Mobilising Multiple Knowledges to Evaluate the Effectiveness of Indigenous Land & Sea Management



Beau Austin

CSIRO & Charles Darwin University

Otto Bulmaniya Campion

Arafura Swamp Rangers Aboriginal Corporation

Cissy Gore-Birch

Bush Heritage Australia







Overview

- 1. Introduce the challenge.
- 2. Case studies.
- 3. Key issues identified.
- 4. Possible solutions.



Previous AES presentation, Darwin, 2014

"The main threat to Country and our culture is not enough jobs!" Otto Bulmaniya Campion

...a dilemma

- Increasingly market-based approaches.
- Increased need for transparency and accountability to 'money mob'.
- Raises the question of how do we determine if ILSM is achieving its goals?
- How should we measure that?

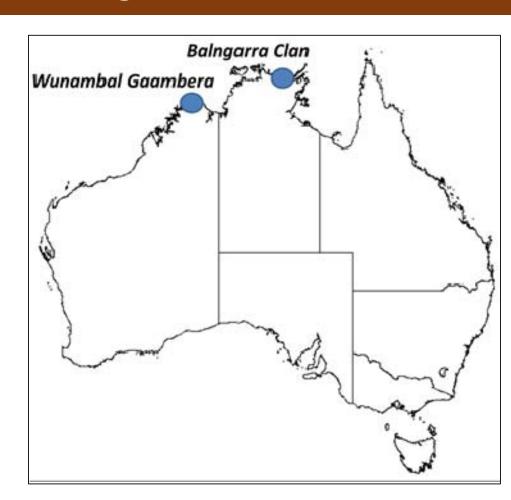




Mobilising Multiple Knowledges to Evaluate the Effectiveness of Indigenous Land & Sea Management

Case studies:

- 1. Balngarra Clan and their Wulken
- 2. Wunambal Gaambera and their *Uunguu Monitoring & Evaluation Committee*



The Uunguu Monitoring & Evaluation Committee



Box 1. Uunguu Monitoring and Evaluation Committee

The Wunambal Gaambera people have established an innovative, possibly unique, intercultural committee to provide strategic advice on operational, M&E and governance matters concerning the Wunambal Gaambera HCP. Known as the Uunguu Monitoring and Evaluation Committee (UMEC), this panel of experts enhances the capacity of Wunambal Gaambera Traditional Owners to make decisions about Country, without undermining their authority, by integrating knowledge to construct an 'enriched picture' of the status and trends of HCP targets and work. UMEC representation consists of a subcommittee of the WGAC Directors and the Head Uunguu Ranger, as well as non-Indigenous ecologists, anthropologists and planning experts, plus key investors in the HCP. The UMEC has been meeting on Wunambal Gaambera Country bi-annually since 2012. The UMEC reviews and recommends to the WGAC if the HCP is:

- · being used for management of Wunambal Gaambera Country:
- · working to achieve the Wunambal Gaambera vision;
- using the best Traditional and Western Knowledge and practice in implementation and monitoring; and
- is being effectively reported on to WGAC.

The UMEC workshops themselves have undertaken important Healthy Country Planning tasks such as target and threat review and developing results chains to assist in the implementation of objectives and strategies.





Mid-term Evaluation

Key Stakeholders	Process: is the implementation of the Plan: is target health improving?	
	plan following a good process?	
Uunguu Rangers	Annual progress reports	Annual progress reports
Traditional Owners	Survey	Participatory Ranking
Wunambal Gaambera Partners	Independent peer review	Independent peer review
UMEC	Self-assessment	Self-assessment

Table 1. Wunambal Gaambera Healthy Country Plan Evaluation Evidence-Base

Why Participatory Research Tools?

- Useful for incorporating qualitative data/information
- Especially important for capturing social, cultural values
- Provides a bridge for Traditional Owners to have their knowledge, practices and beliefs incorporated in more depth.

RESEARCH REPORT

doi: 10.1111/emr.12257

The Uunguu Monitoring and Evaluation Committee: Intercultural Governance of a Land and Sea Management Programme in the Kimberley, Australia

By Beau J. Austin, ©Tom Vigilante, Stuart Cowell, Ian M. Dutton, Dorothy Djanghara, Scholastica Mangolomara, Bernard Puermora, Albert Bundamurra and Zerika Clement

Bean Austinis a Postdoctoral Research Fellow at the Research Institute for the Environment, Charles Darwin University (Research Institute for the Environment and Liveliboods, Charles Darwin University, Darwin NT 0909, Australia; Email: beau.austin@cdu.edu.au). Tom Vigilante is the Wunambal Gaambera Healthy Country Manager with Bush Herliage Australia (Level 1, 395 Collins St, Melbourne, VC 3000, Australia; Email: tom.vigilante@bushberitage.org.au). Dorothy Djang barra, Scholastica Mangolomara, Bernard Pnermora, Albert Bundamurra and Zerika Clement are Wunambal Gaambera Traditional Owners and Researches with Wunambal Gaambera Aboriginal Corporation (Wunambal Gaambera Aboriginal Corporation, Kalumburn, WA 6740, Australia; Email:

Summary The importance of Indigenous peoples' and their ancestral estates for the maintenance and protection of biodiversity, ecosystem function, threatened species and cultural diversity is clear. Due to their nature, processes and tools to measure the impact of intercultural Indigenous land and sea management partnerships need to be innovative and adaptable. In 2015, the Wunambal Gaambera Healthy Country Plan reached its midpoint, which triggered an evaluation to enable adaptive management through the assessment of effectiveness. The evaluation was used to appraise the need for adaptation, contribute to the evidence base for healthy Country, and to report on achievements. The Uunguu Monitoring and Evaluation Committee, an innovative, intercultural and interdisciplinary body, and their collaborators adopted a multiple evidence-based approach to enable an enriched picture. This committee has successfully integrated western scientific and local Indigenous knowledge for adaptive management by embodying the principles of co-production. The Uunguu Monitoring and Evaluation Committee model outlines a way of doing knowledge integration from the bottom up which, given the significance of the cultural and natural diversity of the Indigenous estate, makes a valuable contribution to the global community of practitioners attempting to use diverse knowledges for better management of biodiversity, ecosystems, threatened species and cultural traditions.

Key words: evaluation, indigenous people, Kimberley, management effectiveness, planning





Table 1. Wunambal gaambera healthy country plan evaluation evidence base

Key stakeholders	Process: Is the implementation of the plan following a good process?	Plan: Is target health improving?
Uunguu Rangers	Annual progress reports	Annual progress reports
Traditional owners	Survey	Participatory ranking
Wunambal Gaambera partners	Independent peer review	Independent peer review
UMEC	Self-assessment	Self-assessment

Table 2. Overarching target categories used for evaluation in relation to HCP targets (WGAC

Overarching target	Healthy country targets
Law and culture	Target 1: Wanjina Wunggurr Law - our culture.
Right Way Fire	Target 2: Right Way Fire
Freshwater Things	Target 3: Aamba (kangaroo and wallables) and other meat foods
	Target 4: Wulo (rainforests)
	Target 5: Yawal (water sources)
	Target 6: Bush plants
Cultural Sites	Target 7: Rock art
	Target 8: Cultural places on islands
Saltwater things	Target 9: Fish and other seafoods
	Target 10: Mangguru (marine turtle) and Balguja (dugong)

Table 3. Healthy country team report

Operation	Objective	% Progress	Status of strategies	Threat reduction results
Right Way Fire	By 2015, we will be managing fire on Wunambal Gaambera Country	90	On Track	Traditional owners are decision-makers for fire. Wildfires no longer dominate the fire regime. Some evidence that Target species are getting healthier.
Pest Species Management	By 2015, we will be managing and controlling pest species on Wunambal Gaambera Country and by 2020 pest species will have a smaller impact.	30	On Track	Weed populations contained. Feral cattle have been fenced out of key sites.
Visitor Management	By 2014, we will be managing visitors to Wunambal Gaambera Country and promoting respect for our country in accordance with Wanjina Wunggurr Law	30	Minor Issues	Not yet achieved
Culture Programmes	By 2012, the old peoples' traditional knowledge on plants, animals, our country and how these relate to each other, will be recorded, saved and made accessible to Wunambal Gaambera people, especially the young people.	50	Minor Issues	Wunambal Gaambera knowledge is captured and alive – not yet achieved.
	By 2014, we will be looking after ten important cultural sites according to Wanjina Wunggurr Law, and by 2020 all culturally important sites will be looked after in this way.	80	Minor Issues	
	By 2015, we will be running an ongoing Wanjina Wunggurr cultural education programme for Wunambal Gaambera people.	30	Minor Issues	
Monitoring, Evaluation, Research.	By 2020, our country will still be healthy with no plants, animals, fish or diigu (birds) or their habitats that are here today, being lost.	50	On Track	Targets are Healthier due to operations – monit oring still being established
Information Management	By 2015, we will have figured out and starting using ways to reduce the problems that climate charge might have on our targets, on us and on Wunambal Gaambera Country, and ways to make sure our actions don't make the carbon problem worse.	50	On Track	Country has increased rigour to adjust to climate change – to be determined
Partnerships & Communications	worse. By 2015, WGAC will have agreements with key Healthy Country partners, and stakeholder groups will be supportive of healthy Country work.	60	On Track	More capacity for Land & Sea Management Being secure on Country
Sustainable finances	By 2020, Uunguu Land and Sea Management Limited will have sustainable financial capacity to manage healthy country.	50	On Track	delig secure on country
Workforce & Training	by 2015, ten Uunguu Land and Sea Management rangers will have the capacity to look after our courtry using traditional and Western knowledge, and by 2020 the ranger service will be managed by a Wunsmibal Gaambera person.	60	On Track	
Getting back to Country	by 2015, five Wurambal Gaambera families will have the opportunity to live and/or visit their traditional country and by 2020 all families will have this opportunity.	60	On Track	People living on country More capacity for Land & Sea Management
Land-use planning	By 2020, land and water title and tenure will be secure and healthy country principles will inform land-use planning	50	Major Issues	Sustainable industries exist for Traditional owners Impact of Bauxite mining minimised

Key Stakeholders Process: is the implementation of the Plan: is target health improving? plan following a good process? **Uunguu Rangers** Annual progress reports Annual progress reports **Traditional Owners** Participatory Ranking Survey Wunambal Gaambera Partners Independent peer review Independent peer review UMEC Self-assessment Self-assessment

Table 1. Wunambal Gaambera Healthy Country Plan Evaluation Evidence-Base

Table 4. UMEC Target viability self-assessment

	Viability change		Viability status	
	Trend	Confidence	2010	2015
Law & Culture	1	2	FAIR	FAIR
Right Way Fire	1	3	FAIR	GOOD
Aamba & meat foods	1	2	GOOD	GOOD
Wulo (rainforest)	1	2	GOOD	GOOD
Yawal (waterholes)	-	1	GOOD	GOOD
Bush Plants	1	2	GOOD	GOOD
Rock Art	1	2	POOR	POOR
Cultural Islands	→	3	POOR	POOR
Fish & Seafood	?	2	GOOD	GOOD
Mangguru & Balguja		2	GOOD	GOOD

Confidence (in reliability of self-assessment):

- 1 Low confidence
- 2 Medium confidence
- 3 High confidence

Vability Status:

- · Very Good Desirable status; requires little intervention for maintenance.
- Good Indicator within acceptable range of variation; some intervention required for maintenance.
- · Fair Outside acceptable range of variation; requires human intervention.
- Poor Restoration increasingly difficult; may result in extirpation of target.

Table 5. Traditional owner's responses to HCP process-related questions

Question	Yes/ Good	No/Needs Improvement	
Have you seen this Healthy Country Plan before and do you know what is in it?	41	9	
Do you know about the Uunguu Rangers and the work they do?	47	3	
Do you remember the first meetings when this Healthy Country Plan was being put together, was your family there?	47	3	
It has been 5 years since this plan started, how do you think it is going?	46	4	
Do you feel like you are part of Wunambal Gaambera healthy Country work?	44	6	

Table 6. Progress towards meeting targets

Step	Group 1	Group 2
Pre-planning	Complete	Complete
Vision/Dream	Complete	Complete
Assess health of targets	On-Track	On-Track
Critical threats	Complete	Complete
Conduct situation analysis	On-Track	On-Track
Goals and strategies	Complete	On-Track
Results chains	?	On-Track
Establish measures	Minor Issues	Minor Issues
Work Plans	On-Track	Minor Issues
Implement	On-Track	On-Track
Review the plan	Complete	On-Track
Learn and share	On-Track	On-Track

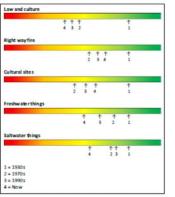
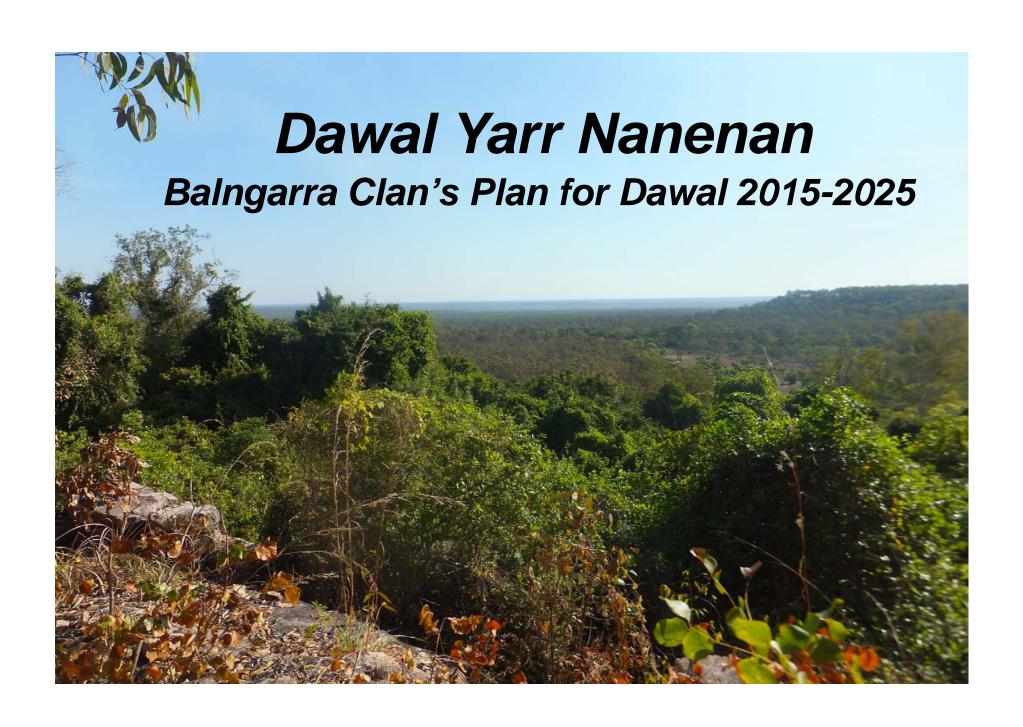


Figure 1. Traditional owner ranking of target health over time. IColour figure can be viewed at wileyonlinelibrary.com1

Synthesis, interpretation and recommendations





Wulken

- Balngarra Clan (central Arnhem Land) revitalised a traditional practice called wulken to 'plan, monitor & evaluate'.
- Now using this approach to develop partnerships (corporates, governments, NGOs and philanthropies) to join them to 'walk and talk' Country.

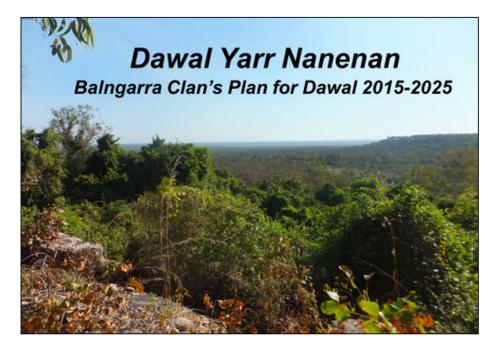










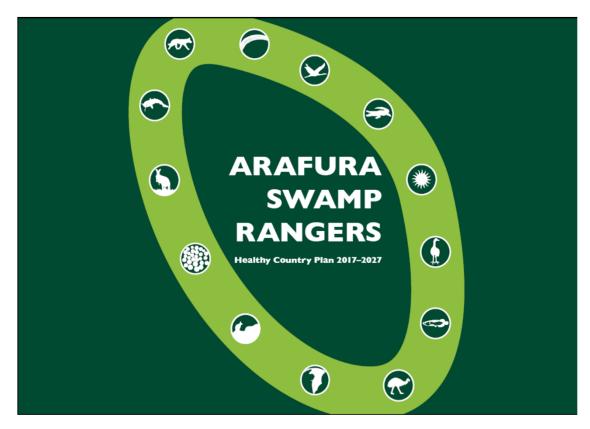




- The key output of this partnership was a final plan.
- 3 visions.
- 24 strategies.
- 87 actions that can be taken to start realising aspirations.
- 74 identified partners.
- 80 indicators to monitor and evaluate clan success.
- Mix of Indigenous knowledge, western science and co-production.

Benefits of the collaborative Wulken approach

- Acknowledges and builds on local capacity, not deficits.
- Begins with Indigenous peoples' relationships to Country, and their knowledge, practices and beliefs.
- Creates space to mobilise Indigenous knowledge in collaborative partnerships.
- Invites Western science/governance to perform supplementary roles, e.g.:
 - Providing new or otherwise 'unknowable' data/information about Country.
 - Help bridge cultural gaps.



- Now being tested with neighbouring clans in development of the Arafura Swamp HCP.
- Wulken used to produce an overarching monitoring and evaluation plan.
- Is it scalable?



Above: Ranger groups for Arafura Swamp and catchment of East Arnhem Land (1.2million hectares).

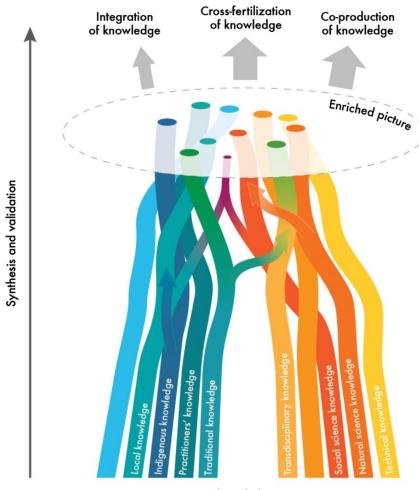
Why Mobilise Multiple Knowledges-Practices-Beliefs?

- 1. Facilitates an 'enriched picture' of People and Country.
- 2. Tell *Indigenous stories* about *Indigenous Country*.
- 3. Helps cope with complexity of social-cultural-ecological systems.
- 4. Demonstrates the *total value* of looking after Country.
- 5. Strengthens case for *holistic* investment.
- 6. UN Declaration on Rights of Indigenous Peoples.



Working with Multiple Knowledges

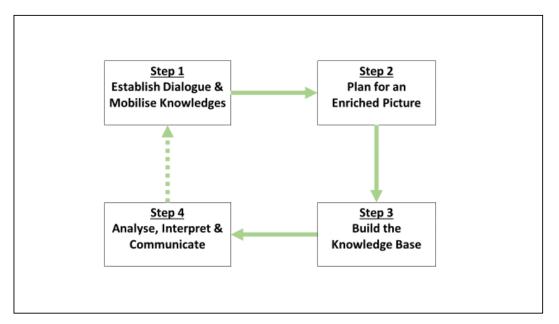
- Facilitates an 'enriched picture' of People and Country.
- Each knowledge system speaks for itself.
- Indigenous knowledges-practices-beliefs at the centre.
- Other knowledges used to:
 - Fill gaps,
 - Provide other perspectives,
 - Or tell a specific story.



Diverse knowledge systems

Tengo et al. (2014). Connecting Diverse Knowledge Systems for Enhanced Ecosystem Governance: The Multiple Evidence Base Approach. *Ambio* 43, 579-591

Steps for applying a 'multiple evidence-based' approach







Step 1	Establish and maintain meaningful dialogue.
	 Assess capacities for collaboration.
	 Identify goals that are mutually beneficial.
	 Mobilise all knowledge systems.
	 Discuss the relevance of 'larger-than-local' scales.
Step 2	Collaborative identification of approach.
	 Decide on a co-production or parallel integration approach.
	 Collaborative identification of methods.
Step 3	Implementation of knowledge production in line with agreed
	plans.
	'Stick to the plan!'
	 Collaborative analysis of results.
Step 4	Collaborative interpretation of results from the perspective of
	all stakeholders.
	 Assess social, cultural, economic and environmental
	implications.
	 Identify similarities, complementarities and/or contradictions

Collaboratively evaluate project performance.

Joint production of outputs and communication of results.

in research outcomes.

Celebrate success together.

Our M&E Toolkits...

Indigenous Knowledges

- Storytelling
- Yarning
- Artwork
- Dance
- Hunting & harvesting
- Ceremony
- Seasonal Calendars
- Digital media
 - Video
 - Photos

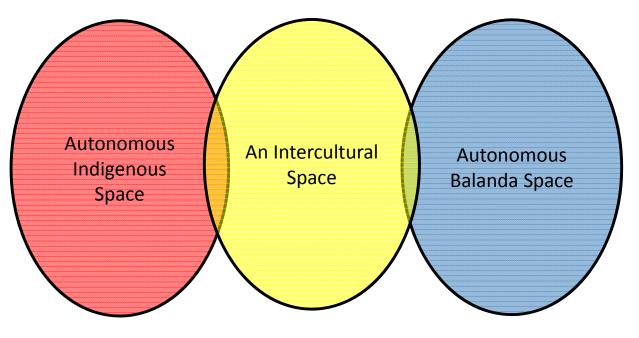
Participatory Research

- Interviews
- Focus group discussions
- Ranking
- Mapping
- Transect walks
- Questionnaires
- Timelines
- Calendars
- Scenarios

Western Science

- Mapping/GIS
- Economic valuation
- Biology
- Ecology
- Chemistry
- Anthropology
- Archaeology
- Climatology
- Modelling

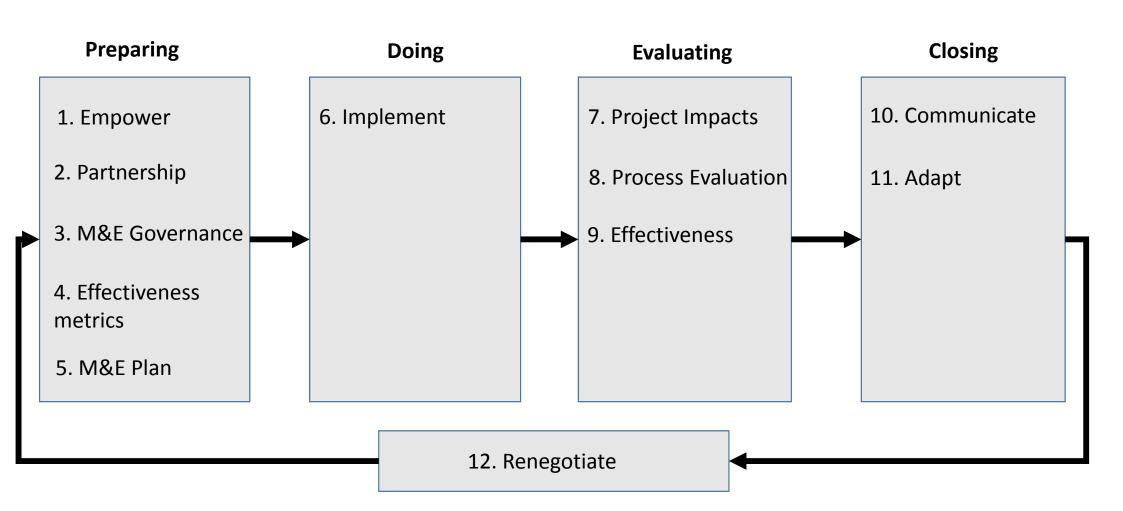
Weaving our way through the 'middle spaces'

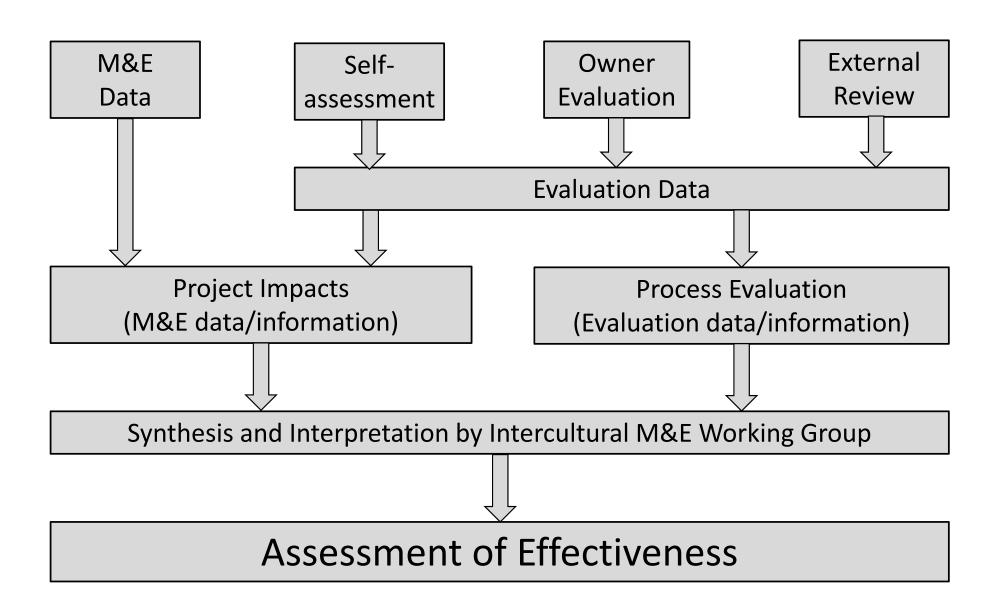


- Not a space for compromise
- Not a space for 'two-way' thinking
- Epistemic 'double-vision' and multiplicity
- Guiding principle of good-faith
- 'Good enough' ways of moving forward together



Draft 'Protocol' for Measuring the Effectiveness of Indigenous Land and Sea Management Partnerships





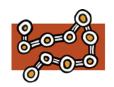
Research Needs:

- 1. Trial the protocol/framework.
- Connect with 'top-down' approaches (e.g. TNC).
- Encourage conscious framing of partnerships as 'intercultural'
- 4. Further mobilise Indigenous knowledge in collaborations.
- Demonstrate the value of knowledge brokers
- Support Indigenous people to better describe 'conceptual models'.
- 7. Help non-Indigenous society globally to deal with current social-ecological issues.



Integrated Measures of Indigenous Land & Sea Management Effectiveness





Anangu Pitjantjatjara Yankunytjatjara







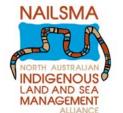
















Aboriginal Research Practitioners' Network









