

## **Introduction by the editor of the Special Edition on Indigenous Knowledge, Resilience and Climate Change**

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The ever growing impacts of the human induced climate crisis are experienced in very specific ways in the small Pacific Island nations, or what we prefer to call Big Ocean States. Many of these islands are facing the devastating impacts of the climate crisis, ranging from sea level rise and its consequences, to changes in crop production and ecosystems and seasonal growing patterns, and associated social, economic and political changes.

The papers in this Special Issue show how the village based societies of Big Ocean States are demonstrating their resilience, and their capacity for adaptation as they respond to crises in diverse ways, often drawing on ancient and enduring local Indigenous knowledge systems and know-how, as well as other culturally based local strategies. Education, awareness, use of social media, and other technologies are also being harnessed towards the challenge of responding to, and mitigating the impacts of the climate crisis. Other responses look to the past, present and future of Pacific research. This can potentially facilitate a deeper understanding of, and ways to meet the challenges of the climate crisis and other crises such as the Covid pandemic, serving also to strengthen cultural identity as another strategy for resilience.

In their paper “An integrated evaluation of mangrove health and ecosystem value to local inhabitants: a blended ecological and sociological approach”, Dayal, Waqa-Sakiti, Tabe and

Hodge engage with a combined approach in ecological and sociological analysis to explore the health and ecosystem value of mangroves in Fiji. They identified the degradation of mangroves resulting from human activities, and concluded that this kind of study can provide an ‘*essential baseline ethno-biological data for comparison with future studies that will enable any changes in flora, soil properties, damage by climate change, or intensification of local harvesting to be ascertained*’.

The importance of island-centred research is explored in a contribution “*Waka hem no finis yet: Solomon Islands research futures*” by Sanga and Reynolds, which looks at the ways that research and publishing by, and for Solomon Islands can reflect local thinking and lifeways, and offer wisdom to the wider Pacific and beyond. Locally based research, past, present, and future, this paper suggests, has a vital role in reaffirming cultural identity, not only for Solomon Islanders, but for the wider context of Pacific research and writing.

Taking a wider view across several Pacific Islands (Fiji, Vanuatu, Solomon Islands and Samoa), in their paper “An analysis of ecosystem-based adaptations in Pacific Island countries”, Prasad, Waqa-Sakiti and Iese present an analysis of ‘Ecosystem-based Adaptation’ (EbA), a planning and assessment tool embedded in natural systems that is a sustainable way to address the impacts of the climate crisis. The authors identify the benefits of this approach, which places involvement of the communities and/or resource owners at the centre, and integrates local Indigenous knowledge and other forms such as technical or scientific knowledge.

A vital part of meeting the challenges of the climate crisis is in ensuring awareness and understanding of this crisis and its impacts. Vunidilo’s paper “Climate change awareness in educational spaces: Itaukei responses through Indigenous knowledge sharing – case study, Talanoa with Dr T podcast and Fijian communities” discusses some of the opportunities for educational and awareness that can be brought to the task of improving resilience and preparedness among Fijians both at home and abroad. Specifically, the author outlines a social media and podcast platform that is being used to engage with the local and wider Fijian community, and which shows how improved understanding of climate change can be achieved through “digital community sharing, and online classes using traditional knowledge”.

In another study of the impacts of the climate crisis at the level of local community, Bird, Iese, Des Combes, Wairiu, and Yuen have conducted an assessment of these impacts on crop production in North Malaita, Solomon Islands. Their paper “Assessing the impacts of climate change on domestic crop production: experience and perception of local farmers in North Malaita, Solomon

Islands” discusses an analysis of the experiences and perceptions of the climate crisis among local farmers on this island. Using their project data, these authors also explored the potential impacts on crops in some areas of the study region, and how farmers were able to harness local knowledge as one aspect of their strategy for adapting to, and mitigating the effects of the climate crisis on ecosystems. Their project found that although there is awareness among farmers of adaptive measures that can minimise crop failure, a relative lack of scientific information about the climate crisis and agricultural resilience makes these communities more vulnerable to extreme climate-related events, and to the impacts on food security and nutrition.

The climate crisis and the Covid-19 pandemic have important implications for tourism, a sector that is vital for many of the economies of the Pacific Island nations. The role of local Indigenous knowledge cannot be underestimated in addressing the impacts that these crises have on tourism and in other aspects of village life. Vada’s paper “Beyond the air-conditioned boardroom: bridging Western and Fijian Indigenous knowledge in tourism research” looks at a specific set of local practices designated as WASH - water, sanitation and hygiene (WASH) - vital to Fiji’s tourism sector, to understand the ways in which Indigenous cultural protocols and ways of knowing impacted on maintaining effective and sustainable WASH practices. The authors engaged with specific Fijian research methodologies to gain understandings of hygiene and health practices from the perspectives of hotel staff and communities.

In another contribution with a focus on tourism, Movono discusses in the paper “Adapting and reacting to Covid-19: tourism and resilience in the South Pacific”, the influences of the pandemic on tourism, and the consequences for communities in Vanuatu, Solomon Islands, Samoa, Cook Islands, and Fiji. The paper shows the ways in which, despite the cessation of international tourism in these island nations, communities have demonstrated resilience and adaptation in maintaining their livelihoods, including drawing on their customary practices. The paper concludes that, notwithstanding the economic consequences of the Covid-19 pandemic, villagers have been motivated to change and adopt or revitalise culturally based responses and strategies. This also has important lessons in regard to adapting and responding to crises such as climate change.

The papers in this Special Issue illustrate the diversity and resilience of these Big Ocean States in meeting the challenges of the climate crisis, as well as to other crises such as the Covid-19 pandemic, drawing on the strengths and innovations of village, clan, and family, and on the adaptive strategies that can be gained by also looking to ancient and enduring local Indigenous knowledge.

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**Biography**

Dr Michael Davis is a historian, academic, and writer and independent consultant, working across several disciplines in the humanities and social sciences. Michael currently has an adjunct Research Fellowship position with the MacMillan Brown Centre for Pacific Studies at the University of Canterbury in Christchurch, and honorary affiliations with the University of Sydney and the ANU. Michael has worked in academia and government and with Australian Aboriginal community organisations, and as an independent consultant researcher and writer. His research interests include Indigenous rights, social policy, Indigenous/European histories of encounter, ecology and climate change, environmental histories, biography, ethnographic history and history of anthropology. Michael's many publications include 'River thinking: towards a holistic approach to watery places in the human imaginary', in *Voicing Rivers*, Special Issue of *River Research and Applications Journal*, 'Indigenous Australian Identity in Colonial and Postcolonial Contexts', in *The Palgrave Handbook of Ethnicity*, ed. Steven Ratuva (2020), an edited volume (with Joni Adamson), *Humanities for the Environment: Integrating Knowledge, Forging New Constellations of Practice* (Routledge Earthscan, 2017), and *Writing Heritage: The Depiction of Indigenous Heritage in European-Australian Writings* (Australian Scholarly Publishing, 2007).

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