Multiple benefits & knowledge systems of Indigenous land & sea management programs (ILSMPs) – economic perspectives

Natalie Stoeckl, Diane Jarvis, Daniel Grainger, Silva Larson, Michelle Esparon, Jane Addison (James Cook University)

Particular thanks to our partner organisations: Bunuba Dawangarri Aboriginal Corporation, Ewamian Aboriginal Corporation, Gooniyandi Aboriginal Corporation, Walalakoo Aboriginal Corporation and Yanunijarra Ngurrara Aboriginal Corporation
Acknowledgements

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With special thanks to all the workshop and yarn-up participants.
Indigenous land and sea (and water) management programs (ILSMPs)

Indigenous land, sea and water management activities

ILSMPs

Government and non-government funded programs
Motivation

• ILSMPs generate environmental and ecological benefits

• They also generate co-benefits – health,¹ social, cultural, political and economic benefits

• Co-benefits are notoriously difficult to quantify

• Information gaps → could end up prioritising programs or activities that generate the most easily quantified benefits, not necessarily those that generate most benefits per se

Overarching objective: improve our understanding of co-benefits of ILSMPs
Valuing complex social goods (like ILSMPs)

We need better methods for valuing complex and/or social goods

Focal research questions: Do ILSMPs ....

Promote Northern ‘development’ and help close the (income) gap?

Enable Indigenous communities to meet wider aspirations?

Promote Indigenous business development?

Facilitate knowledge exchange, thus improving wellbeing?

Promote Indigenous wellbeing?

Introduction

- Individual wellbeing
- Community aspirations
- Knowledge exchange
- Indigenous businesses
- Regional Incomes
- Synthesis and insights

World-class research to support sustainable development in northern Australia
Focal research questions: Do ILSMPs ....

Why are these questions important?
If ILSMPs are designed to meet both government and community objectives, there is a better chance of buy-in and success for all.

Methods
- Wellbeing approach with qualitative data
- Workshops and documentary analysis
- Participatory project selection (PPS)
- Life satisfaction approach (LAS) with balancing scores
- Panel data regression
- Input-Output (IO) analysis
Do ILSMPs promote Indigenous wellbeing?

(N=111)

(N=91)

Circles are NOT intended to represent Native Title areas, or other. They merely show regions in which we collected data, and groups we worked with to do this.

Introduction

World-class research to support sustainable development in northern Australia
Do ILSMPs promote Indigenous wellbeing?

- Holistic and bottom-up:
  - Which 6 factors (out of 26, from the literature) are most important to the wellbeing of individuals in our partner communities?

<table>
<thead>
<tr>
<th>QLD (n=91)</th>
<th>WA (n=111)</th>
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<tbody>
<tr>
<td>Health centres</td>
<td>Language</td>
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<td>Paid job</td>
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<td>Access to country</td>
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See also Larson et al., (in review) “ILSMPs and Individual Wellbeing” in Stoeckl et al., Multiple co-benefits of Indigenous land and sea management programs across northern Australia. James Cook University, Townsville
Do ILSMPs promote Indigenous wellbeing?

Temporal perspective: Which important things have changed the most (satisfaction now vs 5 years ago)?

Attribution determined by those involved: Which of those changes are linked to ILSMPs (unprompted responses)?

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World-class research to support sustainable development in northern Australia
Do ILSMPs promote Indigenous wellbeing?

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Do ILSMPs help Indigenous communities meet wider aspirations?

Addison, J., Stoeckl, N., Larson, S. Jarvis, D., Bidan Aboriginal Corporation, Bunuba Dawangarri Aboriginal Corporation RNTBC, Ewamian Aboriginal Corporation, Gooniyandi Aboriginal Corporation RNTBC, Yanunijarra Ngurrara Aboriginal Corporation RNTBC & Esparon, M. In review. The ability of community based natural resource management to contribute to development as freedom, and the role of access.

World-class research to support sustainable development in northern Australia
What goals and aspirations were identified during workshops with communities?

### Freedom

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<thead>
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To what extent have ILSMPs helped or hindered progress towards goals?

U - Linked to ILSMP noted without prompting
P - Link to ILSMPs noted when prompted

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Control, leadership, empowerment & independence
Appropriate economic development
Employment & training
Improved relationships & respect for our way outside community
Inter & intragenerational knowledge transfer of culture
Community cohesion & wellbeing
On-country infrastructure & services
Access & control over country
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Two-way learning
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Looking after country
Community sustainability
Appropriate educational development

Addison, J., Stoeckl, N., Larson, S. Jarvis, D., Bidan Aboriginal Corporation, Bunuba Dawangarri Aboriginal Corporation RNTBC, Ewamian Aboriginal Corporation, Gooniyandi Aboriginal Corporation RNTBC, Yanunijarra Ngurrara Aboriginal Corporation RNTBC & Esparon, M. In review. The ability of community based natural resource management to contribute to development as freedom, and the role of access.

World-class research to support sustainable development in northern Australia
Do ILSMPs can help Indigenous communities meet wider aspirations?

Yes

If they are designed to empower (generate ‘freedom’)

Addison, J., Stoeckl, N., Larson, S. Jarvis, D., Bidan Aboriginal Corporation, Bunuba Dawangarri Aboriginal Corporation RNTBC, Ewamian Aboriginal Corporation, Gooniyandi Aboriginal Corporation RNTBC, Yanunijarra Ngurrara Aboriginal Corporation RNTBC & Esparon, M. In review. The ability of community based natural resource management to contribute to development as freedom, and the role of access.
Individual versus community choice…

What is your favourite restaurant?

Which restaurant should we go to tonight?

I am allergic to nuts and have to be careful where I eat

May need to use $ to measure to ensure consistent preferences when aggregated (Arrow, 1950)

Measuring ‘value’ in dollars is o.k. but not required


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Participatory Project Selection (PPS) tool – project selection for community wellbeing

1. More Ewamian land management programs (ILSMP)
2. Electricity house rebate ($20 p.w.)
3. Govt increasing PBC board and employee payments (↑ pay)
4. Build solar farm on Talaroo* (solar farm)
5. Ewamian enterprise artefact making* (artefacts)
6. Housing on country*
7. Do something else

* Projects selected by the 8 EAC board members

Participatory Project Selection (PPS) tool – project selection for community wellbeing

Scoreboard update

SOCIAL preferences

INDIVIDUAL preferences

Social Announcement

Score Project
86  ILSMP
74  $20 pw
76  ↑ pay
81  Solar farm
75  Artefacts
84  Housing
69  Other

Each individual rates each project
Individuals update ratings

Participatory Project Selection (PPS) tool – project selection for community wellbeing

Simple individual good
- $20 pw electricity rebate

Complex social good
- ILSMPs

Introduction

ILSMPs ‘worth’ more, to Ewamian people than a weekly electricity rebate

ILSMPs undervalued if no social interaction / knowledge exchange


World-class research to support sustainable development in northern Australia
Does knowledge exchange enhance wellbeing?

- Health centres
- Language
- Schools
- Safe community
- Local jobs
- Paid job
- Country looked after
- Housing
- Strong in culture
- Strong family
- Role model
- Legal right to country
- Strong person
- Sharing knowledge
- Community spirit
- Legal protection
- Being on country
- Bush tucker
- Power to influence
- Communication
- Work satisfaction
- Social ills
- More saving
- Law enforced
- More money
- Own business

Larson et al., (in review) How important is knowledge exchange to Indigenous wellbeing, and do ILSMPs facilitate beneficial exchanges of knowledge?” in Stoeckl et al., Multiple co-benefits of Indigenous land and sea management programs across northern Australia. James Cook University, Townsville
Individuals report that sharing knowledge is more important than

- ‘more money’ and ‘more savings’ (all groups) and
- a ‘paid job’ (Kimberley groups)
Do ILSMPs facilitate knowledge exchange, and if so, what type of knowledge is exchanged?

Yes

~ 40% of respondents report KE associated with ILSMPs

Larson et al., (in review) How important is knowledge exchange to Indigenous wellbeing, and do ILSMPs facilitate beneficial exchanges of knowledge?” in Stoeckl et al., Multiple co-benefits of Indigenous land and sea management programs across northern Australia. James Cook University, Townsville
## Do ILSMPs facilitate knowledge exchange, and if so, what type of knowledge is exchanged?

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<th>Western-generated knowledge for management of country</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of chemicals</td>
<td>Weather and tides</td>
</tr>
<tr>
<td>Driving boat</td>
<td>Trapping crocodiles</td>
</tr>
<tr>
<td>GIS mapping</td>
<td></td>
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<table>
<thead>
<tr>
<th>Administrative and communications skills</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Understanding legislation</td>
<td>Meeting and learning from others</td>
</tr>
<tr>
<td>Business management / managing budgets / office administration</td>
<td>Networking</td>
</tr>
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<td></td>
<td>Dealing with stakeholders</td>
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</table>

<table>
<thead>
<tr>
<th>Traditional / Indigenous generated knowledge</th>
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<tbody>
<tr>
<td>Learning from elders about country</td>
<td>Learning about plants and animals, bush tucker and bush medicine</td>
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<tr>
<td>Learning stories and dance</td>
<td>Learning language</td>
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<tr>
<td>Names and locations of water holes</td>
<td>Teaching young kids</td>
</tr>
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<td>Burning and use of fire</td>
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### Introduction

Larson et al., (in review) How important is knowledge exchange to Indigenous wellbeing, and do ILSMPs facilitate beneficial exchanges of knowledge?” in Stoeckl et al., Multiple co-benefits of Indigenous land and sea management programs across northern Australia. James Cook University, Townsville
Statistical modelling of link between overall life satisfaction and the KE that is linked to ILSMPs

Impact and value of ILSMP-facilitated KE

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<thead>
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<th>+ ve</th>
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<tr>
<td>Value of learning relative to value of being employed</td>
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Jarvis et al., in prep. Does knowledge exchange enhance or reduce Indigenous wellbeing, and by how much? A case study developed with communities undertaking Indigenous land and sea management programs in northern Australia.
Does ILSMP-facilitated KE enhance or reduce Indigenous wellbeing?

But these preliminary findings suggest ILSMP design should consider incorporating Indigenous designed protocols for sharing traditional knowledge.

Yes

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World-class research to support sustainable development in northern Australia.
Do ILSMPs promote Indigenous business development?

Specific aims/questions:

- Collate insights from the literature regarding those factors that are most/least likely to promote Indigenous economic development and/or economic independence for Indigenous businesses across northern Australia.

- Look for evidence to suggest that ILSMP expenditure helps kick-start Indigenous businesses – even those not involved in land and sea management.

Do ILSMPs promote Indigenous business development?

Number of Indigenous businesses

Source: Australian Government Office of the Registrar of Indigenous Corporations

- Investment in ILSMPs
- Land management businesses
- Other businesses
Do ILSMPs promote Indigenous business development?

Number of Indigenous businesses

Source: Australian Government Office of the Registrar of Indigenous Corporations

Do ILSMPs promote Indigenous business development?

Source: Australian Government Office of the Registrar of Indigenous Corporations

Yes, ILSMPs promote Indigenous business development

Some patience required

Number of Indigenous businesses

Source: Australian Government Office of the Registrar of Indigenous Corporations

Do ILSMPs contribute to northern development and help close the (income) gap?
Bang for your buck – Kimberley

Bang for your buck – NT and far north QLD

Yes, ILSMPs contribute to northern development and help close the (income) gap

Does ILSMP expenditure make a contribution to regional economies? Yes

Does the economic ‘impact’ of ILSMPs compare favourably to the ‘impact’ of other industries? Yes

$100 invested in an ILSMP will do more for regional growth than $100 invested in some other industries

Does the total income benefits that flow to Indigenous people from ILSMP expenditure exceed those of non-Indigenous people? Yes

Better if money spent on Indigenous people and with Indigenous-owned businesses (or businesses that employ Indigenous people)

Overall, what can be said about the co-benefits of ILSMPs?

ILSMPs create a diverse range of co-benefits

Which accrue to a diverse range of people / communities: individuals, families, business, communities and Australia

This diversity needs to be embraced for both program design and for monitoring
World-class research to support sustainable development in northern Australia

- Individual wellbeing
- Community aspirations
- Knowledge exchange
- Indigenous businesses
- Regional Incomes
- Synthesis and insights

Introduction

Well-designed & implemented Indigenous land & sea management programs

- Social & cultural capital
  - Sharing traditional knowledge, creation of role models, mentoring, identity
- Natural capital
  - Caring for country
- Financial & economic capital
  - Finance, business systems, wages, cars, equipment, machinery, buildings
- Institutional capital
  - Legal access, rights, empowerment
- Human capital
  - Sharing western knowledge e.g. education, training, business skills

Self-sustaining

- Indigenous households
  - Providing goods & services, payment for labour & expertise
  - Buying goods, providing labour & expertise
- Indigenous businesses
  - Broader economic & development benefits for northern Australia

More prosperous Indigenous economies

More prosperous Indigenous communities

More prosperous Australia

Other socio-economic, cultural, ecological, health & wellbeing benefits
Outputs available on Hub website

**Completed**
- 4 Factsheets and project updates
- 3 Policy notes
- 1 Science summary
- 4 scientific journal articles

**Soon to appear**
- Final, wrap-up factsheet
- 2 policy notes
- Final science summary

**In review**
- Final report
- 2 scientific journal articles

Soon to submit for review
- 2 scientific journal articles
Indicators of impact

• Indigenous uptake
  • Initiation to speak at ‘Thinking beyond borders’ IPA and Economic development conference in Cairns, June 2018
  • Request to refine project-selection tool for use in Ewamian AGMs

• Government uptake
  • PM&C working with Social Ventures Australia to trial small number of our suggested indicators for economic development in ILSMP monitoring

• Research uptake
  • Blog on complex social goods (World forum on natural capital)
  • Invitations to speak at
    – Centre for Aboriginal Economic Policy Research (ANU) in Nov 2018
    – Australian Agricultural and Resources Economics Water Forum, at the University of Adelaide, Mar, 2019.
  • ARC – Indigenous Discovery Project. *Knowledge Integration for Torres Strait Sustainability*
This work is supported through funding from the Australian Government’s National Environmental Science Program.

For more information please contact:

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