



National Environmental
Research Program

NORTHERN AUSTRALIA HUB

Improving biodiversity
conservation in
northern Australia

The wider benefits of Indigenous Cultural and Natural Resource Management: A case study of Yirralka Rangers in Blue Mud Bay, northeast Arnhem Land

What is the research about?

The Indigenous Cultural and Natural Resource Management (ICNRM) sector has grown rapidly in Australia, particularly in the north. Programs undertaken by ICNRM groups are generally classed as 'environmental' by funding sources, but they also generate a range of additional health, economic, social, political and cultural benefits. While there has been some recognition of economic outcomes, other benefits are largely under reported. For the communities in which these programs operate these wider benefits may be as significant as the environmental or economic outcomes that are the usual focus of management and monitoring effort.

This project examined existing literature and used an in-depth case study from Arnhem Land to identify and categorise the full range of benefits accruing from ICNRM within the local Indigenous community. It also considered what kinds of factors might influence whether those benefits are realised or not. A better understanding of these benefits and how they are generated will enable better accounting of the full value derived from public and private funding spent on the sector and could be used to positively shape future investment decisions.

The Yirralka Rangers case study

Yirralka Rangers manage the Laynhapuy Indigenous Protected Area (IPA) in northeast Arnhem Land (see map on next page). The IPA covers 6,900 km² of land and 630km of coastline. Compared to other programs, the Yirralka Rangers program is highly regionalised (decentralised) and the majority of the program's 52 staff live and work in 17 clan-based communities, called homelands, which are spread throughout the IPA. They undertake a number of activities, including:

- Cultural heritage site protection.
- Feral animal and weed control.
- Visitor management.
- Fire management and carbon mitigation.
- Coastal and sea country patrols.
- Educational activities.
- Bush product development and sales.
- Biodiversity monitoring.
- Biosecurity and quarantine activities.



The case study focused on rangers based around northern Blue Mud Bay, 150km south of Yirralka. Researchers undertook interviews with rangers, their families, community elders and wider homeland residents about the principles, purposes, consequences, challenges and future aspirations of the ranger program.

In addition, the research team collaborated with rangers, local elders and an Indigenous multimedia production organisation (the Mulka Project) on the production of a film. The film articulates community views on the context in which the ranger program operates; the range of activities that the rangers undertake; and the benefits derived from the program.

The results of the research build a better picture of the non-environmental benefits generated by the rangers and the factors that influence these outcomes. The following includes highlights from both the literature review and case study broken into key categories of benefit.



Regional location of Laynhapuy IPA. Credit - CSIRO.

Health and wellbeing benefits

Within the literature, a previous study found ICNRM to be beneficial to improving both physical and psychological health. This was associated with improvements in diet, physical activity, autonomy and social and spiritual connection to the land. Importantly, no study reported negative associations between wellbeing and ICNRM.

Within the Yirralka case study, research participants acknowledged the associated physical and dietary health benefits, but it wasn't a self-reported priority. Of more importance to participants were significant psychological benefits (including self-confidence and pride) associated with undertaking meaningful and therefore desirable work.

Social and political benefits

Within the literature, a number of reviews have looked at ICNRM, IPA and Caring for our Country programs. Reported benefits across these reviews include improvements in land use and economic options; non-Indigenous recognition of Indigenous roles in land management; prospects for native title resolution; intergenerational knowledge transfer; skills and educational development; and networking opportunities. The political benefits, encompassing issues such as formal and informal systems of governance and leadership, remain under-explored in the literature.

Within the Yirralka case study, rangers and the wider community reported significant benefits associated with the ongoing residence of rangers within homeland communities; formal education and training; creating new skills and building confidence in program participants; and improving peoples' abilities to interact cross-culturally and respond to challenging situations.

In addition the program has promoted local perceptions of self-reliance, autonomy and independence. It has also provided opportunities for homeland residents to gain experience in governance, planning, leadership and strategic decision making by participating in the ranger committee, which guides the program.



Yirralka Rangers using bush materials to make soap.

Quotes from homeland-based Yirralka Rangers...

On health ... "I was working in the office before. I like to go out working. It is better. Seeing the places where the old people were."

On education ... "I learned weed spraying, bush medicine, the names of the plants and the seeds, how to use them. Also scientific names, where they are, where they come from."

On culture ... "IPA means we can protect our culture too. Keeping culture alive and passing it on to the next generation. Without our culture we are nothing."

On employment ... "I was there at the start when Wanyubi (Yolngu initiator of the program) started up. I'll be a ranger until I die!"

And from a Yirralka-based Yirralka Ranger on money ... "When I got that job, my family was proud. The money was second. They were really happy someone was looking after Gurkawuy."

Cultural benefits

Across the literature, documented benefits include improvements in the intergenerational transfer of traditional cultural knowledge; knowledge exchanges between western science and traditional knowledge; the capacity to engage with the non-Indigenous world; political and cultural autonomy; and the ability to fulfil cultural, spiritual and ceremonial responsibilities.



Caring for and protecting country is a key goal for Yirralka Rangers.

Within the Yirralka case study, rangers and the wider community reported that general ranger activities are compatible with key cultural principles in Yolngu society. These include: caring for country; the sharing of cultural and customary knowledge; roles appropriate to different genders, and respect for the cultural authority of elders.

Economic benefits

Within the literature, ICNRM programs enhance employment and income opportunities and also enhance livelihoods through improved infrastructure, including increased transport access. ICNRM also has clear flow-on benefits to the wider government sector, including reduced welfare and increased tax revenue.

Within the Yirralka case study program participants acknowledged significant economic benefits, including increased income; employment stability; employment pathways and options; business development; and additional infrastructure.

Influencing factors

A diverse range of factors influence the non-environmental outcomes of ICNRM. Within the Yirralka case study some of the important factors found to influence the program include:

- The future implications of the expansion of the Laynhapuy IPA.
- The level, form, and distribution of resources between homelands and the main centre of Yirralka.
- The organisational structure and the ability for the program and individual rangers to act independently.
- The types of activities undertaken by rangers.
- Where the rangers are working, and whether this takes people away from family or country for extended periods.
- Competing priorities and different values.
- Effective communication.

Crucially, this list of influencing factors assists program funders and managers understand how management priorities and decisions focused on immediate operational or environmental project issues can shape the wider benefits ICNRM projects deliver.

Policy recommendations

A number of recommendations for ICNRM and IPA policy have been identified to increase the wider benefits of programs for communities. These include that:

- Policies, procedures and management structures should reflect awareness of the full range of benefits derived from ICNRM programs;
- Support for the ongoing strategic regionalisation/decentralisation of ICNRM programs is provided, where this fits with community desire to live on homelands;
- Funding, resourcing and project monitoring models should recognise the greater management complexity and higher operating costs of regionalised ICNRM programs;
- Support is provided for structured opportunities for ranger mobility within the sector (e.g. secondments, formal exchange programs) to enhance knowledge sharing and career development;
- Support is provided for collaborations between local ICNRM organisations and other relevant local agencies;
- Additional research be conducted, including the synthesis and standardisation of benefit categories to support improved policy; and further exploration of political benefits.

Further information

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You can also visit <http://www.nerp.northern.edu.au/research/projects/21>



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