

Why biocultural diversity and governance are important to mapping Indigenous cultural ecosystem services

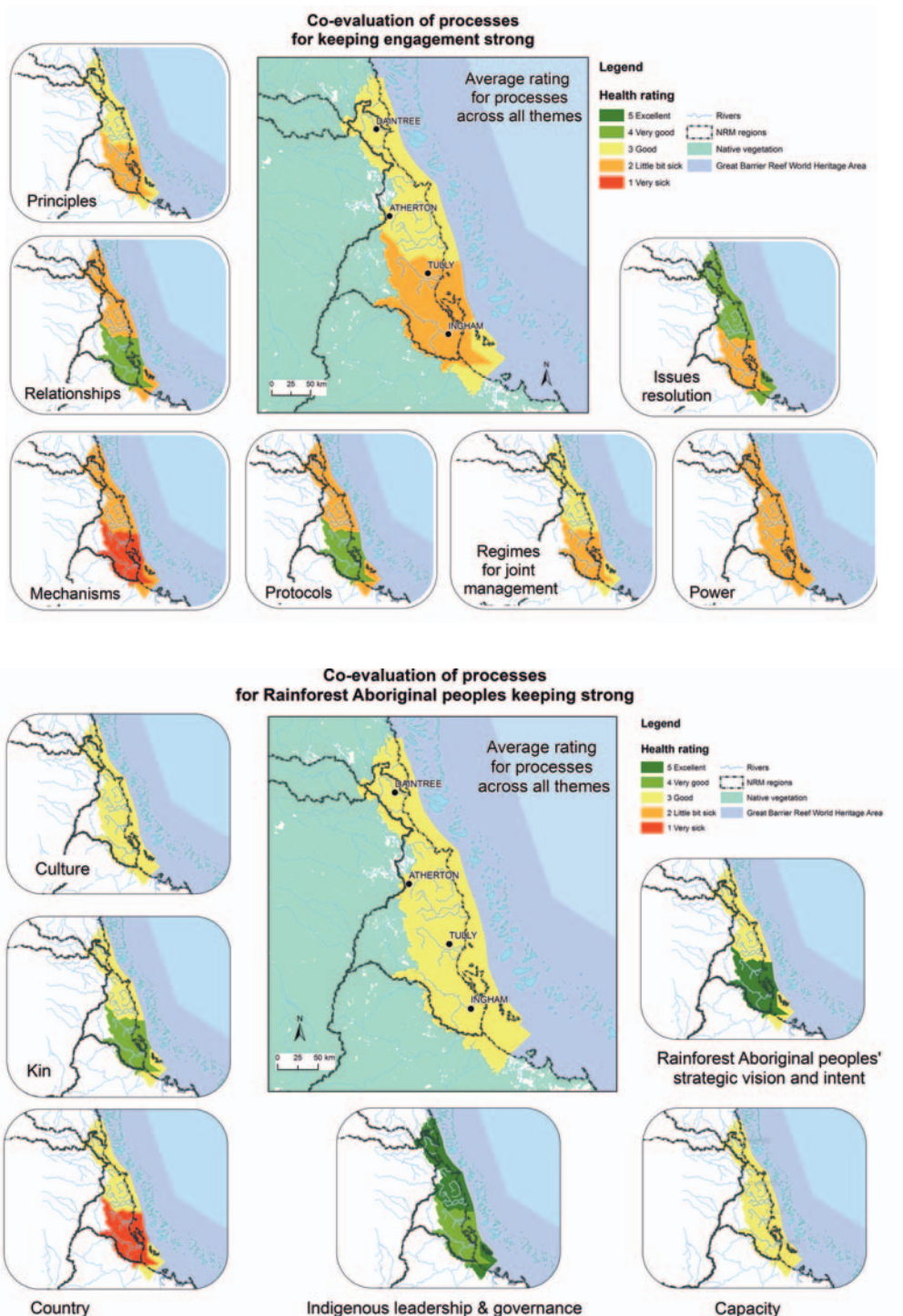
November 2014 Research towards Policy Brief

Rainforest Aboriginal peoples work with partners to manage their traditional estates across multiple tenures in the wet tropics according to their own law and culture. A three and a half year co-research project involving Traditional Owners, social scientists, spatial analysts, government and non-government organizations assessed and mapped perceptions of interaction with country through these partnerships.

Key findings

- cultural ecosystem services are an important part of the way Rainforest Aboriginal people perceive their interactions with wet tropics country.
- ecosystems and biodiversity provide supporting, provisioning, regulating and cultural services to people and societies.
- for Rainforest Aboriginal people, culture and cultural ecosystem services include dynamic processes, relationships and practices linked to biocultural diversity and governance
- culture includes the set of distinctive, spiritual, material, intellectual and emotional features of society or a social group, and ... encompasses art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.
- cultural services have intangible aspects that make them difficult to map and quantify, therefore most attention has been on tourism and recreational activities that can be commoditized.
- new categories for cultural services related more to biocultural diversity and governance are required to map Rainforest Aboriginal peoples' perceptions of cultural ecosystem services (Table 2 and Figure 3).
- these new categories will be useful for others interested in understanding cultural ecosystem services, particularly in partnerships with Indigenous peoples.
- participatory processes are required to assess and measure such categories for cultural ecosystem services.

Figure 1 and 2 Examples of maps showing categories for cultural ecosystem services developed through participatory evaluation with Rainforest Aboriginal people.



Why biocultural diversity and governance are important to mapping Indigenous cultural ecosystem services

Table 2 and Figure 3. Categories of interdependence between biological and cultural diversity

1. Language and linguistic diversity
 - Language (e.g. terms, concepts and categories relating to nature)
 - Linguistic diversity (the relation to biological diversity)

2. Material culture
 - Material culture (e.g. objects created from and/or representing biodiversity, including those reflecting spiritual and religious beliefs and aspirations, and the arts)

3. Knowledge and technology
 - Technology and techniques related to natural resources
 - Traditional and local knowledge about natural resources, ecological relationships
 - Transmission of knowledge between generations
 - Mechanisms for traditional knowledge revitalisation
 - Mechanisms for the adoption of new knowledge

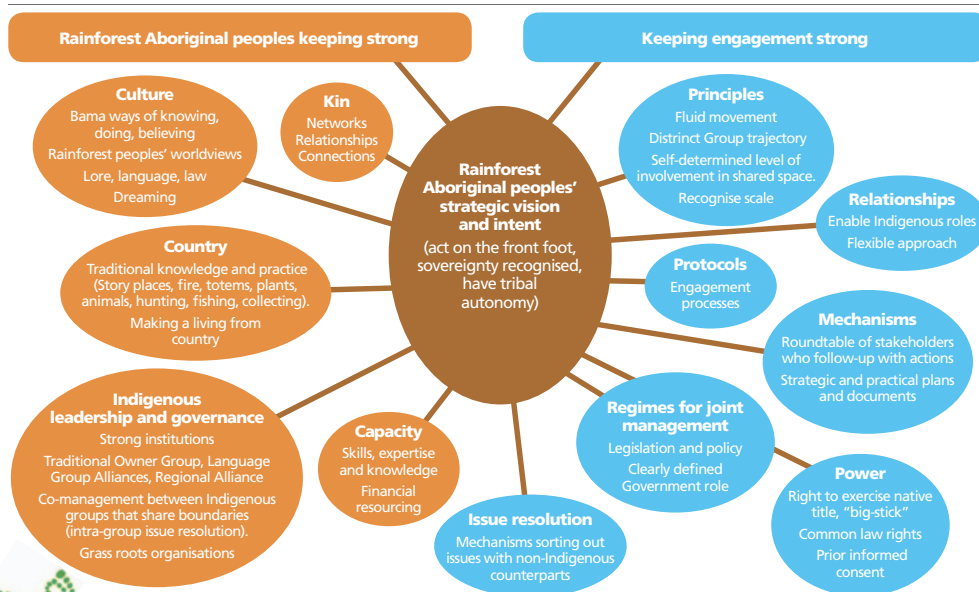
4. Modes of subsistence
 - Natural resource livelihoods
 - Land/sea use and management
 - Plant/animal domestication and selective breeding
 - Supplementing economies through sustainable harvesting

5. Economic relations
 - Economic relations through partnerships based on natural resources
 - Management of common property resources

6. Social relations
 - Attachment to place
 - Social relations with natural resources
 - Gender relations with natural resources
 - Political relations with natural resources
 - Legal-institutional e.g. customary law regarding resource use, access

The information in this publication does not necessarily reflect the views of the Australian Government or any of the project partners. To the maximum extent permitted by law, the Commonwealth and each project partner excludes all liability to any person arising directly or indirectly from use of or reliance on the content of this publication.

Co-research team



Further reading

See <http://www.nerptropical.edu.au/project/indigenous-peoples-and-protected-areas>

- ▶ Hill R, Pert PL, Maclean K, Bauman T, Bock E, Dale AP, Flynn M, Joyce A, McDermott S, Mundraby V, Rist P, Rampton B, Schmider J, Talbot LD, and Tawake L (2014) Indigenous peoples and biodiversity protection in wet tropics country: from co-management to collaborative governance. Volume 1 interim policy-relevant findings. Volume 2 Participatory evaluation results Cairns: Report to the National Environmental Research Program. Reef and Rainforest Research Centre Ltd. Online: <http://www.nerptropical.edu.au/publication/project-121-technical-report-indigenous-peoples-and-biodiversity-protection-wet-tropics>.
- ▶ Hill R, Cullen-Unsworth LC, Talbot LD, and McIntyre S (2011) Empowering Indigenous peoples' biocultural diversity through world heritage cultural landscapes: A case study from the Australian tropical forests. International Journal of Heritage Studies 17: 571-590.
- ▶ Maclean, K., R. Hill, P. L. Pert, E. Bock, P. Barrett, R. Bellafoquih, M. Friday, V. Mundraby, L. Sarago, J. Schmider, and L. Talbot. 2012. Framework and institutional analysis: Indigenous co-management and biodiversity protection in the wet tropics. Reef and Rainforest Research Centre on behalf of the Australian Government's National Environmental Research Program (NERP) Tropical Ecosystems (TE) Hub. Online: <http://www.nerptropical.edu.au/sites/default/files/publications/files/Project%202012.1%20Technical%20Report%20Maclean%20et%20al%202012%20Final.pdf>, Cairns.
- ▶ Pert PL, Hill R, Maclean K, Dale A, Rist P, Talbot LD, Tawake L, and Schmider J (2014 accepted) Mapping cultural ecosystem services with Rainforest Aboriginal peoples: integrating biocultural diversity, governance and social variation. Ecosystem Services.
- ▶ Plieninger, T., Dijks, S., Oteros-Rozas, E., & Bieling, C. (2013). Assessing, mapping, and quantifying cultural ecosystem services at community level. Land Use Policy, 33, 118-129. doi: 10.1016/j.landusepol.2012.12.013