¹² The NSW National Parks and Wildlife Service (NPWS) enables Aboriginal joint management of protected areas under the *National Parks and Wildlife Amendment (Aboriginal Ownership) Act 1996* (NPW(AO) Act).

This 1996 Act established a new Part 4A to the original *National Parks and Wildlife Act 1974*. It noted the cultural significance of seven existing conservation reserves to Aboriginal people, among them Mutawintji, Mungo and Jervis Bay National Parks. It gave powers to the Minister to negotiate 'Uluru'-style joint management arrangements with the Aboriginal owners. Thus Indigenous freehold title is contingent on 30

year lease-backs and joint management arrangements. The NPWS establishes a Joint Management Board, which has the powers of the Director-General of the NPWS in relation to 'care, control and management' of the jointly-managed lands, and a majority Aboriginal-owner membership. The land is usually held under freehold title by the LALC on behalf of the Aboriginal owners.¹³ It is important to note that the Aboriginal owners, not the LALC, have decision making authority over the land. By 2004, seven years after the legislation was passed, only two parcels of land had been transferred—reflecting in the view of Baird and Lenehan (2004) an absence of political will and insufficient bureaucratic will, inadequate resources, and the promotion of non-statutory alternatives. Today, five years later, only two more of the originally-listed parks have been transferred, indicating that this situation has barely changed; reinforcing the concern that failure to transfer title is not in line with Recommendation 315 of the Report of the Royal Commission into Aboriginal Deaths in Custody, which stimulated the NSW joint management regime.

The actual implementation of written agreements will vary according to a host of factors, among them the historical relationships between Aboriginal people and the co-management partners at the local level, the capacity of both sets of partners to work effectively together, the leadership demonstrated by partners to the agreements, the extent to which Indigenous rights are enshrined in the agreements and how effectively they can be exercised locally, and so on.

Three more parks eligible for co-management under Schedule 14 of this NPW(AO) Act as a result of their cultural significance to Aboriginal people, are Jervis Bay NP, Mungo NP and Mount Yarrowyck Nature Reserve. Mungo NP is currently co-managed, but under an MOU at present, without transferring the land to Aboriginal ownership. This reflects the wishes of the traditional owners. A review of the statutory provisions of Part 4A of the *National Parks and Wildlife Act 1974* relating to Aboriginal Ownership, was conducted in 1999–2000 which indicated that Part 4A of the Act was operating to meet its policy objectives. However, the review generated a number of proposals for improvement to the Act, which appear to be still under consideration, as a number of them required further consultation and discussion (DECC 2008a). During 2009 DECC is planning to undertake a review of co-management arrangements in NPs. To date there has been no study of the social benefits these handback co-management agreements generate.

NATIVE TITLE RIGHTS AND INTERESTS IN NSW

There have been two native title consent determinations and eight ILUAs registered in NSW to date. Four of these ILUAs relate to the development of a nature reserve or park; co-management arrangements over some 12 national parks and 13 State forests have resulted, indicating the potential which the native title process may offer Aboriginal people in NSW for caring for their country, although there may be risks for them in surrendering any native title rights and interests to achieve this.¹⁴ Native title also generated an adversarial context which may obscure alternative ways to address Indigenous rights, such as the agreements made by the Yorta Yorta in Victoria despite the failure of their native title claim (Morgan, Strelein & Weir 2006).

Three Arakwal ILUAs have led to a number of social benefits (see next section). More recently, the Githabul ILUA, covering the largest area of any ILUA in NSW, was registered (on 15 August 2007). The ILUA settled the native title claim of the Githabul people over 112,000 hectares (1,199 square kilometres) of national parks and State forests in the land north of Casino and Tenterfield to the Queensland border. The ILUA allows for:

- consultation and involvement in the management of 11 NPs including a former Crown reserve which will be designated as an Aboriginal Place
- consultation about the management of 13 State forests
- transfer of freehold title over 102 hectares of land to the Githabul Nation Aboriginal Corporation, and
- employment opportunities for at least four Githabul people (Australian Indigenous Law Review 2007; Agreements, Treaties and Negotiated Settlements 2007; Malachite Resources NL, n.d.; National Native Title Tribunal 2007, n.d.).

Another native title-related development is the Gamilleroi Nation Regional Capacity Building Project which is a three-year process being led by Native Title Services Corporation with Gamilleroi people to build their capacity to negotiate with State bodies responsible for natural resources, cultural heritage and land planning, and to settle all matters relating to native title in their region. This project provides training in governance and NRM management. This approach could become a model for other regions if successful (New South Wales Native Title Services Ltd. 2007), enabling native title negotiations to considerably extend Indigenous engagement in NRM on Crown Lands.

ABORIGINAL INVOLVEMENT IN CNRM ON OTHER PUBLIC OR PRIVATE LANDS

There are a number of ways in which Indigenous people are involved in caring for and working on country for which they do not hold the title or in which their native title rights and interests have not been recognised, whether on public or private land.

National Park Co-management Agreements (MOUs) and other activities

There is a growing number of parks and reserves related to which there may be MOU arrangements for co-management, or for access and use (e.g., at least 20 parks host regular culture camps (DECC 2007b: 13)), employment in conservation activities and as guides, and tourism or related business arrangements with Aboriginal people. In a number of parks, Aboriginal Discovery Rangers are casually employed to contribute to the Discovery Programs which offer community education about Aboriginal cultural heritage and cultural values in NSW parks. Currently there are eight formal MOUs and two other agreements with Aboriginal communities in NSW for management of parks (for a full list of MOUs see Appendix B).

Many of these MOUs are relatively recent and not yet publicly available, but clearly, they reflect a growing and diverse array of agreements to enable Aboriginal people to play a part in NSW Parks and Reserves, as well as an expansion of Aboriginal Places, a special category of protected areas in the State. However, they are open to criticism, in that in the absence of public information about them, it is unclear the extent to which these agreements are based on internationally-recognised Indigenous rights,¹⁵ and whether they provide for a genuinely equal partnership with Aboriginal people. The precise details of what is in many of these agreements may vary in terms of benefits to Aboriginal people as well as the period of the agreements. These agreements are not as strong as those under the Schedule 14 arrangements of the NPW(AO) Act and appear to be lowering the Indigenous rights bar in terms of co-management arrangements, compared to earlier approaches.

Catchment Management Authorities

The *NSW Catchment Management Authorities Act 2003* came into force in January 2004. Catchment Management Authorities (CMAs) are responsible for NRM in their catchment, including investment in management activities, native vegetation protection, water management and community engagement. Each of the 13 statutory CMAs this Act established across NSW has a dedicated Aboriginal Catchment Management Officer and eight of them now have an Aboriginal Reference Group, with two more currently establishing them (DECC 2008d) though no Aboriginal representation on the CMA Boards themselves is legislated.

Despite prior research on Aboriginal values in native vegetation (Schnierer, Faulkner & Fisher 2001), and valuable input from Aboriginal NRM officials in terms of their expectations of how CMAs might engage Aboriginal people and how they might meet Aboriginal aspirations (Bruce Callaghan and Associates Pty Ltd 2002), Aboriginal engagement with CMAs got off to a rather shaky start. Two NSW case studies of Indigenous engagement carried out during the establishment phase drew out a number of lessons from this early period of CMAs. These included issues of timing, relationships, Aboriginal understanding of the processes, the need for acknowledgement of the past and generating real benefits for Aboriginal participants, having capable Aboriginal support officers who are themselves adequately supported, better communication and cultural awareness training, planning for Indigenous cultural heritage, gender balance, and better Indigenous representation on high level committees (Smyth, Szabo & George 2004).

Now, programs involving Aboriginal people are among the highest priorities in four of the 13 CMAs. Through some CMAs a number of 'Aboriginal Green Teams' have been formed which are creating employment and undertaking important land and riverbank regeneration activities, such as weed removal, and replanting native species, on public and private lands. Within the Many Rivers Region, which appears to be the most active in this area, over 60 Green Teams currently exist representing close to 400 paid participants engaged in land management work. If other Green Teams are included from around the State it appears that the scale of this activity is likely to match, or possibly even exceed, that of Ranger Groups in the Northern Territory, albeit not on Indigenous land.

CMAs provide the main avenue for Aboriginal people in NSW to access private lands, though at present that access remains very limited across the State. They are also providing new opportunities for cultural heritage protection on private lands to which Aboriginal people are regaining access. This can have beneficial reconciliation outcomes when landholders are educated about the significance of sites on their land and continuing access agreements are negotiated. Interestingly, there are provisions under the NSW Land Rights Act for LALCs to negotiate access rights with landholders but these are little known about and rarely used, and more could be made of them.

Some of the constraints Aboriginal people are experiencing in relation to CMAs are that CMA Boards are not required to have Aboriginal, or more importantly, traditional owner, representation, a few do not yet have Aboriginal reference groups, the institutional culture of many CMAs is resistant to any form of Aboriginal control of projects or funding, funding for the Green Teams is project-based and not ongoing, and training wages the teams earn are low. In some cases Aboriginal clans or nations find that their country is divided between CMA regions, placing unrealistically heavy demands on them. Aboriginal engagement in CMAs is working best where there are good relationships between capable Aboriginal staff and both the CMA Board and other stakeholders.

WATER RIGHTS AND ACCESS TO FRESHWATER

Another issue related to catchments and freshwater is Indigenous water rights. Compared to their counterparts in the USA, Canada and New Zealand, where there are some more significant legal protections of Indigenous rights in water, Indigenous Australians have 'the least formal recognition of the right to participate in management of waters' (Durette 2008: 32). Indigenous interests in water in relation to both access and management are recognised in the National Water Initiative, but have received little attention from policy makers as yet. Altman and Branchut (2008) record cross-cultural contestation over water values and property rights in northern Australia (see also Jackson & Altman 2009), and similar contestation clearly occurs in NSW. Through Murray Lower Darling Rivers Indigenous Nations (MLDRIN), 10 Aboriginal nations along the southern Murray have organised to enable themselves to have input to and participate in policy development about the management of the Murray Darling Basin, and for their authority, knowledge and values to be recognised (Morgan, Strelein & Weir 2008, Weir and Ross 2007). Despite some difficulties in reaching full agreement about the Murray Darling Basin Indigenous Action Plan (Morgan, Strelein & Weir 2006), MLDRIN has persisted in its efforts to achieve its goals.

Water regulation has had a negative impact on traditional owners' capacities for 'fishing and the gathering of bush foods, medicines and materials' and on 'cultural living' which would reaffirm cultural practices and intergenerational learning. The degradation of wetlands has led to a loss of the best grasses and reeds for basket weaving, a skill some Indigenous women are starting to revive (Weir 2007: 50-51). Although traditional owners have negotiated some access to rivers and waterways for fishing, the degraded State of the ecosystem threatens these practices, compounding the Indigenous experience of dispossession in

Weir's view (Weir 2007: 53). The traditional owners attribute their own declining health to the declining health of the rivers (Morgan, Strelein & Weir 2006). They assert their rights to 'cultural flows'¹⁶ meaning water related to cultural values, for example in relation to a wetland which may produce particular foods, materials and medicines (Aboriginal and Torres Strait Islander (ATSI) Social Justice Commissioner 2009). Despite disappointment that the 2003 commitment to six icon Murray River sites failed to commit to specific cultural flows, there has been agreement under the 'Living Murray' initiative to an Indigenous Partnerships Program which includes Indigenous facilitators being employed at icon sites to prepare 'use and occupancy maps' which will inform cultural heritage and ecological decision making (The Living Murray n.d.). However, the process of implementing the Indigenous Partnerships Program was not straightforward, and the complex governance arrangements within the Murray Darling Basin initiative have not provided the certainty that Indigenous people seek. Despite this, MLDRIN's achievements are considered to set high standards for Indigenous engagement by governmental bodies (Morgan, Strelein & Weir 2006).

Water legislation and water licences in NSW

The NSW *Water Management Act 2000* is the most advanced of all Australian jurisdictions in relation to recognition of Indigenous interests, including in terms of providing water for economic development. However, Behrendt and Thompson (2004) express concern about the priority given to Aboriginal interests in relation to others, and are critical that the Act goes no further than the *Native Title Act 1993* in terms of the protection of Indigenous rights in water, and no allocation is provided in relation to such rights in Water Sharing Plans (Tan 2009).

Of the 162 water licences granted to Indigenous water users for commercial purposes in Australia, 122, or 75 per cent are estimated to be in NSW. These are held by some 54 users (Altman & Arthur 2009: 3–5), and many of them appear to be for domestic and stock uses in the western areas of NSW. A cultural licence has been awarded to the Nari Nari Tribal Council near Hay to contribute towards rehabilitating the wetlands on their Toogimbie property (Jackson 2009).

In 2000 the NSW Government established a \$5 million Aboriginal Water Trust, to assist Aboriginal people to participate in water markets, although to date the take-up has been extremely limited (Department of Natural Resources n.d.).

THREATENED SPECIES MANAGEMENT

English and Baker (2003) document how Threatened Species Recovery Plans can embed Indigenous cultural values, and explore the benefits Indigenous people experience through engagement in threatened species recovery, citing two NSW case studies and identifying lessons learned from the processes, among them the time and resources required. The value to the communities was considerable—both said they had received 'an adrenalin boost' from being involved and were keen to continue their engagement in this and other NRM work (English & Baker 2003: 21). One Aboriginal Natural Resource Agreement (ANRA) case study also

documents the identification of an at-risk population of the threatened or Swamp Lily (*Phaius Australis*) by an Aboriginal elder. DECC entered into an ANRA agreement with the Dunghutti people through the Booroogen Djugun Aboriginal Corporation for the Aboriginal people to implement a protection plan. However, some difficulties were experienced in the agreement and contracting process from which lessons need to be learned (ANRA 2008a). Nevertheless, the protection of a highly threatened species is underway through Indigenous engagement.

MARINE RESOURCES, FORESTRY AND RANGELANDS PASTORALISM

Indigenous people are involved in a range of ways in areas which are related to the ocean, forests and agriculture. While marine parks sit within the conservation agency, they are considered here with fisheries as Indigenous people view the management of sea country and marine resources as one issue.

Sea country and marine resources

For Aboriginal people along the lengthy east coast of NSW sea country is important and has historically been a significant part of Aboriginal livelihoods (e.g., see Cruse, Stewart & Norman 2005). Over time, Indigenous involvement in commercial fishing in NSW has declined for a number of reasons and, 'there is widespread concern among coastal Aboriginal people that they are denied benefit from the commercialisation of marine resources that once belonged to them, and without their consent' (Barnett & Ceccarelli 2007: 25; see also Cozens 2003).

Two major reports on Indigenous interests in sea country in south eastern Australia are relevant to NSW and outline many of the key issues. In 2007 a major literature review 'As far as the eye can see: Indigenous interests in the East Marine Planning region' was undertaken for the Department of the Environment and Water Resources (Barnett & Ceccarelli 2007), as a contribution to the process of developing Sea Country: The South East Regional Marine Plan (National Oceans Office 2002b). These two documents highlight that Indigenous people in south eastern Australia continue to assert their rights and responsibilities to their sea country, that they have always used and traded marine resources, and that they have many issues of concern, among them a number very relevant to this research:

- recognition and understanding of rights to the sea and marine resources
- education of the non-Indigenous community regarding cultural links between Indigenous people and the sea
- recognition of Indigenous people as sustainable managers of marine environments
- equity in marine allocation and usage
- representation in marine environmental and resource management decision making
- capacity development of Indigenous people and other marine resource managers to work collaboratively
- development of marine industries, including Indigenous commercial fisheries and aquaculture enterprises' (National Oceans Office 2002b: 7; see also Cozens 2003).

The report notes that, 'above all else the message from the consultations was that issues of acceptance of culture, co-management and resource sharing, and a place at the management table are about the health and well-being of Indigenous people' (National Oceans Office 2002a: 7-8). As Barnett and Ceccarelli (2007) point out, controls imposed by Australian laws have contributed to a lost economy for Indigenous people, and their traditional knowledge has not been recognised by fisheries managers and others.

NSW developed an Indigenous Fishing Strategy in 2002 (DPI n.d.) which it began to implement slowly, but funding ceased in 2004 and although a number of actions have followed, no concerted implementation of the strategy is occurring (Barnett & Ceccarelli 2007). The DPI has supported the considerable interest in aquaculture on the south coast of NSW, with South Coast NSW Aquaculture Aboriginal Corporation being established, involving 11 LALCs, to explore funding opportunities for Aboriginal aquaculture enterprises including an oyster lease at Wagonga Inlet (Bodalla LALC) which has been developed with support from DPI; the Wollongong Aquaculture Aboriginal Corporation is also undertaking a feasibility study for a fish farm at Bass Point (Shellharbour). Two abalone aquaculture developments are also in train at Port Stephens Research Station and South Pindimar (Barnett & Ceccarelli 2007). At least one private oyster farm is also in Aboriginal hands (Department of State and Regional Development & DPI 2006) and Indigenous work crews have worked with the Southern Rivers CMA and NSW Fisheries to control the spread of the Pacific Oyster infestation in south coast locations (Southern Rivers CMA 2008).

In July 2003 the NSW Fisheries commissioned a report about the participation of Indigenous people in commercial fishing, through holding a workshop with some 20 commercial fishers (of a possible 30-60 in NSW)¹⁷ which developed nine strategic options to pursue, many of which required further investigation. However follow up action on this report is unclear (Bruce Callaghan and Associates Pty Ltd 2003).

In a more recent development the NSW DPI has issued a discussion paper and is seeking consultation in order to take steps towards recognising cultural fishing and to provide for it in the Fisheries Management Act 1994 (DPI 2009).

Marine Parks

The Marine Parks Authority (MPA) requires an Aboriginal representative on each of the six Marine Park Management Committees, but is unable to offer co-management under its legislation. More effective input arises from informal Aboriginal Advisory Committees such as at Batemans MP. The MPA developed its first MOU (mentioned earlier) with the Bunjalung People in 2007 and is working on a draft Cultural Resource Use policy, is using Special Purpose Zones for Aboriginal cultural purposes, but employs a very limited number of Aboriginal staff. For example, in Solitary Islands Marine Park, they have developed with local elders a Conservation Management Plan at Arrawarra Headland for a customary fish trap and men's site which is now a designated Special Purpose Zone in which cultural resource use is agreed (NSW Marine Parks Authority and Yarrawarra Aboriginal Corporation 2006), created a module in the Marine Park Education Kit about this cultural heritage, and the Marine Park has sponsored an Aboriginal ranger to complete university study in NRM and employed him.

In a related development, DECC is researching and mapping Indigenous fishing, identifying the range of marine resource species in NSW which have customarily been used, and are still in contemporary use.

Forestry

The pre-colonial Aboriginal economy depended on a range of forest resources as much as on the marine environment. Since colonisation, Aboriginal people in NSW have had a long association with the forestry industry (Feary 2007: 111). Whilst protecting Aboriginal sites in forests is one key focus of the engagement, as Feary notes, the NSW Forestry Commission engages with Aboriginal people through far more 'cultural awareness training, partnerships in forest management, access for cultural activities and working in saw mills' (Feary 2007: 113). Some current examples of this partnership in forest management are a 'collaborative forest management protocol' with Darkinjung LALC and others covering 65,00 hectares of State forests along the central coast (and other collaborative management arrangements relating to the Heaton and Strickland State Forests with the Keepa Keepa elders and the Murring Women's group respectively), as well as other DPI projects, including training and assisting in development of a commercial native plant nursery with the Wiradjuri Condobolin Corporation at Condobolin. On the northern tablelands at Tabulam, Forests NSW has entered into a joint venture with the LALC to develop a spotted gum plantation on 96 hectares of a larger land area it owns, providing employment and income to the land council (DECC 2008d). Feary also notes the importance of Indigenous-owned forests, such as those included in IPAs, citing the Toogimbie IPA's tract of river red gums along the Murrumbidgee river, which are of high conservation value (Feary 2007: 136–8; see also Anderson-Smith 2008; Department of Agriculture, Fisheries and Forestry 2005). Of course, Feary's work (and international research) indicates that there are challenges combining Aboriginal values and cultural responsibilities for forests with economic production (Feary 2005).

Rangelands Pastoralism

In the rangelands of western NSW Aboriginal land management is characterised by small family or Aboriginal corporation ownership of discrete pastoral properties, usually purchased through the ILC, alongside some co-management of national parks.

Goodall (2001) records some of the pressures on Aboriginal landholders to generate profits in a conventional way, in order to service debt; pressures from neighbours to keep feral animal and kangaroos numbers controlled; expectations of support for large Aboriginal families on properties which were marginal or uneconomic for non-Indigenous families, and pressures to succeed and transfer skills to the next generation. She notes that Aboriginal property owners may differ in their commercial goals and intentions but each uses the land for 'collective cultural purposes' (Goodall 2001: 109). While developments in the Western Division¹⁸ in the late 1990s indicated a desire to provide for greater Indigenous participation in environmental, social and cultural decision making, Goodall (Goodall 2001: 110) records the 'legacy of deep structural inequality and mutual suspicion' which needs to be overcome, citing the conflict over the culturally significant Boobera Lagoon as an example of how powerful alliances form against Aboriginal interests.

SUSTAINABLE USE OF WILDLIFE

We have identified two studies of wildlife resource use by Indigenous people in NSW. These indicate that although the amounts harvested are relatively small, their value to the Indigenous people is significant. English (2002) mapped the cultural significance of places which provided wildlife resource use for Gumbaingirr people at Corindi Beach, in northern NSW. Essentially a study about cultural heritage, this research revealed over 100 sites where wildlife resource values were identified, and made recommendations relating to expanding cultural heritage planning and environmental and social impact assessment processes to enable planners to take such cultural values into account, in light of the potential health benefits to Aboriginal people of sustaining use of wildlife resources. Sites identified included fishing places, shell collection areas, places where bush tucker, wild berries, fruits and other plants were (and may still be) available, kangaroo, goanna, snake hunting sites, plants which provided for medicine, basket making, and where bush honey could be collected.

The other study by Gray, Altman and Halasz (2005) is in the Wallis Lake catchment (a total area of 1,440 square kilometres), a large estuarine area listed as a Wetland of National Importance, which had an Aboriginal population of some 800 people at the time of the study. It explored the economic value of resources harvested, rather than the cultural value of the resources. The primary resources harvested were aquatic, and their value was estimated as 'between \$468 and \$1,200 per adult per year', or 3-8 per cent of the gross income of the population. The authors note that although the value averaged across the whole population 'appears to be only a relatively small proportion of total income, it is a significant contribution to the dietary intake of a relatively poor community' (Gray, Altman & Halasz 2005: x; see also Gray & Altman 2006). They also point out that most of the resources are used for personal consumption or for sharing with family beyond the harvester's own household, and indicate that for some households with a very successful harvester, the value is considerably greater than averages suggest. They recommend that the 'potential common law property rights in customary use under native title legislation, alongside recreational and commercial use, should be recognised by NSW authorities' (Gray, Altman & Halasz 2005: xi).

As indicated above in relation to sea country, access and customary rights in marine resources remains an unresolved issue in NSW. The same also applies to access rights and harvesting in freshwater sources in the rest of the State.

OTHER

There are a number of other ways in which Indigenous people in NSW are engaged in NRM activities, which have not been canvassed already.

Advisory roles

Indigenous people are involved in a number of Advisory Committees in areas such as the DECC Aboriginal Cultural Heritage Advisory Committee and the DPI Aboriginal Reference Group. An earlier Fisheries-specific Advisory Group was disbanded, and the effectiveness of the new DPI reference group with its very broad mandate is unknown.

There may be Aboriginal representatives on individual Marine Advisory Committees providing advice about particular fisheries, such as abalone or prawn fisheries, but it is difficult for them to operate as a single representative in such contexts where Indigenous rights may not be recognised by other stakeholders and without the type of organisational support to which those have access.

Protecting Our Places funding

The NSW Environmental Trust, an independent statutory body established by the NSW Government, has been providing Protecting Our Places environmental funding for Indigenous groups since 2004. The objectives of the program are 'to protect land that is culturally significant to Aboriginal people and support education projects about the environment and its importance to Aboriginal life' (NSW Environmental Trust 2009: 3). In 2008, a total of \$497,372 was distributed to 17 local projects ranging in size from \$18,000 to \$35,000.¹⁹

Aboriginal Landcare Groups

There are 54 Aboriginal Landcare Groups in NSW with about 2,000 individual members. Many of these groups are connected with LALCs or with schools. One Aboriginal land manager is also represented on the State Landcare Committee.

Local government engagements

It is clear that local government is often the most accessible point of contact for Indigenous people concerned about aspects of looking after their country. This study has not been able to obtain comprehensive data on the extent or nature of Indigenous involvement with local government in relation to NRM. Our attention was drawn to the value of MOUs with local government, and examples in Bega Valley (Bega Valley Shire Council 2008) and Byron Shires were cited by people we interviewed. Relationships with local government can provide one avenue into Indigenous participation in NRM, and in both cases, such starting points led to other initiatives.

We have also become aware of valuable work being undertaken by the North Sydney Aboriginal Heritage Office which is supported by Ku-ring-gai, Lane Cove, Manly, North Sydney, Pittwater, Warringah, Willoughby and Armidale-Dumaresq Councils (see Aboriginal Heritage Office 2007 n.d.). This office, established in 2000, and also supported by the Heritage Branch of the Department of Planning, is undertaking education and awareness about Aboriginal sites, Aboriginal cultural history, and improving the heritage planning function in each participating council. There have been issues relating to how to protect Indigenous cultural heritage

in the process of Local Environmental Planning without revealing publicly the location of sites which might subject them to risk of damage, and how to ensure that Aboriginal cultural heritage is adequately assessed and considered in development proposals.

SOCIAL BENEFITS CURRENTLY EVIDENT FROM INDIGENOUS PARTICIPATION IN NRM IN NSW

As previously mentioned, there is currently no process to systematically record the social benefits which flow from engagement in NRM activities; there appears to be no monitoring or evaluation of State programs relating to Aboriginal engagement in NRM, particularly to record the social outcomes. It is therefore difficult to do more than record what the literature identifies and what people we interviewed reported about the social benefits in NSW. These sources suggest that the benefits may be in a range of areas, which are summarised below. Importantly, many of these benefits interact and are cumulative—as one person we talked to described it, there are 'cascading benefits' as changes in one area affect another, reinforcing the systemic approach to which Davies (2008) refers. To illustrate these multiple benefits we have included a number of case studies in this section. Other local case studies are presented in 'Aboriginal people protecting country' a series of case studies documented by the then Department of Environment and Conservation (2004).

Before outlining the specific benefits identified in NSW it is worth noting that Indigenous concepts of well-being tend to value the importance of non-material aspects of well-being, including access to their country. For example, Grieves' study of Aboriginal well-being in Sydney found that 'spirituality' and 'knowing about (their) people's history and culture' were the most important factors affecting Aboriginal well-being, assuming basic housing, health, food and clothing were adequate (Grieves 2006).²⁰ The link between 'country' and these factors is clear—it is through access to country that Indigenous people maintain identity, spirituality and a sense of being. Similarly in the Burdekin, Greiner et al. found that the key to improved well-being was seen as the 'reconnection of Nywaigi people with country and culture' and that NRM projects can play a part in this reconnection (Greiner et al. 2005: 3). Thus access to country, often long denied, is critical to continuing cultural practices that are important for well-being. Connecting to land connects people to natural and family histories and nurtures Indigenous identity, through the histories and beliefs which are transmitted (Garnett & Sithole 2007).

However, it is also important to note that success or benefit of NRM engagement may be perceived differently by different people, and may have short or long-term effects. For example, the environmental work of Green Teams may generate lasting positive outcomes for some of the individuals involved, but the environmental benefits gained through short-term funding may themselves not be sustained. It is also important to recognise that the benefits may be very limited in comparison to the size of the Aboriginal population of NSW, although not insignificant despite that. Notwithstanding these reservations, the following social benefits have been identified in NSW.

CASE STUDY 1: BENEFITS FROM CO-MANAGEMENT OF NATIONAL PARKS: MUTAWINTJI

Many of the National Park co-management agreements/MOUs have been developed from the original agreement relating to Mutawintji NP, though the compensation payments vary according to valuation of the land, and only apply to those agreements where land is Aboriginal-owned and leased back. For example, the agreement at Mutawintji includes provision for:

- annual rent as compensation: the rent may be used only for the purposes of the lease, which may include community development and purchasing land to add to the Park (clause 6). One significant restriction is that these payments must be spent in the Park
- training and employment, with new Aboriginal jobs provided by the lease
- preference in the contracts for works on the lands
- rights to access and use the lands in accordance with Aboriginal tradition, so long as this is within the NP laws governing the lands
- the ability to have a cemetery on the lands (this has not yet been established)
- ownership of art, designs and cultural property at Mutawintji
- Aboriginal owners and others with a cultural association with the lands do not have to pay entry, camping or other fees
- the Board has responsibility for all appointments and permits to operate businesses in the Park and is to be consulted regarding the conservation and recovery plan for the Yellow-footed Rock-wallaby
- cultural awareness training that is run or approved by the Mutawintji LALC for non-local staff (AILR 1999).

One of the challenges in operating the joint management has been the inequality in the western educational level of the Aboriginal and non-Aboriginal members of the Board. This asymmetry of power made finding a common language and a common approach difficult. In the last four years the Board of the Park has engaged in ongoing governance training which it has found extremely valuable in improving relationships and cross-cultural communication among the board members, giving everyone a voice, especially Aboriginal women. The impact of this training has contributed to better decisions, and facilitated problem solving. The fact that Aboriginal people are involved in decision making and that relationships have become much more respectful are among the key benefits. Yet there are still people in the NPWS service who find sharing decision making and

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priority-setting with Aboriginal people difficult. The need for Aboriginal families to be given a safe space to heal and sort out among themselves how they want to work together before engaging with other stakeholders is also highlighted in this example. Another issue has been identification of the traditional knowledge holders, and the challenges of intergenerational transmission of cultural knowledge. Expanding long-term Aboriginal employment (in contrast to short-term projects) and overcoming the seasonality of tourism business, developing skills and obtaining recognition for skills gained, and expanding land acquisition to access land suitable for business development, based perhaps on rare species and medicinal plants, are among the priorities for the future.

Sources: AILR 1999 and phone interview with former Chair of the Joint Management Board of Mutawintji NP, 2005–April 2009. For earlier history see Lane and Hibbard (2005).

CASE STUDY 2: TIRKANDI INABURRA

Tirkandi Inaburra is the Wiradjuri phrase for 'to learn to dream'. Tirkandi Inaburra Cultural and Development Centre near Coleambally was established and began operating in 2005, following years of work by Riverina Aboriginal people to gain land, facilities and funding. This was their response to the fact that Indigenous young people made up over 40 per cent of juveniles in detention in 1990, when the initiative to establish the organisation began. The Centre runs a culturally-based residential program for Aboriginal boys aged 12–15 at risk of becoming involved in the criminal justice system, from the region located between the Lachlan and Murray Rivers, and between Balranald and the western side of the Blue Mountains. It operates on a 780 hectare purpose-built property and the program is funded by the NSW Attorney-General's Department. Boys live there for 3–6 months, and are engaged in educational, recreational and cultural programs, including natural resource management. The 'power of the transformation of the boys who graduate' was one of the comments by panel members for the Indigenous Governance Awards 2008, when the Tirkandi Inaburra Cultural and Development Centre was a finalist.

Sources: Tirkandi Inaburra n.d.; Reconciliation Australia 2008.

CULTURAL AND SPIRITUAL BENEFITS

A most significant benefit involves Aboriginal people reconnecting to country from which they have historically been excluded. This enables individual and community healing, cultural reinvigoration and ability to practice cultural activities and care for sites and landscapes of cultural importance; cultural camps and access to country enabling younger people to learn about their culture are highly valued activities. As one person stated, engagement with CNRM encourages the 'cultural self'. Access to country also facilitates the 'cultural economy', the customary economic arrangements among tribal groups, and maintains the potentially economically valuable intellectual property of their local knowledge. Other related benefits include language recovery and a greater sense of identity/pride in Aboriginality. All of this can lead to a greater sense of personal and collective empowerment. As one person explained, the benefits have been, for the elders, getting country back;²¹ and for the middle aged and younger people, looking after country. Well-being has improved because people have a place now from which they can move forward. Getting recognition for cultural traditions, laws and customs is a further benefit—people feel they are treated as equals in land management, rather than constantly having to get government and others to understand their perspectives and concerns.

While these may be among some of the most important benefits from the perspective of Aboriginal people, they may also provide the essential underpinnings for other social, economic and environmental benefits of particular interest to State and Federal governments and their policy priorities. In particular, confidence, pride, a sense of identity and self-respect are often mentioned as important bases for the development of Indigenous individuals and communities.

SOCIAL BENEFITS

There are various educational and health benefits strongly associated with Aboriginal involvement in CNRM in NSW. Such participation has facilitated increased access to education, greater school retention (e.g. to Year 12, or university), more opportunities for formal training (e.g. Cert I-IV courses in a variety of areas) and informal education for younger people by elders and traditional knowledge-holders. Intergenerational learning for children and young people about their land and their culture is a particularly important benefit from Aboriginal perspectives (although it is not a benefit which always flows automatically, as the Mutawintji case study in this Section shows).

Aboriginal engagement in CNRM also contributes to the education of non-Indigenous people about Indigenous knowledge and capacities, and is making a contribution to reconciliation. When non-Indigenous people see Aboriginal people actively managing their country, and when they realise the considerable knowledge held by the elders in particular, this can turn around stereotyped attitudes towards Aboriginal people. The resulting reduction in inter-racial tensions and more positive social interactions between non-Indigenous and Indigenous people contributes to a virtuous circle of improved social relations and greater opportunities for Indigenous people.

CASE STUDY 3: WATTLERIDGE IPA

Wattleridge is a botanically diverse bushland with high biodiversity values on outcropping granite country on the Northern Tablelands. It has evidence of long Aboriginal occupation, including axe grinding groove sites, art sites and scarred trees. The land was bought by the ILC in 1998 to enable Banbai people to return to a part of their land and reclaim their cultural heritage. Three years after this purchase the land was declared an IPA, and in February 2008 the ILC divested ownership to Banbai Land Enterprises. One of the five zones of their property (the 'Balidyerri' Zone) is used for cattle agistment to cover the cost of rates and insurance.

The IPA has at least 15 rare or endangered plant species and 12 rare or threatened fauna. It is managed by the traditional owners, who are undertaking major pest management and fire management strategies (learning from Booderee National Park, since local knowledge about fire management had been lost), and managing the cultural heritage sites on it. The community is also developing a native plant propagation nursery, training people in horticulture, and establishing seed banks and restoring degraded land through revegetation.

The owners are aiming to make the property financially viable, and are developing small businesses to help promote employment and generate additional funds for conservation. They are upgrading cabins, building walking tracks, viewing platforms, and developing interpretation signage to foster eco-tourism. They plan for this tourism venture to grow and provide income, employment and further infrastructure development. Tourists are currently mainly from the local area, for example youth groups, family groups, bushwalking club, and a women's group.

A total of 25 people are participating in IPA activities, most being paid—some by working on CDEP, so funding for their employment after 1 July 2009 is unclear. Of these, nine are women and five are under 21 years old. Banbai is now the second largest private sector employer in the small town. The IPA has stimulated a considerable amount of training—community members have undertaken Certificate courses in building and construction, and several have already completed Cert IV level accreditation. Fifteen community members have attained certificates in bobcat and excavator operation; seven of these also gained certificates in front end loader and backhoe operation. Others have been involved in courses relating to recreational fisheries, governance, information technology, minute taking, etc. The training has also led a number of people to further employment opportunities, with nine of the people trained going on to non-IPA related employment. Additionally, the IPA generated some \$50,000 revenue for local businesses in 2007-08.

Furthermore, the IPA is also stimulating interest in the Banbai language. All the signage at the IPA is in Banbai, so visitors are learning Banbai names for things, and the local central school has

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reintroduced Aboriginal studies and expressed an interest in teaching the Banbai language. The children are very excited about getting out onto the land, and learning about the relationships between land and culture. Similar interest is also being shown at the local primary school.

These developments have transformed the Aboriginal community of 300 people, which had largely isolated themselves from the racism they experienced in the surrounding non-Indigenous community, to enable themselves to build their community up slowly. Now, they are experiencing much more respect from the non-Indigenous community, because they have demonstrated their ability to operate their enterprise responsibly and successfully. Before the IPA, there were factions and tensions within the Aboriginal community, which have eased somewhat, thereby improving social relationships. Previously only three people had a car and a driver's licence; now many more have licenses and cars (due in part to the IPA collaborating with the Job Agency to provide licence training and support to obtain birth certificates for nine people). Drug and alcohol use has declined, particularly during the week when people are working. The high crime rate has dropped, and there are instances of improved health, and pride in the achievements of the group.

The key reported factors in the success of this initiative have been getting the land back and having the funds to develop it and pay people to work in the land, although sound Aboriginal leadership is also a key success factor.

The benefits emerging from this IPA are being recognised locally and the Guyra LALC, which has had no funding to manage its land, has now invited Banbai Business Enterprises, to manage its unoccupied land, which is being developed as another IPA. Similar interest in IPA development is being articulated by Aboriginal groups in other regional towns such as Dorrigo, Glen Innes, and Tingha.

Sources: Department of Environment, Water, Heritage and the Arts n.d.; Department of Environment, Water, Heritage and the Arts 2007; interview, Manager, Banbai Business Enterprises Inc.

Research in northern Australia has documented the improved health associated with engagement in CNRM, and in NSW we have anecdotal evidence of health benefits for individuals involved in CNRM activities, although there has been no formal study of this in the State. Health improvements anecdotally reported relate to people with heart conditions feeling considerably healthier, weight reduction, and lower blood sugar levels for people with diabetes. These are consistent with the research findings from northern Australia.

Other social benefits identified in NSW relate to access to land for social housing, reduced anti-social behaviours, building social networks, and reduced community conflict. Use of land for diversionary programs for young offenders or other young people at risk is one strategy being used to assist young people to gain positive direction in their lives and reduce recidivism.

ECONOMIC BENEFITS

Economic benefits recorded in NSW, and nearby in adjacent jurisdictions, include access to customary harvesting/fishing to supplement incomes, full and part-time employment, and training and increased qualifications leading to improved job or career prospects. Several examples were provided where individuals began to engage in CNRM and then discovered their real career aspirations were elsewhere, yet the initial engagement in CNRM was what enabled them to have the confidence, the networks and the ability to move in the new direction, including through tertiary study in some cases. Other economic benefits include contracting opportunities (e.g. with local Shires, other NRM bodies), some limited business development in CNRM, and very limited cultural and ecotourism. Apart from employment in conservation roles on Aboriginal or public land and involvement in Green Teams or similar, some involvement in natural resource-based industries such as forestry, fisheries and aquaculture, and pastoralism exists. Other opportunities with some very limited benefits to date in NSW or adjacent areas include involvement in scientific research, bush medicine and bush foods development, weaving and papermaking.

A major constraint and concern in this area, however, relates to the short-term nature of many of the employment opportunities available at present for CNRM work, and the fact that well-qualified Aboriginal people are often forced to accept training-level wages to access these jobs. The proposed abolition of CDEP across NSW is a further concern, as it has underpinned a number of positions in CNRM work. Sustainable utilisation of wildlife is also constrained by a range of legal and access barriers as will be discussed further below.

CASE STUDY 4: ARAKWAL NATIONAL PARK AND RELATED DEVELOPMENTS

The three Arakwal ILUAs negotiated between 2001 and 2008 create a new co-managed Arakwal NP, a separately declared Aboriginal Area, and grant additional land for housing, the construction of a cultural centre and tourist facility and freehold title over the Broken Head Caravan Park which the Bunjalung people will use to stimulate economic development. Prior to these agreements the Bunjalung people had developed an MOU with the Byron Shire in relation to land and heritage management, particularly in relation to development applications and land zoning, and had also developed a co-management agreement relating to the Cape Byron Lighthouse reserve. The Bunjalung people have also been active with Cape Byron Marine Park, developing an MOU with the Park which includes an informal advisory committee, development of cultural use and wild resource use agreements, training, employment of two people, and preferential tendering provisions.²² Thus the social benefits the Bunjalung people have negotiated are quite diverse. From their perspective, the most significant benefits are the ability people now have to reconnect with their country, and the opportunities for employment which are emerging. They now have three qualified NP rangers, and a fully qualified Marine Park ranger, as well as other employees involved in CNRM, retail and administration, and these achievements are inspiring others.

The community reportedly feels that after a long struggle towards its vision, it has regained a significant proportion of its land and that it now can move to a phase of developing further the economic benefits which can be leveraged from this, particularly in its location as a popular tourism centre; the community can develop housing, educational activities and foster intergenerational learning about their country. Training opportunities the NRM initiatives have offered may only lead to short-term job opportunities in NRM, but are sometimes enabling people to gain other work outside conservation agencies. However, they are still finding that their Indigenous knowledge, law, customs and perspectives are not always taken seriously or valued as much as those of non-Indigenous people, or are subject to non-Indigenous regulation. In particular, the 'priceless' knowledge of elders is poorly remunerated and access to marine sources of food is controlled by the conservation regulations. However, they emphasise the importance of developing relationships with non-Indigenous institutions and individuals as through those relationships opportunities develop.

Sources: Agreements, Treaties and Negotiated Settlements 2001; National Native Title Tribunal 2001; interviews, CEO Bunjalung Byron Bay (Arakwal) Aboriginal Corporation & Operations Manager, Aquatic, Marine Parks Authority NSW.

CASE STUDY 5: MURU MITTIGAR: URBAN EMPLOYMENT OPPORTUNITY IN NRM

Muru Mittagig opened in 1998, forming a partnership with the Penrith Lakes Development Corporation to restore a large local quarry site in Western Sydney with plants native to the area. In 2008 they planted over 50,000 native trees. Muru Mittagig also carry out noxious weed control, and transplant aquatic and semi-aquatic plants to create wetland habitats for birdlife and aquatic fauna. Building on this experience, they are developing diversified contracting opportunities, conducting landscape maintenance and other commercial land rehabilitation work. They have built a multi-award winning cultural tourism enterprise, conduct cultural education, and operate a native seedling nursery, café and retail outlet selling Aboriginal produce, all of which has been leveraged off this NRM opportunity. Muru Mittagig employs 36 staff, the majority of whom are Aboriginal, and places strong emphasis on training and development.

The Muru Mittagig nursery propagates trees, shrubs, climbers, grasses and ground covers for both commercial customers and the general public. This ensures that local species are used in regional rehabilitation projects, council plantings, parklands and increasingly in home gardens, to preserve the gene pool of the local native plants. Their nursery won accreditation under the Nursery Industry Accreditation Scheme Australia in 2002, which has given the business credibility with some new and larger customers and helped to improve staff knowledge, nursery hygiene, crop production systems and site management. It is the only accredited Aboriginal run nursery in NSW. Muru Mittagig was also a finalist in the 2006 Indigenous Governance Awards.

Source: www.murumittigar.com.au

CASE STUDY 6: EURABA PAPER COMPANY: A NATURAL FIBRE WOMEN'S BUSINESS

A group of Aboriginal women in Boggabilla in north-west NSW have formed a highly successful paper making company using offcut cotton fibres which would otherwise go to waste, and other natural fibres from the region. Their enterprise, which began in a drum in a backyard, is now an award winning paper business, making stationery, art cards, and paper suitable for invitations and certificates. The Indigenous tradition of making fibre baskets has been transformed into fibre paper making. To achieve this, the Euraba Paper Company women have formed a range of partnerships with government departments, CSIRO and private sector organisations (including the cotton company that donates the offsets), and have had particular support from the Toomelah Cooperative and the New England Technical and Further Education (TAFE) College.

Source: Broun 2005; Euraba Paper Company n.d.

CASE STUDY 7: MOGILA PROPERTY NORTH-WEST NSW

Mogila is a 43,000 hectare property purchased by the ILC and transferred to the traditional owners through Ngurampaa Ltd, the Aboriginal traditional owners' company they established to manage it, in 2000. The property is in the far north of NSW and 7,000 hectares of it is in Queensland. The land is part of the traditional lands of the Aboriginal owners, who manage it by combining traditional knowledge of the country with western scientific knowledge.

The Aboriginal landowners understand from the signs in the landscape and the activities of the many species there, how to maximise the opportunities of variations in the weather, and hence how to maintain healthy livestock and healthy country. The cultural heritage on the property is cared for as an integral part of the property's management, and considerable environmental rehabilitation work is being undertaken. All this contributes to the operation of a profitable sheep and cattle enterprise in a very 'marginal' environment.

Mogila is a property where the traditional owners are showing a diversity of approaches to the land and its usage. In fact the traditional knowledge and sites are viewed by the traditional owners as being a major asset with a real financial benefit for the company. The sites and the knowledge are of enormous cultural value, an idea that they believe could be promoted amongst non-Aboriginal landowners. They believe that giving the sites and knowledge a financial value is something new, but should not be overlooked, considering the tourist value of such cultural heritage that could be gained for farmers living on marginal lands.

The traditional owners of Mogila are now running regular courses for staff of the Department of Natural Resources and Environment in Queensland on cross-cultural land management, and the property is being used by Aboriginal and related groups for activities such as youth programs and Link-up programs. The company has exceeded the goals of its first five-year plan and is now developing a new 10-year plan with the ambition of acquiring other land in the clan's country to enable other clan members to benefit from extending the enterprise.

Source: Interview with a traditional owner.

ENVIRONMENTAL BENEFITS

The contribution of Indigenous knowledge to CNRM, land, freshwater and marine environment restoration and conservation, and biodiversity and threatened species protection is clearly evident in NSW. Other environmental benefits include restoration of wetlands, bush regeneration, feral animal and weed control, fire hazard reduction and decontamination (the latter two particularly on Aboriginal-owned lands) and carbon abatement and trading activities undertaken by Aboriginal people and organisations.²³ Aboriginal people also report increased cultural heritage management and protection when they have access to their country.

CAPACITY BUILDING

Other broader benefits relate to capacity building of Aboriginal organisations and for individuals. Engagement in CNRM in NSW has led to development of capacities for negotiation, partnership with governments and others, and governance, as well as greater understanding of western governance and scientific systems and, over time, an increased ability to insert Indigenous perspectives and policy ideas into them. Other capacities which can be developed through NRM initiatives may include grant seeking, proposal writing and reporting, and related business skills.

Some forthcoming preliminary research by Cavanagh into the linkages between NRM engagement and community well-being outcomes in NSW indicates that the strongest connections related to:

- having a sense of community; having leadership, power and influence,
- having a strong cultural identity, and not surprisingly, having access to and caring for the environment (Cavanagh forthcoming).

Cavanagh's research emphasises that engagement in NRM in NSW contributes to Aboriginal people's ability to care for their country, strengthens their cultural identity, and contributes to the leadership and empowerment of Indigenous groups. These appear to be strong foundations from which to build other outcomes.

CASE STUDY 8: THE NYAMBAGA GREEN TEAM

The Nyambaga Green Team is featured in a DVD from the first CMAs' Aboriginal Reference Groups State conference, held in Dubbo in 2008. This team—like others elsewhere comprising mainly young men—is conducting a range of environmental improvements in the catchment area, including weed removal, development of low-environment impact infrastructure (e.g. walkways), revegetation work, and restoring the river environment. This Green Team recently received a Coastcare grant to support the restoration of the natural mangrove vegetation around the Warrell Creek Estuary (*Guardian News* 2009). The reported benefits mentioned in the DVD include: for people who have been put down in the past, it's really positive; it gives them respect, and they start to respect themselves; it's a chance to help the land back to a better state, for the food and wildlife to replenish itself; they can supply old people with free firewood; Aboriginal people are gaining TAFE Cert IVs in Conservation and Land Management; younger ones are learning about bush tucker and teaching their children. The team has won a number of awards, and it is clear that the work they are doing makes them proud, restores their dignity and self-respect, and encourages a work ethic.

Source: DVD: The Inaugural New South Wales Catchment Management Authorities' Aboriginal Reference Groups State Conference, Dubbo 2008.

WHAT FACILITATES OR CONSTRAINS THESE BENEFITS?

Few people we talked to separated the factors that facilitate Aboriginal involvement in CNRM from the factors which facilitate the maximum social benefits from such current engagement. However there are a few points worth making in relation to this distinction.

Firstly, the low wages paid to many qualified or experienced Indigenous CNRM workers and the short-term, intermittent funding for their work are areas which, if addressed, could potentially lead to greater social benefit from existing CNRM activities. Linked to this, the dismantling of CDEP by mid-2009 could potentially lead to loss of job opportunities in CNRM, where this program is being used to support NRM activities. The closure of the Narromine CDEP which employed some 40 people in recycling and waste management activities is an example (*Narromine News* 2009).

Secondly, the CNRM initiatives appear to be developed from within particular departments, with no State-wide or locally coherent broader government strategy around them to leverage the benefits. This is particularly the case in relation to employment and business development. Another example cited to us was the difficulty an Aboriginal NRM officer had attempting to visit a school to share with students some of the activities going on in the nearby conservation area. Such a visit could have been of value to Aboriginal students at the school, in terms of seeing the value placed on their community's knowledge and seeing an Aboriginal role model in employment in CNRM, but the red tape the officer encountered prevented this happening. A Regional Partnership Agreement being developed in the Many Rivers Region is an attempt to address this issue —how to leverage more benefits from existing experience—and will be referred to later.

Otherwise, the general view seems to be that extending the opportunities for Indigenous involvement in CNRM is the best way to extend the social benefits of such activities. It is clear that in a number of examples the leveraging of additional benefits is already happening through Aboriginal initiatives at the local level—in which education, healing, social cohesion, youth development and other benefits are occurring in tandem with CNRM (for examples, see case studies). Specific requirements to leverage additional benefits are likely to vary from place to place and may be quite context-specific.

FACTORS FOR SUCCESS

The following factors were identified by people we spoke to as important to successful Aboriginal engagement in CNRM, leading to social benefits.

1. A clearly identifiable Aboriginal group which is unified in its purpose

How that group identifies does vary from place to place. Where a native title claim and/or an ILUA is involved, for example in joint-management arrangements, the native title process itself identifies the relevant group. In the case of the Worimi Conservation Lands, the traditional owner group which came together determined its own identity and agreed to extend its membership to other Aboriginal people willing to abide by the law

and customs of the Worimi people. This process was Indigenous-controlled and was more inclusive of non-traditional owners than a native title process could be (see ANRA 2008b). In other cases, the group which makes the decisions may be family-based, as in the agreement-making process with the Eden Regional Forest Agreement some years ago, even if the formal agreement is with a LALC (Rangan & Lane 2001). Such processes of group formation and negotiation must be Aboriginal-led, but recognised and supported by the external resources necessary to facilitate them prior to and during engagement with other stakeholders. Historical processes of displacement and relocation of Aboriginal people, and stolen generation issues, have led to difficulties in establishing clearly the membership of some groups; customary processes to resolve such issues take time and skill.

Not only must the group's identity be clearly agreed, the group must have a degree of unity about its long-term goals and be willing to persist through some lengthy and often complex negotiations to achieve the outcome it wants. It is unrealistic to expect Aboriginal peoples to engage effectively with other interests if they have not had the opportunity to build trusting relationships among themselves and to have agreed on some clear goals they want to achieve. Often, they will need external resources to enable them to do this at an early stage. The experience of MLDRIN's carefully balanced and devolved decision making arrangements among its member nation groupings provides an example of the complexities which can be accommodated in hybrid western and traditional structures (Weir & Ross 2007).

2. Clear governance, management and decision making structures

Whether an Aboriginal group is engaging in a CNRM partnership on public or Aboriginal-owned lands, or whether it is undertaking CNRM on its own lands, clear and robust governance structures are needed for success. These have to be built carefully over time, respecting customary governance arrangements whereby traditional owners are responsible for land and culture, and at the same time they must be adequate for contemporary corporate management. Failure can result if governance and business capacities are not robust enough to implement the group's CNRM vision and goals. Decision making responsibilities and protocols need to be clear, and accepted as legitimate by the relevant Indigenous group or groups. Developing organisational capacity has to precede developing CNRM capacities, as the organisational base from which people engage in their CNRM work must be solid and strong. Organisations which ensure that they do not develop programs which are beyond their governance and management capacity are more likely to have successful outcomes, both environmental and social. At the same time, Aboriginal organisations which have such organisational integrity must also be prepared to take some risks if they are to break new ground and achieve different outcomes. It is also notable that some initiatives are essentially family- or kin-based initiatives, rather than multi-family, or 'community' collaborations. This needs to be recognised and accepted as a legitimate approach to Indigenous development. The use of the term 'community' in Indigenous affairs can sometimes obscure the reality of family-based kin networks which provide the foundation for Indigenous social development.

3. Aboriginal commitment and passion and effective Aboriginal leadership

Initiatives which derive from Indigenous visions, commitment and passion, and where community control is significant, are more likely to succeed than ideas generated by outsiders. The enthusiasm and passion which Aboriginal people may bring to a CNRM enterprise are what drives it forward, often in the face of considerable constraints and challenges. A great deal of voluntary effort, often years of unpaid work, by Aboriginal people has generally been behind many of the successes. The pioneering examples in NSW are generally the result of Indigenous leadership—both through the efforts of individual leaders and the leadership demonstrated by groups of people who have been prepared to assert their rights over decades.

4. Government officials working in flexible and innovative ways

Successes come when government bodies working with Indigenous people in CNRM are prepared to innovate and to work flexibly to accommodate Indigenous ways of working and Indigenous circumstances, and to support Indigenous goals. This may mean pushing the limits of their bureaucratic constraints and capacities to achieve better outcomes for their agency and the Indigenous people they are working with. It also may mean going beyond their narrow agency mandates, working across agencies to get the necessary supports into place for CNRM activities to occur.

5. Adequate and consistent funding

Clearly, much of the work cannot take place if the funding is not adequate. An adequate, consistent flow of funds is essential to maintain CNRM activities. Natural Heritage Trust funding to Indigenous groups has been low (e.g. for NSW only 0.9% of the total funds approved over 2002–05 (Lane and Williams 2009)). Too often funding is short term, 'project' based, and not conducive to sustaining capacity development. There is rarely funding for Aboriginal participation in CNRM partnership negotiations; nor is it normally recognised in funding agreements that Aboriginal participants and organisations do not generally have access to the support, the communications (phone, email, web access), the transport (cars and drivers licences) and other facilities (such as an office) which other groups take for granted. Adequate funding has to account for all these additional costs for Indigenous groups. Some Aboriginal landholders may find that without some additional sources of funds their landholding becomes more of a burden than a benefit as they are unable to fulfil all their responsibilities on that land. Some LALCs have found that successful land claims have transferred them land in contaminated or seriously degraded condition without adequate resourcing to clean it up or recover it, although some funds and guidance to groups in that situation are now available through DECC (2008c, n.d.).

6. Partnerships with environmental NGOs

In a few cases, partnerships with appropriate environmental NGOs have assisted Indigenous groups to gain greater leverage in negotiations, to be taken more seriously by policy-makers involved in NRM and to achieve better policy outcomes, or to assist them with technical skills and capacity building. Such partnerships have to

build trust between Aboriginal groups and environmental organisations and the environmental organisations must be prepared to pursue the Indigenous social justice agenda along with their environmental goals.²⁴

CONSTRAINTS

The most obvious constraint to the benefits of CNRM engagement by Aboriginal people in NSW is its limited extent. While there are some important examples of such engagement occurring, overall across NSW opportunities remain limited and patchy and seem to rely to a large degree on leadership by Aboriginal people combined with the goodwill of key government officers (or others). In relation to the magnitude of Aboriginal social disadvantage across the State, and particularly in the context of the impact on youth and casual workers of the global financial crisis, the initiatives to date, whilst promising, are only one part of the solution, but are nevertheless worth pursuing. Furthermore, there is not a consistent rights-based approach to Aboriginal engagement in CNRM activities. As a result, the benefits which are being generated at some locations are confined to a relatively small number of Aboriginal people at this stage.

1. Low proportion of Indigenous owned land

Part of the problem lies in the very low percentage of the State which is Aboriginal-owned or controlled; the very slow pace of resolving land rights and native title claims over NSW Crown lands is therefore one constraint to enhancing Aboriginal involvement in CNRM. Another is the slow pace of transfer of Schedule 14 NPs already referred to. Whilst some of the reasons may relate to the wishes of Aboriginal groups themselves, the pace of transfer of ownership may indicate a need for more proactive assistance to such groups to resolve matters they need to resolve and develop their governance capacity in order to confidently enter into land transfer and lease back arrangements.

For the remaining 99 per cent of the State, whether the land is public or private, Aboriginal engagement in CNRM can only occur by arrangement with the landholder. The distribution of Crown lands, and particularly the concentration of national parks along coastal and escarpment zones, compared to other parts of the State, may present issues of equity in opportunity for CNRM engagement on public land. However, it is also the case that further west, there seem to be greater opportunities for land purchases through the ILC and there may be new opportunities emerging in relation to CNRM on Travelling Stock Reserves (DECC 2008d).

2. Knowledge and attitudinal factors in the non-Indigenous community.

Bearing this necessity to rely on non-Indigenous landowners for access to land in NSW, one of the largest barriers remains knowledge and attitudinal factors in the non-Indigenous community, which is reflected in institutional arrangements. Six years ago, Forward NRM and Arrilla Aboriginal Training and Development (2003: 75–6) found a high degree of agreement among Indigenous people they consulted in the Murray Darling Basin and government officials working with them from various jurisdictions, about these barriers—and two of these related specifically to lack of respect for Indigenous people, 'their authority, views and knowledge', and lack of understanding on the part of government officials of Indigenous perspectives, their

responsibilities to Country and 'the extra dimension that cultural association brings to natural resource management'. Whilst there may have been some advances since then, particularly in the locations and areas where positive developments are happening, this situation appears to persist in relation to many landholders and NRM managers, public and private, government and non-government.

These specific attitudes sit within a broader context. Reconciliation Australia's recent Reconciliation Barometer, though indicating a community recognition that the relationship between Indigenous and other Australians is important for the nation's future, found that there were low levels of trust between the two groups (Reconciliation Australia 2009). It was also suggested to us that Aboriginal people in NSW may be perceived as 'assimilated', as not tied to land and culture in the same way as Indigenous people in the north of Australia. Wolfe's (1999) concept of 'repressive authenticity' is relevant here; this is the process which disconnects contemporary Aboriginal people and the challenges they pose to settler societies from the dominant exotic images of pre-colonial Aboriginal societies, still favoured today by the tourist industry in particular (Hinkson 2002). Whilst the situations of Indigenous people in the Northern Territory and NSW are clearly different, the resilience and persistence of clan-based descent groups with ties to particular land in south-east Australia (Sutton 1998, quoted in Forward NRM & Arrilla Aboriginal Training and Development 2003), and of certain levels of Indigenous knowledge among specific older people in particular, is still quite evident, although compared to northern Australia this knowledge is not as widely held. At a local level Aboriginal people also consistently report ethnocentric attitudes in the non-Indigenous community that they have to overcome. These may involve stereotyped views of Aboriginal people as lazy, dole-bludgers, or alcoholic, or they may be reflected in feelings of being threatened by assertions of Aboriginal rights, notably native title rights, and hence responding negatively.

3. Attitudes towards conservation and development: sustainable use

Another set of non-Indigenous attitudes relate to conservation and development. There is a risk that the rather romantic perspective some non-Indigenous people hold of Indigenous people as supreme conservationists, while contributing to the case for their engagement in conservation activities, may impede their ability to generate economic and social development from lands they control. As Pappin (2007) notes, at Willandra Lakes World Heritage area, no one from the three traditional tribal groups has become financially viable in their country despite some achievements, nor have these three groups gained enough funds to manage their own heritage there.

One constraint in co-managed NPs is that income earned from lease arrangements with the NPWS must be spent in the Parks, and this limits considerably how those monies can be used, potentially denying social benefits which could otherwise accrue. Similarly, negative attitudes towards, and institutional and legal arrangements which constrain the sustainable use of wildlife resources, especially marine resources, undermine the potential for social benefits to be generated for Aboriginal people. While there are some legislative changes in train in this area, in terms of future recognition of non-commercial fishing, the details of this are unavailable as yet, and there is scope for much wider change across the CNRM spectrum. Another

western separation, the division between cultural and commercial use of species remains an unresolved issue for Indigenous people.

Each of these manifestations of non-Indigenous attitudes, and their reflection in institutional as well as individual relationships with Indigenous people, act as barriers to Aboriginal people gaining the full social benefits of engaging in CNRM.

Related to the last point, the lack of policy to support Aboriginal opportunity for sustainable use of wildlife resources, and in particular the current legal constraints and the lack of adequate economic support to help develop such approaches, is an inhibiting factor. While some wildlife harvesting occurs in NSW it is restricted and is largely only for family and customary use. The potential for greater economic benefit from wildlife harvesting is as yet unrealised, and here non-Indigenous attitudes (especially attitudes of some environmental or animal welfare organisations) may be a barrier to future development in this direction.

4. *Knowing who to engage with: who speaks for country?*

A significant barrier to engagement in CNRM remains the fact that often non-Indigenous people and institutions do not know who to engage with in the Aboriginal community, or how, and in particular who is authorised to speak for country. Indigenous protocols suggest that traditional owners are the right people to talk to about anything to do with country, but in NSW there is an extra degree of confusion and difficulty due to a number of factors:

- under the NSW Land Rights Act, LALCs—with their residential qualifications for membership—are legally responsible for land and cultural heritage; traditional owners may be not be the decision-makers
- in certain locations there is lack of clarity within the Aboriginal community itself about traditional ownership with more than one group claiming such status and sometimes considerable conflict between them
- legally, there are differences in the definitions of 'Aboriginal owner' under the NSW Land Rights Act and 'native title holder' under the *Native Title Act 1993*: the latter allows traditional adoption and the former does not.

Goodall (2001) notes that the concept of 'traditional owner' is itself a response to western administrative needs to have a neat definition comparable to 'owner' in western law, yet this may present problems for Aboriginal people since it emphasises biological descent over traditional, flexible forms of affiliation with land. Baird and Lenehan (2004) also express concern that the process of identifying Aboriginal Owners in NSW is government-controlled, rather than Aboriginal-controlled, and that it may lead to an incorrect perception that people listed on the register are traditional owners in Aboriginal law and custom, thereby inadvertently causing difficulty to some people in asserting their rights. At present there is no mechanism in NSW to resolve the complex issues outlined above.

Seeking certainty, government officials look for consistent guidelines across all NSW government departments about how to engage effectively with Aboriginal people. Engagement is not straightforward, can be very sensitive, and needs to be undertaken with care. In particular, introducing resources for CNRM activities into locations where conflict about traditional ownership and who has the 'correct' connections to country exists, without first addressing those issues openly yet sensitively, can generate even more intense conflict and have long-term damaging effects in terms of social outcomes. Occasionally, Aboriginal people within government may themselves find engaging with traditional owners challenging or threatening in relation to their own positions.

5. Government complexity and silo approach

One common concern for Indigenous people is the growing complexity of governmental arrangements in Australia; the jurisdictional challenges among different levels of government (Federal, State and local) and the inconsistency and complexity of approaches between different government departments in relation to matters of land, planning and natural resources. Furthermore, the silo approach whereby departments operate in isolation of each means that any 'joining up' to resolve particular local issues has to be negotiated by local Indigenous people. There is a further problem for them in knowing what programs exist and where to go for funding. Furthermore, the short-term (one year or less) funding arrangements, and the programs which simply 'add on' Indigenous people, rather than being genuinely responsive to poorly resourced and socially complex Indigenous circumstances, inclusive of Indigenous cultural values, and cognisant of Indigenous ways of working are not conducive to strong outcomes. Furthermore, many of these funding schemes promote NRM values without any focus on social or cultural benefits which may be obtained by Indigenous people. Funding schemes which combine NRM goals with social justice outcomes, and which take into account the poor resource base and the many constraints under which Indigenous organisations and people operate could achieve more holistic results. Many initiatives in communities are very reliant on a few individuals, and the complexities and difficulties referred to above fall heavily on them.

6. Approaches to landscape planning and NRM

Legislation and policy has not kept pace with leading thinking on landscape planning and does not recognise all the values which Indigenous people hold. There is no doubt that there has been a shift in thinking in best practice landscape planning which reflects a move from a focus on artefacts and specific places, to an approach which appreciates entire cultural landscapes. Cultural landscapes are defined by Davidson-Hunt (2003: 22) as 'the physical expression of the complex and dynamic sets of relationships, processes and linkages between societies and environments. Cultural landscapes are an expression of societies writing their histories upon the land...' (see also Byrne & Nugent 2004). This, of course, is an ongoing process as contemporary Aboriginal people continue their relationships with the land and sea.

Within cultural heritage work, as English recognises, people are now viewing culture as 'dynamic and linked to complex interactions between people and landscapes'. Furthermore, heritage values are also being linked

to community well-being (English 2002: 4). In studies undertaken by DECC, which explored the cultural values Aboriginal people associated with biodiversity and Aboriginal people's use of wildlife resources, the numerous medicinal, health, cultural and economic benefits for Aboriginal people associated with biodiversity and wildlife resources were identified. However, the NPW(AO) Act remains constrained in its definitions and use, and it may not be useful for protection of such wildlife resource use places (English 2002: 31). This is just one example of the problem that Indigenous cultural values are rarely properly appreciated or addressed in natural resource management. The same problems were identified by MLDRIN in relation to cultural values in water planning.

The separation of cultural heritage from natural resource management mentioned earlier in this report is also seen as a barrier; there is often a tension between cultural heritage and NRM regimes, whereas these should be in harmony from an Indigenous perspective. The consistent failure of NSW cultural heritage legislation to adequately protect and prevent destruction of Aboriginal heritage (Seiver 2005) causes distress to Indigenous people who are seeking stronger legislative protection for their heritage, and does not send a positive message to Indigenous people about government's response to their concerns.²⁵

7. Impacts of historical exclusion and dispossession

Negative experiences Aboriginal people and communities have endured can also act as barriers. Overcoming the historical legacies of colonisation and contemporary marginalisation is not easy for many Aboriginal people, especially the effects of dispossession and dislocation from families. Their sense of identity and their confidence in themselves may be weak and they may not see the pathways and options which their lives could take. Indigenous communities and individuals may not perceive that there are pathways out of their marginalisation and opportunities to generate social benefit through CNRM or other activities. Or, some who are employed in NRM may feel that they need a much higher level of support than their non-Aboriginal colleagues due to these factors. A level of distrust of government may also inhibit Aboriginal people and organisations from taking up opportunities which are offered.

Finally, it is worth reiterating the need for better reporting, monitoring and evaluation of programs in which Aboriginal people are involved in CNRM as this would facilitate improved knowledge of their outcomes and identification of factors which facilitate or constrain their success in the future.

OPPORTUNITIES TO EXTEND ABORIGINAL PARTICIPATION IN CNRM IN NSW TO ATTAIN GREATER SOCIAL BENEFITS

There are many opportunities to extend Aboriginal participation in CNRM in NSW and to generate greater social benefits from this. Many of these depend on overcoming the historical exclusion of Aboriginal people from many mainstream institutions in Australian society and forming relationships within the intercultural space which now exists everywhere in NSW; Indigenous and non-Indigenous lives are deeply connected now. Where relationships between individuals are strong and positive, and institutional relationships develop,

opportunities for Aboriginal engagement in CNRM become apparent. This requires non-Indigenous people and institutions to make particular efforts in this direction, to reach out to Indigenous people and their organisations, to explore possibilities. Affirmative action would assist. Simply operating according to current legislation or policy requirements in an orthodox way will be insufficient. Concerted institutional efforts are required to break down social barriers built up over many generations and to overcome entrenched interests which have gained privileged access to natural resources on the one hand, and fostered exclusion from them on the other. As Lane and Williams (2008) point out, there need to be deliberate efforts to accommodate different constructions of environment and environmental problems, and explicit efforts to overcome social, cultural and economic barriers to effective participation. Thus in elaborating on the opportunities, we will also discuss some of the barriers to taking them up.

However, before elaborating on what opportunities might exist it is worth reflecting on the relevant international conventions and framework documents which set out the basis for Indigenous engagement in natural resource management, particularly related to biological diversity, protected area management and the rights of Indigenous people. The frameworks offer insight into the how these issues are being debated and conceptualised in the international arena and hence suggest what might be 'best practice' for NSW.

INTERNATIONAL BEST PRACTICE STANDARDS

There are four highly relevant frameworks or conventions: the Convention on Biological Diversity; the International Union for Conservation of Nature principles and guidelines on Indigenous and traditional peoples and protected areas; the International Labour Organization's Indigenous and Tribal Peoples Convention (No. 169) and the recent United National Declaration on the Rights of Indigenous Peoples.

The Convention on Biological Diversity is an important international legal instrument that recognises Indigenous peoples' knowledge and use of biodiversity as well as the dependence of many Indigenous communities on biological resources (National Biodiversity Strategy Review Task Group 2009). Specifically, Article 8(j) commits parties to the Convention to respect, preserve and maintain Indigenous knowledge, innovations and practices with respect to biodiversity; Article 10(c) commits support to the continuation of customary use of biodiversity by Indigenous peoples; and Articles 17 and 18 require States to commit to the exchange of publicly available information on biodiversity, including indigenous knowledge, and to find ways of incorporating Indigenous knowledge and Indigenous technologies into environmental management (National Biodiversity Strategy Review Task Group 2009: 77).²⁶

As part of the Convention, the Akwe:Kon Voluntary Guidelines were published in 2004 to guide cultural, social and environmental impact assessment processes in areas likely to impact on lands and waters traditionally occupied or used by Indigenous and local communities, in an effort to stem loss of biodiversity (Secretariat of the Convention of Biological Diversity 2004).

In preparation for the 2010 'Year of Biological Diversity' the Australian Government has recently released its consultation draft on its Biodiversity Conservation Strategy 2010-2020 (National Biodiversity Strategy

Review Task Group 2009). One priority for change specifically relates to the involvement of Indigenous peoples and points to a number of objectives and actions in this regard, which relate mostly to aspects of biodiversity planning, for example the continued expansion of the IPA systems as well as payment for environmental services as a way of generating income and employment opportunities for Indigenous people. However, the draft strategy has a number of shortcomings in relation to specific recognition of and support for Indigenous land and sea management work (Altman et al. 2009). For example, there is currently no mention of developing Indigenous business enterprise, such as the sustainable use of wildlife (see also Altman & Kerins 2008).

The IUCN principles and guidelines on Indigenous and traditional peoples and protected areas were developed in response to recommendations from the Fourth World Congress on National Parks and Protected Areas (Caracas, Venezuela, 1992). The guidelines are based on five principles which emphasise the need to respect Indigenous people as 'rightful, equal partners', in agreements based on 'full respect for the rights of Indigenous and other traditional peoples to traditional sustainable use of their lands, territories, waters, coastal seas and other resources' and their responsibilities to conserve ecological integrity, and the right of Indigenous peoples to 'share fully and equitably in the benefits associated with protected areas' with other stakeholders (Beltrán 2000).

Of similar importance is the ILO Indigenous and Tribal Peoples Convention (No. 169) which emphasises the need for consultation with Indigenous peoples in decisions that affect them. It also stipulates rights related to the identification and protection of property rights over land they traditionally occupied as well as the use, management and conservation of the natural resources of their lands and the use of customary law (United Nations High Commissioner for Human Rights (UNHCHR) n.d.)

The recent United Nations Declaration on the Rights of Indigenous Peoples (13 September 2007) (United Nations Permanent Forum on Indigenous Issues (UNPFII) n.d.) includes articles relevant to Indigenous involvement in natural resource management, notably emphasising rights to lands and waters which people have traditionally owned or occupied, assistance for conservation and protection of such lands, rights to maintain, control and protect cultural heritage, to practice customs and traditions, to utilise traditional medicines, and to maintain and strengthen spiritual relationships with their lands and waters, among others. The Australian Government has recently supported this Declaration (Macklin 2009).

The most recent Native Title Report also provides an excellent overview of the international human rights and environmental frameworks relevant to Indigenous engagement in NRM (ATSI Social Justice Commissioner 2009). These frameworks offer a rights-based approach to underpin future opportunities for Aboriginal involvement in NRM in NSW. Currently, Aboriginal engagement in NRM in NSW is not widely based on such principles and recognised rights; rather it has emerged for the most part out of Aboriginal struggles for recognition and inclusion. A clearer rights-based policy framework across all the agencies of government would be of value.

Such a framework is being developed by the Victorian Government following a State wide Forum with Indigenous organisations in October 2008, which presented it with a Communique on 11 March 2009. The framework proposed will be based on five principles with the acronym PANEL: Participation of stakeholders; Accountability for results; Non-discrimination for vulnerable groups; Empowerment of target groups; and Linkages to human rights standards (Altman 2009b). Altman (2009b) notes that three kinds of rights are relevant to Indigenous policy: needs-based citizenship rights, special Indigenous rights, and compensatory social justice rights to meet historical backlogs.

For NSW it is also worth distinguishing among strategies which might be appropriate in relation to public lands, and privately held lands, including leaseholds in the Western Division. Strategies to enable Aboriginal LALCs, corporations and individual families that hold lands themselves to be more engaged in CNRM are also important. Equally, specific strategies for urban areas may need to be developed.

OPPORTUNITIES ON PUBLIC LAND

The NSW Government has prepared a Discussion Paper, 'Towards an Aboriginal land management framework for NSW' (DECC 2008d), designed to open debate among Aboriginal communities about what might be important to them in relation to access and management roles in relation to public lands. The paper also discusses government services to Aboriginal people on their own land, but that aspect will be dealt with separately below. The outcomes of the consultation process relating to this paper are not yet known. However, this research has revealed a number of strategies which relate specifically to public land, and there is no doubt that scope to engage Aboriginal people in management of the range of different types of public land is significant.

Extend Aboriginal land ownership by transfer of certain public lands

There are several ways in which Aboriginal land ownership can be extended in NSW, which would provide greater opportunities for Aboriginal CNRM and the associated social benefits.

The Department of Lands could be requested to expedite the backlog of land claims still pending under the NSW Land Rights Act, and resources be provided to enable LALCs to arrange surveys of the successfully claimed land to facilitate speedy transfer of ownership.

DECC could be asked to facilitate an enhanced process for Parks and Reserves to ensure the handback of remaining lands eligible on Schedule 14 of the NPW (AO) Act 1996. This should include pro-active support for the relevant Aboriginal groups to resolve issues among themselves where that is necessary, develop their capacity for governance and CNRM, and be in a position to negotiate effectively with DECC about handback and co-management arrangements. Such support should precede any negotiations. DECC could also go further by considering extending land handback and lease arrangements to a greater number of National Parks, commencing with those which may already have MOUs in place.

Where conservation land is handed back to Aboriginal people the NSW Government should ensure that some related land is available for associated developments which may not be allowed in certain categories of conservation lands (see Dudley 2008). Aboriginal people may pay a price in terms of social benefits which they may accrue if they are not able to develop cultural, tourism, accommodation and other enterprises in or adjacent to national parks.

In relation to ILC & IPA arrangements, the NSW Government should not make the assumption that co-management of conservation lands will be better than Indigenous sole management in relation to environmental management or generating social benefits. IPAs could be extended in NSW. The State Government could consider enhancing the opportunities for purchase of freehold or perpetual leases and developing more IPAs in NSW by entering into an agreement with the Australian Government to boost IPA funding in the State.

Travelling Stock Reserves are Crown lands which cover some 600,000 hectares of NSW, often providing high biodiversity and cultural heritage values as they tended to follow traditional Aboriginal pathways associated with sources of water. They are currently managed by the Rural Lands Protection Board. The NSW Land Rights Act allows for LALCs, in certain circumstances, to claim them and/or negotiate access agreements (DECC 2008d: 21).²⁷ At present the future of Travelling Stock Reserves is uncertain, with reports of some being transferred or sold, without any input by Aboriginal people or consideration of Aboriginal interests in them. Opportunities to transfer some or all Travelling Stock Reserves to Aboriginal ownership should be considered, and no sales or transfers of travelling stock reserve land should occur without adequate, timely information being provided to the relevant traditional owners and LALC, giving them the opportunity to participate in decisions about the future of such land. Travelling Stock Reserves lands transferred could be used for a variety of purposes, such as conservation-related activities or agistment. This is an urgent priority. Indeed, the same approach should be adopted in relation to the sale or transfer of ownership of any Crown Land, since it may be claimable under the NSW Land Rights Act.²⁸

The NSW Government could consider transferring certain State Forests to Aboriginal people to be maintained as IPAs. Aboriginal people could undertake fire hazard reduction burnings to mitigate against major bushfire risk and engage in the carbon economy through ownership of forest lands.

Extend Aboriginal engagement in CNRM based on other rights

Native title rights provide another avenue for extending opportunities for agreement-making relating to Aboriginal participation in natural resource management. Again, the backlog of native title claims needs to be expedited, and developments in Victoria relating to the State-wide framework agreement based on native title rights (Premier of Victoria 2009) need to be monitored as one model, rather similar to the approach taken in the Northern Territory in which the government proactively established a single negotiation process to resolve long-standing land rights and native title issues over some 27 Northern Territory parks and reserves. This resolution was triggered by the possible illegality of earlier parks declarations and the likely requirement for compensation of Indigenous native title holders (Dillon & Westbury 2007: Chapter 4). In

NSW, the NTS Corp approach with Gamilleroi is one model which, if it proves successful, could be extended to other regions. The lessons learned from this project need to be made public if it is to provide guidance for the future.

Native title has given Githabul people some rights to be consulted about management of State Forests, but the extent to which cultural values in forests will be recognised, employment opportunities generated, and other opportunities for harvesting of non-timber products in forests developed for Aboriginal economic benefit is unclear to the research team. Common law property rights in customary use are recognised in any native title registrations or settlements under s211 of the *Native Title Act 1993*, and native title rights may also provide an avenue into the carbon economy, a point which will be discussed further below.

For opportunities on other public lands, it may be wise to await the outcome of the consultations on the Aboriginal Land Management Framework Discussion Paper, although as discussed below about opportunities in carbon trading illustrates, informed Aboriginal people in NSW seeking economic development may well be interested in a much greater role in forestry, if by engaging in this they could generate carbon credits.

The Australian Government has recently indicated it will recognise non-exclusive native title up to 12 nautical miles from Australia's shoreline in territorial waters, rather than the current three nautical miles (ATSI Social Justice Commissioner 2009: 196), which may also provide new opportunities relating to marine resources derived from native title.

Extend co-management arrangements in National Parks and Reserves

There are over 780 parks and reserves in NSW, including four World Heritage Areas. This presents considerable undeveloped scope to extend co-management arrangements and engagement by Aboriginal people. Co-management arrangements could become the normal way of doing business for parks in NSW. However, this would require a transparent and consistent policy across the State, based on Indigenous rights, and a staged, resourced process. International experience, noted earlier in this report, indicates that co-management will not necessarily protect or advance Indigenous interests in all cases, so care would need to be taken to ensure a strong social justice and rights framework is put in place around extended co-management, and staff engaged in NPs fully understood its rationale and the implications of working cross-culturally. Some Aboriginal groups may prefer sole management options, such as IPAs.

In the meantime, there is scope in all parks, as they renew management plans, to be required to consult fully with Aboriginal traditional owners and take their views into account in that planning. This would be one way to start to develop relationships on a State-wide basis.

OPPORTUNITIES ON ABORIGINAL-OWNED LAND

Indigenous landholders need better information, resources and support to enhance their capacities as NRM managers on their own land. It has already been noted that a special program to assist in clean up of Aboriginal lands has been developed, but there may be other 'mainstream' programs available to Aboriginal

people to provide advice, support and assistance in land and CNRM management of which they are unaware or to which access is currently difficult for them. Coordination among government departments to make available culturally-relevant information about all the sources of support available to Aboriginal land managers would be valuable. All agencies involved in NRM need to make extra efforts to ensure that their programs are made known to Aboriginal landholders in culturally appropriate ways, and that they service Aboriginal landholders effectively. LALCs can be among some of the largest private landholders in certain localities. At present, it seems that the absence of alternative sources of funding for Aboriginal-held land is making the development of IPAs a very attractive option for Aboriginal groups, since this program brings with it a level of financial support for CNRM which is not available elsewhere, which is Indigenous-specific in its nature.

However, there are a number of opportunities in the carbon economy and related to biodiversity for Aboriginal landholders to consider, and these may co-exist with each other, as well as with IPA status in some cases.

Biobanking

The DECC set up the Biodiversity Banking and Offset Scheme in 2008 as a way of enabling landowners in NSW to establish biobank sites to ensure conservation outcomes and offset loss of biodiversity and threatened species (DECC 2007a). Land Alive, set up by DECC alongside this, provides opportunities for Aboriginal landowners to take part in the Biobanking Scheme. The program offers assistance with developing biodiversity assessments and management plans; training in land management, and advice on finding buyers for biodiversity credits (DECC 2008b). To date no Aboriginal land owner has signed up to the biobanking scheme, although a number are likely to do so during 2009.

In theory, biobanking offers an opportunity for Aboriginal landowners to earn an annual income from the ongoing management of their land and the potential for long-term employment opportunities on their own country (DECC 2007a). However, there are a number of barriers or limitations to likely Aboriginal involvement in the scheme. Apart from the general level of distrust of government among the Aboriginal community, and hence some inevitable scepticism about such a long-term government-backed program, the participating landowners must agree to conserve the natural values of the biobank site in perpetuity. Major breaches of compliance could potentially result in loss of the land. Such provisions make Aboriginal landowners extremely reticent about signing an agreement on behalf of future generations. It is also possible that the conditions of biobanking agreements could limit activities such as hunting, gathering or fishing on the sites. The amount of Aboriginal owned land which would meet the requirements of biobanking in ecological regions close to land with potential for development may also limit its applicability. It is also important to note that when assessing the value of the land for biobanking and the price of biodiversity credits, cultural value is not taken into account. However, biobanking may present opportunities for selected Aboriginal organisations and there are possibilities for employment in biobanking for trained Aboriginal people on Aboriginal or other lands, and an appropriate training course is already available through a partnership developed by Yarnteen Aboriginal Corporation in Newcastle.

Carbon offsets and Aboriginal engagement in carbon markets

The emerging carbon economy may present a number of opportunities to Indigenous people, and these are currently being researched by the National Indigenous Climate Change Research Project (ATSI Social Justice Commissioner 2009: 149). Gerrard (2008) identifies a number of ways in which Indigenous people may engage with the carbon economy based on their land rights or the recognition of their native title rights. With the Greenhouse Gas Abatement Scheme in NSW and ACT enabling landowners to trade in the carbon stored in forests, public or private bodies wishing to offset greenhouse gas emissions will be seeking trading partners. The 2009 Native Title Report provides the example of the partnership between NSWALC and Riverina Financial and Rural Management, which has planted oil mallee trees on NSWALC-owned land west of Condobolin, to undertake carbon sequestration, and notes that other Aboriginal-owned properties could potentially follow suit (ATSI Social Justice Commissioner 2009: 155). Gerrard, referring to a carbon-trading company known as CO2 Australia, adds that 'Forestry rights under NSW legislation enable the company to negotiate access to land to plant and manage native trees. Legislation also allows the separate ownership of a 'carbon right' from ownership of the tree. The carbon stored in trees is measured and the 'credit' sold to GHG emitters' (Gerrard 2008: 10). As well as earning carbon credits, these projects can assist in biodiversity rehabilitation. Aboriginal organisations may choose to develop sustainable plantations and undertake revegetation or other land management activities which could generate carbon offsets and qualify for carbon trading, or Aboriginal businesses could become accredited under the Greenhouse Gas Abatement Scheme to trade in the same way as CO2 Australia (Gerrard 2008: 10).

Native title rights may also provide some avenues for gaining economic benefit. Gerrard explains that 'the interaction between carbon rights in trees, soil and other vegetation, and native title rights is influenced by the nature of carbon entitlement and the nature of the bundle of native title rights and interests recognised' (Gerrard 2008: 7). Whilst this is a complex and untested area, Gerrard believes that it may be possible to argue that 'native title can support the economic use of traditional rights... as such native title may provide an opportunity for participation in carbon markets through carbon offset and abatement projects and managing country' (Gerrard 2008: 8).

A recent report by CSIRO into the generation of greenhouse gas offsets from Indigenous land management explored fire management in the savannas, reforestation of cleared land and rangeland management on selected ILC properties in northern Australia. The report concluded that at carbon prices within the range of \$20-\$27 per tonne significant revenues could be generated, although the feasibility of such revenues would depend on access to markets and the price of carbon—which initially in Australia may be considerably lower. However, the report emphasises the need for further research into the costs of managing such land which need to be set against income, although it also recognises that other values and benefits may accrue—particularly if the design of carbon-offset projects is compatible with traditional owner values (Heckbert et al. 2008). It could be valuable to encourage CSIRO to carry out similar research in NSW.

There is clearly a need for clear information to be provided to Indigenous groups about the opportunities currently or potentially available to them in the carbon economy. At this stage few would be aware about the possibilities for generating carbon credits from their own land, or for similar potential if they could gain rights in areas that are currently Crown Land. The first workshop of a series to be held nationally for Indigenous people on climate change, and the opportunities it presents, was conducted in Canberra in April 2009. However, the current Carbon Pollution Reduction Scheme proposal does not recognise abatement as an element, thus restricting its value.

Climate Change mitigation measures may also present opportunities for Indigenous organisations, but this will be dealt with below as they are not confined to Indigenous-owned lands.

PRIVATE LANDS

Strengthen Aboriginal engagement in Catchment Management Authorities

Some CMAs are making much greater progress in Aboriginal engagement than others. Some leadership is required at the State level, through CMA Chairs, to enable more successful CMAs to share their experiences, to enable CMAs to learn from each other how to make more significant progress in the opportunities they provide for Aboriginal people to be involved in CNRM.

Promote Aboriginal Natural Resource Agreements between landholders and Aboriginal groups.

Arising from the work of a number of CMAs, and previous research supported by NRAC, is the concept of ANRAs. Such agreements can be negotiated between Aboriginal groups and private landholders (as well as public ones). It would be valuable if the NSW Government could promote the benefits of such agreements to private landowners, in terms of NRM outcomes, improved well-being of Aboriginal people, cultural heritage protection and reconciliation. Some negotiation between the State Government and farmers and other large private landholders could provide greater support at a State level to facilitate these agreements being developed in specific localities. The availability of some seed funding support for Aboriginal groups and landholders to negotiate such agreements could facilitate this.

GOVERNMENT POLICIES AND PROGRAMS

One of the central issues in bringing together NRM and Indigenous people is the social justice agenda which needs to be a factor in this engagement. NRM programs tend not to promote social justice goals, program for social justice outcomes, or collect data on and evaluate the social benefits of their programs. Such benefits are seen as incidental to the main goals of the programs. This presents a clear constraint on maximising social benefits from Indigenous engagement in NRM. A philosophical or mind-set shift, accompanied by the appropriate policy response, would be required to overcome this. The case for incorporating the social

justice agenda rests on the fact that there is a real need to undertake urgent NRM work, the fact that Indigenous people are keen to do it, and that both Indigenous social justice and environmental objectives are government priorities. Below are some suggestions about the types of government legislative and policy changes needed.

A whole of government policy approach to Aboriginal development through CNRM

The research has revealed a complex web of multi-jurisdictional, multi-agency governmental arrangements with which Aboriginal people in NSW have to deal. They often find it frustrates their efforts to engage effectively in CNRM. In addition the research team has identified that often agreements reached with Aboriginal people are implemented slowly or inadequately. Somehow, policy has to be streamlined and simplified, or coordinated more effectively into a whole of government strategy for Aboriginal development through CNRM, and more attention has to be given to implementation.

It is clear that some NRM-related departments have established stronger working relationships with Aboriginal people than others. The ways in which departments (or even different sections with departments) and agencies engage with or resource their engagement with Aboriginal people is inconsistent. Training of staff in cross-cultural issues relating to CNRM would facilitate improved relationships in areas where these remain weak. If the State Plan priorities in relation to Aboriginal people and the COAG Close the Gap targets endorsed by the NSW State Government are to be met within NSW, all agencies will need to contribute consistently to their achievement. Some agencies are poorly resourced or lack the bureaucratic will in key areas relating to Aboriginal CNRM issues as this report has indicated, and these are hampering progress. Bureaucratic politics looms large, and departments focused on NRM or Indigenous social policy issues are reluctant to cross-subsidise each other, thereby impeding whole of government goals.

State-wide leadership is needed to drive a new approach to Indigenous development, which would allow for the diversity of circumstances of Aboriginal people in NSW. As indicated below, such an overarching policy approach would include both employment in mainstream NRM activities, and sustainable livelihoods approaches with opportunities for sustainable use of natural resources.

One approach would be to explore how, within one or more of the Two Ways Together partnership communities which may have a particular interest in pursuing CNRM interests, the various agencies could be coordinated around a local or regional plan for Indigenous development through CNRM. Such an innovative and experimental approach might reveal more clearly what the coordination issues are, develop local strategies to overcome them, and highlight areas where higher level changes are necessary to effect developments on the ground.

Build business and employment strategies around CNRM

CNRM activities are mostly being developed separately from Indigenous employment and business development programs. State agencies involved in employment and business development could usefully

work very closely with NRM agencies to develop an employment and business development strategy based on CNRM. Some examples of what could be explored are indicated below.

In some protected areas there are significant numbers, occasionally a majority, of Aboriginal staff, while in others the numbers are low or zero. Overall the DECC is attracting higher numbers of Aboriginal staff than other NRM agencies. However, employment strategies in protected areas (land and marine) could be strengthened in certain sectors or regions as well as across other NRM-related Departments which currently employ very few Aboriginal staff.

Long-term employment opportunities for Green Teams and Indigenous CNRM managers could also be achieved through much closer interaction between employment and business development programs and NRM programs and activities.

For example, in the Many Rivers Region of the NSW mid-north coast, a proposed Regional Partnership Agreement to commence mid-2009 plans to establish an Indigenous Green Team Development Unit whose role would be to act as a broker between the 60 existing Green Teams in the region and business opportunities. Research in the region has found that demand exists for these skills but the teams have to date been reliant on short-term, low-income jobs from NRM funding sources. The intent is to use future NRM investments to leverage into commercial environmental work through developing relationships with industry, capacity building, and supporting Indigenous opportunities in the carbon economy on Indigenous-owned and other land. This Regional Partnership Agreement has a clear employment goal but builds social benefit on existing CNRM-related skills and experience of Aboriginal people. This model should be monitored closely, and if successful, extended to other regions as a matter of priority.

Opportunities for employment in various major rehabilitation projects are evident around the State, related to large infrastructure development, such as roads, or rehabilitation of mining or quarry sites, as well as more regular land management activities for local councils, government departments and private landholders including in urban areas. Where such initiatives show potential in local areas the necessary support should be available, but at present there is no clear source of such support for Indigenous groups from any agencies.

In addition to such employment possibilities, it is also important to identify, encourage, and financially support, interested and capable Indigenous land/sea managers to upgrade their qualifications to tertiary level to develop an emerging generation of CNRM policy makers, researchers and senior managers. Qualifications and skills in governance, business management and related areas will also be needed by Aboriginal people if they are to have opportunities at all levels of CNRM employment. A few examples of this practice are evident, but it could be more widely promoted and implemented across all relevant agencies.

Enhance procurement and tendering arrangements

Currently, 'in locations where there are significant Aboriginal populations with limited opportunities NSW government agencies must identify contracts that can provide employment, business and training opportunities for them' (DECC 2008d: 17). In such cases boosting Aboriginal employment can become

a criterion in the assessment process. This facility could potentially be strengthened to make Aboriginal employment a criterion in all relevant tenders and contracts issued by NRM agencies, in order to provide job and business development opportunities for the growing number of Aboriginal Green Teams, as well as supporting other Aboriginal people and businesses, especially in remote and regional areas of the State where a lot of this work may be undertaken. Such an affirmative action provision may be viewed as anti-competitive by some, but there have been precedents established in the gender equity area, which might apply in a similar way to Indigenous disadvantage.²⁹

Sustainable livelihoods approach to development and sustainable use of natural resources

The circumstances of Aboriginal people in NSW are extremely diverse, from inner urban locations in which they are a tiny demographic minority, to remote communities in the north-west of the State where they are becoming the majority. Their strategies for earning income and sustaining livelihoods are therefore likely to differ considerably according to their location and their access to land or other natural resource assets, such as the ocean or major rivers and wetlands. Men and women may also have different priorities and interests in CNRM and where and how they wish to be engaged. Development strategies should therefore reflect these varied circumstances and the varied aspirations of Indigenous people.

In northern Australia, Altman (2006, 2007) has been documenting and promoting the hybrid economy model as a form of development that reflects economic reality in remote circumstances. But in NSW the hybrid economy is clearly structured differently. While the State sector looms large, there is greater engagement with the market via private sector employment and small business and the customary sector is currently extremely small and may be close to non-existent in urban contexts (Altman 2004). However, there is a strong desire on the part of Indigenous people in certain parts of NSW to have greater opportunity to engage in the customary economy, often termed the cultural economy, in NSW. This is especially true in relation to sea country and inland waterways, although it is not restricted to this area, as some communities, particularly women, would like to regenerate or expand the availability of native plants for bush food or basket making. Furthermore, international and national experience indicates that conservation does not need to conflict with options for sustainable use of natural resources.

Marine resources

In relation to sea country in particular, as a starting point, the NSW Fisheries and the MPA could jointly develop a consistent policy to support sustainable use of marine resources along the NSW coastline. For example in Queensland, the Great Barrier Reef Marine Park Authority (2009) is developing Traditional Use of Marine Resources Agreements with traditional owner groups. There are now four Agreements in place and a \$10 million fund to assist with development of more. The advantage of such models is that they provide traditional owners with the opportunity to develop their own capacity and to clarify their own goals in relation to management of their sea country and marine resources before entering into negotiations with other players such as government fisheries managers and private stakeholders. For example, if Aboriginal communities had the capacity to develop their own combined fisheries and marine conservation strategy,

with input and support from scientists and others, they would be in a better position to negotiate with other players. They may also wish to build in opportunities for their own people to operate tourism-related businesses (e.g. diving, whale-watching).

In NSW legislation regarding the take of marine resources is complex. Although the MPA is moving towards traditional use agreements in particular locations and both Fisheries and the MPA are developing new policies to support customary or cultural use, it is unclear to the research team how consistent these policies will be and how far they will go to meet Aboriginal aspirations for a single clear policy which supports sustainable use across the State. A draft policy on cultural fishing was released as this research was concluding and consultations are now underway (Department of Primary Industries 2009). The opportunity to support conservation alongside desired livelihood strategies for Indigenous people, and to simplify the complexity of regulations which Aboriginal people have to negotiate, is desirable.

The situation of Aboriginal commercial fishers also requires attention. At present there is no way of identifying how many Indigenous commercial fishers are operating, nor is there any process for intergenerational transfer of commercial fishing licences within Aboriginal families or training of a new generation of Aboriginal fishers. The opportunity to address each of these requirements could sustain the small number of Aboriginal fishing families still working commercially and research and support around these issues is needed.

Other resources

Other sustainable use opportunities may be found in relation to kangaroo harvesting, which may provide economic opportunities for Aboriginal people in the rangelands, although many constraints would need to be overcome, not least the attitudes of non-Indigenous Australians and certain environmental organisations towards these animals. The University of New South Wales' Future of Australia's Threatened Ecosystems Program (FATE) has been researching whether kangaroo harvesting could contribute to 'ecological, economic and social sustainability in Australia's rangelands' through sustainable use. According to FATE, 'there has been little recognition of the conservation benefits that could occur through securing a sustainable flow of revenue to landholders from native wildlife harvesting and the resulting changes in the way that land is used and managed'.³⁰ Kangaroo enterprises based on kangaroo management plans could enhance the economic viability of pastoral enterprises, as FATE believes there is potential for expansion of domestic and export markets.

The use of other native foods is a further area where there may be opportunities for increased customary harvesting, wildlife harvesting for commercial use, or cultivation of certain species for either or both purposes, but more research and development work in NSW would be required for commercial development in particular (Latham & Ryder 2004). However, it is clear that one of the constraints to developing an export market in native foods relates to the inconsistency of supply, so the opportunity to develop more reliable supplies of selected species in NSW would likely be welcomed by the industry.

However, one structural constraint is the lack of a well-coordinated government policy and economic support system to support sustainable use approaches. There is no clearly identifiable reference point in

government with responsibility for ensuring a coordinated economic support system is in place to facilitate such developments. Such a system would bring together into a coordinated strategy the resources of several relevant agencies, including at State and Federal levels, to elaborate a policy and implementation strategy to foster and encourage sustainable livelihood and sustainable use opportunities based on NRM with Indigenous groups across the State. In developing policies for customary use and sustainable livelihoods, government and others need to recognise that culture changes and adapts and contemporary cultural use may include introduced species such as bush lemons and introduced technology such as beach-haul fishing (Adams, Cavanagh & Edmonds 2008).

Climate change mitigation opportunities

Indigenous communities will be affected by climate change like everyone else, but perhaps because proportionally they live in more marginal environments, the impacts of climate change on them may be felt earlier, or in greater intensity, than by other Australians (see Altman & Jordan 2008). For example rising temperatures in far western NSW are likely to have a range of negative impacts on Aboriginal people, including higher electricity use and resulting higher costs. Some offset measures could involve improved insulation, replacing light bulbs with low energy bulbs, installing solar hot water systems etc. Aboriginal people could receive training to develop the necessary skills to install such technology and retro-fit homes to mitigate the impact of climate change in their communities. Such measures would also contribute to national targets for reducing greenhouse gases, and provide Indigenous people with a range of skills which they could also use to obtain similar employment in the wider community.

Better protection of Aboriginal Cultural Heritage

There is clearly concern in the NSW Aboriginal community about inadequate protection of Aboriginal cultural heritage (Seiver 2005), which, as explained at the outset is viewed by Indigenous people as inseparable from NRM. Notwithstanding recently announced changes proposed for NSW Aboriginal cultural heritage protection (Clennell 2009), there is concern that better legislation is required that meets international best practice standards, to prevent the widespread destruction of Aboriginal heritage currently occurring in NSW. By improving its protection of Aboriginal heritage, the government would contribute to greater trust and better relationships between Aboriginal groups and government, including local government, and with private development corporations. An entirely new Aboriginal Heritage Act may be necessary.

Employment opportunities for Aboriginal people to properly train government officials across a broad range of departments, and especially local government, front-line workers at development sites, CMA staff and others, including interested members of the community, about the identification and protection of Aboriginal cultural heritage could also contribute to Aboriginal well-being, given the significance of such heritage to reported well-being. Government requirements or incentives for completion of such training by all relevant officials and private sector employees could generate business opportunities for appropriate Aboriginal groups.

Support for an Aboriginal network or networks to build capacity

CNRM initiatives driven by Indigenous people and supported by government or others offer some positive directions. The role of NAILSMA in the north of Australia is beginning to bring together Indigenous and other interests to promote a development model based on CNRM. This has to be matched by a framework of government support for such a model. Aboriginal people in NSW have no such network or advocacy body which could provide the chance for them to learn from each others' experiences and ideas and perhaps set a State Aboriginal agenda for their own development through CNRM. Meetings of groups involved specifically in catchment management and NPs co-management have been held from time to time, but no State-wide network or regional networks to promote Aboriginal development through CNRM exist, with the possible exception of MLDRIN which has a particular focus. Obviously bodies such as NSWALC and NTSCorp would be essential participants in such initiatives. If there were Aboriginal interest in establishing one or more such networks, government support could usefully be provided. One way to test the interest in such a network idea would be to host a State-wide conference on Aboriginal development through CNRM.

CONCLUSIONS AND RECOMMENDATIONS

Much of the Indigenous engagement in CNRM happening in Northern Australia is embryonic and vulnerable, but is nevertheless being supported by governments. In NSW, opportunities abound, and in some respects NSW is institutionally advanced—for example in relation to Aboriginal water licence allocations compared to other States. In other respects, such as customary marine rights, NSW is less advanced but is starting to take action. NSW has the opportunity to take a genuine leadership role in Aboriginal engagement in CNRM in south eastern Australia

One of the key issues to address is the extent to which Indigenous people have a real competitive advantage in relation to CNRM, or whether this claim is simply assertion. There is a need for rigorous evaluation of pilot work currently underway to learn essential lessons from these experiences, and assess their transportability. It appears that there may be a strong fusion of interests in policy which is both beneficial for Indigenous people and for the degraded nature of the NSW environment. Aboriginal people bring local, and often specific Indigenous knowledge, local labour and local eagerness to play a role in CNRM, and in the absence of alternatives in many regions, their engagement in CNRM may provide one important strategy towards closing the social and economic gaps.

The Federal and State governments are placing great emphasis on Indigenous employment, and investing billions of dollars in nation-building infrastructure. Some of these funds could be invested in Indigenous aspirations to contribute in a far greater way to conserving and restoring the environment, particularly as other support, in the form of the CDEP program, is coming to an end. As the Many Rivers Region has identified, this may present opportunities to create long-term better-paid alternative CNRM work for Aboriginal people.

Governments tend to be risk-averse by nature, but if improvements in both Aboriginal circumstances and environmental conditions are to occur, the NSW Government cannot afford to be. Some risk-taking will be required to pioneer new approaches which may lead to better outcomes than current policy has delivered to date.

NSW will need to consider the extent to which it extends engagement of Aboriginal people in CNRM through persuasion of non-Indigenous institutions, the extent to which it can use incentives, or the necessity for using some legal or regulatory requirement to employ or engage Aboriginal people in NRM at various levels.

Altman and Jackson (2008) suggested 10 commitments which governments could make to foster both environmental recovery and protection and address the persistent poverty and social disadvantage facing Indigenous communities across the nation. Bearing in mind, the specific situation of NSW, the following specific recommendations adapted from their list and drawing on the lessons and opportunities outlined above could be considered in NSW.

The following recommendations address the need for a better evidence base in relation to the social benefits of Aboriginal engagement in natural resource management in NSW. They also accept that existing international and national experience and the limited NSW evidence indicates that investment in Aboriginal engagement in natural resource management is likely to yield a wide range of social benefits for the Aboriginal community of NSW and contribute effectively to the State's social and environmental goals. Overall, this report recommends extension of Aboriginal engagement in natural resource management in NSW.

1. Develop a process to systematically monitor, record and evaluate the social benefits of Aboriginal engagement in NRM across NSW

At present there is no system of data collection which would enable policy makers or researchers to systematically identify the social benefits of Aboriginal engagement in natural resource management in NSW. To establish a firmer evidence base, it is necessary to establish a simple but effective system to systematically capture social data relating to NSW's broad social and economic goals for Indigenous people through Aboriginal engagement in natural resource management, to complement data collected about progress towards environmental outcomes. Evaluation of programs involving Aboriginal engagement in NRM should assess social as well as environmental benefits.

2. Extend the Indigenous estate in NSW

Opportunities for Aboriginal engagement in NRM and for generating social benefits will be greater where opportunities can be taken to extend the Indigenous estate by expediting land claims, proactively facilitating national park handbacks, supporting IPAs, and transferring Travelling Stock Reserves and other appropriate Crown land, such as certain State forests, to Aboriginal ownership. In particular no further sales or transfers of Travelling Stock Reserves should occur without local Aboriginal traditional owners and LALCs being

informed. In every case, adequate funding and governance support must accompany such extension to support Aboriginal land management.

3. Recognise that Aboriginal landowners need assistance to manage their estates: provide appropriate sources of support for them

Most Aboriginal landowners are socioeconomically disadvantaged, and lack finance and other capacity, including technical know-how, to address the many NRM issues they need, or are required, to address on their land. This support must be easily accessible and culturally sensitive. They also need appropriate governance support from the earliest stages.

4. Extend joint management to all protected areas.

Whilst NSW has made some steps in this direction, it could set a goal of negotiating agreements with the appropriate Aboriginal traditional owners for the management of a significant proportion of its protected areas (land and marine) by 2013, the date of the next World Parks Congress, and the remaining areas by 2015. In the interim, arrangements should enable traditional owners to participate in the development of management plans as they are renewed.

5. Ensure equitable funding for management of the Indigenous conservation estate in NSW compared to non-Indigenous protected areas

The national IPA program, which has expanded significantly across northern Australia in particular, and appears set to expand considerably in NSW, is providing a range of environmental services such as biodiversity protection, weed control, fire management, and in NSW, wetlands recovery, for the nation. Funding has not kept pace with the growth of the IPA program, and in NSW the loss of CDEP exacerbates this situation. Whilst the Australian Government has introduced the new Working on Country program, to fund new positions across the nation, there will be a need to expand such employment opportunities and better finance the IPA program, so that existing and new NSW IPAs are adequately and equitably resourced in comparison to other protected areas.

6. Extend Aboriginal NRM on privately-held land in NSW through enhancing the efforts of CMAs and promoting Aboriginal Natural Resource Agreements

Much of NSW is already held in freehold title or as perpetual leases. To extend the arena for Aboriginal NRM, opportunities for Aboriginal people to access their country, contribute to conservation and cultural heritage management, and facilitate intergenerational knowledge transfer can be facilitated through:

- enhancing the capacity of CMAs to provide opportunities for Aboriginal participation, by learning from the experiences of the most successful CMAs, and
- promoting ANRAs negotiated with landholders. A small fund to facilitate the negotiation of such agreements could provide valuable practical support.

7. Recognise Indigenous property rights in existing and emerging natural resource markets

Protracted disputes about Indigenous access to natural resources (such as occurs in relation to fisheries) could be avoided by greater legal recognition of Indigenous interests in new forms of property rights in emerging markets such as fresh water, carbon, and biodiversity. Whilst NSW has gone some way to recognise water rights (though not in terms of allocations of cultural flows in the Murray Darling Basin, for example), in other areas there remains a lack of clarity about property rights. Legislative action could clarify rights and provide the basis for new CNRM opportunities.

8. Develop a whole-of-government policy and approach to support Indigenous development through CNRM

An overarching State-wide strategy for Aboriginal development through CNRM is necessary. Such a strategy would need to recognise the diversity of Aboriginal circumstances and aspirations across the State and embrace business development and employment as well as sustainable livelihoods approaches. One way of exploring what is required, would be to undertake a trial in one or more interested Two Ways Together Partnership Communities to examine how various agencies could be coordinated around a comprehensive local or regional plan for Aboriginal development through CNRM.

9. Develop a CNRM-based Aboriginal employment and business development strategy

CNRM appears to be generating a significant number of jobs and business opportunities for Aboriginal people in NSW. More could be achieved if employment and business development initiatives were specifically focused into a strategy around CNRM, so as to leverage more development opportunities from existing activity. Aboriginal organisations, local governments and private sector stakeholders should be involved in developing and implementing such a strategy. An education and career development strategy for Indigenous land and sea managers should be included. The Many Rivers Regional Partnership Agreement should be monitored closely as a potential model to extend to other regions.

10. Adopt a livelihoods strategy for development through sustainable use of natural resources

Various opportunities exist for Aboriginal livelihoods to be developed based on sustainable use of natural resources. These may include wildlife and wild foods harvesting for a range of subsistence or sale purposes, or cultivation of native species for commercial development. There is no government policy or economic support which could facilitate and support such development across NSW. Planning and impact assessment processes need to take these uses into account.

11. Recognise customary marine tenure and aspirations to manage coastal country

NSW Aboriginal people want a primary role in the management of coastal and marine resources—both in the commercial fishing industry and in co-management of the coastal and marine zone. There is a need for: more robust implementation of the Indigenous Fisheries Strategy; follow-up to the 2003 workshop with commercial Indigenous fishers; and a consistent policy across Fisheries and Marine Parks to support sustainable customary use of marine resources. The Great Barrier Reef Marine Park Authority concept of Traditional Use of Marine Resources Management Agreements could be explored more fully in NSW.

12. Respect the contributions that local Aboriginal knowledge can make to addressing environmental problems, and resource the reproduction and transmission of this knowledge

There are Aboriginal people in NSW keen to maintain and rediscover Aboriginal CNRM knowledge and ensure its transmission to younger generations. Support for Junior Green Team activities and inclusion of local Aboriginal knowledge of CNRM in schools, and the development of more programs to record, codify and integrate Aboriginal and western knowledge systems could all be valuable. The need for support to develop blended customary and western institutions for Aboriginal governance of CNRM is also necessary.

13. Consider a fundamental rethink of the NSW approach to Aboriginal cultural heritage to ensure it meets international best practice standards for protecting Aboriginal cultural heritage

Indigenous people do not separate natural resource management from cultural heritage protection in their country. The existing Aboriginal cultural heritage regime is inadequate for such protection and greater protections are urgently required. An Aboriginal Heritage Act could be considered.

14. Support the development of an Aboriginal network or networks across the State with interests in CNRM issues

Aboriginal people in NSW need opportunities to learn from each others' experiences and to develop and articulate their own priorities to State and Federal agencies for their engagement in CNRM. Support for conferences, networks and possibly a State-wide CNRM network if that were desired, could contribute to Aboriginal capacity building and provide valuable opportunities for dialogue between Aboriginal people engaged in CNRM and non-Indigenous agencies.

NOTES

1. Land belonging to Local Aboriginal Land Councils (LALC), land purchased through the ILC, including Indigenous Protected Areas (IPAs), and land handed back under the *NSW National Parks and Wildlife Amendment (Aboriginal Ownership) Act 1996*.
2. Booroogen Djugun Aboriginal Corporation is undertaking major tree planting to offset its own carbon emissions, and NSWALC is involved in carbon trading.
3. Dr Hunt also attended Empowering Aboriginal Women for Strong Communities and Towards Healthy Country, a conference for women involved in NRM in NSW and the ACT, held at Nelson Bay in May 2009. This report is also informed by issues raised at that conference.
4. This total figure is the Estimated Resident Population calculated by the Australian Bureau of Statistics. All other figures are from the 2006 Census count data.
5. Figures are rounded from most recent public Departmental Annual Reports.
6. ICNRM is the term used in these studies.
7. Our calculation brings this total to \$3 million in total in net present value.
8. Northern Territory of Australia v Arnhem Land Aboriginal Land Trust [2008] HCA 29 (30 July 2008).
9. For examples of Aboriginal people in NSW acquiring and managing land for conservation purposes see DAA 2004.
10. Information obtained from NSWALC(a), figures current to July 2008.
11. Goodall highlights how much Aboriginal people contributed to the development of pastoral industries, forming some 30% of the workforce in the cattle industry up to the 1920s and beyond, and contemporaneously fulfilling cultural responsibilities, in what she terms a 'dual occupation'. She highlights the consistent Indigenous calls for secure land tenure for economic and cultural reasons (Goodall 2001: 108).
12. The current five Aboriginal-owned parks under this legislation are: Mutawintji NP (1998), far west, north east of Broken Hill; Mt Grenfell Historic Site (2004), west of Cobar; Biamanga NP and Gulaga NP (2006), far south coast; and the Worimi Conservation Lands (not one of the original seven eligible, but arising from an agreement following a land claim).
13. Aboriginal Owners are identified by the Registrar of Aboriginal Owners under the NSW Land Rights Act. See discussion in section relating to opportunities on public land in this report.
14. An agreement arising from a native title claim has also led to Wiradjuri people's access to Wellington Common and the opportunity for Wiradjuri people to look after and revegetate the Common (Agreements, Treaties and Negotiated Settlements 1995).

15. See section above on opportunities to extend Aboriginal participation in CNRM in NSW to attain greater social benefits..
16. Cultural flows are defined by MLDRIN as 'water entitlements that are legally and beneficially owned by the Indigenous Nations of a sufficient and adequate quantity and quality to improve the spiritual, cultural, environment social and economic conditions of those Indigenous Nations' (ATSI Social Justice Commissioner 2009: 284)
17. There are no data on the total number of commercial Indigenous fishers in NSW, which presents a significant information gap.
18. The Western Division refers to 31 million hectares of western NSW, some 42% of the State, most of it Crown Land administered under various Crown Land Acts, particularly the *Western Lands Act 1901*. Most of this land is held under perpetual leasehold from the Crown, and native title cannot be claimed.
19. See DECC Protecting our Places Project Summaries 2008. Accessed at <http://www.environment.gov.au/grants/2008PPsummary.htm>.
20. Indigenous people in NSW generally prefer to be known as 'Aboriginal people'. The terms 'Indigenous' and 'Aboriginal' will be used throughout this report, with 'Aboriginal' preferred where we specifically discuss NSW and 'Indigenous' where the reference is broader, or where we are specifically referring to Aboriginal and Torres Strait Islander people in NSW.
21. By this they meant regaining control over and access to their country through a series of ILUAs.
22. See The Bunjalung People of Byron Bay (Arakwal), The Bunjalung Byron Bay Aboriginal Corporation (Arakwal) and The NSW Marine Parks Authority (n.d.).
23. Booroogen Djugun Aboriginal Corporation is undertaking major tree planting to offset its own carbon emissions, and NSWALC is involved in carbon trading.
24. It should be recognised that the most conflict appears to be between environmental and animal welfare organisations in other jurisdictions e.g. The Wilderness Society in North Queensland over Wild Rivers legislation and with animal welfare groups in Northern Territory over crocodile safari proposals (Koch 2009; Toohey 2009).
25. Notwithstanding very recently announced changes to penalties and arrangements under the Cultural Heritage regime (Clennell 2009).

26. Specific programmes and initiatives that have been developed as part of the Australian Government's commitment to the Convention on Biological Diversity include the Working on Country Program, the IPA Program, the Indigenous Land Management Facilitators Program, the promotion of Indigenous involvement in regional NRM, and the joint management of NPs established on Indigenous-owned land.
27. It is worth noting at this point that according to Aboriginal customary law, traditional owners should be the group to whom land is transferred, but the legislation in NSW refers to LALCs. LALCs should always ensure they are working with, and in support of, the traditional owners of lands.
28. The Crown Lands Division is currently streamlining land administration. Perpetual leases and Crown roads may be converted to freehold title if they are no longer required for a public purpose (Department of Lands n.d.).
29. For example, the *Equal Opportunity for Women in the Workplace Act 1999* (Commonwealth) requires organisations with 100 or more staff to establish EEO programs and otherwise comply with the Act. If they don't comply they can be 'named and shamed' in the Parliament, and are unable to tender for government contracts and industry assistance. See Equal Opportunity for Women in the Workplace Agency, viewed 8 December 2009
<http://www.eowa.gov.au/Reporting_And_Compliance/The_Quick_Guide.asp>.

Also, in 2005 women-specific indicators were inserted into in Commonwealth/State funding agreements (Sawer 2007).
30. For further details see 'FATE and kangaroos', viewed 8 December 2009
<<http://www.fate.unsw.edu.au/detail/kangaroos.htm>>.

APPENDIX A: CONTRACT BRIEF—SPECIFICATION OF WORK (EXTRACTS)

Project Manager: The Project is managed by the NRAC Standing Committee for Sustainable Resource and Conservation (Chair: Jeff Angel) and the NRAC Secretariat.

Objectives: The Objective is to report on the social benefits of Aboriginal Peoples' engagement in natural resource management (NRM) in NSW. The purpose is to provide a common and high level understanding of the issue across the Council's diverse member organisations and agencies, and to enable the Council to formulate consensus advice on actions to promote community social development in NSW through Aboriginal Peoples' involvement in NRM

Scope of Work: Knowledge review, strategic research and consultation, written report and presentation drawing on Australian and international perspectives.

Key Outputs: Content and method plan; draft and final versions of report; and, acquittal.

Duration: Eight weeks.

Description: The review and expert report will:

- Include a critical analysis of key literature and other sources relating to the linkages between involvement of indigenous peoples in natural resource policy setting and management, and related social and economic outcomes, in the international, national and NSW context.
- Inform high level understanding of the social, economic and environmental benefits of enabling and expanding Aboriginal Peoples' involvement in natural resource policy and management in NSW.
- Review constraints on expanding Aboriginal Peoples' involvement in natural resource policy and management in NSW and key consequences in light of Aboriginal Peoples' social development in NSW and NSW State Plan.
- Draw out and illustrate opportunities for improvement in social, cultural, and economic development in NSW through Aboriginal participation in natural resource policy development and management.
- Provide strategic recommendations for NRAC consideration.

Timing: Commencement: Immediately on execution of contract

Draft outline of content and method plan: one week after commencement

Draft report and presentation: six weeks after commencement.

Final report: eight weeks after commencement.

APPENDIX B: CO-MANAGEMENT AGREEMENTS BETWEEN DECC AND ABORIGINAL PEOPLE IN NSW

There are eight MOUs and two other agreements with Aboriginal communities in NSW for management of parks:

- with Menindee Elders Council for management of Kinchega NP
- with Three Traditional Tribal Groups Elders Council for management of Mungo NP
- with Peak Hill Bogan River Traditional Owners Group for Goobang NP and Snake Rock Aboriginal Area
- with Aboriginal community representatives from Coonabarrabran, Gunnedah, Narrabri and Barradine for management of Pilliga Nature Reserve, Dandry Gorge Aboriginal Area and Pilliga East Aboriginal Area—the Gawambaraay Pilliga Co-management MOU
- with twelve Aboriginal organisations for all parks in the NPWS Central Coast Hunter Range Region—the Central Coast Hunter Range Region Co-management MOU
- with the Darug people for a number of parks in metropolitan Sydney and part of the Blue Mountains National Park
- with the Saltwater people for the management of Saltwater National Park and part of Khappinghat Nature Reserve and for camping and other cultural activities
- with Baakandji and Budjiti people for management of the Paroo River Wetlands Ramsar Site, including Nocolèche Nature Reserve and Paroo Darling National Park
- a statement of joint intent with Ngiyampaa people for culture camps at Yathong Nature Reserve
- a court agreement with Forster Local Aboriginal Land Council for the management of Myall Lakes National Park.

APPENDIX C: LIST OF PERSONS INTERVIEWED

Peter Ampt	FATE Program Manager University of NSW
Gavin Andrews	Manager Cultural Programs Support Section, Culture and Heritage Division, DECC
Michael Anderson	Traditional Owner, Ngurampaa Ltd.
Jody Broun	Director General, Department of Aboriginal Affairs
Denis Byrne	Manager, Research Section, Culture and Heritage Division, DECC
Vanessa Cavanagh	Cultural Heritage Researcher, Research Section, Culture and Heritage Division, DECC
Rosie Cooney	Visiting Fellow, Fenner School, ANU
Russell Couch	Director, Policy and Knowledge Branch, Cultural Heritage Division, DECC
Ben Cruse	Research Project Development Officer, Eden LALC
Tanya Cutmore	Manager, Banbai Business Enterprises Inc.
Marcia Ella-Duncan	Land Alive Coordinator, Landscapes and Ecosystems Branch, DECC
Sylvie Ellsmore	Senior Policy Officer, Land, Policy and Research Unit NSW Aboriginal Land Council
Sue Feary	Archaeologist, Nowra, DECC
Jason Field	Policy Coordinator, NSW Aboriginal Land Council
Lenore Fraser	Acting Manager, Co-Management Unit, National Parks and Wildlife Service, DECC
Michelle Gardner	Senior Natural Resource Officer (Aboriginal Programs) DECC
Mark Hewitt	Manager, Indigenous Coordination Centre, Coffs Harbour
Sam Jeffries	Chair, Murdi Paaki Regional Assembly
Nick Lackner	Land Management Framework Coordinator, DECC
Dr Ken Lum	Head of Operations, Native Title Services Corporation
Phil March	Booroongen Djugun College
Tracey McDonald	Operations Manager, Aquatic, Marine Parks Authority
Kim O'Donnell	Former Chair, Mutiwintji National Park Board of Management
Michael O'Ryan	Director of Policy and Program Development
Lee Pearson	Indigenous Land Management Facilitator, Dept. of the Environment, Water, Heritage and the Arts
Kathy Ridge	Project participant Booroongen Djugun ANRA Project
Steven Ross	Coordinator, Murray Lower Darling Rivers Indigenous Nations (MLDRIN)
Stephan Schnierer	Associate Professor, School of Environmental Science and Management, Southern Cross University

Kathleen Schilling	Manager, Central Aboriginal Heritage Region, Aboriginal Heritage Operations Branch, Culture & Heritage Division, DECC
Anthony Seiver	Principal Policy Officer (Culture & Heritage) Department of Aboriginal Affairs
Kelly-Ann Stanford	Director of Aboriginal Affairs, Coordination & Strategy, DECC
Yvonne Stewart	CEO, Bunjalung Byron Bay (Arakwal) Aboriginal Corporation
Phil Sullivan	Aboriginal Heritage Conservation Officer, Bourke, DECC
Dr Dan Walker	Acting Chief of Division, Sustainable Ecosystems, CSIRO
Dianna Watkins	Manager, Policy Coordination and Review, Department of Primary Industry NSW.
David Watts	Aboriginal Heritage Manager, North Sydney Council
Jessica Weir	Research Fellow, Australian Institute of Aboriginal and Torres Strait Islander Studies

REFERENCES

- Aboriginal and Torres Strait Islander (ATSI) Social Justice Commissioner 2009. *2008 Native Title Report*, Human Rights and Equal Opportunity Commission, Sydney.
- Aboriginal Heritage Office 2007. *Annual Report: Report on the activities of the Aboriginal Heritage Office 2007-2008*, North Sydney Aboriginal Heritage Office, Sydney.
- n.d. *Aboriginal Site Awareness*, North Sydney Aboriginal Heritage Office, Sydney.
- Aboriginal Natural Resource Agreement (ANRA) 2008a. *ANRA Case Study 1: Phaius Australis 'Dunghutti' Recovery Project*, Aboriginal Natural Resource Agreements, NRAC.
- 2008b. *ANRA Case Study 2: Worimi—Marine Park Authority MOU*, Aboriginal Natural Resource Agreements, NRAC.
- Adams, M., Cavanagh, V. and Edmonds, B. 2008. 'Bush lemons and beach hauling: Evolving traditions and new thinking for protected areas management and Aboriginal people in New South Wales', in D. Smyth and G. K. Ward (eds), *Protecting Country: Indigenous governance and management of protected areas*, AIATSIS, Canberra.
- Agreements, Treaties and Negotiated Settlements 1995. *Wellington Agreement*, viewed 7 January 2009 <<http://www.atns.net.au>>.
- 2001. *Bundjalung of Byron Bay (Arakwal) Indigenous Land Use Agreement (ILUA)*, viewed 14 April 2009 <<http://www.atns.net.au/>>.
- 2007. *Githabul People Indigenous Land Use Agreement*, viewed 7 January 2009 <<http://www.atns.net.au/>>.
- Altman, J.C. 2003. 'Promoting Aboriginal economic interest in natural resource management in NSW: Perspectives from tropical north Australia and some prospects', Paper presented at *Relationships between Aboriginal people and Land Management Issues in NSW: Barriers and Bridges to Successful Partnerships* Symposium 1-3 October 2003, University of Wollongong, NSW.
- 2004. 'Indigenous land management in NSW', *CAEPR Topical Issue 2004/06*, CAEPR, ANU, Canberra.
- 2006. 'The Indigenous hybrid economy: A realistic sustainable option for remote communities?' *CAEPR Topical Issue 2006/02*, CAEPR, ANU, Canberra.
- 2007. 'Alleviating poverty in remote Indigenous Australia: The role of the hybrid economy', *CAEPR Topical Issue 2007/10*, CAEPR, ANU, Canberra.
- 2009a. 'Beyond Closing the Gap: Valuing diversity in Indigenous Australia', *CAEPR Working Paper No. 54*, CAEPR, ANU, Canberra.

- 2009b. 'Developing a national Indigenous policy framework that recognises needs, rights and legacies and delivers results', *CAEPR Topical Issue 02/2009*, CAEPR, ANU, Canberra.
- and Arthur, B. 2009. 'Commercial water and Indigenous Australians: A scoping study of licence allocations', *CAEPR Working Paper No. 57*, CAEPR, ANU, Canberra
- , Bek, J. H. and Roach, L.M. 1995. 'Native title and Indigenous Australian utilisation of wildlife: Policy perspectives', *CAEPR Discussion Paper No. 95*, CAEPR, ANU, Canberra.
- and Branchut, V. 2008. 'Fresh water in the Maningrida region's hybrid economy: Intercultural contestation over values and property rights', *CAEPR Working Paper No. 46*, CAEPR, ANU, Canberra.
- , Buchanan, G., and Larson, L. 2007. 'The environmental significance of the Indigenous estate: Natural resource management as economic development in remote Australia', *CAEPR Discussion Paper No. 286*, CAEPR, ANU, Canberra.
- and Cochrane, M. 2002. 'Wildlife management review discussion paper', *CAEPR Topical Issue 2002/04*, CAEPR, ANU, Canberra.
- and Jackson, S. 2008. 'Indigenous Land and Sea Management', in D. Lindenmayer, S. Dovers, M. H. Olson and S. Morton (eds), *Ten Commitments: Reshaping the Lucky Country's Environment*, CSIRO Publishing, Canberra.
- and Jordan, K. 2008. 'Impact of climate change on Indigenous Australians: Submission to the Garnaut Climate Change Review', *CAEPR Topical Issue 2008/03*, CAEPR, ANU, Canberra.
- and Kerins, S. 2008. 'Submission to the Senate Standing Committee on Environment, Communications and the Arts inquiry into the operation of the Environment Protection and Biodiversity Conservation Act 1999', *CAEPR Topical Issue 2008/13*, CAEPR, ANU, Canberra.
- , —, Ens, E-J., Buchanan, G., and May, K. 2009. Submission to the Review of the National Biodiversity Strategy: Indigenous people's involvement in conserving Australia's biodiversity, CAEPR, ANU, Canberra.
- and Larsen, L. 2006. 'Natural and cultural resource management', *CAEPR Topical Issue 2006/07*, CAEPR, ANU, Canberra.
- , Roach, L.M. and Liddle, L.E. 1997. 'Utilisation of native wildlife by Indigenous Australians: Commercial considerations', *CAEPR Discussion Paper No. 135*, CAEPR, ANU, Canberra.
- and Whitehead, P.J. 2003. 'Caring for Country and sustainable Indigenous development: Opportunities, constraints and innovation', *CAEPR Working Paper No 20*, CAEPR, ANU, Canberra.
- Anderson, I., Baum, F. and Bentley, M. 2004. 'Beyond bandaids: Exploring the underlying social determinants of Aboriginal health', Papers from the *Social Determinants of Aboriginal Health Workshop*, Adelaide, July 2004, Cooperative Research Centre for Aboriginal Health, Darwin.

- Anderson-Smith, B. 2008. Exploring Engagement between Indigenous Communities and Government: Lessons for Country Management. Bachelor of Arts (Development Studies) with Human Geography Honours Thesis, Fenner School of Environment and Society, ANU, Canberra.
- 2009. *Creating Livelihoods through Indigenous Protected Areas: Toogimbie IPA: Providing Livelihood Opportunities for Local People: Summary of Research Findings*, Desert Knowledge CRC, Alice Springs, viewed 22 April 2009 <<http://www.desertknowledgecrc.com.au>>.
- Arabena, K. 2008. 'Indigenous epistemology and well-being: Universe referent citizenship', *AIATSIS Research Discussion Paper No 22*, AIATSIS, Canberra.
- Armstrong, R, Morrison J, and Yu, P. 2006. *Indigenous Land and Sea Management and Sustainable Business Development in Northern Australia*, NAILSMA, Darwin.
- Australian Bureau of Statistics 2007. 2006 Census: New South Wales, Australian Bureau of Statistics, Canberra, viewed 16 April 2009 <<http://www.censusdata.abs.gov.au>>.
- Australian Indigenous Law Reporter 1999. 'Mutawintji National Park lease', *Australian Indigenous Law Reporter*, 49, viewed 20 March 2009 <<http://www.austlii.edu.au/au/journals/AILR/1999/49.html>>.
- Australian Indigenous Law Review 2007. 'Githabul determination agreement', *Australian Indigenous Law Review*, 11 (1): 138–9.
- Baird, W. and Lenehan, R. 2004. 'Recent developments in joint management of Aboriginal owned land in New South Wales and the Register of Aboriginal Owners', *Journal of Indigenous Policy*, (4): 15–26.
- Baker, R., Davies, J. and Young, E. 2001. *Working on Country: Contemporary Indigenous Management of Australia's Lands and Coastal Regions*, Oxford University Press, London.
- Barnett, B. and Ceccarelli, D. 2007. *As Far As The Eye Can See: Indigenous Interests in the East Marine Planning Region*, Report produced by C&R Consulting, Department of Environment and Water Resources, Canberra.
- Bauman, T. and Smyth, D. 2007. *Indigenous Partnerships in Protected Area Management in Australia: Three Case Studies*, Australian AIATSIS, Canberra.
- Bega Valley Shire Council 2008. *Memorandum of Understanding between Bega, Eden and Merrimans Local Aboriginal Land Councils and the Native Title Holders and Bega Valley Shire Council*, Bega Valley Shire Council, NSW.
- Behrendt, J. and Thompson, P. 2004. 'The recognition and protection of Aboriginal interests in NSW rivers', *Journal of Indigenous Policy*, 3: 37–140.
- Beltrán, J. 2000. *Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines and Case Studies*, IUCN, Gland, Switzerland.

- Birckhead, J. De Lacy, T. and Smith, L. (eds) 1993. *Aboriginal Involvement in Parks and Protected Areas*, AIATSIS Report Series, Aboriginal Studies Press, Canberra.
- Bird-Rose, D. 2003. *Sharing Kinship with Nature: How Reconciliation is Transforming the NSW National Parks and Wildlife Service*, report prepared for the National Parks and Wildlife Service, NSW, Sydney.
- Bomford, M. and Caughley, J. (eds) 1996. *Sustainable Use of Wildlife by Aboriginal People and Torres Strait Islanders*, Australian Government Publishing Service, Canberra.
- Bowman, D.M.J.S. and Robinson, C.J. 2002. 'The getting of the Nganabarru: Observations and reactions on Aboriginal buffalo hunting in northern Australia', *Australian Geographer*, 33 (2): 191-206.
- Braham, K. 2009. *Creating Livelihoods through Indigenous Protected Areas: The Nantawarrina Experience: Summary of Research Findings*, Desert Knowledge CRC, Alice Springs.
- Broun, J. 2005. 'Indigenous community economic development: can economics cope with culture?' *Window on Economics Seminar Series*, NCOSS/Institute of Sustainable Futures, UTS, Sydney.
- Bruce Callaghan and Associates Pty Ltd 2002. *Report on the Boomanulla Conference for Country*, Bruce Callaghan and Associates Pty Ltd, NSW.
- 2003. *A Draft Discussion Document and Action Plan: Developing the Participation of Indigenous People in Commercial Fishing*, Report commissioned by NSW Fisheries, NSW Fisheries, Sydney.
- Bunjalung People of Byron Bay (Arakwal), The Bunjalung Byron Bay Aboriginal Corporation (Arakwal) and NSW Marine Parks Authority. n.d. *Memorandum of Understanding concerning the Cape Byron Marine Park between The Bunjalung People of Byron Bay (Arakwal), The Bunjalung Byron Bay Aboriginal Corporation (Arakwal) and The NSW Marine Park Authority*, NSW Marine Park Authority, NSW.
- Burgess, C.P. and Johnston, F.H. 2007. *Healthy Country: Healthy People: Indigenous Natural and Cultural Resource Management and Health*, Menzies School of Health Research, Darwin.
- , —, Berry, H.L., McDonnell, J., Yibarbuk, D., Ginabarra, C., Mileran, A. and Bailie, R.S. 2009. 'Healthy country, healthy people: The relationship between indigenous health status and "caring for country"', *Medical Journal of Australia*, 190 (10): 567-72.
- Byrne, D. and Nugent, M. 2004. *Mapping Attachment: A Spatial Approach to Aboriginal Post-Contact Heritage*, NSW Department of Environment and Conservation, Sydney.
- Cahill, M. and Cornell, S. n.d. Power-sharing in intergovernmental resource management agreements with North American Indigenous Nations, Unpublished paper.

- Campbell, D. 2008. *Joint Supply of Environmental and Health Services to Remote Australia*, Desert Knowledge CRC, Alice Springs, viewed 6 April 2009 <<http://www.desertknowledgecrc.com.au/research/healthservicestoremoteaustralia.html>>.
- Caring for our Country. 2004. *Case Studies in Indigenous Engagement in Natural Resource Management*, Commonwealth of Australia, Canberra.
- 2008a. *Caring for Our Country Business Plan 2009-2010*, Commonwealth of Australia, Canberra.
- 2008b. *Caring for Our Country: Outcomes 2008-2013*, Commonwealth of Australia, Canberra.
- Cavanagh, V. (forthcoming). Building Aboriginal Community Resilience: The DECC NRM Program and social outcomes for Aboriginal communities, NSW Department of Environment and Climate Change (DECC), Hurstville.
- Cleary, J., Grey-Gardner, R. and Josif, P. 2009. *Hands across the Desert: Linking Desert Aboriginal Australians to Each Other and to the Bush Foods Industry*, Report to Department of Agriculture, Fisheries and Forestry, Desert Knowledge CRC, Alice Springs.
- Clennell, A. 2009. 'New laws to protect Aboriginal artefacts', *The Independent Weekly*, viewed 16 April 2009 <<http://www.independentweekly.com.au/news/national/national/general/new-laws-to-protect-aboriginal-artefacts/1487805.aspx>>.
- Cooney, R. 2007. 'Sustainable use: Concepts, ambiguities, challenges', Paper prepared as background for the IUCN Species Survival Commission's Sustainable Use Specialist Group Strategic Planning Meeting, 10-13 July 2007, Florida.
- Corbett, T., Lane, M. and Clifford, C. 1998. *Achieving Indigenous Involvement in Management of Protected Areas: Lessons from Recent Australian Experience*, Centre for Australian Public Sector Management, Griffith University, Brisbane.
- Council of Australian Governments (COAG) 2008. *Communique*, COAG Meeting, Perth, 2 October 2008, COAG, Canberra.
- Cozens, Z. 2003. *Involving Kooris on Marine Area Management: Improving Relations and Facilitating Communication*, Bachelor of Arts (Hons) Degree Thesis, School of Resources, Environment and Society, ANU, Canberra.
- Craig, D. 1999. Indigenous Joint Management of National Parks, *Australian Indigenous Law Reporter*, 46, viewed 20 March 2009 <<http://www.austlii.edu.au/au/journals/AILR/1999/46.html>>.
- 2002. 'Recognizing Indigenous rights through co-management regimes: Canadian and Australian experiences', *New Zealand Journal of Environmental Law*, (6): 199-255.
- Cruse, B. Stewart, L. and Norman, S. 2005. *Mutton Fish: The Surviving Culture of Aboriginal People and Abalone on the South Coast of New South Wales*, Aboriginal Studies Press, Canberra.

- CSIRO Sustainable Ecosystems (CSE) n.d. *Australian Native Foods*, CSE, Alice Springs, viewed 13 January 2009 <<http://www.cse.csiro.au/research/nativefoods/>>.
- Davidson-Hunt, I. 2003. 'Indigenous lands management, cultural landscapes and Anishinaabe people of Shoal Lake, North-western Ontario, Canada', *Environments*, 31 (1): 21–41.
- Davies, J. 2008. 'Aboriginal people caring for country: Good for all of us', *Livelihoods in Land Research*, Presentation to FaCHSIA Policy ThinkTank, CSIRO Sustainable Ecosystems, Alice Springs and Desert Knowledge CRC, Alice Springs, viewed 22 April 2009 <<http://www.desertknowledgecrc.com.au>>.
- 2009. *Creating Livelihoods through Indigenous Protected Areas: The Nantawarrina Experience: Summary of Research Findings*, Desert Knowledge CRC, Alice Springs, viewed 22 April 2009 <<http://www.desertknowledgecrc.com.au>>.
- , Higginbottom K., Noack, D., Ross, H. and Young, E. 1999. 'Sustaining Eden: Indigenous community wildlife management in Australia', *Evaluating Eden Series No. 1*, International Institute of Environment and Development, London.
- , LaFlamme, M. and Campbell, D. 2008. 'Health of people and land through sustainable Aboriginal livelihoods in rangeland Australia', XXI International Grassland Congress, VIII International Rangeland Congress, 29 June–5 July Hohhot, Inner Mongolia, China, Desert Knowledge CRC, Alice Springs.
- Department of Aboriginal Affairs (DAA) 2004. *NSW Aboriginal People Acquiring and Managing Land for Conservation Purposes*, DAA, Sydney.
- 2007. *Two Ways Together Report on Indicators 2007*, DAA, Sydney.
- 2008. *New South Wales Department of Aboriginal Affairs Annual Report 2007-2008*, DAA, Sydney.
- n.d. (a). *On Country: Making Access Agreements for Lands and Waters in New South Wales*, DAA, Sydney.
- n.d. (b). *Two Ways Together: New South Wales Aboriginal Affairs Plan (2003-2012)*, DAA, Sydney.
- Department of Agriculture, Fisheries and Forestry 2005. *National Forest Industries Strategy: A Snapshot: Growing Partnerships*, Department of Agriculture, Fisheries and Forestry, Canberra.
- Department of Environment and Conservation 2004. *Aboriginal People Protecting Country: Environmental Sustainability Success Stories*, Department of Environment and Conservation, Sydney.
- Department of Environment and Climate Change (DECC) 2007a. *Biobanking: Biodiversity Banking and Offset Scheme: Scheme Overview*, DECC, Sydney.
- 2007b. *Proceedings of the 2006 Aboriginal Co-Management Meeting*, Mungo National Park and Wentworth, DECC, Sydney.

- 2008a. *Review of Aboriginal ownership provisions of the National Parks and Wildlife Act 1974*, DECC, NSW, viewed 16 January 2009 <<http://www.environment.nsw.gov.au/legislation/NationalParksAndWildlifeAct1974.htm>>.
- 2008b. *Land Alive: Aboriginal Land Management for Biodiversity*, DECC, Sydney.
- 2008c. *Illegal Dumping, Prevention and Clean-up: Handbook for Aboriginal Communities Consultation Draft*, DECC, Sydney.
- 2008d. *Towards an Aboriginal Land Management Framework for NSW: Discussion Paper*, DECC, Sydney.
- n.d. *Aboriginal Lands Clean-Up Program*, DECC, NSW, viewed 20 April 2009 <<http://www.environment.nsw.gov.au/grants/alcup>>
- Department of Environment, Water, Heritage and the Arts n.d. 'Indigenous Protected Areas', viewed 22 April 2009 <<http://www.environment.gov.au/indigenous/ipa>>.
- Department of Environment, Water, Heritage and the Arts 2007. *Growing Up Strong: The First 10 years of Indigenous Protected Areas in Australia*, Commonwealth of Australia, Canberra.
- Department of Lands n.d. 'Crown Land', viewed 11 February 2009 <http://www.lands.nsw.gov.au/crown_land>.
- Department of Natural Resources n.d. *Aboriginal Water Trust*, Department of Natural Resources, NSW.
- Department of Primary Industries (DPI) 2009. *Discussion Paper: Cultural Fishing in NSW*, DPI, Sydney.
- n.d. *Indigenous Fisheries Strategy and Implementation Plan, December 2002*, DPI, NSW, viewed 14 April 2009 <<http://www.dpi.nsw.gov.au/fisheries/info/nsw-ifs/nsw-ifs>>.
- Department of State and Regional Development and Department of Primary Industries (DPI) 2006. *First for Aquaculture*, Department of State and Regional Development and DPI, NSW.
- Dillon, M.C. and Westbury, N.D. 2007. *Beyond humbug: Transforming Government Engagement with Indigenous Australia*, Seaview Press, South Australia.
- Dockery, A.M. 2009. 'Culture and wellbeing: The case of Indigenous Australians', *CLMR Discussion Paper Series 09/01*, The Centre for Labour Market Research, Curtin University, Perth.
- Dudley, N. (ed.) 2008. *Guidelines for Applying Protected Area Management Categories*, IUCN, Gland, Switzerland.
- Durette, M. 2007. 'Indigenous property rights in commercial fisheries: Canada, New Zealand and Australia compared', *CAEPR Working Paper No. 37*, CAEPR, ANU, Canberra.
- 2008. 'Indigenous legal rights to freshwater: Australia in the international context', *CAEPR Working Paper No. 42*, CAEPR, ANU, Canberra.

- Edwards, S. E. and Heinrich, M. 2006. 'Redressing cultural erosion and ecological decline in a far North Queensland aboriginal community (Australia): The Aurukun ethnobiology database project', *Environment, Development and Sustainability*, 8 (4): 569–83.
- English, A. 2002. *The Sea and the Rock Gives Us A Feed: Mapping and Managing Gumbaingirr Wild Resource Use Places*, NSW National Parks and Wildlife Service, Sydney.
- and Baker, L. 2003. *Threatened Species Recovery Planning and Aboriginal Community Involvement: A Discussion Paper*, NSW National Parks and Wildlife Service, Sydney.
- Euraba Paper Company n.d. 'Our Paper', viewed 17 April 2009 <<http://www.eurabapaper.com.au>>.
- Feary, S. 2005. 'Forests to forestry: An overview of Indigenous involvement in forest management in Australia', in S. Feary (ed.), *Forestry For Indigenous Peoples: Learning From Experiences with Forest Industries*, Papers from Technical Session 130 XXII World Congress 2005 International Union of Forest Research Organisations, Brisbane, 8–13 August 2005, ANU, Canberra.
- 2007. *Chainsaw Dreaming: Indigenous Australians and the Forest Sector*, PhD Thesis, Fenner School of Environment and Society, ANU, Canberra.
- Forward NRM and Arrilla Aboriginal Training and Development 2003. *Scoping Study on Indigenous Involvement in Natural Resource Management Decision Making and the Integration on Indigenous Cultural Heritage Considerations into Relevant Murray–Darling Basin Commission Programs*, Report to the Murray–Darling Basin Commission, Canberra.
- Ganesharajah, C. 2009. 'Indigenous health and wellbeing: The importance of country', *Native Title Research Report No. 1/2009*, AIATSIS, Canberra.
- Garnett, S. and Sithole, B. 2007. *Sustainable Northern Landscapes and the Nexus with Indigenous Health: Healthy Country, Healthy People*, Charles Darwin University, Darwin, and Land & Water Australia, Canberra.
- , —, Whitehead, P.J., Burgess, C.P., Johnston, F.H. and Lea, T. 2008. 'Healthy country, healthy people: Policy implications of links between Indigenous human health and environmental condition in tropical Australia', *The Australian Journal of Public Administration*, 68 (1): 53–66.
- Gerrard, E. 2008. 'Impacts and opportunities of climate change: Indigenous participation in environmental markets', *Land, Rights, Laws: Issues of Native Title Issues Paper Series*, Native Title Research Unit, AIATSIS, Canberra.
- Gillespie, D., Cooke, P. and Taylor, J. 1998. *Improving the Capacity of Indigenous People to Contribute to the Conservation of Biodiversity in Australia: A Report Commissioned by Environment Australia for the Biological Diversity Advisory Council*, Biological Diversity Advisory Council, Canberra.
- Gilligan, B. 2006. *The Indigenous Protected Areas Programme: 2006 Evaluation*, Department of the Environment and Heritage, Canberra.

- Giotis, C. 2007. 'The Gully Aboriginal Place in Katoomba: Implementing the National Parks and Wildlife Act?', *Indigenous Law Bulletin*, 6 (27): 2–3.
- Goodall, H. 2001. 'Renewing country: Aboriginal people and their lands in rangeland environments', *Rangeland Journal*, 23 (1): 99–115.
- Gray, M.C., Altman, J.C., 2006. 'The economic value of harvesting wild resources to the Indigenous community of the Wallis Lake Catchment, NSW', *Family Matters*, 75: 4–9.
- , —, Halasz, N. 2005. 'The economic value of wild resources to the Indigenous community of the Wallis Lake catchment', *CAEPR Discussion Paper No. 272*, CAEPR, ANU, Canberra.
- Great Barrier Reef Marine Park Authority 2009. 'Sustainable traditional use of marine resources', viewed 17 April 2009, <http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/indigenous_partnerships/sustainable_traditional_use_of_marine_resources>.
- Greiner, R., Larson, S., Herr, A and Bligh, V. 2005. *Wellbeing of Nywaigi Traditional Owners: The Contribution of Country to Wellbeing and the Role of Natural Resource Management*, Report for the Burdekin Dry Tropics Board, CSIRO Sustainable Ecosystems, Townsville.
- Grievies, V. 2006. *Indigenous Well-being: A Framework for Governments' Aboriginal Cultural Heritage Activities*, Report prepared for the NSW Department of Environment and Conservation, Sydney.
- Guardian News 2009. 'Green Team combats Warrell Creek erosion', *Guardian News*, available at <<http://nambucca.yourguide.com.au/>>, accessed 15th May 2009.
- Heckbert, S., Davies, J., Cook, G., Mclvor, J., Bastin, G. and Liedloff, A. 2008. *Land Management for Emissions Offsets on Indigenous Lands*, CSIRO Sustainable Ecosystems, Townsville, QLD.
- Hemmingsen, S. and Marshall, C. 2008. 'Nambucca and Kaikoura: Indigenous community coastal resource management in Australia and New Zealand', in D. Smyth and G. K. Ward (eds), *Protecting Country: Indigenous Governance and Management of Protected Areas*, AIATSIS, Canberra.
- Hibbard, M., Lane, M.B. and Rasmussen, K. 2008. 'The split personality of planning: Indigenous peoples and planning for land and resource management', *Journal of Planning Literature*, 23 (2): 136–51.
- Hill, R. 2006. 'The effectiveness of agreements and protocols to bridge between Indigenous and non Indigenous toolboxes for protected area management: A case study from the Wet Tropics of Queensland', *Society and Natural Resources*, 2006 (19): 577–90.
- Hinkson, M. 2002. 'Exploring 'Aboriginal' sites in Sydney: A shifting politics of place', *Aboriginal History*, 26: 62–77.
- Howitt, R. and Suchet-Pearson, S. 2006. 'Rethinking the building blocks: Ontological pluralism and the idea of 'management'', *Geografiska Annaler: Series B, Human Geography*, 88 (3): 323–35.

- Jackson, S. 2009. *Background Paper on Indigenous Participation in Water Planning and Access to Water*, National Indigenous Water Planning Forum, viewed 17 April 2009
<<http://waterplanning.org.au/news-and-events/national-indigenous-water-planning-forum>>.
- and Altman, J.C. 2009. 'Indigenous rights and water policy: Perspectives from tropical north Australia', *Australian Indigenous Law Review*, 13 (1): 27–48.
- Kauffman, P. (ed.) 2004. *Water and Fishing: Aboriginal Rights in Australia and Canada*, Aboriginal and Torres Strait Islander Commission, Canberra.
- Kingsley, Y., Townsend, M., Phillips, R. and Aldous, D. 2009. "'If the land is healthy ...it makes the people healthy": The relationship between Caring for Country and health for the Yorta Yorta nation, Boonwurrung and Bangerang Tribes', *Health and Place*, 15: 291–9.
- Koch, T. 2009. 'Noel Pearson's last stand: Cape York's wild rivers run dry', *The Australian*, viewed 7 April 2009 <<http://www.theaustralian.news.com.au/story/0,25197,25301134-2702,00.html>>.
- Kruse, J., Klein, D., Braund, S., Moorehead, L. and Simeone, B. 1998. 'Co-management of natural resources: a comparison of two caribou management systems', *Human Organisation*, 57 (4): 447–58.
- Lane, M.B. 1997. 'Aboriginal participation in environmental planning', *Australian Geographical Studies*, 35 (3): 308–23.
- and Hibbard, M. 2005. 'Doing it for themselves: Transformative planning by Indigenous peoples', *Journal of Planning Education and Research*, 25 (2):172–84.
- and Williams, L.J. 2008. 'Color blind: Indigenous peoples and regional environmental management', *Journal of Planning Education and Research*, 28(1): 38-49.
- Lane, M. and Williams, L.J. 2009. 'The Natural Heritage Trust and Indigenous Lands: The trials and tribulations of new technologies of governance', *Australian Geographer*, 40 (1): 85-107.
- Langton, M. and Palmer, L. 2004. 'Treaties, agreement-making and the recognition of Indigenous customary polities', in M. Langton, M. Tehan, L. Palmer and K. Shain (eds), *Honour Among Nations? Treaties and Agreements with Indigenous People*, Melbourne University Press, Melbourne.
- , Tehan, M., Palmer, L., Shain K. (eds) 2004. *Honour Among Nations: Treaties and Agreements with Indigenous People*, Melbourne University Press, Melbourne.
- Latham, Y. and Ryder, M. 2004. *Indigenous Australians and the Native Foods Industry*, CSIRO Sustainable Ecosystems, Alice Springs.
- Luckert, M.K., Campbell, B.M., Gorman, J.T and Garnett, S.T. 2007. *Investing in Indigenous Natural Resource Management*, Charles Darwin University Press, Darwin.

- Macklin, J. 2009. Statement on the United Nations Declaration on the Rights of Indigenous Peoples, 3rd April 2009, Parliament House, Canberra.
- Malachite Resources NL. n.d. *The United Githabul Tribal Nation Aboriginal Corporation: Corporation Agreement*, Malachite Resources NL, Chatswood.
- Morgan, M., Strelein, L., and Weir, J. 2006. 'Authority, knowledge and values: Indigenous nations' engagement in the management of natural resources in the Murray-Darling Basin', in M. Langton, O. Mazel, L. Palmer, K. Shain and M. Tehan (eds), *Settling with Indigenous People: Modern Treaty and Agreement-Making*, The Federation Press, Sydney.
- Morphy, F. and Morphy, H. 2008. 'Permits, private property, and cultural survival', *CAEPR Topical Issue 2008/12*, CAEPR, ANU, Canberra.
- Muller, S. 2008. 'Community-based management of saltwater country, northern Australia', *Development*, 51: 139–43.
- Muru Mittigar n.d, *About Muru Mittigar*, viewed 17 April 2009 <<http://www.murumittigar.com.au/About-Muru-Mittigar.htm>>.
- Namibian Association of CBNRM Support Organisations 2008. *Namibia's Communal Conservancies: A Review of Progress and Challenges in 2007*, Namibian Association of CBNRM Support Organisations, Windhoek.
- Natcher, D. C., Davis, S. and Hicky, C. G. 2005. 'Co-management: Managing relationships, not resources', *Human Organisation*, 64 (3): 240–50.
- National Biodiversity Strategy Review Task Group. 2009. *Australia's Biodiversity Conservation Strategy 2010–2020, Consultation Draft*, Department of Environment, Water, Heritage and the Arts, Canberra.
- Narromine News 2009. "Fight 'not over' to keep CDEP," *Narromine News*, viewed 20 April 2009 <<http://narromine.yourguide.com.au/news/local/news/general/fight-not-over-to-keep-cdep-open/1489133.aspx>>.
- National Native Title Tribunal 2001. *Arakwal Indigenous Land Use Agreement*, National Native Title Tribunal, Canberra, viewed 14 April 2009 <http://www.nntt.gov.au/NewsandCommunications/MediaReleases/Pages/Arakwal_indigenous_land_use_agreement.aspx>.
- 2007. *Githabul People's Native Title Determination North Eastern New South Wales*, 29th November 2007, National Native Title Tribunal, Canberra.
- n.d. *Githabul Indigenous Land Use Agreement and Determination of Native Title*, National Native Title Tribunal, Canberra.

- National Oceans Office 2002a. *Sea Country—An Indigenous Perspective*, The South-East Regional Marine Plan Assessment Reports, National Oceans Office, Hobart.
- 2002b. *The South-East Regional Marine Plan*, National Oceans Office, Hobart.
- NTSCorp 2008. *Annual Report 2007-2008*, NTSCorp Limited, Sydney.
- New South Wales Aboriginal Land Council (NSWALC) 2008a. *Indigenous Population Projections, NSW, 2006 to 2021 by NSW Aboriginal Land Council Regions*, NSWALC, Council, Parramatta.
- 2008b. *Annual Report 2007-2008*, NSWALC, Parramatta.
- NSW Environmental Trust 2009. *Protecting Our Places Program: Funding for Aboriginal People to Care for their Land—Guidelines for Applicants*, NSW Environmental Trust, Sydney.
- New South Wales Government 2006. *A New Direction for NSW: State Plan*, NSW Government, Sydney.
- New South Wales Marine Parks Authority and Yarrawarra Aboriginal Corporation 2006. *Arrawarra Headland and Stone Fish Traps: Meeting Place of Many Stories*, NSW Marine Park Authority and Yarrawarra Aboriginal Corporation, NSW.
- New South Wales Native Title Services Ltd 2007. *Annual Report 2006-2007*, New South Wales Native Title Services, Sydney.
- Northern Land Council. 2006. *Celebrating Ten Years of Caring for Country: A Northern Land Council Initiative*, Northern Land Council, Darwin.
- Notzke, C. 1995. 'A new perspective in aboriginal natural resource management: Co-management', *Geoforum*, 26 (2): 187-209.
- Osherenko, G. 1988. 'Can co-management save Arctic wildlife?', *Environment, Development and Sustainability*, 30 (6): 6-13.
- Outback Spirit. n.d. 'Mildura Aboriginal Corporations', viewed 4 April 2009 <<http://www.outbackspirit.com.au/iaf/mildura-aboriginal-corporations>>.
- Pappin, G. 2007. 'Pursuing autonomy and traditional owners' aspirations: Management of the Willandra Lakes World Heritage Area and Mungo National Park', in D. Smyth and G. K. Ward (eds), *Protecting Country: Indigenous Governance and Management of Protected Areas*, AIATSIS, Canberra.
- Peterson, N. and Rigsby, B. (eds) 1998. 'Customary marine tenure in Australia', *Oceania Monograph 48*, University of Sydney, Sydney.
- Premier of Victoria 2009. 'Victoria leads the nation in native title settlement', 4 June 2009, viewed 5 June 2009, <<http://www.premier.vic.gov.au/attorney-general/victoria-leads-the-nation-in-native-title-settlement.html>>.

- Putnis, A., Josif, P. and Woodward, E. 2007. *Healthy Country, Healthy People: Supporting Indigenous Engagement in the Sustainable Management of Northern Territory Land and Seas: A Strategic Framework*, CSIRO, Darwin.
- Rangan, H. and Lane, M.B. 2001. 'Indigenous peoples and forest management: Comparative analysis of institutional approaches in Australia and India', *Society and Natural Resources*, 14 (2):145-160.
- Reconciliation Australia 2008. *2008 Indigenous Governance Awards*, Reconciliation Australia, Canberra.
- 2009. *Australian Reconciliation Barometer*, Prepared by Auspoll for Reconciliation Australia, Canberra.
- Roughley, A. and Williams, S. 2007. *The Engagement of Indigenous Australians in Natural Resource Management: Key Findings and Outcomes from Land and Water Australia Funded Research and the Broader Literature*, Land and Water Australia, Canberra.
- Savigny, J., Thompson, P. and Bourke, D. 1990. 'Land rights, National Parks, and plans of management', *Aboriginal Law Bulletin*, 2 (42): 7-9.
- Sawer, M. 2007. 'The fall of the femocrat', in J. Outshoorn and J. Kantola (eds), *Changing State Feminism*, Palgrave Macmillan.
- Schnierer, S., Faulkner, A. and Fisher, C. 2001. *Aboriginal Cultural Values of the Native Vegetation of New South Wales: A background paper for the Native Vegetation Advisory Council of New South Wales*, Native Vegetation Advisory Council, NSW.
- Secretariat of the Convention of Biological Diversity 2004. *The Akwe: Kon Voluntary Guidelines*, CBD Guidelines Series, Convention on Biological Diversity, Montreal, Canada.
- Seiver, A. 2005. 'Defining the offence of unlawfully destroying Aboriginal heritage', *Indigenous Law Bulletin*, 6 (9): 8-11.
- Senate Rural and Regional Affairs and Transport Reference Committee 1998. *Commercial Utilisation of Australian Native Wildlife*, Parliament of the Commonwealth of Australia, Canberra.
- Smyth, D., Szabo S. and George, M. 2004. *Case Studies in Indigenous Engagement with Natural Resource Management*, Department of Environment and Heritage, Canberra.
- and Ward, G.K. 2008. 'Introduction: Indigenous governance and management of protected areas', in D. Smyth and G. K. Ward, *Protecting Country: Indigenous Governance and Management of Protected Areas*, AIATSIS, Canberra.
- Southern Rivers Catchment Management Authority (CMA) 2008. 'Aboriginal community assist local oyster farmer', Southern Rivers Catchment Management Authority Media Release, Southern Rivers CMA, Wollongong.

- Stevenson, M. 2006. 'The possibility of difference: Rethinking co-management', *Human Organisation*, 65 (2): 167–80.
- Standing Committee on Social Issues 2008. *Overcoming Indigenous Disadvantage in New South Wales: Final Report*, NSW Parliament, Sydney.
- Tan, P-L. 2000. *A Review of the Legal Basis for Indigenous Access to Water—A Report Prepared for the National Water Commission National Indigenous Water Planning Forum*, Griffith University, Brisbane.
- Taylor, J. and Biddle, N. 2004. 'Indigenous people in the Murray-Darling Basin: A statistical profile', *CAEPR Discussion Paper No. 264*, CAEPR, ANU, Canberra
- Tipa, G. and Welch, R. 2006. 'Co-management of natural resources: Issues of definition from an Indigenous community perspective', *The Journal of Applied Behavioural Science*, (42): 373–91.
- Tedesco, L. & Szakiel, S. 2006. *Indigenous People in Aquaculture*, ABARE, Canberra, viewed 14 April 2009 <http://www.abare.gov.au/publications_html/regional/regional_06/indigenous_aqua.pdf>.
- The Living Murray n.d. 'The Living Murray: Icon Sites', viewed 6 February 2009 <<http://www.thelivingmurray.mdbc.gov.au/iconsites>>.
- Tirkandi Inaburra. n.d. 'Tirkandi Inaburra: Cultural and Development Centre Inc: Our Programs', Tirkandi Inaburra, NSW, viewed 21 April 2009 <<http://tirkandi.org.au/ourprograms.html>>.
- Toohy, P. 2009. 'Brace yourself for safari hunting of giant crocodiles', *The Australian*, viewed 16 April 2009 <<http://www.theaustralian.news.com.au/story/0,25197,25340280-30417,00.html>>.
- United Nations High Commissioner for Human Rights (UNHCHR) n.d. *Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries*, viewed 14 April 2009 <<http://www.unhcr.ch/html/menu3/b/62.htm>>.
- United Nations Permanent Forum on Indigenous Issues (UNPFII) n.d. *United Nations Declaration on the Rights of Indigenous Peoples*, viewed 15 May 2009 <<http://www.un.org/esa/socdev/unpfii/en/declaration.html>>.
- Webb, G., Missi, C. and Cleary, M. 1996. 'Sustainable use of crocodile by Aboriginal people in the Northern Territory', in M. Bomford and J. Caughley (eds), *Sustainable Use of Wildlife by Aboriginal People and Torres Strait Islanders*, Australian Government Publishing Service, Canberra.
- Weir, J. 2000. 'Aboriginal land ownership and joint management of National Parks in NSW', *Indigenous Law Bulletin*, 5 (3): 20–22.
- 2007. 'The traditional owner experience along the Murray River', in E. Potter, A. Mackinnon, S. McKenzie and J. McKay (eds), *Fresh Water: New Perspectives on Water in Australia*, Melbourne University Press, Melbourne.

- and Ross, S. 2007. 'Beyond Native Title: Murray Lower Darling Rivers Indigenous Nations', in F. Morphy and B.R. Smith (eds), *The Social Effects of Native Title: Recognition, Translation, Coexistence*, CAEPR Research Monograph No. 27, ANU E Press, Canberra.
- Whitehead, P. J. 2003. 'Indigenous products from Indigenous people: Linking enterprise, wildlife and conservation', Presented at *Seizing our Economic Future Forum*, 6–7 March 2003, Alice Springs.
- Wolfe, P. 1999. *Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event*, Cassell, London.
- Young, E., Ross, H., Johnson, J. and Kesteven, J. 1991. *Caring for Country: Aborigines and Land Management*, Australian Parks and Wildlife Service, Canberra.