

Background and Aims

Traditional Food Systems are complex, the Indigenous cultural practices and understanding of this is experienced first hand on a bush outing on Country. These Indigenous Knowledge holders have passed down their Traditional Knowledge on plants and how to identify and when to harvest edible foods sustainably. As examples discussed in this paper is from Darwin, Northern Territory Australia and Highlands of PNG. Indigenous Australians and PNG subsistent lifestyles continue to be relevant today in food security, health and well-being.

The research team is uniquely positioned to respond to explore Traditional Food Systems and climate change challenges. Traditional Food Systems offer insights on how to manage natural resources through maintaining diverse, micronutrient rich diets. Currently, Indigenous people health and well-being are impacted, experiencing higher rates of food insecurity and are disproportionately impacted by climate change. Research in this field is limited, however experts Hall and Crosby (2022.p.498) discuss the climate change impacts on health in remote Indigenous communities and exert in their conclusion: **“Future research could also identify and detail Indigenous knowledge to guide future adaptation efforts.”** The proposed examination of Indigenous food knowledge would be a good research proposal for a research project where the aims are to provide evidence to identify ongoing diverse cultural practices in Australia and our near neighbours in PNG.

Other issues such as potential biases and epistemic malpractices regarding Indigenous Knowledges, cultural practices, and the associated barriers can be further examined. As a research proposal, the project offers an alternate perspective to solutions for Indigenous and non-Indigenous stakeholders, policy makers, and researchers in food security, water quality and climate change in remote and regional communities in Australia and PNG.

Methods

“The Art of Tracking”

- Using the philosophical practice of Indigenous truth-telling based on Indigenous storytelling (a.k.a., storywork; see Archibald 2008), we will share a narrative of Indigenous philosophy on Country led by a Mak Mak Marranunggu custodian – Payi. “The Art of Tracking”

Reflections on “The Art of Tracking”

- Highlight the added value of using Indigenous Knowledges of nutrition and food security for responding to the impacts of climate change
- Use this form of truth-telling to draw on Mak Mak Marranunggu oral tradition and decolonised social philosophy to expose the epistemic injustices caused by white ignorance and the colonial politics of cultural assimilation (e.g., Fricker, 2007; Mills 2007, 2015).
- Reflect on the knowledge systems of her clan and that they were not recognised by colonial settlers and colonial institutions (including academia).

Expand Areas

- Analyses nutritional benefits of bush foods
- Include additional areas of Indigenous Knowledges and Traditional Food Systems from Northern Australia and Papua New Guinea
- Examine additional benefits of Traditional Food Systems
- Provide evidence of suitability and applicability of Indigenous Knowledge in climate change adaptations.

Expand Scope

Include additional areas of Indigenous Knowledges from:

- Papua New Guinea standpoint of Indigenous human geography (CKJ)
- Decolonised social philosophy (NJB) to identify potential biases and epistemic malpractices regarding Indigenous Knowledges that can act as barriers to climate change solutions

Preliminary Findings

Through discussing Indigenous Knowledges with traditional custodians, truths were disclosed about season cycles, local vegetation, Indigenous uses of plants, the nutritional value of bush food, laws and lores, regarding ecological sustainability, providing evidence that use of Traditional Food Systems can support climate change adaptations. Through analysis of bush foods in Australia and PNG in Table 1, it is evident that Traditional Food Systems provide diverse, micronutrient-rich food sources that are sustainable, healthy, and culturally appropriate, providing evidence that Indigenous Knowledges can help support sustainable food security.



Native long yam ‘neck’ at the source exiting the soil from session of Indigenous philosophy on Country

Conclusion and Implications

This study may offer better understanding of sustainability of Indigenous knowledges of climate change adaptations and food security. History of Indigenous cultural practices has multiple barriers. The cultural practices require further study of the ongoing narratives of the colonial mindsets that keep Indigenous people marginalized in Australia and PNG.

Disregarding and undervaluing of Indigenous Knowledges are historically evident as epistemic malpractices. Colonial policies have resulted in the loss of culture, language and knowledges.

In contemporary settings, this can have detrimental impacts on food security and health due to climate change.

A decolonised social philosophical approach to healthy environments and lives enables the researchers to engage with truth-telling for both Indigenous and non-Indigenous to reflect on the collective actions needed for delivering social and moral reparations for genuine integration of cultural practices in climate change solutions.

Table 1: Nutritional Benefits of Bush Foods

	Name	Traditional Name	Scientific name	Nutritional Benefit
Australia	Bush Peanut Tree	mi wu-wun	<i>Sterculia Quadrifida</i>	Source of good fats High levels of potassium, magnesium and calcium Contained a variety of other essential trace minerals (Brand Miller J et al., 1993).
	Green plum tree	mi-gun	<i>Buchanania Obovate</i>	High in protein, dietary fibre and potassium. Also contains; magnesium, calcium, phosphorous, iron, folate (Fyfe et al., 2018).
	Plum	mirruderr		
	Yam (long yam)	Wurrgiya	<i>Dioscorea transversa</i>	Contains B2, Vitamin C, Calcium, Potassium, and sodium (Brand Miller et al., 1993).
		Tok Pisin	Anga Native Language	
Papua New Guinea	Sweet Potato	Kaukau	buaye	<i>Ipomoea batatas</i> High in Vitamin A Improves blood glucose control Improves blood pressure control Improves iron absorption (Qin , et al. 2022)
	Watercress	Wara Karis		<i>Nasturtium officinale</i> High in Vitamin C, A and potassium Contains 14 additional vitamins and minerals (U.S. Department of Agriculture 2024)
	Cooking banana/ Plantains	Banana blo kuk		<i>Musa paradisiaca</i> High in Potassium Contains 8 other essential minerals (U.S. Department of Agriculture 2024)