

Insights, wins and challenges:

for “newbies” in establishing a participatory process in remote Aboriginal and Torres Strait Island Communities

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Presentation for
Researcher Education and Development
And
Indigenous Research Unit
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- Part 1 – RICES Project
 - Context, aims and methods
- Part 2 – PhD - community-based approaches to water & energy sustainability
 - Overview and some preliminary findings
- Part 3 – Participatory activity



Setting the scene

- Drinking quality water supplies permanently or seasonally scarce



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- Reliance on energy intensive water supplies (diesel-fed desalination treatment, pumping)

Community power plant

Stored diesel fuel
(shipped in from 1000's km away)



Setting the scene

- Drinking quality water supplies permanently or seasonally scarce
- Reliance on energy intensive water supplies (diesel fed desalination, bores, treatment, pumping)
- Very expensive for service providers & state government

“Community Service Obligations in 2015-16 year was around \$60 million for remote Qld systems” (Qld Gov 2016)

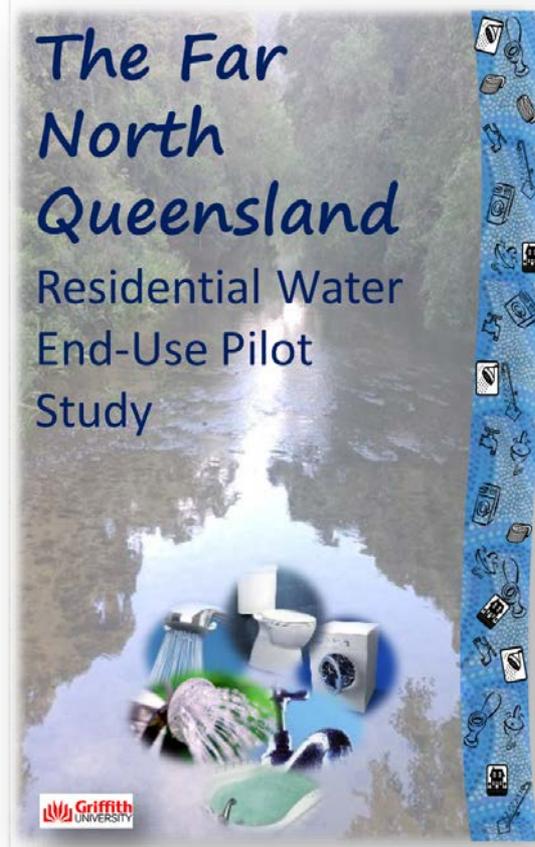


Setting the scene

- Drinking quality water supplies permanently or seasonally scarce
- Reliance on energy intensive water supplies (diesel fed desalination, bores, treatment, pumping)
- Very expensive for service providers & state govt (CSO)
- Water and power use can be high
 - poorly functioning infrastructure
 - climate conditions (desert, tropical heat)
 - cultural and social drivers



- Outdoor water use (& associated energy) significantly higher than urban homes
- Awareness and motivation for conservation / behaviour change different to urban residents
- Longitudinal data and sustained engagement needed
- ARC LP & Accelerate Fellowship



- Funded by ARC Linkage project and Dr Beal funded by Qld Govt Accelerate Fellowship
- Strong community & industry collaboration
- PhD scholarship included
- 3 x communities: 2 in Qld and 1 NT

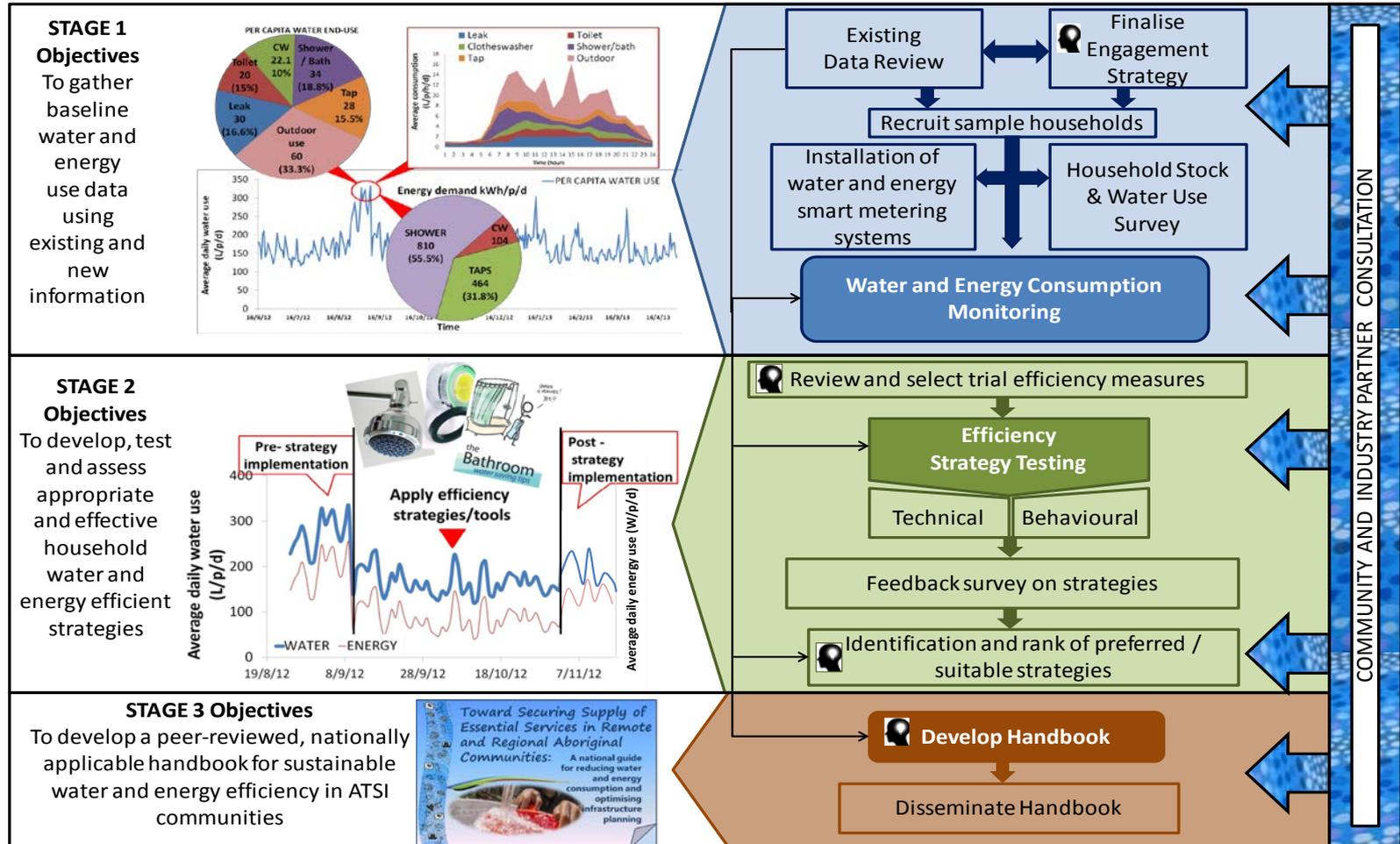
Remote and Isolated Communities Essential Services Project



AIM: develop an empirically-based and community-focussed framework to facilitate the efficient use, and secure long-term supply, of energy and water resources in remote Aboriginal and Torres Strait communities.



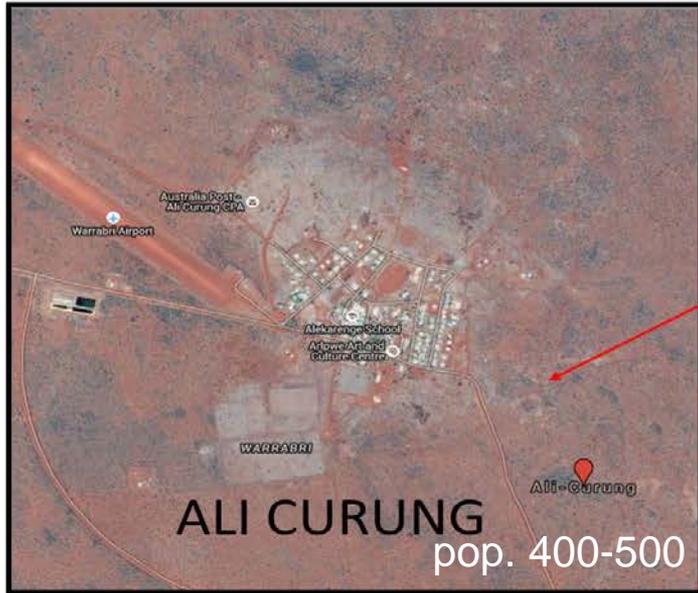
RICES Research Focus



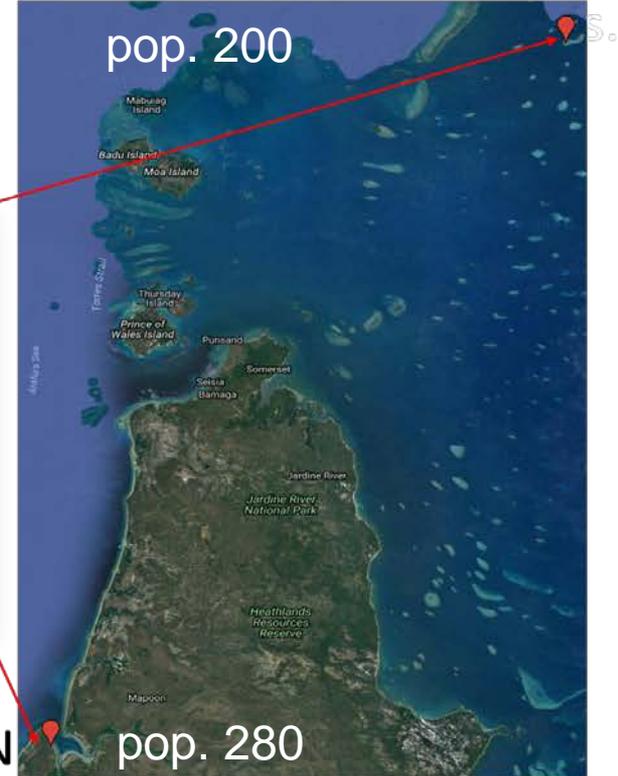
RICES communities

- Masig Island – seasonally scarce, no “24/7” water, high energy use
- Mapoon – groundwater, high demand, energy intensive
- Ali Curung – high energy and water demand
- Existing industry partner relationships with communities

MASIG (YORKE ISLAND)



MAPOON



Masig Island (QLD)

- Masig (Yorke Island)
 - northern TSI
- Approx. 200 pop. & 60 houses/public buildings
- TSIRC, TSRA, PBC
- Diesel-source power plant & desalination plant

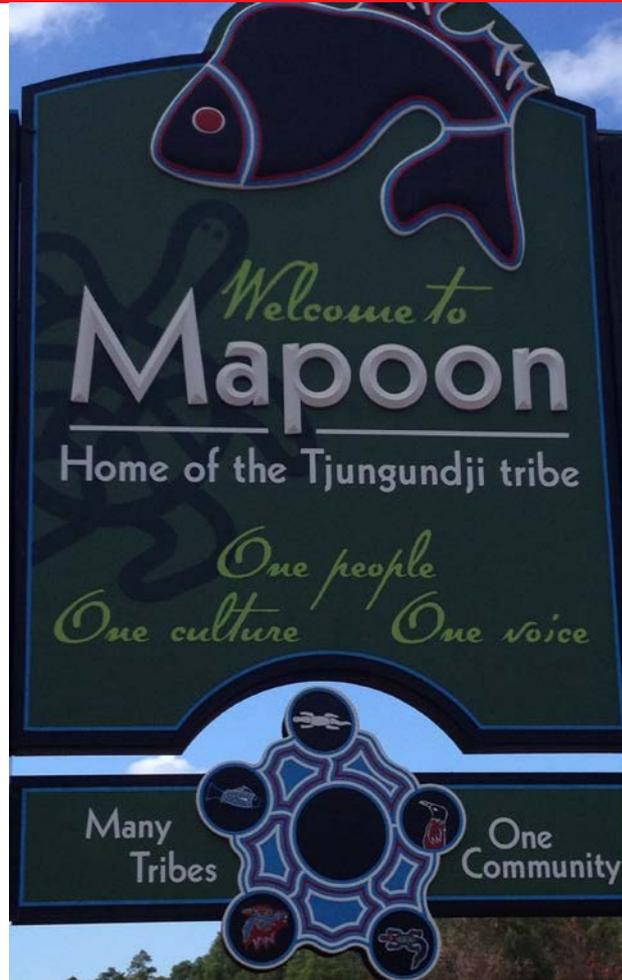


Desal plant and covered dam



Mapoon (QLD)

- Mapoon, Port Musgrave, Western Cape York,
- Approx 270 pop. & 70 houses/public buildings
- Mapoon Aboriginal Shire Council
- Diesel-source power plant & 4 GW bores



School



Water plant



Ali Curung (NT)

- ~400 kms north Alice
- 150 kms south Tennant Creek
- Approx. 450 pop.
- Barkly Regional Council (322,000 km²)
- Treated bore water and mains power grid



Water and energy end-use analysis

Smart meter and Data logger



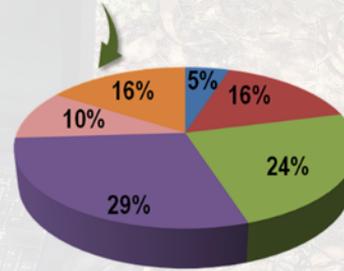
Remote data transfer
(e.g. local mobile network)



Household
water stock audit



Household
socio-demographic
survey



■ % Tap
(av. 818
kWh/hh/y)

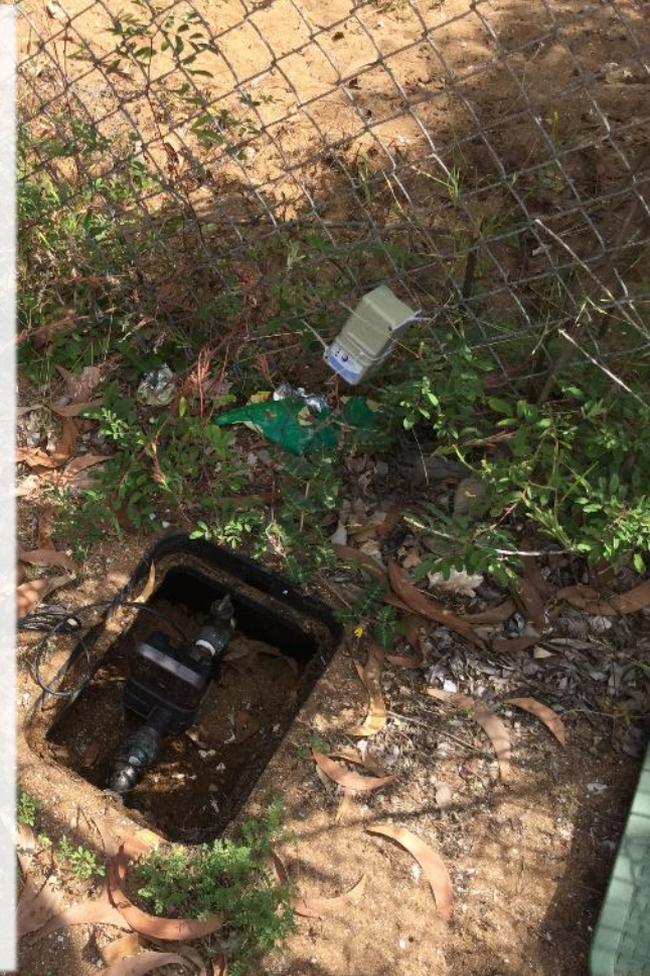
■ % Shower
(av. 3474
kWh/hh/y)

■ % Clothes
Washer*
(av. 683
kWh/hh/y)

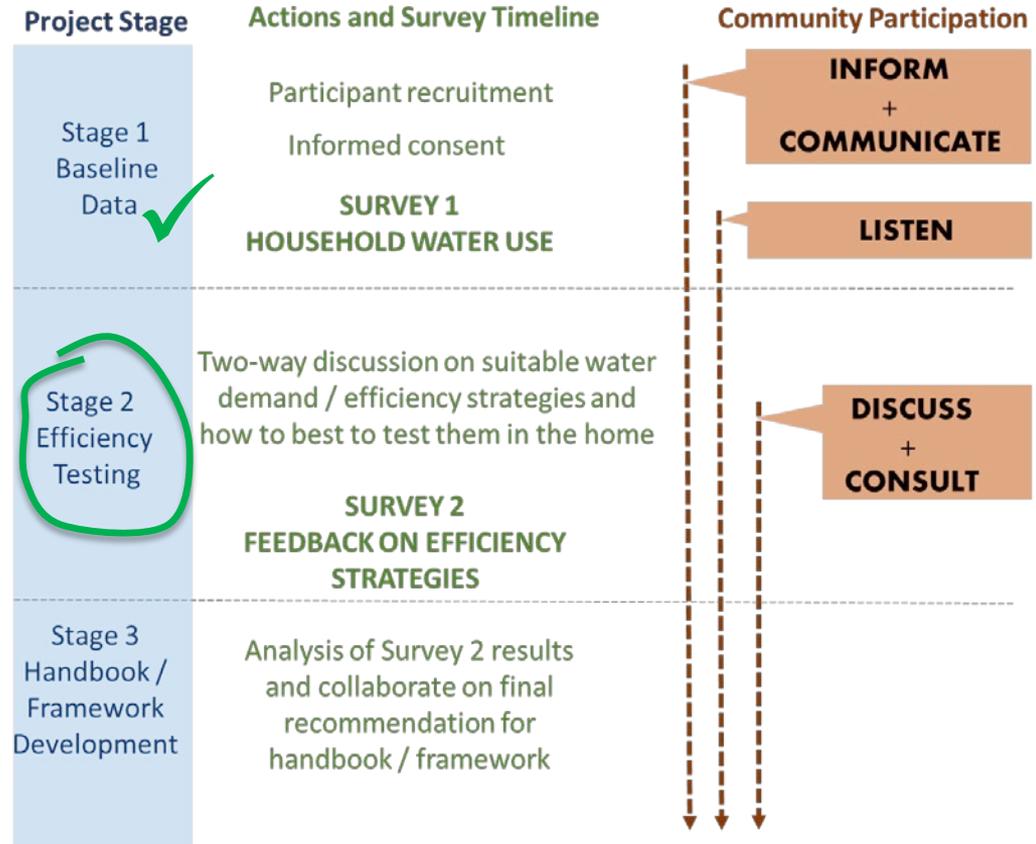
■ Leak
■ Clothes washer
■ Outdoor
■ Toilet
■ Shower
■ Tap



MAINS WATER



- Qualitative data captured through various approaches:
 - Household water & energy use survey
 - Focus groups
 - Workshops
 - One-to-one chats



Community Engagement



Be part of a community project to help save water and power!

Remote and Isolated Communities Essential Services Project

- Cara and Melissa from Griffith University will be in community on 11 to 15 July
- Come and say hi & ask us what it's all about! ☺
- Help to use water and power more wisely on Masig Island
- Turn over for more details 



- To characterise the water and energy appliances and fixtures, accurate disaggregation of end-uses
- Participants initial thoughts and views on water and energy provision in community
- Some recurring issues from community perspective:
 - “Council not listening to us”



Household survey continued

- Want quality service e.g. 24/7 water, some suffering inequity from lack of consultation about decision to implement water restrictions
- Poor communication and coordination from agencies e.g. reporting and fixing process for leaks or repair needs; Time taken to respond after notifying council / housing dept.
- Lack of trust in system, e.g. concern about repercussions of complaining about service e.g. waiting for new housing
- People happy with reliability and payment arrangements – Power cards



Identifying behavioural drivers of outdoor use

Driver	Water use intention and activity
Amenity / garden	<ul style="list-style-type: none">• Foster a green space for visual amenity and maintain social expectations• Watering plants and gardens to maintain vegetation and shade
Health	<ul style="list-style-type: none">• Dust suppression by dampening bare earth to reduce airborne dust• Maintain healthy environment especially for young children and elderly
Cleaning / washing	<ul style="list-style-type: none">• Clean fishing boats, tables & equipment• Wash down concrete and wooden verandahs and decks• Clean cars and other machinery
Ground cooling for heat relief	<ul style="list-style-type: none">• Continual sprinkler or hose onto bare earth to cool earth and generate an cooling evaporative effect with the prevailing wind
Social gatherings / children's play	<ul style="list-style-type: none">• Continual access to water for body cooling and a source of outdoor drinking water during social occasions including tombstone openings, sorry camps and general gatherings• Access to hose for water play and drinking for children during summer

My journey to a PhD

- Energy and water sectors, sustainability research, strategy and program design ~12 years
- A little experience in Australian Aboriginal communities
- International travel and volunteering

Masig Island



Some thoughts...

- People are at core of sustainability issues - Resource management to contribute to social good and vice versa
- Silos/compartmentalizing/technocratic/mechanistic view cannot deal with complex and interconnected problems
- Technology - only as good as people/systems/processes
- Governance (at all levels) preferences top-down rather than participatory approaches
- Ecological and social justice perspective/understanding, new forms of communication, cooperation,
- Q. How can, despite large investment and policy commitment, Australia's First Nations people still be experiencing such poor indicators of wellbeing?



Key Research Question

- What is the potential for community-based approaches to water and energy management to contribute to improved sustainability and community development outcomes in remote Aboriginal and Torres Strait Island communities?

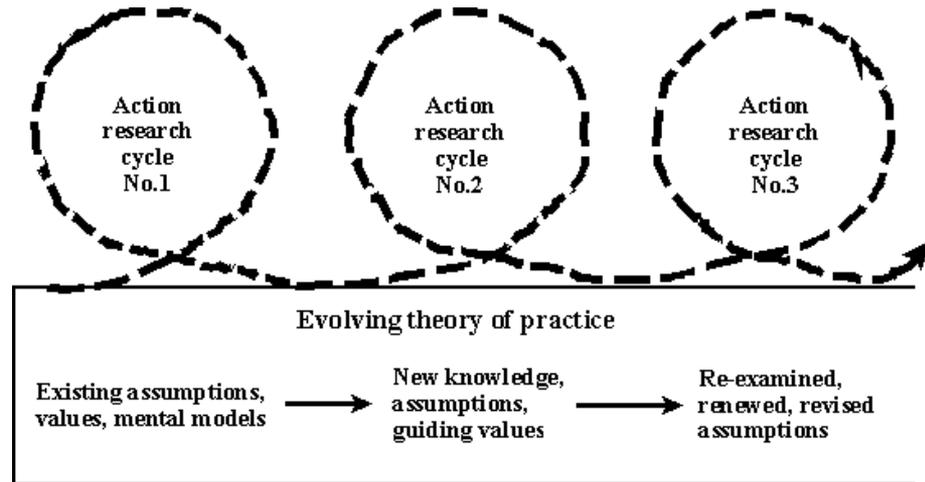
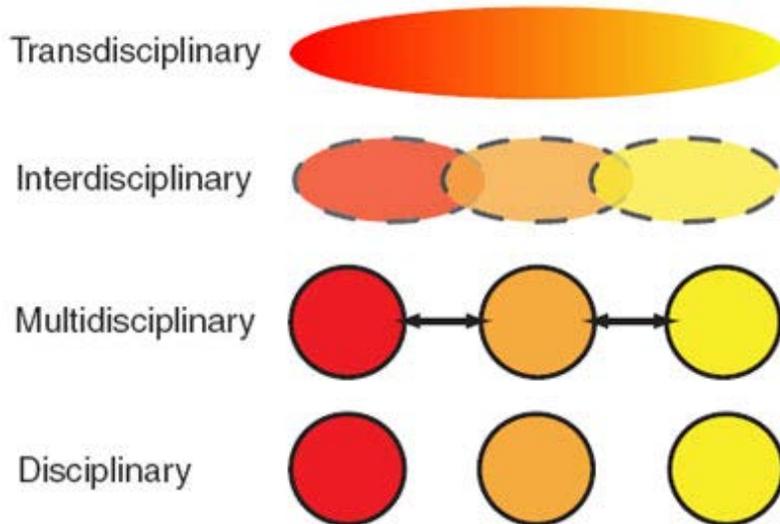


Source: abc.net.au



- Trans-disciplinary
 - Best applied to complex problems
 - *More than* multi- or inter-disciplinary
 - Within, between, across disciplines

- Action Research
 - Praxis – to contribute to both knowledge base and practice
 - Experiential and Social Learning

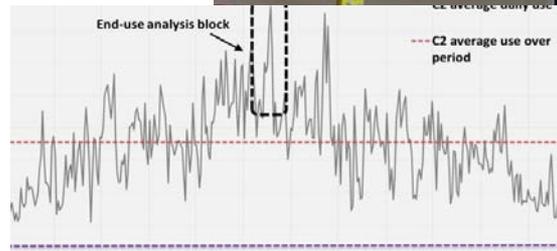


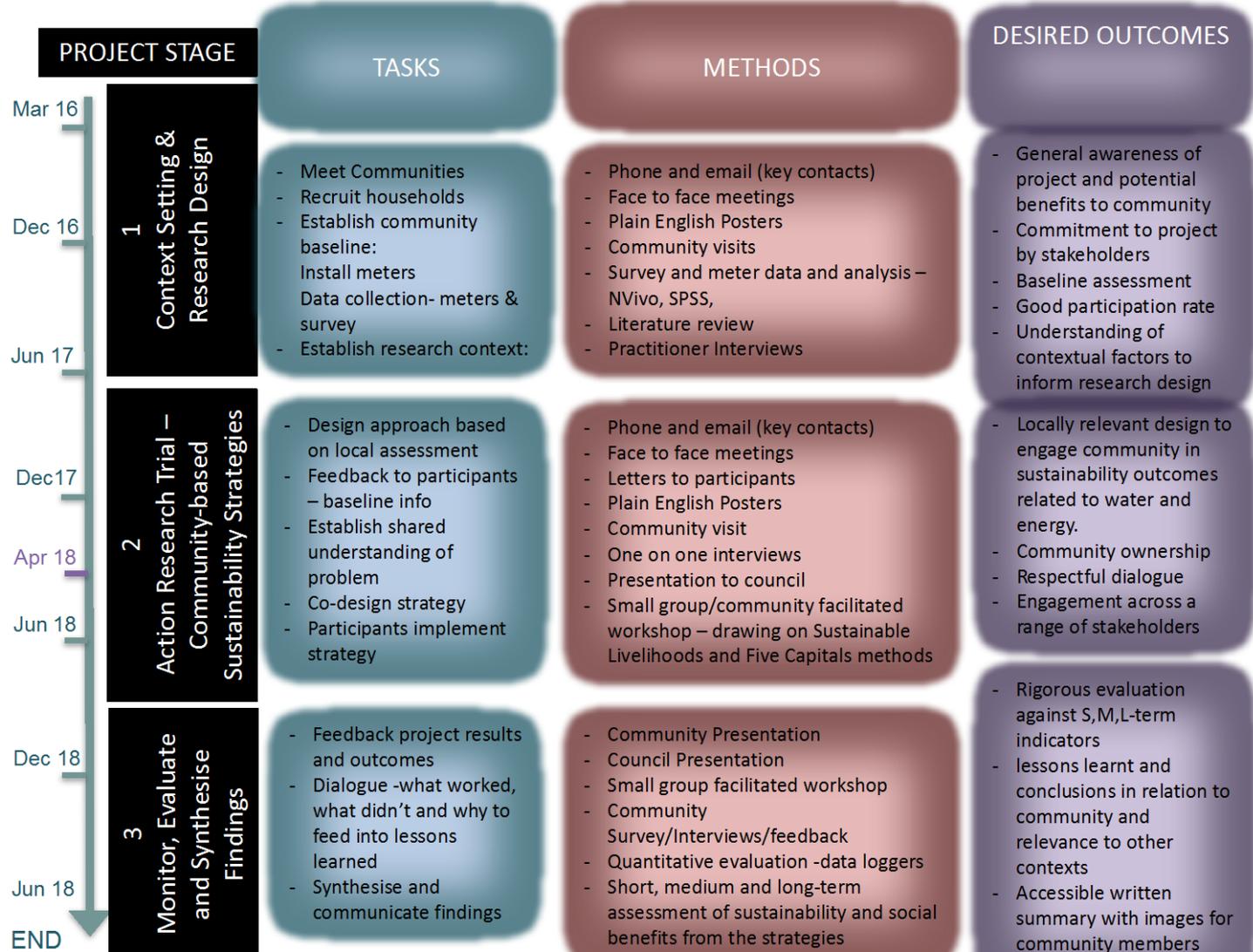
Methods

- Mixed methods
- Phase 1 – context & baseline – qual & quant
- Phase 2 - Design principles for engagement
 - Dialogical Community Development (Westoby and Dowling, 2010)
 - Sustainable Livelihoods/Community Capitals Frameworks (Emery & Flora, 2006)
 - Social Practice Theory (Shove & Watson, 2008)
- Phase 3 – Evaluation and Synthesis
 - program logic, SML-term
 - Interviews, survey feedback



The Community Capitals Framework
(Emery and Flora, 2008)





- Phase 1 almost complete (confirmation in June)
- Literature review
- Interviewed 18 practitioners in this field across northern Aus
- Commenced design phase



- My research at the intersection of four broad areas:
 1. Socio-technical/Socio-ecological systems and sustainability (includes complex systems, sustainable development and resilience)
 2. Governance, community participation and engagement models
 3. Indigenous Cultural Practice, IEK and Worldviews
 4. Social, practice and behaviour change
- Grey literature / Practice review - Significant gaps in academic literature regarding current practice and knowledge
- Method - Keyword search, snowball method, narrow according to closeness to central question.

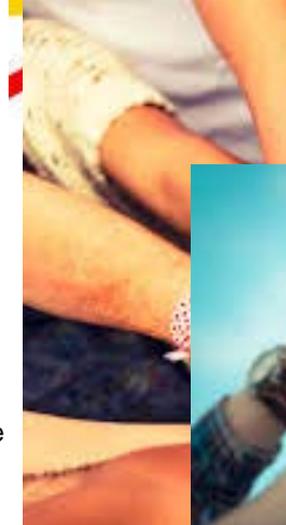


Literature – some highlights

1. Systems perspectives essential to understanding complex problems. Ecological perspective recognises interconnectedness of all parts of system
2. 'Community' is not homogenous; Spectrum of participation – co-governance and collaboration at empowerment end, community engagement can be tokenistic
3. IEK is aligned with an ecological worldview. Increasing examples in NRM and governance but not so much in energy sector (some in water, but not domestic use)
4. Social Practice theory posits the interaction between rules, meanings and capacity shape everyday practices like water and energy use
 - structures, cultural and social norms, rules, institutions and systems not just individual's behaviour in isolation



- What is community?
- Many meanings. Common interpretation is “Community as geographical location” e.g. National Indigenous Infrastructure Guide (FaCHSIA, 2010:8)
- A form of social organisation with 5 characteristics:
 - it facilitates human scale interactions as opposed to large, centralised structures;
 - it allows for a sense of identity and belonging which implies relationship with others and a view of oneself in relation to others;
 - there is an expectation for participating actively in some activities and contribute to maintaining community structure;
 - structures and relationships allow for ‘whole person’ interactions; and
 - community enables the valuing, production and expression of a local culture with unique characteristics
- In this view community is not homogeneous.
- Then need to ask in community decision-making, who is making the decisions and whose voices are being heard?



- Relational - focus on valuing and nurturing relationships between people.
- Needs orientation toward learning
- Engaging people with our agenda
- Listening & engaging with others agendas
- Towards a common agenda
 - (Westoby and Dowling, 2009)



Dadirri – deep listening

IAP2'S PUBLIC PARTICIPATION SPECTRUM

The IAP2 Federation has developed the Spectrum to help groups define the public's role in any public participation process. The IAP2 Spectrum is quickly becoming an international standard.

		INCREASING IMPACT ON THE DECISION 				
		INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL		To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
	PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

- Spectrum of participation
- Collaboration (also co-governance, community-based approaches) towards empowerment end of decisionmaking is popular but few rigorous evaluations of collaborative efforts in this field.
- Tawfik, (2016) evaluated 3 cogovernance (collaborative) programs in an urban environment and found 3 (big) things are needed for success :
 1. **Build institutional capacity** - appropriate training, educated on co-governance and community engagement techniques. + council leadership -supportive organisational cultures and commitment
 2. **Analyse and involve all relevant stakeholders** - Early and continuous stakeholder engagement. Clearly define roles and responsibilities
 3. **Build trust, local capacity and long-term commitment** - Regular, face-to-face interactions needed to maintain momentum and participant interest
- Also that “it is far easier to **initiate** than to **sustain** co-governance. ”
- Collaboration is a challenge for current institutions - requires shift in mindset, facilitative skills, commitment to resources and longer-term view
- Empowerment initiatives for Aboriginal and Torres Strait Island nations would benefit from more collaborative approaches. However, many communities are extremely dependent on government services and support so foundational education and capacity building is required.

- Governance is critical to resource management
- Governance in water and energy new models of participation where communities are involved, but slow
- Local systems assessment needed– physical, cultural, governance, (many frameworks on how to conduct that)
- Indigenous and Western approaches to management very different – ‘language and cultural barrier’ very apparent
- Need to incorporate different ways of knowing and being, preferencing Western scientific knowledge obscures depth of knowledge held in custom, tradition, experiences of people.
- Indigenous ways of being and knowing more in tune with sustainability principles – ecological worldview – interrelated parts of the whole, Western is mechanistic, technocratic
- Dialogue requires space for conversation where power is equally distributed
- Need a shared understanding or ‘story’ of the problem and the vision/direction that is based on different perspectives

Projects

Assumption confirmed! Very few collaborations

- Limited number of projects/programs targeting sustainable water and energy (some good ones)
- Majority with community engagement focus on technology and behaviour change towards predefined outcomes rather than more empowering forms of participation
- Usually funded/initiated additionally to regular operational requirements (i.e. grant from Federal or State gov)
- Cost reduction for service provision is key driver – social or environmental outcomes secondary



Manymak Energy Efficiency Project

Indigenous Essential Services Pty Ltd, on behalf of the
Manymak Energy Efficiency Project consortium

Barriers to community-based approaches

- Governance and coordination – at project, infrastructure and community levels
- Cultural – language, meaning and interpretation
- Capacity – within service providers orgs, gov agencies and community
- Data – lack of, poor quality, poor access,
- Finance and funding – a lot of effort to get funding to do such projects



Enablers to community-based approaches

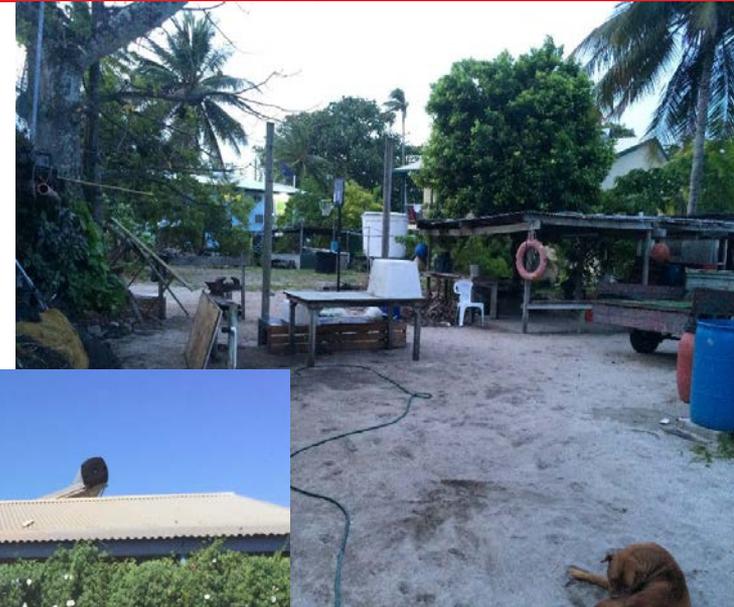
- Strong commitment of staff and resources
- Facilitated dialogue between different groups
- Champions in communities and reciprocal organisations (skilled, knowledgeable)
- Trusting relationships – commitment to long-term
- Good quality data – local context
- Shared understanding and respect for different perspectives
- Commitment from top and to continual learning process
- Long-term view is recognised (not just short-term cost-effective criteria)



Social & Cultural Challenges

Social & Cultural

- Some interest, but low understanding/clarity of water and energy system and how to reduce energy costs (*note -don't pay for water);
- Why is water/energy being used? E.g. cleaning fish - part of livelihood or dust suppression - health
- People pay attention to leaders in their community – existing channels of communication (informal) +/-
- Relatively low levels of engagement given 'critical' situation with water (Masig)
- What people say and do often differs - Mixed methods is extremely valuable in this context
- Designing to allow different languages access



Technical and Capacity

- Installation, maintenance
- Skilled people available in communities
- Training and skills building opportunities limited
- CDPE – not connected to water or energy goals
- Young people moving away



- Physical & geographic constraints
- Sources of water - abundance, seasonal
- Transport and Logistics
- Access – to skills, resources, to equipment, technology



- Powercards PAYG – give control but equity issues
- Not paying for water – why need to reduce?
- CSO – little incentive outside cost-effectiveness
- Generating local development opportunities
- Different ownership and drivers



- Complexity!
- Traditional Owners Groups
- Local Council (or shires)
- State and Federal Gov – multiple departments e.g. housing, water, energy, Indigenous Affairs, Treasury
- Utilities
- Contractors – maintenance
- Community employees
- Multiple roles could be held by one person in community
- Shifting policy environment – highly politicised



General Reflections...

- Finding the stories people can relate to - motivate change e.g. water restrictions – desire for 24/7 water
- Low levels of engagement and collaboration reflects lack of knowledge and skills
- Data collection and communication - poor and inaccessible
- The lack of evaluation leads to limited social learning
- Little knowledge or skills on what true collaboration is
- Power relations can be subtle, need to show respect and not force particular outcomes
- Need a future orientation - increasing populations (demand) and climate change risks (e.g. rainfall)



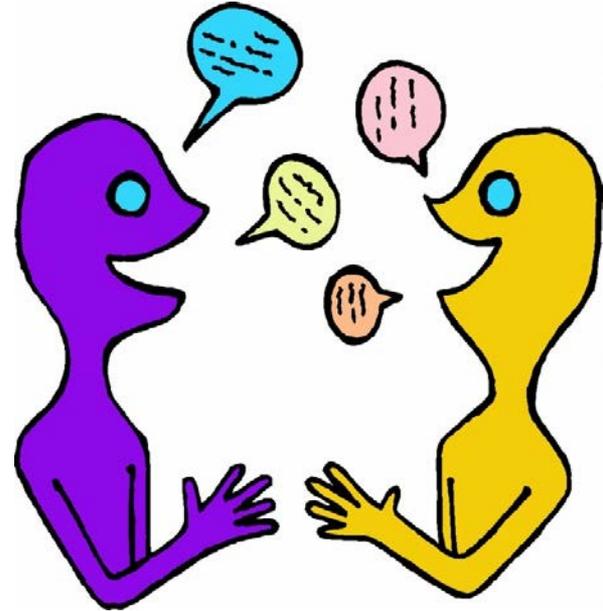
Participatory Activity...

In small groups:

- Introduce yourself (30 secs each) – Name, position, your interest in this topic
- If you have a project where you work with people to create change - how could you include design for collaboration with your participants/partners?
- If you don't have a project, have you experienced a session that would have benefited from collaboration? How? What value do you think it would bring?
- What skills do you think you would need to work collaboratively?
- What barriers have you or do you think you might experience?

Whole group

- Did you meet someone new? What did you learn?
- Any reflections on collaboration, process, skills needed etc.?
- Are there any take-away ideas you can put into action?



What's Next...

Stage 2 - Design and Test community-based approach based on local assessment

- One on one feedback to participants and interview about strategies
- Community workshops – (Community Capitals/Sustainable Livelihoods Framework),
- Techniques based on dialogical community development, holistic and ecological perspective, experiential and social learning

Stage 3 – Monitoring and Evaluation

- Against SML-term criteria
- Did the process have any impact on water or energy use over the period? Potential for sustained change? Other outcomes?
- Lessons learnt and relevance for other communities and service providers?



Project partners and supporters



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AUSTRALIA



Thank you 😊

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