Mapping cultural ecosystem services in the Wet Tropics, Queensland, Australia



Presenters: Dr Petina Pert, CSIRO, Cairns, Australia

Acknowledgements: Traditional Owners, research partners

Overview

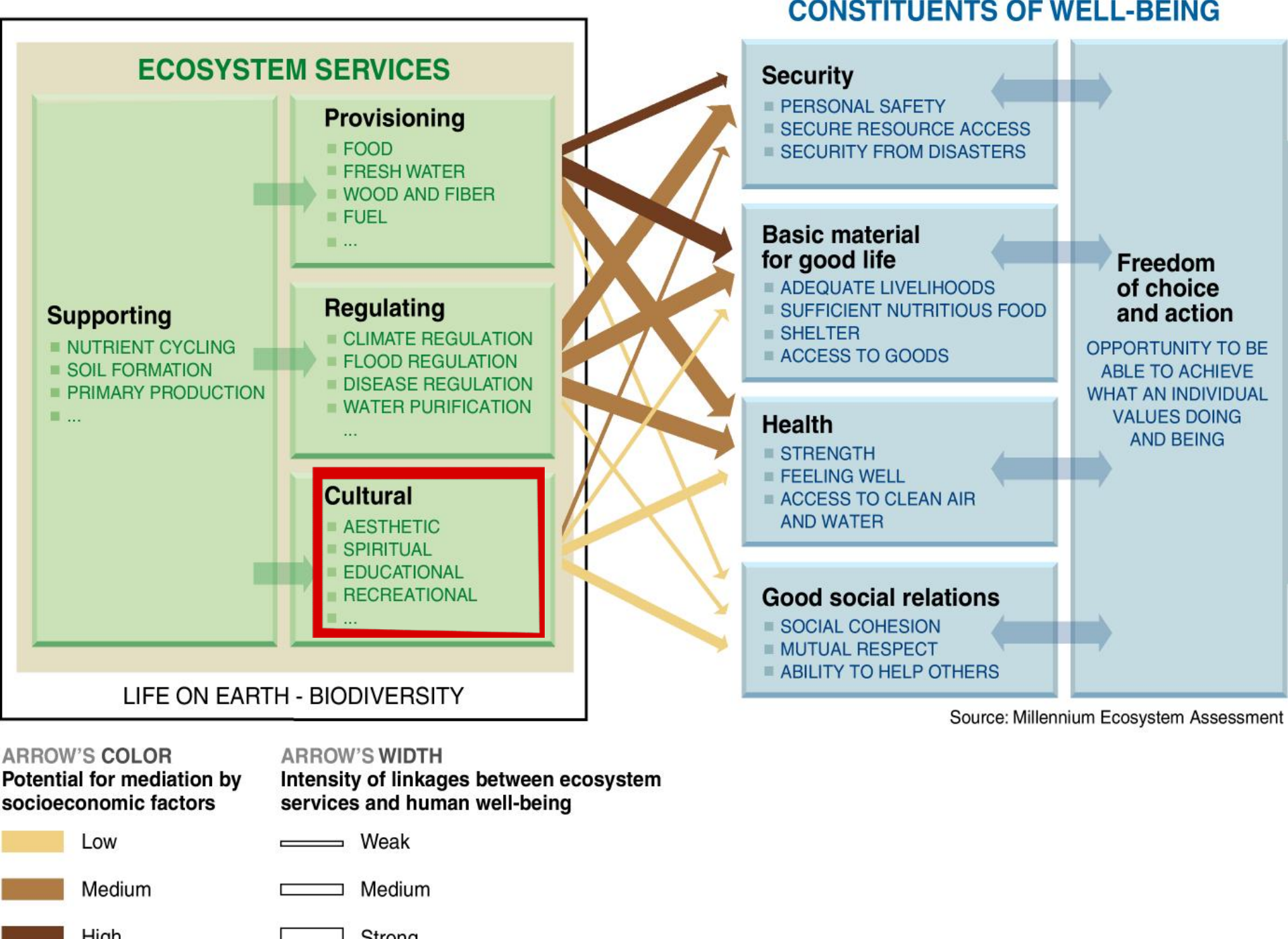
* Introduction to cultural ecosystem services
    * The issues
* Project background
    * Study area
* Methods
* Results
* Management of PA's for CES – moving towards

Cultural ecosystem services

* Under-researched, sub-set of ES that are derived from the landscape
* Previously the focus has been on more tangible measureable CES e.g. recreation, tourism
* Most CES you can associate an economic $ value with

Other CES:

* Provision of aesthetic beauty, enjoyment, inspiration
* Provision of spirituality, sense of place
* Education



Source: Millennium Ecosystem Assessment

ARROW'S COLOR
Potential for mediation by socioeconomic factors

- Low
- Medium
- High

ARROW'S WIDTH
Intensity of linkages between ecosystem services and human well-being

- Weak
- Medium
- Strong

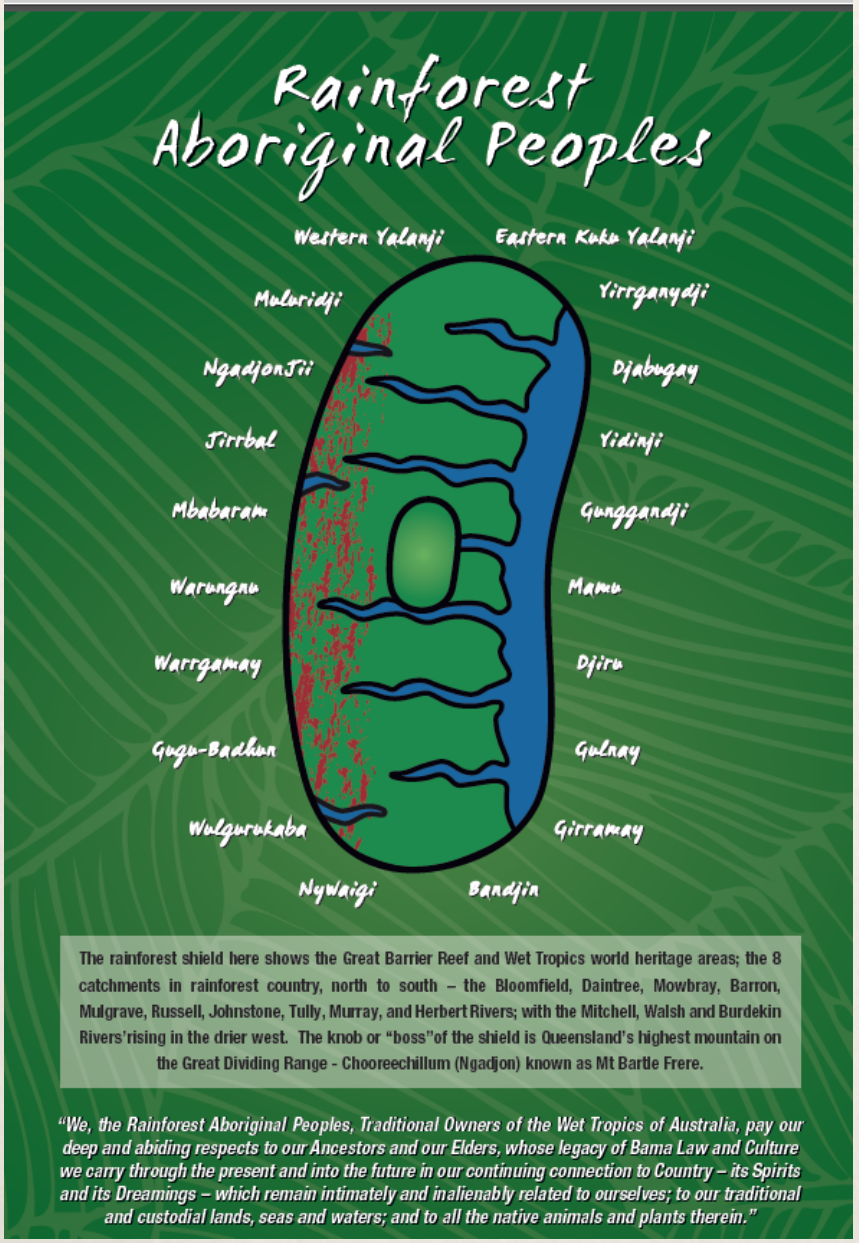
The issues

* Most (if not all) human behaviour is mediated by culture, making anything we engage in a cultural act dependent on the goods and services provided by ecosystems
* CES are difficult to map and quantify
* Highly significant cultural relationships such as those between Indigenous Peoples and their traditional land – may be rendered invisible or forgotten in ecosystem assessments.
* Little effort on stakeholder engagement/participatory processes in determining CES

Project Background

Purpose

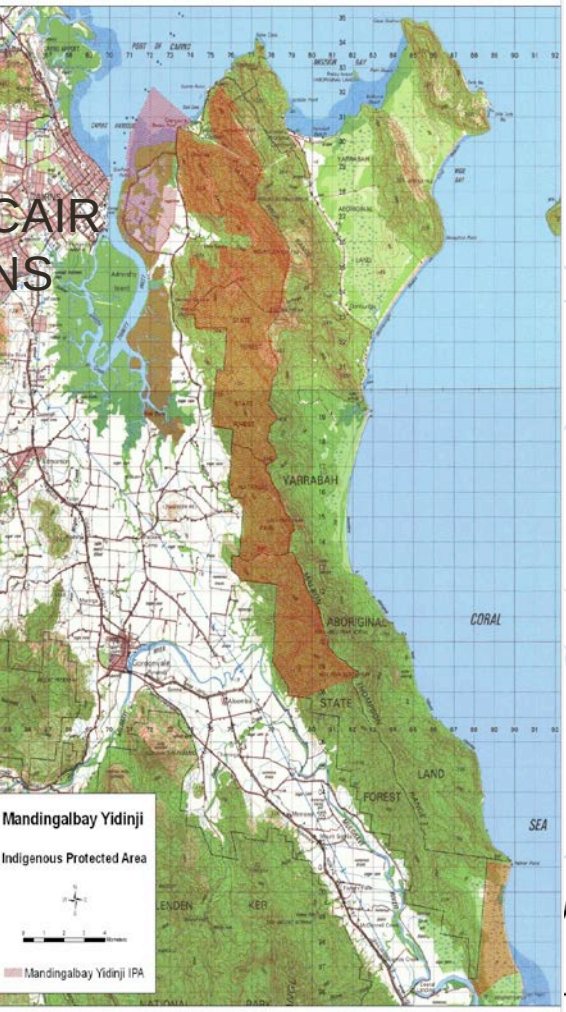
Working together through co-research to look at how Indigenous Protected Areas and other co-management actions can support better recognition of Rainforest Aboriginal peoples' knowledge and cultural values, and joint management of the Wet Tropics World Heritage Area.

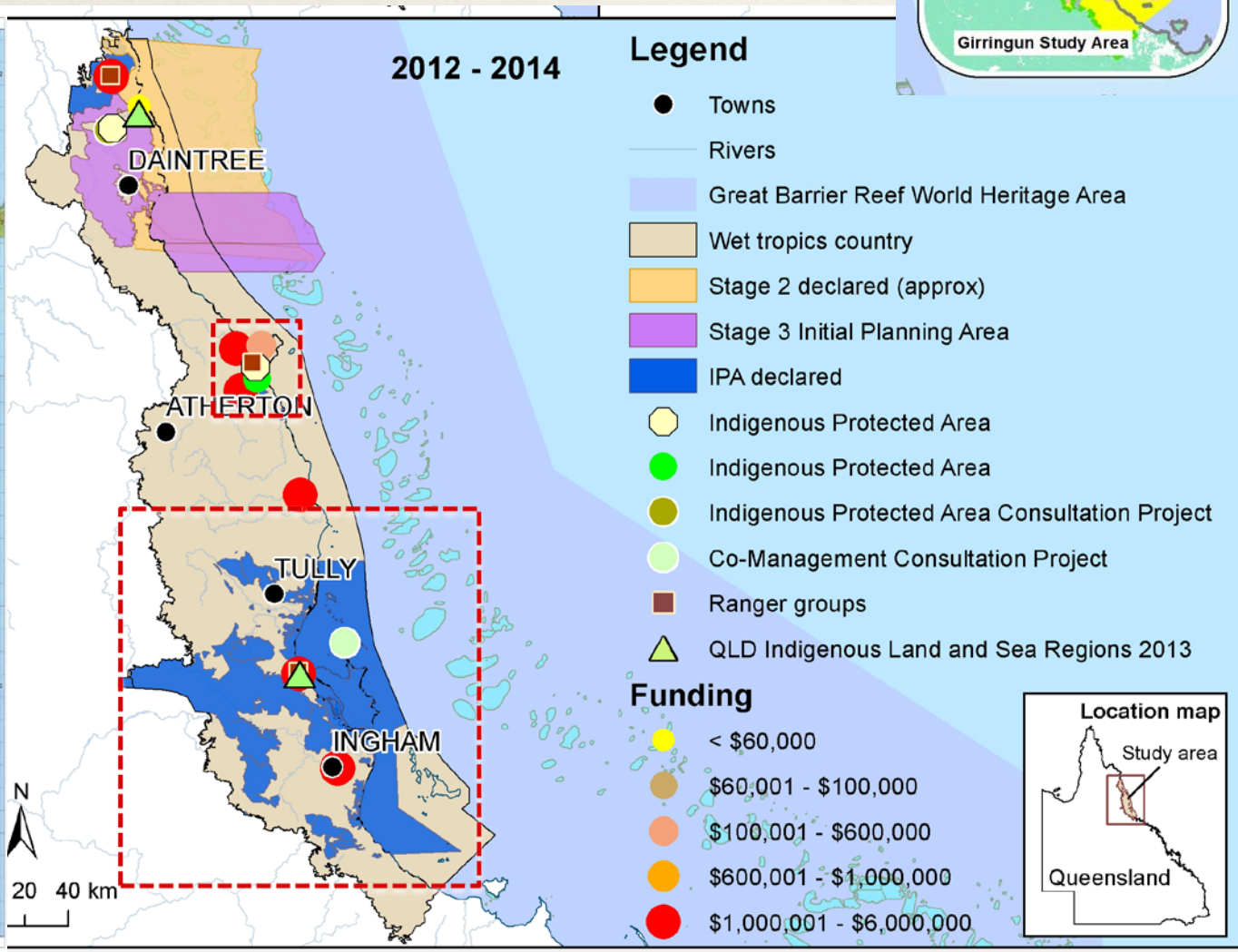


Study areas

Wet Tropics

- Regional case study
- Subregional: Girringun
- Tribal: Mandingalbay Yidinji





METHODS

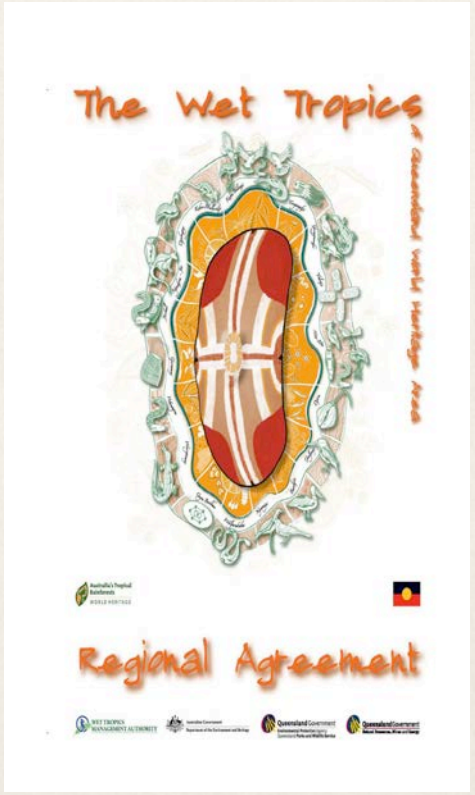
Participatory co-research approach

Categories developed to map CES

2 PRIMARY CATEGORIES

1. RAP keeping strong (6 themes)
    - Effective engagement of Indig. culture, knowledge and values to keep their knowledge systems alive

2. Keeping engagement with non-Aboriginal people strong (7 themes)
    - Recognises that co-governance arrangements cannot provide the means for effective engagement of Indig knowledge unless engagement mechanisms with non-Aboriginal counterparts are thriving and strong



Indicators and themes to map CES

STRUCTURES–Aboriginal rights, knowledge and values are recognised through customary law and governments' law, e.g.

- Starting organisations
- Getting constitutions in place
- Progressing Native Title recognition
- Making agreements (ILUAs), new laws or rules …

RESULTS–Recognition of Aboriginal rights, knowledge and values has resulted in successful on-ground actions, e.g.

- RAP knowing their lang. & culture
- Govt. showing respect for RAP law/lore
- Good relationships in place
- Protocols being followed
- Country getting healthier

1. STRUCTURES
(Setting things up)

2. PROCESSES
(Doing things)

3. RESULTS
(Things actually being delivered)

PROCESSES–Partnerships, programs and projects that support Aboriginal rights, knowledge and values, e.g.

- Making plans
- Starting projects
- Est. Indig. Ranger groups
- Exercising Native Title rights
- Teaching language
- Finding ways to sort out arguments & working together
- Progressing mutual interest

1. RAP keeping strong

1.1 Culture
1.2 Kin
1.3 Country
1.4 Indig leadership & gov
1.5 Capacity
1.6 RAP strategic vision & intent

2. Keep engagen stron

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1.5 Regin joint mgt
1.6 Powe
1.7 Issue resolutior

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2. Keeping engagement strong

3.1 Principles
3.2 Relationships
3.3 Mechanisms
3.4 Protocols
3.5 Regimes for joint mgt
3.6 Power
3.7 Issues resolution

Indicators and themes developed to map CES

Health Rating

Given to workshop participants to rate (1-5) the health of:

*structures,
*processes, and
*results

for each theme

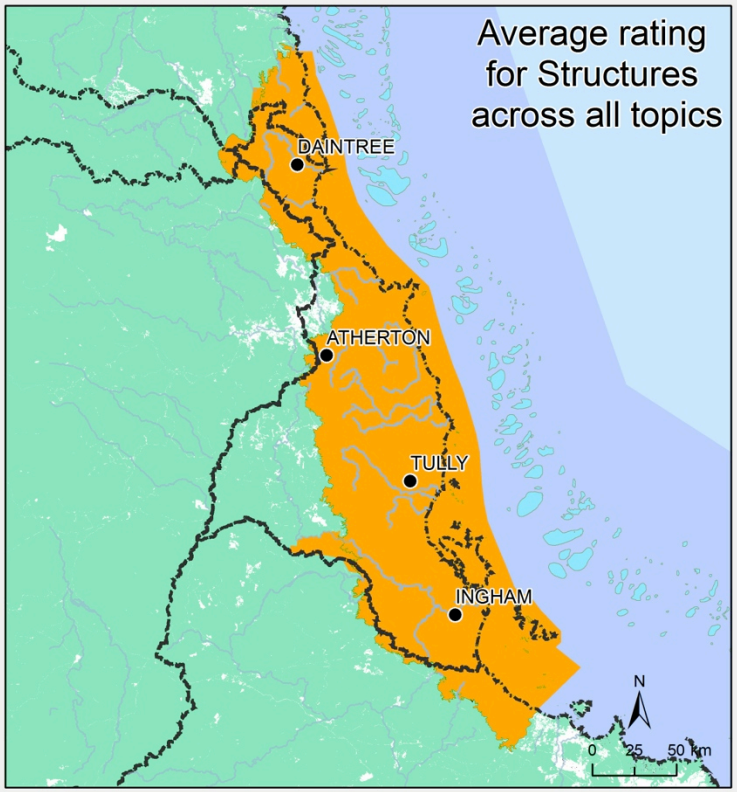
Health rating	Decision rule – health of indicator
5 Excellent	This indicator is excellent and continuing as is will keep it in excellent health.
4 Very good	this indicator is very healthy and does not need too much different to be done to keep it healthy
3 Good	This indicator is healthy and may need something more or different to be done to keep it healthy
2 Little bit sick	This indicator is a little bit sick and needs work to be done to make to healthy. If no work is done it will get worse.
1 Very sick	This indicator is very sick and if no work is done to make it better it may never be healthy again.

RESULTS

Results

	THEME	Regional case study area		
		Structures	Processes	Results
Rainforest Aboriginal people (RAP) keeping strong	Culture	Good	Good	Good
	Kin	Good	Little bit sick	Good
	Country	Little bit sick	Little bit sick	Little bit sick
	RAP leadership & governance	Very sick	Very sick	Little bit sick
	Capacity	Good	Little bit sick	Good
	RAP shared strategic vision	Good	Little bit sick	Little bit sick
	Average overall rating			
RAP keeping strong Keeping engagement strong	Principles (Group 1)	Little bit sick	Little bit sick	Little bit sick
	Relationships (Group 2)	Good	Little bit sick	Good
	Mechanisms (Group 3)	Little bit sick	Little bit sick	Little bit sick
	Protocols (Group 1)	Little bit sick	Little bit sick	Little bit sick
	Regimes for joint management	Little bit sick	Little bit sick	Little bit sick
	Power (Group 4)	Little bit sick	Little bit sick	Little bit sick
	Issues resolution (Group 6)	Good	Good	Little bit sick
	Average overall rating	Little bit sick	Little bit sick	Little bit sick

Evaluation of structures for keeping engagement strong



Legend

Health rating

- Rivers
- NRM regions
- Wet Tropics bioregion
- 5 Excellent
- 4 Very good
- 3 Good
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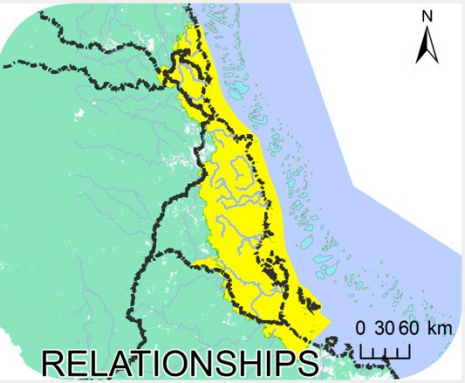
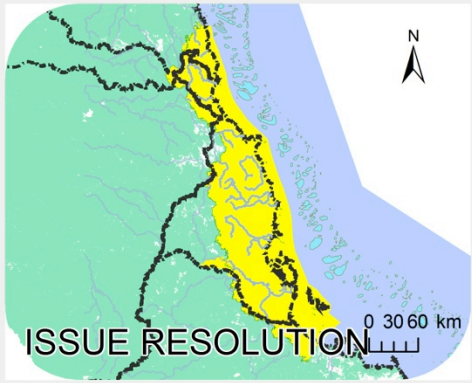
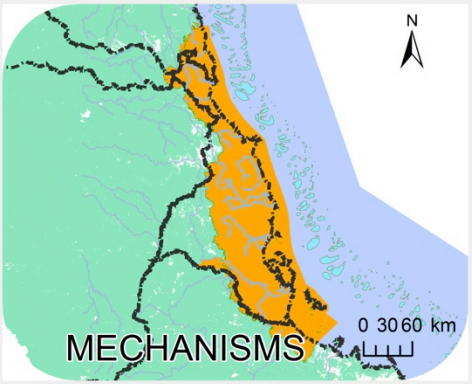
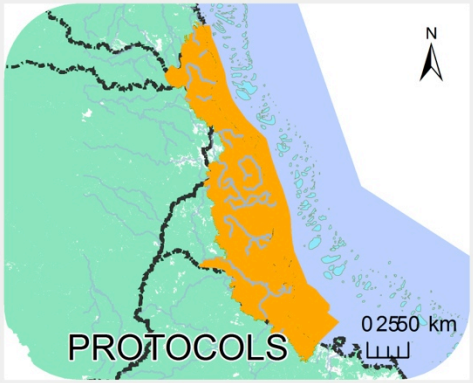
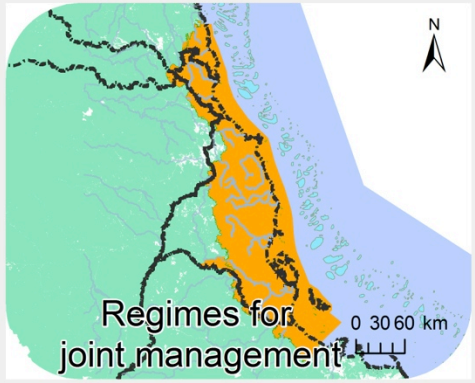
- Native vegetation

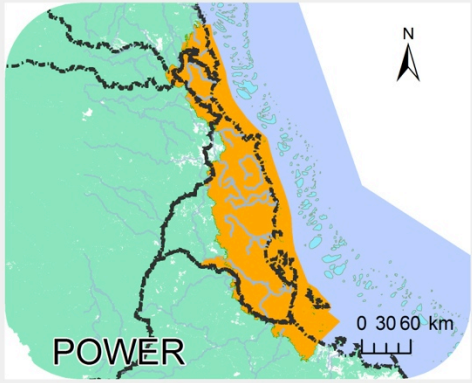




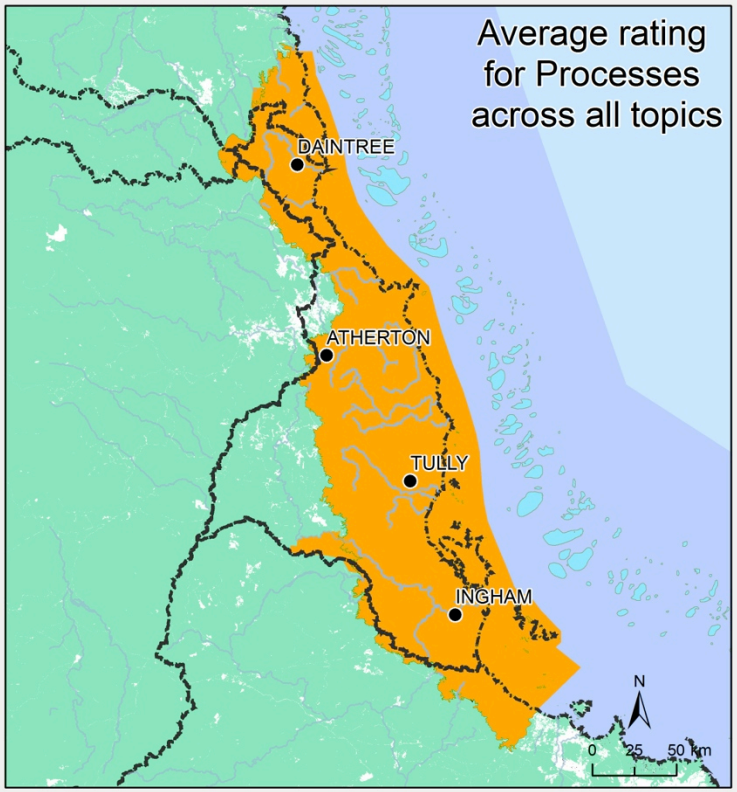








Evaluation of processes for keeping engagement strong



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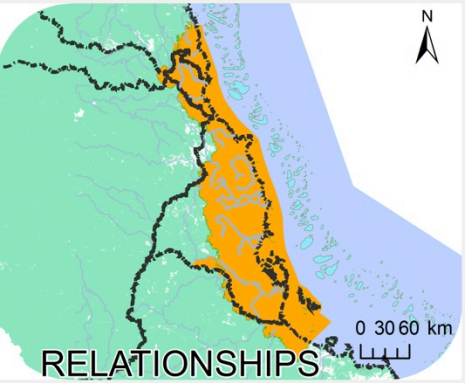
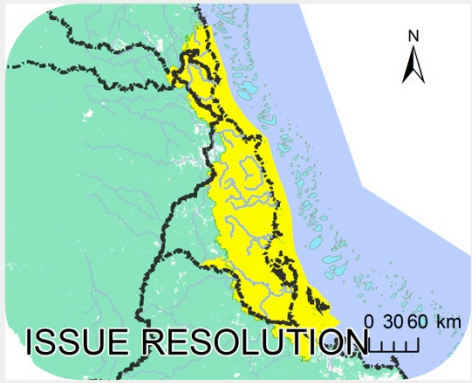
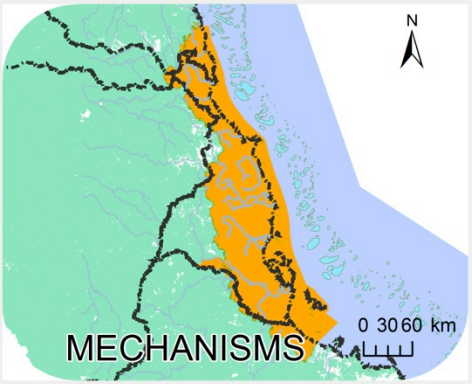
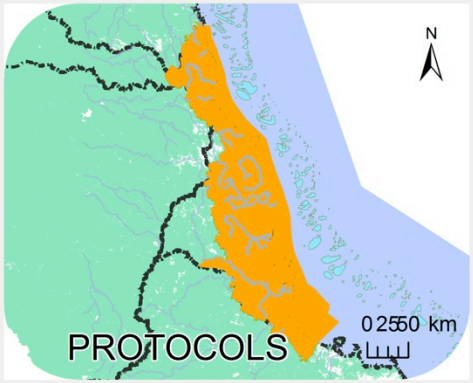
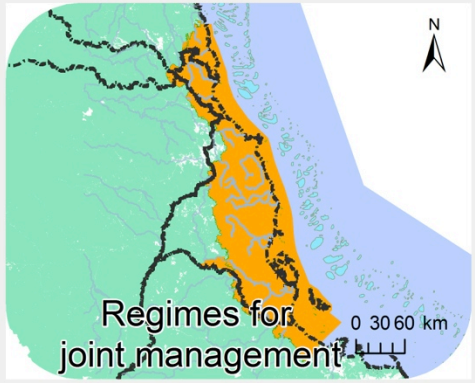
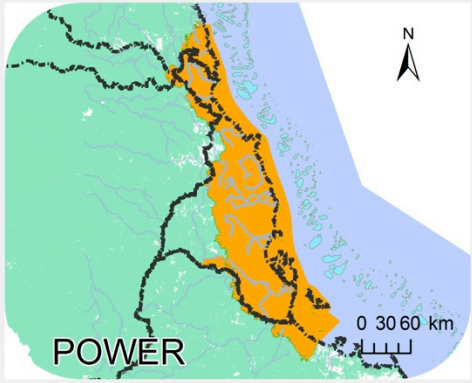




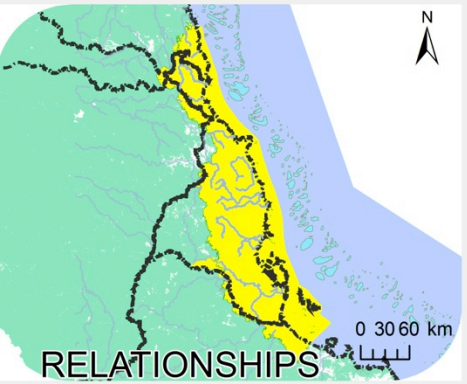


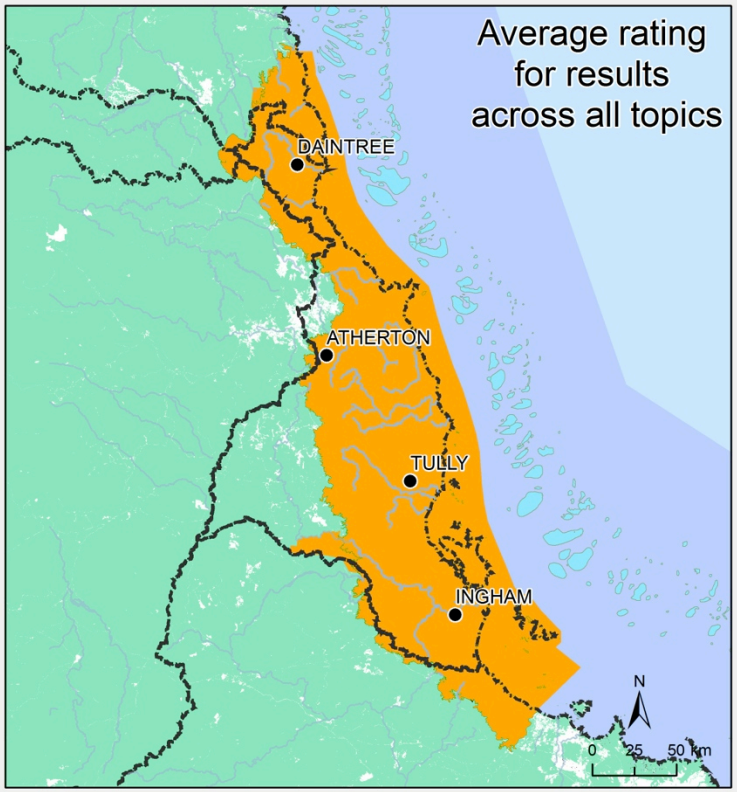






Evaluation of results for keeping engagement strong





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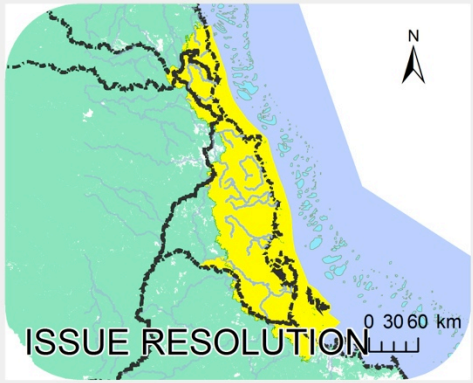
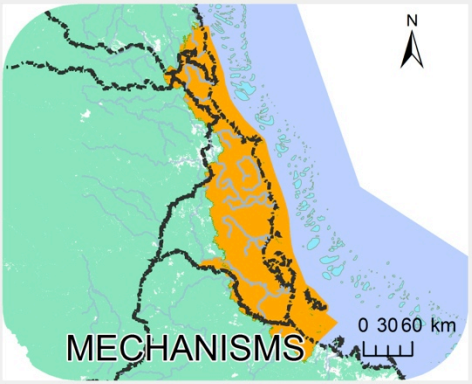
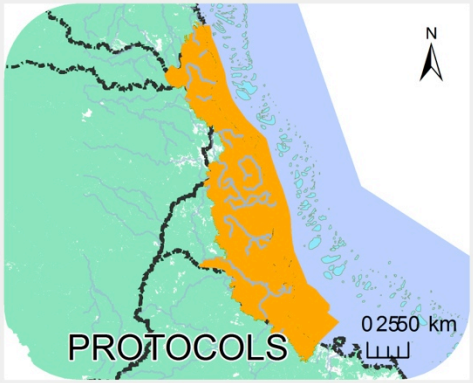
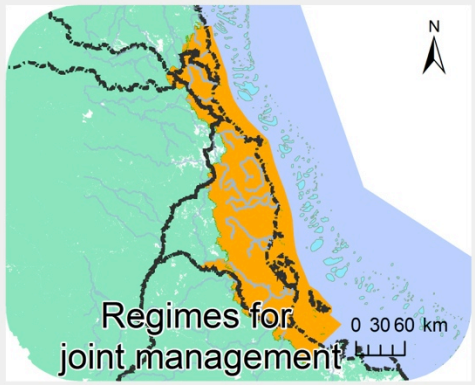
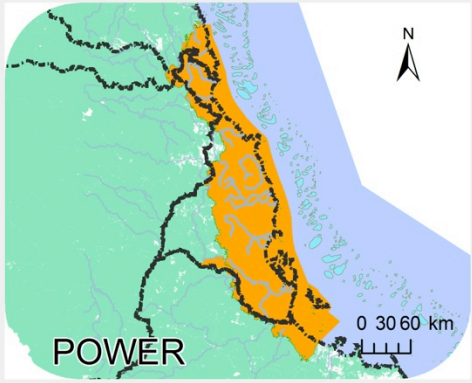


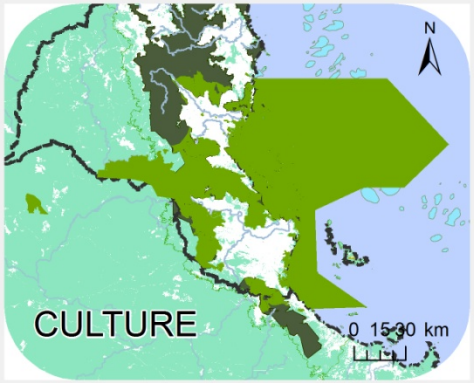


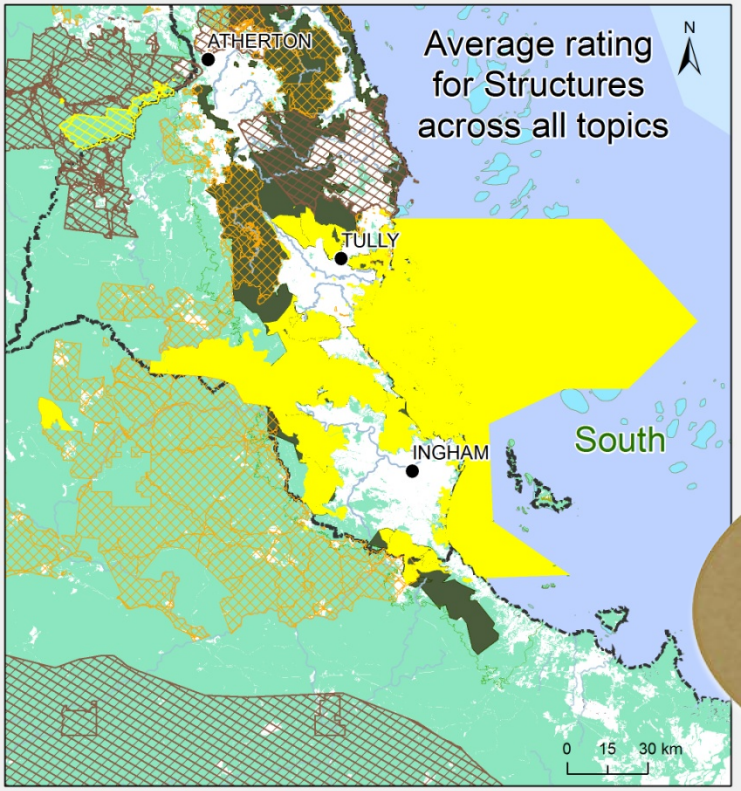






Girringun Co-evaluation of Structures for Rainforest Aborioginal peoples keeping strong





Legend

Health rating

- 5 Excellent
- 4 Very good
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- 2 Little bit sick
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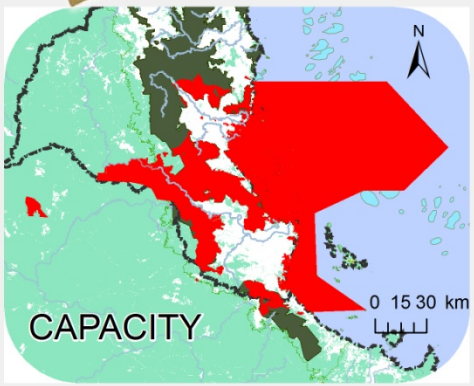
Native Title Register Determinations

Determination Outcome

- Native title exists in the entire determination area
- Native title exists in parts of the determination area
- Accepted for registration
- NRM regions
- Wet Tropics bioregion
- Wet Tropics World Heritage Area
- Native vegetation

IPA's and Rangers were identified as providing a means for developing and implementing a strategic vision and offering a more effective pathway towards adaptive governance than through NT

Structures for governing key decisions on-country were viewed as preventing rather than facilitating application of Indigenous knowledge and practices.



Management of PA's for CES – moving towards co-management

- Our analysis
  - Highlights spatial variation in the social dimensions of delivery of cultural services from ecosystems
  - Indicates areas of perceived strength and weakness
- Improving delivery of CES
  - Knowledge networks can encourage peer-to-peer Indigenous learning
  - Health ratings can be tracked over time
  - Participatory evaluation brings TOs and main stream bodies together: identify current status and options to progress on the co-governance journey

Co-governance journey-ing

Running rainforest country ourselves from the beginning of time

Colonisation

Our cultural authority to run county disrupted

Renewal through recognition of rights, culture on country

Regaining cultural authority to run county

Country-based planning Capacity needs identified

Collaborative engagement with non-Indigenous people on country

Working with others to assert our cultural authority

Conflict resolution Capacity enhanced Local scale autonomy

New, equitable relationships between Indigenous and non-Indigenous societies about country

Running rainforest country from our cultural authority

Ongoing action learning process

- Colonial impact on Indigenous societies
- Colonial impact on Indigenous land

Colonisation of country

Wet Tropics managed by governments in partnership with communities, including Indigenous peoples

- Native title, ILUAs
- "Natural" world heritage site
- First steps

- Recognision of cultural values
- Support for Indigenous management roles
- Support for Indigenous-led country based

Development of Wet Tropics joint management vision

Joint management of Wet Tropics new relationship

- Shared space
- Stewardship responsibility
- Mutual influence
- Legal co-governance regimes

THANK YOU

Petina L. Pert*, Rosemary Hill, Kirsten Maclean, Allan Dale, Phil Rist, Joann Schmider , Leah Talbot, Lavenie Tawake (In Press).
"Mapping cultural ecosystem services with Rainforest Aboriginal peoples: integrating biocultural diversity, governance and social variation." *Ecosystem Services*

CONTACTS

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