



knowledge for managing Australian landscapes

## The Engagement of Indigenous Australians in NRM

October 2008



*Research project ARO1 of the Social and Institutional Research Program of Land & Water Australia. Project completed in March 2007.*

### Context

Aboriginal and Torres Strait Islander people own or control approximately 20 per cent of the Australian continent (150 million hectares), and manage substantial land, freshwater and marine resources.

In partnership with Indigenous people, communities and organisations, Land & Water Australia manages research projects which focus on Indigenous Australians, their relationship with the environment and their involvement in natural resource management (NRM).

Indigenous people lead, advise and participate in this research, working alongside researchers and demonstrating the importance of building relationships and trust. Land & Water Australia's research respects and values Indigenous, cultural and scientific knowledge.

As at 2007, thirteen Indigenous-related projects have been completed and another twelve are in progress. A list of current and completed projects is on the last page of this summary. To draw out the key findings and stories from this collection of research projects, Land & Water Australia commissioned an analysis of the knowledge generated by the research. Another benefit of the research synthesis was to guide Land & Water Australia's future activities in this area.

The key points from this analysis are synthesised in the report 'The Engagement of Indigenous Australians in Natural Resource Management', by Alice Roughley and Susie Williams, available online at <http://products.lwa.gov.au/products/PR071332>



The main findings from the analysis are summarised in this fact sheet.

## Key Findings

Key findings from the Indigenous NRM research portfolio include the following:

- ▶ Land & Water Australia's Indigenous research is making a significant contribution to Indigenous engagement in natural resource management (NRM).
- ▶ Land & Water Australia's Indigenous research portfolio has created many successful collaborations between Indigenous people, communities and organisations and leading researchers; developing solutions to NRM challenges on Indigenous lands.
- ▶ Indigenous culture and governance are inseparable from Indigenous people's views of environmental sustainability and Indigenous Cultural NRM.
- ▶ Indigenous land managers tend to integrate social, environmental and economic factors, an approach which could add value to current models of sustainability.
- ▶ A core aspect of sustainability for Indigenous natural resource managers is inter-generational equity and continuity. It is only by being applied that Indigenous knowledge will retain its relevance and so be kept alive by future generations.
- ▶ Some key Indigenous values are non-market in nature. This poses fundamental management challenges in a policy environment that places emphasis on 'market' solutions.
- ▶ Most of Land & Water Australia's Indigenous projects are as much about building and developing relevant and culturally-appropriate research processes and models as they are about environmental, social and economic outcomes for NRM.
- ▶ Engaging Indigenous people through practical activities 'on country' leads to the most successful outcomes for effective landscape protection, restoration and rehabilitation. Critical factors include:
  - ▶ Understanding core Indigenous values – the core Indigenous values of country and culture and the core principles that should underpin Indigenous research and NRM in Australia.
  - ▶ Research needs to be carried out on country. Indigenous people carrying out practical activities such as landscape protection, restoration and rehabilitation are able to fulfil cultural responsibilities, meet social and economic needs and transfer knowledge across generations.
  - ▶ Researchers and participants need to recognise and understand the intellectual property issues associated with the use of traditional knowledge.
- ▶ Participatory approaches - training opportunities and employment of local people have positive outcomes for communities and can lead to future employment opportunities for Indigenous people.
- ▶ Land, water and human health – spending time on country and human health are closely linked in Indigenous Australia. Research is now enhancing the understanding of this nexus.

Valuing NRM undertaken by Indigenous people - the benefits of maintaining Indigenous people on country are often not recognised in the market economy. These include cultural services, human health, managing biodiversity, local capacity to manage threats to ecosystem services, such as fire and feral predators, and safety risks for tourists. The research suggests that much of the NRM undertaken by Indigenous people may be under-valued.

Implications for NRM policy - many NRM policies and programs have short timeframes, piecemeal approaches, shifting eligibility criteria, heavy reporting requirements and a lack of ongoing core funding. This makes it hard for Indigenous communities to respond to environmental problems.

### *EXAMPLES OF INDIGENOUS RESEARCH BY LAND & WATER AUSTRALIA*



1 **D** A capacity building project working with local Indigenous communities in the lower Ord catchment has established baseline information on ecosystem trends in the lower Ord River and improved Indigenous people's skills in surveying and collecting research data, as well as the use of land management tools such as GIS and GPS.

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2 **D** The 'Healthy Country, Healthy People' project concludes that Aboriginal people actively involved in Indigenous Cultural and Natural Resource Management (ICNRM) were demonstrably healthier than those who weren't. In particular, they had major reductions in the risk of cardiovascular disease and diabetes.

The landscape where ICNRM is practised was also in better condition according to several measures of landscape health. The results suggest that the benefits are sufficiently strong to justify co-investment across a range of policy domains.

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3 **D** A project with the Kija and Jaru people in the upper Ord catchment collected individual, group and regional map biographies (a type of cultural mapping) and collated them into a series of composite maps for presentation, management and regional planning purposes. In collaboration with Aboriginal people, the project also established a community-based GIS in the Warmun Community.

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4 **D** A co-management model for ecologically sustainable tourism on Indigenous lands has been developed and implemented in the Anangu Pitjantjatjara Lands of Central Australia.

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5 **D** Another project studying plants and animals in the upper Ord catchment worked with Indigenous groups to map bush tucker resources and their seasonal variation. The project recorded and conserved traditional knowledge so it can be used in contemporary management.

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6 **D** A new project is investigating NRM and Indigenous employment opportunities from well managed fire regimes. As Indigenous people have always been active in fire management, this is an area where opportunities exist. Results from good fire management include increased biodiversity and protection of cultural heritage sites. Sustainable market-based instruments (e.g payment for environmental services) will be established through the project.

# Principles for Projects Working with Indigenous Communities

Key principles for projects working with Indigenous communities include:

- ▶ Target NRM investment towards long-term projects which create opportunities, on-going employment and capacity building for local people.
- ▶ Researchers must respect and be willing to understand Indigenous perspectives and invest the time to build trust and relationships. Building and maintaining relationships is paramount because relationships are central to Indigenous values. The trust gained through participatory projects is critical to their success and adequate time and resources **must** be given to this.
- ▶ Facilitate inter-generational knowledge exchange for long-term impact.
- ▶ Most Indigenous communities are interested in the development of culturally-appropriate, sustainable economies which conserve, rather than degrade, their natural and cultural capital.
- ▶ Establish clear working agreements with communities that protect people's rights and interests, the data collected and future management of knowledge.
- ▶ Adopt protocols which define and respect Indigenous intellectual property and associated intellectual property rights to ensure high ethical standards.
- ▶ Engage Indigenous people in the planning and management of projects to help ensure ownership of the outcomes. Develop resource materials and capacity building strategies for future self management.
- ▶ Use long-term participatory approaches to build successful Indigenous pastoral/diversified businesses.
- ▶ Include appropriate timeframes and Indigenous administrative and management approaches so that Indigenous people can participate in policy development and implementation.



- ▶ More effective governance and management arrangements and engagement strategies are needed. It can be difficult for Indigenous people to express their cultural relationship with land and water in current policy development, program and project design and implementation.
- ▶ Improve working relationships between government and communities through key committed individuals working over a length of time.
- ▶ There is no one size fits all — develop policy to cover the specific cultural values that Indigenous people attach to place.
- ▶ Design sustainable tourism on Indigenous lands specifically for each place and incorporate protection of cultural and biological diversity.

## Future Research

Some key areas for future Land & Water Australia research:

- Mechanisms to involve Indigenous people in water planning, management and monitoring.
- Estimating resources required for traditional allocation systems in water management.
- Quantifying extent, quality and environmental role of ground and surface waters in the Tropical Rivers region to ensure allocations are available to protect environmental and cultural flows and to show whether environmental and Indigenous cultural values complement or compete with each other.
- Identifying how changes brought about by the National Water Initiative will affect Indigenous incomes, quality of life and welfare.
- Evaluating rivers with regard to the major industries in the Tropical Rivers region.
- Efficient water pricing systems.
- Mechanisms for allocating water equitably between a wide range of stakeholders.
- Institutional arrangements for joint management of land.

Cross-cultural NRM research can be resource and time intensive. For future success, work-in-progress should continue applying the same principles and build on past research efforts.

## For further information please contact

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The full report is available online from the Land and Water Australia website at:  
<http://lwa.gov.au/products/PR071332>

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# Land & Water Australia's Indigenous Research Since 2000

## Current projects

1. Indigenous Use of Fire for Biodiversity Management in Arid Australia Institutional change enabling kangaroo harvest to promote sustainable rangeland landscapes (LWA project number UAD 17)
2. The regulation of Indigenous rights through environmental legislation (LWA project number ANU 39)
3. Sustainable northern landscapes and the nexus with Indigenous Health (LWA project number NTU7)
4. Development of Indigenous knowledge capacity across north Australia (LWA project number TRC3)
5. Integrated natural and cultural resources management options for pastoral lands in the East Kimberley (LWA project number TRC2)
6. Recognition of Indigenous values and rights in water management procedures (LWA project number NTU 18)
7. Developing Institutional Arrangements for Indigenous Participation in the NWI (LWA project number TRC13)
8. An Agreement Based Approach to Customary Law Governance in Water Resource Management (LWA project number NTU 23)
9. Valuing and managing the ecosystem services of tropical river systems (LWA project number CSE 43)
10. Investigation of a Conservation Economy Model for Indigenous Northern Australia (LWA project number ACF1)
11. Fire management in northern Australia: integrating ecological, economic and social outcomes (LWA project number TRC 6)
12. TRaCK: Tropical Rivers and Coastal Knowledge Research Hub

## Completed Projects

1. Assessment of Social and Economic Values of Australia's Tropical Rivers (LWA project number CSE 29)
2. Indigenous kinship with country: intercultural values of natural resource management (LWA project number ANU 37)
3. Indigenous use of Fire for Biodiversity Management in Arid Australia (LWA project number NAC 1)
4. Addressing Indigenous cultural requirements in water allocation planning (LWA project number CSE26)
5. Biodiversity and cultural significance of fishes in King Edward River (LWA project number UMU 22)
6. Fish Passage along the Fitzroy River, WA (LWA project number KLC 7)
7. Indigenous engagement in water management across northern Australia's Indigenous estate (LWA project number TRC4)
8. Planning for Country (LWA project number KLC 2)
9. Data Management, GIS and cultural mapping with Kija and Jaru people in the upper Ord catchment (LWA project number KLC 4)
10. Capacity Building and two-way learning for Kija, Miriuwung-Gajerrong and Balangarra people in the lower Ord Catchment. (LWA project number KLC 5)
11. Plants and Animals of Kija, Jaru country: Aboriginal knowledge conservation and ethnobiological research in the upper Ord catchment (LWA project number KLC 3)
12. Co-understanding place, people and water in Central Australia (LWA project number ANU 42)
13. Participatory rural appraisal and planning: innovative methods of working with Aboriginal land managers (LWA project number CLN 1)