

RESEARCH ARTICLE OPEN ACCESS

Environmental Peacebuilding, Indigenous Epistemologies and Experience: Learning From Ruptures and Resilience in Solomon Islands

David Gegeo¹ | Lincy Penderverana² | Mary Tahu Paia¹ | Jack Maebuta³ | Anouk Ride^{1,4,5}  | Transform Aqorau^{1,4}

¹Faculty of Education and Humanities, Faculty of Agriculture, Fisheries and Forestry, Office of Research and Postgraduate Studies, Vice Chancellor's Office, Solomon Islands National University, Honiara, Solomon Islands | ²Faculty of Education and Humanities, Solomon Islands National University, Honiara, Solomon Islands | ³Political and International Studies and Peace Studies, University of New England, Armidale, New South Wales, Australia | ⁴Department of Pacific Affairs, Australian National University, Canberra, Australian Capital Territory, Australia | ⁵Initiative for Peacebuilding, University of Melbourne, Melbourne, Victoria, Australia

Correspondence: David Gegeo (david.gegeo@sinu.edu.sb)

Received: 15 January 2023 | **Revised:** 23 February 2024 | **Accepted:** 1 November 2024

Funding: This work was supported by the University of Melbourne and was partially funded by the Australian Government through the Australian Centre for International Agricultural Research (ACIAR) project FIS/2020/172.

Keywords: environment | environmental conflict | indigenous rights | peacebuilding | Solomon Islands

ABSTRACT

Environmental peacebuilding, as a construct and practice, holds potential to recognise environmental conflicts and respond to them; however, indigenous perspectives can be obscured in its related processes, projects and reviews. This article draws on in depth research by the authors from within indigenous communities in the Solomon Islands to compare local experiences of environmental rupture, conflict and change. This comparison of local experience is integrated with analysis of colonial, neocolonial and globalisation factors to link local environmental conflicts with global and national governance, global extractive and agricultural industries, and security and governance interventions with local conflict conditions. This article argues for a reorientation of the field towards decolonising knowledge, through drawing on indigenous epistemologies and ontologies to frame and respond to environmental conflicts, and therefore peacebuilding. In doing so, space can be opened to recognise the unique relationship of indigenous people with terrestrial and marine areas, and the unacknowledged culpability and responsibilities of actors at national and global levels in fostering environmental conflicts.

1 | Introduction

Peace can be impacted, in positive and negative ways, by management and cooperation in relation to environmental and natural resources, and environmental change (Conca and Dabelko 2002). In the Pacific Islands region, this is well known. Pacific Islands Forum leaders nominated 'environmental and resource security' as one of its key security issues requiring attention, also placing highest priority on climate change as a multifaceted security risk (PIFS 2018).

The field of environmental peacebuilding in practice includes 'multiple approaches and pathways by which the management of environmental issues is integrated in and can support conflict prevention, mitigation, resolution and recovery' (Ide et al. 2021). Yet a critical conception of what 'environmental peacebuilding' means for indigenous peoples in diverse nations such as Solomon Islands is lacking in the peacebuilding and security literature. Indeed, most articles on environmental peacebuilding have been focused on states, intrastate conflict or conflicts between groups and states. Actors from, and solutions posed by, international

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2025 The Author(s). *Asia Pacific Viewpoint* published by Victoria University of Wellington and John Wiley & Sons Australia, Ltd.

agencies have been preferred (Krampe 2021). This focus has come at the expense of frames by indigenous rights holders, and explains the lack of attention to 'bottom-up' approaches, which may indeed compete for space with state centric or international notions about the form and practice environmental peacebuilding should take (Ide et al. 2021). Other scholars and forums have pointed to the neo-colonial and colonial notions that need breaking through to decolonise peacebuilding (Weerawardhana 2019), and called for decolonising the field through indigenous research (Devere, Lialiga, and Te Maihāroa 2022) new agendas for action (Schirch 2022) changing the subjects of inquiry (Sabaratnam 2011). It has also been recommended that nature-based and ecosystem-based approaches to be more cognizant of power and indigenous peoples status and agency in relationships and systems (Woroniecki et al. 2020; Comberti et al. 2015).

This article explores, through the experience and place-based research of indigenous scholars in Solomon Islands, indigenous conceptualisations of identity, conflict and peace, the impact of land and environmental degradation and change, and, conversely, resistance and learning of indigenous peoples throughout these processes. Comparative research, drawing on detailed location-specific research in indigenous communities in Solomon Islands by the authors, help identify themes in terms of conflict causes and responses to inform environmental peacebuilding as well as the limits of the field, as it is commonly conceived. The relation between indigenous peoples and the environment can be seen to stretch the environmental peacebuilding frame further to include ontologies and epistemologies, identities and culture, and decolonising and colonising effects on governance structures and their interactions with people's decision making and situations.

Globally, indigenous people are more likely to bear the brunt of environmental conflict, with their lands seen as 'last frontiers' for natural resource extraction, often in environments where compliance with law and social and environmental standards is low. In these contexts, indigenous people challenging development on their lands face higher risks of criminalisation, and double the risk of assassination than others (Scheidel et al. 2020). In the Pacific, the existential threats of colonialization, globalisation and the shaping of state governance to give to foreign political and economic forces power over indigenous groups, have led to similar pressures and conflicts. Yet these fissures have not yet eliminated indigenous identities and epistemologies, and direct and indirect resistance to environmental degradation.

The country of Solomon Islands has experienced several local and national-level conflicts over environmental issues, including interisland migration in part caused by plantation economies, disputes over land rights and use (notably in relation to logging and mining activities) and periodic localised disputes over water, fishing and harvesting rights and other related issues. These conflicts, plus relatively high risks of disasters and climate change, contribute to environmental insecurity, as does limited reach and capacity of state governance and Solomon Islands' status as 'least developed country'.

Solomon Islands is an archipelago that is comprised of 26 islands and hundreds of small islets that form a double chain covering a total land mass of 28 400 km² (11 000 square miles) from the

southernmost part of Papua New Guinea to the north-western part of Vanuatu. Solomon Islands is known for its cultural diversity, being home to Micronesian, Melanesian and Polynesian peoples and having over 70 languages.

The nation's formal economy relies on natural resource extraction (export of logs, fish and minerals), while the vast majority of the population relies on the informal economy (subsistence and sale of food, fish and other natural products such as woven handicrafts). It is a post conflict country, having experienced a civil war from 1998 to 2003, which resulted in around 200 deaths and over 20 000 people being evicted from Guadalcanal (Truth and Reconciliation Commission [TRC] 2013).

The island hosting the national capital, Guadalcanal has been included in environmental peacebuilding studies, notably a study of 20 places with violent conflict related to environmental issues (Ide 2015), which examines why some conflicts over natural resources escalate into violence and others do not and finds a set of structural and triggering conditions may be behind violent escalations. Tensions over land rights, benefits and uses have been identified as key underlying causes of Solomon Islands civil conflict from 1998 to 2003 (TRC 2013).

At the UN level, UN Secretary General Ban Ki-Moon in 2010 called on states and the UN system to 'to make questions of natural resource allocation, ownership and access an integral part of peacebuilding strategies' (UNSG 2010, 12). However, these issues were deliberately skewed by the Regional Assistance Mission to Solomon Islands (RAMSI) that arose to disarm militants and police the country in 2003, after which the mission turned to focus on rebuilding Western liberal state institutions, particularly those related to justice.

This paper presents findings from localised research about environmental conflicts and indigenous responses from Guadalcanal, Malaita, Temotu and Western Province in Solomon Islands. Each of the researchers conducted independent studies in select locales where they were from, the findings of which are compared in a series of workshops amongst the scholars, to identify what themes are common to indigenous peacebuilding and how these can inform the conceptualisation of environmental peacebuilding, and its practice. Peace, including peaceful relations with the environment and between peoples, is first explained according to indigenous conceptualisations, then the rupture of these life worlds are detailed through first-hand experience of indigenous communities with environmental change. Comparative analysis of these local-level conflicts, in dialogue with literature about indigenous peoples and environmental conflicts, then presents findings relevant to the definition and practice of environmental peacebuilding more broadly.

2 | Methodology

This research compares four in-depth studies from different locales in Solomon Islands, conducted by the authors, in order to consolidate understanding of how indigenous Islanders conceptualise and experience environmental peacebuilding and environmental conflicts, and what the implications then are for research on environmental peacebuilding.

In the Western Province, in the Marovo Lagoon, a total number of 30 individuals were interviewed in four villages to gain insight into indigenous knowledge and utilisation of mangroves and environmental changes. These interviewees comprised of 10 women, 10 men and 10 youths. The qualitative data were obtained using structured and semi-structured questionnaires, conducted by a researcher who is from the region to other indigenous people in Marovo. The interviews were conducted through verbal communication which involves a one-on-one exchange in the participant's homes which took an estimated 40–45 min (Tahu Paia 2021). This is an adaptation of the *tok stori* method that removes distance between researcher and participant and aims to build respect, trust and understanding between those involved in providing information and analysis. The interviews were conducted over a three-week period in May 2021.

The data collected from interviews were translated, transcribed and analysed using NVivo 11. NVivo is a qualitative data research software commonly used as it has proven to be an effective and appropriate software for organising and analysing interview data in similar research projects (Magee et al. 2016; Pearson, McNamara, and Nunn 2019).

The data for this article in relation to Kwara'ae in Malaita, the most populated province in Solomon Islands, came from ongoing qualitative research. Spanning more than three decades, the study examines the depth and breadth of socio-cultural change and environmental degradation in Kwara'ae caused by foreign large-scale logging companies and other forces of globalisation. Data were collected through interviews, *tok stori*, observations and review of relevant literature. As the study involved several large rural communities over an extended period of time, no less than 300 women and men participated as informants.

In Guadalcanal Province, a study was conducted to examine the interactions between indigenous local communities and a foreign investor (New Britain Palm Oil Limited [NBPOL]) in the palm oil industry. The study also examines the livelihood trajectory that ensued from such interactions, particularly on peace and security in that region of Guadalcanal, Solomon Islands (Penderverana 2021). The area of study is the north and north-eastern regions of the Guadalcanal Plains, located a short drive from the capital city Honiara. Four local communities were selected as case study sites based on their relationships with the NBPOL and its subsidiary company the Guadalcanal Plains Palm Oil Limited (GPPOL). The first community is Keamani which is predominantly a community of 'migrant settlers' who are not members of original landowning groups (tribes) in the Guadalcanal Plains. The second and third (Ghorabau and Binu) are landowning communities whose members are members of the tribes that owned the lands that NBPOL/GPPOL used for the cultivation of oil palm plantations in the Guadalcanal Plains. The fourth community (New Tenabuti) is a 'frontier' community which although does not directly engage in oil palm development but has capacity to accommodate oil palm expansion into its customary land boundaries. Thus, the study examines these different communities, their mode of interactions and engagements with the palm oil industry and their interrelationships and how they maintain peace and security in these regions of Guadalcanal, a province that had recently come out from a

two-year period of civil conflict (1998–2000). Data for this study were generated through the application of a mixed methods approach including: household and community surveys, key informant interviews, focus group discussions, *tok stori*, and observations. Overall, a total of 139 household interviews were conducted in the four case study communities and 31 key informant interviews in 2016 and 2017, conducted by two researchers, both from the area. Data from these interviews were supplemented with data from eight different focus group discussions conducted during the period of this study. Data from these methods were further supported by *tok stori* method and participant observation on development, peace and security around the Guadalcanal Plains.

To understand the indigenous conflict and peacebuilding context in the eastern most province of Temotu, as a foundation to teaching relevant peace topics, 10 community elders and leaders were interviewed from five communities on Temotu Nendo. These interviews were in a form of conversation (*tok stori*) for the elders and leaders to freely and deeply engage in the complex cultural values and principles of peacebuilding in Temotu Nendo. The *tok stori* enabled the researcher to understand the complexities, because researchers who are not familiar with the knowledge system in Temotu Nendo are likely to face the threat of resistance in data collection. Therefore, Fleras (2004) cautioned:

Indigenous peoples have a distinctive way of looking at the world, thinking about it, relating it to it, and experiencing it, with the result that indigenous people's epistemologies can no longer stand behind or outside mainstream methodologies, but in front or beside as the situation demands. (118)

One aspect of such preparation is to be able to explain to the indigenous leaders the importance of the study for our future generations. The explanation is summarised as 'If our indigenous peacebuilding practices are not documented today our future generations will not be able to resolve conflicts and how can we document our indigenous peacebuilding practices if we selfishly lock away our indigenous knowledge?' This proposition at the start of the *tok stori* discussions was able to unlock the minds of the leaders and they shared their knowledge without reservation. Interviews were (recorded audio or noted?) and from there themes were identified as part of this analysis of local conceptions of peace and its application in education.

The researcher is a native of Temotu Nendo so the *tok stori* was conducted in Natgu, the local language of Temotu Nendo. The interviewees gave their consent to tape record their *tok stories* which were transcribed by the researcher and were analysed and interpreted under the relevant theme.

The researchers consolidated their findings and perspectives over a series of meetings and considered discussions, akin to *tok stori* methods, where purposeful and culturally appropriate forums are engaged with the view towards establishing collective understanding of an issue (Sanga and Reynolds 2021). The place-based studies, were discussed in light of broader national political economy analyses (Aqorau 2008, 2017, 2022) and

analyses of conflict and collective violence (Ride 2019, 2022) to identify themes and common conflict factors across locales. The responsiveness or ill-fitting nature of peacebuilding and development interventions was then discussed amongst the scholars, in order to signal ways forward for the framing and application of environmental peacebuilding in Solomon Islands, and indigenous communities more broadly.

3 | Indigenous Conceptualisations of Identity and Peace

Indigenous people face various threats to their identity in the form of usurping of land for development, loss of languages and traditions through colonialism, assimilationist policies and globalisation and state governance which often does not recognise, or actively downgrades, indigenous rights. Groups that are faced with the possibility of decline and even extinction through such forces experience collective identity threats, anxiety and adopt defence tactics to respond (Moghaddam 2010) and this is evident amongst indigenous people in many locales across the Pacific Islands region.

While delimited by context-bound variations, indigenous people across the globe are also connected to each other by certain features or characteristics which transcend the powerful influence of context. Indigenous people globally share an intrinsic commonality when it comes to identity and land. For them, identity and land are referential synonyms or consubstantial in the sense of continuously and mutually shaping, re-shaping and reinforcing each other in the social construction of bodies of knowledge inherent in selfhood, family, community, language, religious practices, good governance, culture, ethics, conjugal practices, social justice and other such social constructs. Indigenous people in Solomon Islands observe, with appreciable resilience, diverse practices, cultural, linguistic and otherwise, developed in antiquity by ancestors. Practices have been subjected to varying degrees of socio-ontological erosion, principally by colonisation, historically and, successively today, globalisation (Gegeo and Watson-Gegeo 2013). However, despite continuing socio-ontological erosion, overall, indigenous practices were and are observed, the result of our indigenous communities proudly upholding practices through everyday informal socialisation, as well as the formal recognition of some of them through government policies.

Indigenous notions of peace can be demonstrated through local practices. In *Natgu* language on Temotu Nendo, in the east of Solomon Islands, the concept of peace is termed as *nowe* which connotes a calm sea or still crystal clear water. Conflict between peoples and/or peoples and the environment, is akin to a tsunami—it has to be resolved so that an atmosphere of calmness overshadows the community again. It is through this conceptualisation that Temotu Nendo culture views conflict and violence as a brief social disaster to be dealt with promptly so that the calmness of the community is not disturbed. *Nowe* as a fabric in Solomon Islands peacebuilding has the potential to address ethnic hatred, environmental destruction, interpersonal conflict and structural violence. This indigenous concept of peace has been levered in the mediation and reconciliation of conflicts and violence in Temotu Nendo (Maebuta 2012).

The origin of peace in Temotu Nendo has an oral history passed on through generations. Temotu Nendo descendants originated from two tribes called *noubu* and *noubebula*. *Nou* means tribe or clan while *bu* and *bebla* are names of fish. It is believed that when the *bu* and *bebla* were washed ashore they were transformed into human beings. The *bu* became a man and the *bebla* turned into a woman. They married and their children populated the island. When the *bu* was transformed into a man, he had a war club on his shoulder, signifying protection and the upholding of cultural norms and the woman *bebla* had a *tibir* (climbing robe) on her head, signifying provision. Both symbols also signify the cost of conflict as if men are killed in tribal wars, women must shoulder the social responsibility of taking care of the children and survival of the tribe (Maebuta 2021).

This example from Temotu Nendo is chosen as indicative of oral histories and cultural education emphasising land and people as inseparable. While details vary, the notion of environment being shaped by people, and people being shaped by their environment is, found across the Solomon Islands, in oral histories and stories, therefore peace and the environment are intertwined in indigenous socio-cultural ontology. In this way the concept of 'environmental peacebuilding' linking the environment and peace is not new, but an indigenous ethos now being, or attempted at being, applied in practice at different scales, from local to international. International institutions and scholars from the West now are attempting to scale the concept to national and local institutions in countries classified as least developed or developing. However, without indigenous and decolonialising frames of inquiry, the field of environmental peacebuilding may lose a needed focus on systemic thinking, and the structures of economic and political power, as will be discussed.

4 | What Went Wrong? Indigenous Experiences of Ruptures of Environment and Peoples

Amidst indigenous conceptualisations of land, identity and peace sits regulation of land ownership in Solomon Islands by the existing land tenure system. Currently, Solomon Islands land tenure maybe best described as legal pluralism because the country practices both customary and Western, or specifically British, land tenure systems. It is these two systems of land tenure that regulate landownership and resource-use in the country both during the pre- and post-independence years, although there are some frictions between the two systems.

The national constitution draws a clear demarcation between 'customary land' and 'non-customary land' (i.e., land that ceased to be customary and has been registered). Table 1 indicates how Solomon Islands land tenure and landownership system is distributed.

With customary land tenure, the emphasis is vested on communal (families, tribes, clans, etc.) rights and ownership to land and inshore coastal marine resources, so tenure is a form of social security providing each tribe member areas for farming and harvesting aquatic foods and a marker of individual and group identity. Western land tenure system emphasises individual

TABLE 1 | Distribution of land tenure in Solomon Islands.

System of tenure	Percentage distribution
Customary land	87%
Public (crown) land	8%
Perpetual/fixed-term estates	5%

Source: Kali'uae (2005).

TABLE 2 | Land use composition in 28 400 km² of land mass.

Land use	Percentage (%)
Forest	89.94
Crop land	7.94
Wetlands	0.96
Settlements	0.70
Grasslands	0.25
Other land	0.21

Source: Ministry of Forestry and Research (2019).

rights to land, so land is a commodity that can be bought and sold to individuals.

The customary land tenure system regulates most land in the Solomon Islands. Approximately 4 out of 5 Solomon Islanders live in rural areas where customary land provides them their main livelihood needs. Even people living in urban areas retain a stake in communal rights to their tribal land in the area from which they were born or their parents or even grandparents were born. These customary rights also apply to coastal areas and marine and river systems for inshore marine and freshwater fisheries, and harvests of other aquatic foods (Schwarz et al. 2014). This provides an important safety net in times of hardship, for example, when COVID-19 first appeared in the region in early 2020, the Solomon Islands Government told non essential urban workers, or those without formal employment but residing in urban areas, to go back to their home lands to farm and fish (Ride et al. 2021).

The land system, then, recognises both the authority and power of the state as well as clans and tribes that serve as the social, economic, and political agencies/units for mediating rights to control, use, access and dispose of land and its resources (Koczberski and Curry 2005; Koczberski, Curry, and Bue 2012). To date, most of the country's development activities that generate income and contribute to the nations' Gross Domestic Products (GDP) occur in customary land and are regulated in part by customary laws. These activities include agriculture (copra, cocoa, coffee), logging, mining and prospecting, and fisheries. Over the years, these activities too have created intra and inter-group differences and conflicts, often resulting in court challenges (Hou, Johnson, and Price 2013).

The current land use composition on the 28 400 km² of land mass is provided below in a tabulated format in Table 2.

About 90% (89.94%) of landmass in the country is made up of rain forests; however, much of the forests found in areas below

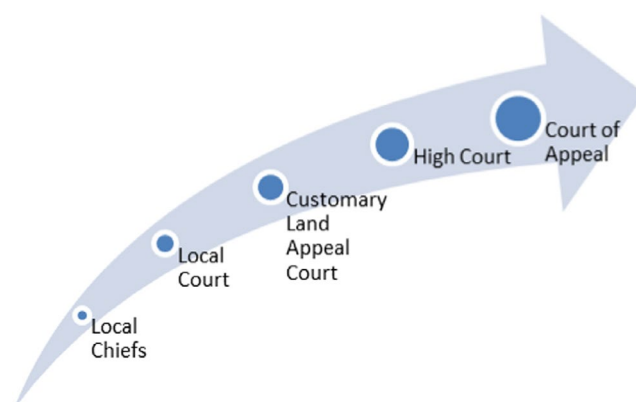
1200 ft have been or are being logged by commercial interests. Much of the coastal land areas have been converted to coconut plantations or crop land and are where the larger towns have been established (Ministry of Forestry and Research 2019).

Decision-making about land and forestry resources in customary land are best left to the purview of clans, tribes and individual family units that have customary rights to these lands. They make decisions about the use of their land in accordance with culture and the prevailing customary tenure system. When engaging with commercial activities such as logging, the group may be incorporated under the *Land Incorporation Group Act* and may form associations in order to participate in the economic activities. Alternatively, they may also utilise the existing provisions provided for under the *Timber Utilisation Act* to participate in small-scale logging activities or small-scale timber milling activities.

However, in cases where disputes and conflicts arise due to disagreements about developments that happen in the group's (clans/tribes) customary land boundaries, the issue may be brought through to the chief's attention for adjudication. The process through which such dispute resolution maybe followed is illustrated in Figure 1.

The role of local chiefs in this process is important because it is the local chiefs who are well versed with clans/tribes genealogical history and this establishes rights to land ownership and use. In many cases the 'tribal chiefs' adjudicate disputes, at least initially, while local courts are presided over by lay decision makers and have exclusive jurisdiction to deal with all proceedings dealing with civil nature arising from customary land. The Customary Land Appeal Court (CLAC) on the other hand, occupies a distinct position in that it deals with matters of custom, but its procedure is that of a formal court. The High Court and Court of Appeal are responsible for overseeing the appeal from the CLAC to the common law courts which can only be made on the ground of an error of law or a failure to comply with a procedural requirement (i.e., not on matters of custom). In practice then, there can be lengthy land cases as parties go through the various levels of courts in attempt to secure an outcome.

The interpretation of colonialization of Solomon Islands by islanders ranges from benign to catastrophic; however, there

**FIGURE 1** | Structure and processes of pursuing land disputes through the court system.

is some agreement that the system of formal governance it created sits awkwardly with local identity and peace systems. An example of a major atrocity inflicted by colonisation with lasting impacts on our Solomon Islands indigenous communities was the top-down forced institutionalisation of a foreign government or political system about which Solomon Islanders were neither consulted vis-a-vis its selection nor engaged in any preparatory work vis-à-vis its structure and how it worked. This reigning paradigm ensured islanders were reliant on colonial masters to design and enact state governance from the beginning of Solomon independence in 1978 and in interventions since (Aqorau 2017).

The public psyche of our Solomon Islands indigenous communities is affected by colonisation, which now perpetuates the Western liberal system of government, presented as most ideal or suitable for establishing democracy in our islands; an insult commonly shared by other Pacific Islands societies as well (Gegeo 2021). Western conceptions of the ideal state are also continually promoted through peacebuilding and development interventions, such as the Regional Assistance Mission to Solomon Islands which arrived in 2003 and sought to 'restore' law and order and the state following conflict. The intervention assumed 'restoration' of the Western liberal state as a goal, rather than transformation suggested through several local reports pointing to the need for decentralised governance (TRC 2013). It is a contradiction that colonisation, and its institutions of foreign design, are often hailed as the harbinger or bed-rock of democracy in our islands, given the inherent century-long dehumanisation to which our indigenous communities were subjected under its reign (Crocombe 2008, 2007; Silva 2004; Tuhiwai-Smith 2005).

Since the achievement of political independence, Solomon Islands has experienced ruptures of violence, with a civil war from 1998 to 2003, several episodes of rioting and unrest and, in 2022, conflict both domestically and regionally over the signing by the Prime Minister of a secretive security pact with China. These experiences have instilled a longing for major ethical and structural changes to be injected into the higher stratum of our national political leadership and systems in order to institutionalise participatory democracy in the country and the actualisation of indigenous control over development (Aqorau 2017).

Colonisation embedded an alien system of government which simply lacked the 'fit', epistemic, political and otherwise, with Solomon Islands indigenous political systems. The incongruence is further complicated or exacerbated by the fact that within our Solomon Islands indigenous socio-cultural ontology itself there were/are multiple socio-cultural ontologies, represented by our different island cultural practices.

However, when colonisation was institutionalised, the regime centralised responsibilities believing they could do a better job than the traditional system (Gegeo 1992; Saemala 1982). The incongruence or lack of 'fit' can be seen expressed in multiple ways such as through the practice of the *wantok* system, or practices which preference kin or 'one language' groups over other individual or institutional ties. Such practices continued then

and now, and are often seen as an impediment to Western liberal governance (Nanau 2011).

The dual land system, and various conflicts around land rights and use, are underpinned by the form of government which has tended to privilege Members of Parliament, 'brokers' of development, who are islanders working to open the way for mining and logging in local communities, along with political appointees and commercial backers (Foukona and Timmer 2016). These elites have captured the political system set up during colonialization, which has also spawned a politicised rather than professionalised civil service (Aqorau 2008).

The leasing or alienation of land and marine resources for foreigners to develop, then relegation of islanders as cheap or free labour, has fostered tensions between indigenous peoples and their national government, and between indigenous people and foreigners, notably Asians. In Solomon Islands and other parts of the Pacific, Asian properties are repeatedly targeted in urban rioting, acts signalling anger with both government and foreigners (Ride 2019, 2022). As economic benefits from natural resource extraction flow overseas, environmental degradation and relative deprivation is experienced locally. As the land systems and formal governance systems continue to promote these approaches, indigenous systems are side-lined, modified, corrupted or dominated in the process (Aqorau 2008).

Land and marine resources are key for indigenous identities and also for their subsistence and livelihood needs. Our ancient practice of depending on the land or environment for our survival makes large-scale logging and mining operations, even if legally approved and licensed by the government, provinces or land-owners, a great threat to indigenous rural communities. The threat has to do not only with the immediate but also, and more seriously, long-term changes that logging and mining operations cause to the environment such as soil erosion, damage to forests, mangroves, freshwater and saltwater ecosystems. Often damaged areas are the same areas that women in particular depend on for collecting food to feed their families. An unsettling sense of being deprived of the freedom that they used to have to use the forests and other resources for food and building purposes at will was another impact. The sexual exploitation of indigenous women, and girls as young as 12 years of age, by both local and foreign employees is a common practice of the logging and mining industries in Solomon Islands (Minter et al. 2018) that usually escapes the law.

Government bears responsibility for the rupture of indigenous socio ecological systems as it is at its invitation and approval that the foreign logging and mining companies operate in the service or interest of contributing to the national economy. In Malaita, the most populous province in the country, community elders often bewail the destruction of our environment by logging and mining companies as being tantamount to penetrating and defiling the sacrosanctity of the indigenous socio-cultural ontology of Malaita society. In Kwara'ae, Malaita province, the term used is *ru'ufia* which connotes the idea of a man forcibly entering a woman's house at night and penetrating her through rape. The expression is socially unpalatable yet it represents the extent of the repulsion Kwara'ae rural communities feel towards

foreign logging and mining companies destroying the environment and hence threatening their survival (Gegeo 2021).

The environment is a natural classroom and laboratory for learning in most Solomon indigenous cultures. For women and men in Kwara'ae rural communities, there is sorrow about the fact that traditionally much of the teaching or socialising of teenage girls and boys by adults about the use of the forest for food and other needs used to occur naturally in the forest, but now rarely happens. This is because with environmental rupture due to large-scale logging and mining operations, the forest has become less suitable or conducive for such out-door, lived-experience, hands-on learning. An example of the epistemic deprivation is the inability of members of the younger generation to identify, let alone name, which trees are good for both building and fire-wood (Gegeo 2016).

Another effect of environmental rupture due to large-scale logging and mining in Solomon Islands today is that the rate of disputes between our tribes about the rightful ownership of land has risen. The disputes have caused great animosity between tribes who once coexisted and mutually shared resources from their respective lands as they now dispute distribution of royalties, and responsibilities for negative impacts, of natural resource extraction. Another negative effect of logging and mining operations is that they do not actually contribute to sustainable development from the standpoint of land owners. As the presence of companies is dependent on the availability of the resource being extracted, as the resources decline and disappear so too does the cash in royalties or local sales of goods, then communities are left with reduced natural resources and cash flow. The food chain on which our rural communities depend for their survival is also impacted, in some cases causing permanent changes to species, habitats and harvesting and cultivation of indigenous foods (Gegeo 2016).

An illustration of the ruptures to natural resources and indigenous systems can also be seen through the situation of indigenous communities dependent on mangroves. Globally, mangrove forests are being lost from pollution, land clearance, coastal development, natural disasters and climate change (FAO 2007; Spalding, Kainuma, and Collins 2010). In the Pacific, the region with the world's highest mangrove biodiversity (Ellison 2018), climate change is expected to have pronounced effects upon marine ecosystems and exacerbate existing pressures (Duke et al. 2007).

For instance, in Marovo lagoon, Western Province, logging had caused changes in top soil and change of its colour of from dark-black to light-red which is affecting mangrove crabs (*kakarita*) that are now difficult to find. A decade ago, women commonly collected 15–20 crabs in a day, today the quantity has declined to 8–10, which can be found during low tide. It was reported that changes in soil have caused a decline in shellfish normally buried in muds and streams. Ten years ago, shellfish could be collected in five to six used 20-kg sized rice bags; however, today, one can collect only one bag of shellfish. Overharvesting of mangrove bean, even those not yet fully developed to sell and get income, is increasingly reported (Tahu Paia 2021).

Communities are also affected by changes beyond their control, and beyond control of their leaders, such as climate and weather

changes. Today, indigenous people observe there are prolonged-high tides evident along the coastal mangrove area which tends to fluctuate compared with a decade or two ago when normally both low and high tides came at specific times of day and were predictable. This changes how men and women fish and collect aquatic foods, as well as where these may be found (Tahu Paia 2021).

On the other hand, climate changes such as sea-level rise may relate positively to mangroves. Mangroves are important plants as they can grow both in land and saltwater. Indigenous people observed that mangroves are still intact despite sea rise and that they are still present in the midst of sea-level rise in Marovo lagoon, with some evidence of diebacks in certain areas. Sea-level rise has enabled mangrove seedlings to float, attach themselves in various places and regenerate, thus people are not worried to replant mangroves (Tahu Paia 2021). Climate change, then, will include both negative effects such as prompting migration and abandonment of some atolls, and habitat changes, such as growth of new mangroves, that may advantage some species and people that depend on them.

The potential for rupture of indigenous systems to create conflict is also illustrated through the rise of the civil conflict between militants from Malaita and Guadalcanal islands from 1998 to 2003, known as the 'tensions'. As mentioned, this conflict had roots in conflicts over land use by companies and internal migrants into Guadalcanal from other parts of the islands. Conflict about land can be traced back to the colonial land dealings in the efforts to develop a plantation economy for the needs of the British Solomon Islands Protectorate (BSIP). The government signed agreements with a number of multinational companies to plant oil palm, grow rice, cut timber and prospect for minerals (Larmour 1984). During its operations in the 1970s, a shareholding arrangement was negotiated and adopted between Commonwealth Development Corporation (CDC) and its subsidiary Solomon Islands Plantation Limited (SIPL), the government and landowners on the plains of Guadalcanal. CDC/SIPL owned 68% shares, the government 30% and landowners 2%. It may be fair to speculate that members of landowning tribes (locally known as *mamata*) were new to such negotiations and lacked necessary information needed for such ventures in their lands (Penderverana 2021). Likewise, from a world systems lens (Wallerstein 1974), such agreements were stacked in multiple ways to benefit the foreign investors, buyers and the government with little consideration for landowning *mamata*.

The acquisition of land for oil palm was conducted under a 'lease and leaseback' arrangement. This is where formerly alienated lands were granted back to original landowning units or *mamata* with 99-year leases issued to government and 75-year subleases to SIPL/CDC. Rent was paid to landowning *mamata* directly, and some customary land was leased to government for 99 years and then subleased to CDC/SIPL.

Palm oil became the country's most valuable agricultural export commodity, and Guadalcanal plains was the source of these exports. The company employed about 1800 workers with an estimated 8–10000 dependents. Around 65% of labourers including dependents were from Malaita province. During the operation of SIPL, fewer indigenous people from Lengo, the local area,

were engaged in the oil palm industry as manual labourers. Landowning *mamata* and those from neighbouring communities had access to alternative sources of revenue and viewed labour for the company as low in status. Lengo people's frustration rather stems from their inability to control who and from what island gets employed in the plantation that is on their land. This is closely related to the Lengo worldview and security concern over land where people who work on their land and *ghatuba* (customary gardening areas) are usually seen as legitimate users by the landowning *mamata* if recognised by the landowners as a member of the rightful group to work on their land. Moreover, when one survives on the goodness of the landowning *mamata*, the protocols of *kukuni* (respect) and *kikinima* (reverence) are accorded with dignity to ensure security and peace in society, these go beyond issues of access and economics to include behaviours which influence the nature of relationships (Penderverana 2021).

As the civil conflict developed, Lengo where CDC/SIPL (now GPPOL) is located became the epicentre of the conflict. The majority of Malaitan workers and their dependents had attracted the attention of Guadalcanal militants whose objective then was to evict Malaitans from Guadalcanal as part of political and militant desires to 'take back' control of development. Consequently, an estimated 25 000 people were displaced from areas of north Guadalcanal and the oil palm company halted operations and ultimately closed down in 1999. The absence of *kukuni* (respect) and *kikinima* (reverence) on the part of SIPL workers and their dependents in various company compounds and surrounding gardening areas on customary land may have triggered attacks on the company and SIPL mills and properties were looted, burnt and removed by militants from both sides of the conflict (Penderverana 2021).

A critical impetus for the conflict on Guadalcanal was inequality of socio-economic benefits from development of land compounded by the prevalence of asymmetrical power-relations in decision making between landowners, investors and the state (Kabutaulaka 2000; Nanau 2015). In short, it was a conflict that came about due to the non-embeddedness of large-scale plantation development on the social and cultural foundations of the *mamata* and their place the Guadalcanal Plains (Penderverana 2021; Nanau and Penderverana 2021).

5 | What Was Learnt: Resilience and Reframing Environmental Peacebuilding

Recently, the discourses of exploitative development have hailed the emergence of global spaces and the increasing irrelevance of local places (Kearney 1995). Interestingly, in the midst of the pushing for such developments, there is also an increasing incidence of social movements that maintain strong references to place and territory (Escobar 2001). Such movements that have taken up their cause under the various banners of human rights, environment, indigenous peoples, and other related issues are now in the forefront of what some have referred to as an emerging transnational civil society (e.g., Fox and Brown 1998).

Development projects have increasingly become the sites in which these interests and issues are contested and played out

through different models of development by individuals and groups from a variety of communities, both local and non-local, particularly indigenous people defending against exploitive developments on their land (Scheidel et al. 2020).

Within the indigenous frame of *nowe* as practiced on Temotu Nendo, a local anti-mining group protested against a mining company consultation with the Temotu Provincial Government in 2017. Three Pacific Bauxite Mining officials arrived at Lata, the provincial capital, for mining talks with land owners and provincial leaders when they were turned back by protestors at the airport and had to board the same flight back to Honiara (Solomon Star 2017).

Such frustrations were brewed over a period of time. In June 2017, there was a planned peaceful protest by the resource-owners but the Provincial Police Commander did not grant the permit to stage the protest for security reasons. Anti-miners believed that the company, Pacific Bauxite was conspiring with the Provincial Police and the Temotu Provincial Government to allow the proposed mining operation on Temotu Nendo. This instance provides an example of successful resistance to extractive industries, which often attempt to establish and operate without informed consent from communities (Maebuta 2021). The encouragement and concessions given by national governments to mining companies, while local benefits are seen as relatively few, can also give rise to separatist movements, as occurred in neighbouring Bougainville, now an autonomous region of Papua New Guinea building a new form of government (Boege 2009).

People in Solomon Islands are aware of such developments elsewhere, and their own experiences of colonialism, war and development and its positive and negative impacts have led to critical thinking and learning (Bennett 2002). All human cultural groups engage in critical and systematic thinking and learning, albeit in methodically different ways. For example, the Kwara'ae in Malaita, are notorious for critical and systematic thinking as is often readily displayed in long (sometimes raucous) discussions about land, genealogy, *kastom* (customary ways), politics, religion, logging, etc. They therefore have four words or expressions in their lexicon for critical and systematic thinking which are: *'inite'ete'e*, *didi*, *talingisi* and *usunini* (Watson-Gegeo and Gegeo 2014; Gegeo and Watson-Gegeo 2013). In village or community meetings on important topics such as land, genealogy, government, destruction of the environment, development and elders always remind people to apply the four epistemic methods when presenting their evidence to avoid time being wastefully taken up in meandering vacuous rhetoric. In such a way, development will be continually assessed and its meaning defined according to local experiences and analysis, which will shape future relations with the environment.

An example of learning and incorporating indigenous views into land use arrangements is seen in the Guadalcanal Plains. Following international intervention by the RAMSI in 2003, intensive negotiations to resume oil palm production commenced. Post-conflict natural resource development initiatives tried to adopt an 'inclusive' and embedded approach such as that exemplified by the new arrangements for palm oil plantations in 2005. In a reconfigured arrangement of company, landowners and state, landowning *mamata* were provided fairer terms of

engagement with the oil palm company; including 20% equity share for the landowners' association compared to only 2% under the former company. As well there was the Smallholder Out Grower Scheme, a reconfigured arrangement by the oil palm industry to socially and culturally embedded development in the Lengo and Guadalcanal cultural worldviews. Priority of employment by the company is given to landowners of Lengo followed by people from different parts of Guadalcanal; this is more of a security strategy to ensure that members of the landowning *mamata* feel they have a say in who participates in the activities happening on their land (Nanau and Penderverana 2021). There was also understanding that alienated lands on which oil palm is planted will be transferred to landowners with consideration for compensation for the loss of biological diversity, so going beyond economic to ecological considerations (Penderverana 2021).

The will of local *mamata* leaders in the area was to ensure that benefits of development proceeds reach the wider community. Moreover, they wanted to ensure that the welfare of the wider community is secured from and protected from individual interests. This is in line with the communal spirit of care, reciprocity and looking out for each other entrenched in the Lengo culture. Fairness, security, peace and the good of the wider society were the concerns of leaders (Penderverana 2021).

In other communities, there is a focus on working within to try and protect and manage their natural resources from local population pressure as well as natural resource extraction. For instance, in Marovo lagoon changes to indigenous people's relationship with mangroves has created a loss of indigenous ecological knowledge, including cultural teaching, meaning development practice tools, such as awareness sessions, are now needed to educate local people on environmental functions and processes. Mangroves are seen not just in terms of local ownerships and histories, but as sites for monetary and financial benefits, and the role of chiefs as stewards of natural resources is weaker and more contested than it once was. A community development approach is now preferred, that includes the roles of chiefs and church leaders in facilitating community wide decisions about management of aquatic and terrestrial resources, building on previous successes such as setting *tabu* (or forbidden) areas where harvesting is banned (Tahu Paia 2021).

The need to set aside potential mangrove areas from harvesting or use over a number of months and years is an indigenous management mechanism that has been demonstrated to be effective through science. These measures enhance seascape connectivity amongst seagrass, and coral reefs and also promote fish abundance, which was in line with other studies showing seascape connectivity improving potential of marine reserves to enhance fish populations (Olds et al. 2012). Connectivity is a fundamental component of many ecological paradigms (Sheaves 2009), it is central to the distribution of all species and is critical for maintaining ecosystem functions (Lindenmayer et al. 2008). Incorporating connectivity into conservation planning, will have better success in preserving biodiversity and maintaining healthy, functioning ecosystems (Olds et al. 2013). At the same time, there is a need to work within, rather than from outside, indigenous communities, recognising and utilising their indigenous ontologies and teachings, when protecting and conserving mangrove area or sites. Indigenous people hold the important local

knowledge of mangroves, such as observation of changes over time, uses (dietary and medicinal) and species that are found in mangroves as well as the experience of customary tenure of mangrove areas. This type of local involvement and engagement in natural resource management can lead to building trust and local ownership and so more sustainability as well as learning across science and indigenous knowledge paradigms (Berkes 2009).

6 | Conclusion

The field of environmental peacebuilding suggests cooperation and management of environmental and natural resources can influence peace. However, we suggest the separation of environment from peace is perhaps a Western construct that obscures the history and epistemologies of indigenous people. Our perspective as indigenous scholars arising from contexts where environment and our identity are fused, extends to our approach to political economy and conflict analyses. The first step of environmental peacebuilding approaches must be to understand indigenous meanings, identities and experience in relation to land and aquatic resources and peace at a conceptual and epistemological level. Few studies in the environmental peacebuilding literature look at what indigenous people may conceive of as natural resources, power differentials and injustice, learning and loss caused by the rupture of indigenous relations between land and people, and their specific local dynamics and consequences. The interaction between colonialism of the past, and the current power dynamics of globalised extractive industries, and interventions to promote the Western liberal state as ideal, led to ruptures of relations between people and their environment and these factors warrant further investigation.

In the case of Solomon Islands, as mentioned, indigenous communities had long applied indigenous epistemic discursive strategies. However, with obligatory metro-centric education during colonisation, and more broadly the reifying of this approach in academia, our indigenous epistemic discursive strategies for critical and systematic thinking, like most of our indigenous practices, were relegated to pariah status as having no value (Gegeo 2015); an epistemic degradation which is experienced by all Pacific Islands societies as well (Tuhivai-Smith 2005; Silva 2004). The principal reason, or one of the reasons, for the relegation was that our indigenous modes of critical and systematic thinking were seen by promoters of colonisation as a threat, as they could potentially trigger indigenous insurrections against the colonial regime; a fear which underlaid the actions of promoters of colonisation to de-intellectualise Solomon Islands indigenous communities through de-culturation (Gegeo 2015). We have seen in post-independence Solomon Islands, extraction of natural resources by foreign industries which have disproportionate power to landowners, along with the imposition of Western liberal institutions by colonial powers and their co-option by local elites (Barbara 2019) have shaped national governance. This shaping has downgraded the status of indigenous knowledge and rights, severely curbing scope to make informed decisions about land lease and use. Simultaneously, applying critical thinking and indigenous epistemic methods to analysis (as in Kwa'arae) learning from past experiences and applying indigenous ethos to land use agreements (as in the case of Lengo), resisting extractive industries (as in Temotu Nende) and

reviving traditional systems of resource management using development practice tools (as in Marovo) give some indications of the diversity of responses and resilience that can be applied by indigenous people in response to the existential changes posed by degradation of natural resources and ecosystems.

These indigenous approaches hold some promise for environmental peacebuilding at the local level, particularly if future generations of Solomon Islanders are trained in our indigenous modes of critical and systematic thinking. This is done by way of community-organised open public dialogues or work-shops in which knowledgeable women and men from the communities can use lived experience as teaching texts to lead and facilitate discussions. Ultimately there must also be changes to the nature and structure of the governance in Solomon Islands, which was imposed by colonialism, and then 'restored' by the RAMSI intervention, with an idea peace was a state that could be reached rather than a dynamic and relational process. The end result of this was not of a government responsible to the people, but one which enables power of extractive industries (and local elites aligned with these global networks) over indigenous people, spawning environmental conflicts and making local peacebuilding efforts that much harder to succeed.

Environmental peacebuilding too can benefit from a more critical and decolonising lens, as solutions promoted by key institutions such as international agencies, donors and foreign researchers may sit awkwardly with indigenous responses to historical and current developments. While there is more emphasis on knowledge coproduction in relation to environmental change and climate change adaptation, coproduction in and of itself may not escape the colonial and neocolonial relations between indigenous people and the state (Hill et al. 2020). Learning from indigenous approaches and experiences can better inform the environmental peacebuilding literature and practice, if taken in the spirit of decolonising knowledge and structures of power, not just for its own sake, but for that of sustainability and peace.

Acknowledgements

The concept for this paper resulted from a collaborative event between Solomon Islands National University and the Initiative for Peacebuilding, University of Melbourne, in November 2021, to conduct a seminar on environmental peacebuilding from an indigenous Solomon perspective. This work was also partially funded by the Australian Government through the Australian Centre for International Agricultural Research (ACIAR) project FIS/2020/172. Open access publishing facilitated by Australian National University, as part of the Wiley - Australian National University agreement via the Council of Australian University Librarians

Conflicts of Interest

The authors declare no conflicts of interest.

References

- Aqorau, T. 2008. "Crisis in Solomon Islands: Foraging for New Directions." In *Politics and Statebuilding in Solomon Islands*, edited by S. Dinnen and S. Firth. Canberra, Australia: Australian National University Press and Asia Pacific Press.
- Aqorau, T. 2017. *Choosing Our Leaders: Western Electoral Systems Versus Traditional Leadership Selection in the Pacific Islands—A Personal*

Perspective. DPA in Brief, 2017/06. Canberra, Australia: Australian National University.

Aqorau, T. 2022. *Personal Reflections on Political Economy and Nation Building in Solomon Islands*. Working Paper 2022/3. Department of Pacific Affairs. Canberra, Australia: Australian National University.

Barbara, J. 2019. "Governance and Political Adaptation: Constituency Development Funds in Solomon Islands and the Construction of a Melanesian State." In *Governance and Political Adaptation in Fragile States*, edited by J. Lahai, K. von Storkirch, H. Brasted, and H. Ware. London, UK: Palgrave Macmillan.

Bennett, J. 2002. *Roots of Conflict in Solomon Islands—Though Much Is Taken, Much Abides: Legacies of Tradition and Colonialism*. ANU Working/Technical Paper. Canberra, Australia: Australian National University Department of Pacific Affairs.

Berkes, F. 2009. "Indigenous Ways of Knowing and the Study of Environmental Change." *Journal of the Royal Society of New Zealand* 39, no. 4: 151–156.

Boege, V. 2009. "Peacebuilding and State Formation in Post-Conflict Bougainville." *Peace Review* 21, no. 1: 29–37.

Combetti, C., T. F. Thornton, V. W. de Echeverria, and T. Patterson. 2015. "Ecosystem Services or Services to Ecosystems? Valuing Cultivation and Reciprocal Relationships Between Humans and Ecosystems." *Global Environmental Change* 34: 247–262.

Conca, K., and G. D. Dabelko, eds. 2002. *Environmental Peacemaking*. Washington, DC: Woodrow Wilson Center Press.

Crocombe, R. 2007. *Asia in Pacific Islands: Replacing the West*. Suva, Fiji: University of the South Pacific.

Crocombe, R. 2008. *The South Pacific*. 7th ed. Suva, Fiji: University of the South Pacific.

Devere, H., M. Ligaliga, and K. Te Maihāroa. 2022. "Te Ao'o Rongomaraeroa: Decolonising Research in a Space for Peace." In *Decolonising Peace and Conflict Studies Through Indigenous Research*, edited by K. Te Maihāroa, M. Ligaliga, and H. Devere. London, UK: Palgrave Macmillan.

Duke, N. C., J.-O. Meynecke, S. Dittmann, et al. 2007. "A World Without Mangroves?" *Science* 317: 41–42.

Ellison, J. C. 2018. *Effects of Climate Change on Mangroves Relevant to the Pacific Islands*, 99–111. Suffolk, UK: Centre for Environment, Fisheries and Aquaculture Science.

Escobar, A. 2001. "Culture Sits in Places: Reflections on Globalism and Subaltern Strategies of Localization." *Political Geography* 20, no. 2: 139–174.

FAO. 2007. *The World's Mangroves 1980–2005*. FAO Forestry Paper No. 153. Rome, Italy: Food and Agricultural Organization.

Fleras, A. 2004. "Researching Together Differently: Bridging the Research Paradigm Gap." *Native Studies Review* 15, no. 2: 117–132.

Foukona, J., and J. Timmer. 2016. "The Culture of Agreement Making in Solomon Islands." *Oceania* 86, no. 2: 116–131.

Fox, J., and L. D. Brown. 1998. *The Struggle for Accountability: The World Bank, NGOs, and Grassroots Movements*. Boston: MIT Press.

Gegeo, D. W. 1992. "Kastom and Bisnis: Toward Integrating Cultural Knowledge Into Rural Development." Unpublished Ph.D. diss., Department of Political Science, University of Hawaii.

Gegeo, D. W. 2015. "Gwaumauri'anga: An Indigenous Social Ontology of Being, Belonging and Wholeness." Paper presented at the International Conference of Pacific Circle Consortium, Suva, Fiji.

Gegeo, D. W. 2016. "The Socio-Cultural Ontology of Malaita Society: Perspectives From Indigenous Relational Hermeneutics." Invited presentation at the International Conference on Relational Hermeneutics, Pacific Theological College, Suva, Fiji.

- Gegeo, D. W. 2021. "Solomon Islands Tok Stori: Environmental conflict and peacebuilding." Paper presented at the Solomon Islands National University/University of Melbourne, November 17–18, 2021.
- Gegeo, D. W., and K. A. Watson-Gegeo. 2013. "Reconceptualizing Language in Development: Towards Demystifying an Epistemological Paradox." *Journal of Pacific Studies* 34: 137–155.
- Hill, R., F. J. Walsh, J. Davies, et al. 2020. "Knowledge Co-Production for Indigenous Adaptation Pathways: Transform Post-Colonial Articulation Complexes to Empower Local Decision-Making." *Global Environmental Change* 65: 102161.
- Hou, D., E. Johnson, and S. Price. 2013. "Defending the Forest in the Clouds: Public Interest Law in Solomon Islands." *Asia Pacific Journal of Environmental Law* 15: 167–175.
- Ide, T. 2015. "Why Do Conflicts Over Scarce Renewable Resources Turn Violent? A Qualitative Comparative Analysis." *Global Environmental Change* 33: 61–70.
- Ide, T., C. Bruch, A. Carius, et al. 2021. "The Past and Future(s) of Environmental Peacebuilding." *International Affairs* 97, no. 1: 1–16.
- Kabutaulaka, T. 2000. "Beyond Ethnicity: Understanding the Crisis in the Solomon Islands." *Pacific News Bulletin* 15, no. 5: 5–7.
- Kali'uae, S. L. D. 2005. "Long Term Leasehold Arrangements for Customary Land in Solomon Islands." *Pacific Economic Bulletin* 20, no. 2: 18–41.
- Kearney, M. 1995. "The Local and the Global: The Anthropology of Globalization and Transnationalism." *Annual Review of Anthropology* 24: 547–565.
- Koczberski, G., and G. N. Curry. 2005. "Making a Living: Land Pressures and Changing Livelihood Strategies Among Oil Palm Settlers in Papua New Guinea." *Agricultural Systems* 85, no. 3: 324–339.
- Koczberski, G., G. N. Curry, and V. Bue. 2012. "Oil Palm, Food Security and Adaptation Among Smallholder Households in Papua New Guinea." *Asia Pacific Viewpoint* 53, no. 3: 288–299.
- Krampe, F. 2021. "Ownership and Inequities: Exploring UNEP's Environmental Cooperation for Peacebuilding Program." *Sustainability Science* 16: 1159–1172.
- Larmour, P. 1984. "Solomon Islands Customary Land Registration Policy." In *Land Tenure and Rural Productivity in Pacific Islands*, edited by B. Acquaye and R. Crocombe, 68–96. Suva, Fiji: University of the South Pacific.
- Lindenmayer, D., R. J. Hobbs, R. Montague-Drake, et al. 2008. "A Checklist for Ecological Management of Landscapes for Conservation." *Ecology Letters* 11: 78–91.
- Maebuta, J. 2012. *The Role of Education in Peacebuilding: Integrating Peace Education Into Secondary School Social Studies Curriculum in the Solomon Islands*. Armidale, Australia: University of New England.
- Maebuta, J. 2021. "Solomon Islands Tok Stori: Environmental Conflict and Peacebuilding." Paper presented at the Solomon Islands National University/University of Melbourne, November 17–18, 2021.
- Magee, A. D., D. C. Verdon-Kidd, A. S. Kiem, and S. A. Royle. 2016. "Tropical Cyclone Perceptions, Impacts and Adaptation in the Southwest Pacific: An Urban Perspective From Fiji, Vanuatu and Tonga." *Natural Hazards and Earth System Sciences* 16, no. 5: 1091–1105.
- Ministry of Forestry and Research. 2019. *Annual Report*. Honiara, Solomon Islands: MFR/Solomon Islands Government.
- Minter, T., G. Oriana, D. Boso, and J. Van der Ploeg. 2018. *From Happy Hour to Hungry Hour*. WorldFish Program Report, Penang, Malaysia, 2018-07.
- Moghaddam, F. 2010. *The New Global Insecurity: How Terrorism, Environmental Collapse, Economic Inequalities and Resource Shortages Are Changing Our World*. New York: Praeger/ABC Clio.
- Nanau, G. 2015. "Political Reviews Melanesia: Solomon Islands." *Contemporary Pacific* 27, no. 2: 528–537.
- Nanau, G., and L. Penderverana. 2021. "A Cultural Basis for Development in Solomon Islands." *Policy Forum*, May 13.
- Nanau, G. L. 2011. "The Wantok System as a Socio-Economic and Political Network in Melanesia." *OMNES: The Journal of Multicultural Society* 2, no. 1: 31–55.
- Olds, A. D., S. Albert, P. S. Maxwell, K. A. Pitt, and R. M. Connolly. 2013. "Mangrove-Reef Connectivity Promotes the Effectiveness of Marine Reserves Across the Western Pacific." *Global Ecology and Biogeography* 22: 1040–1049.
- Olds, A. D., R. M. Connolly, K. A. Pitt, and P. S. Maxwell. 2012. "Habitat Connectivity Improves Reserve Performance." *Conservation Letters* 5: 56–63.
- Pacific Islands Forum Leaders Meeting. 2018. *Boe Declaration on Regional Security*. Suva, Fiji: PIFS.
- Pearson, J., K. E. McNamara, and P. D. Nunn. 2019. "Gender-Specific Perspectives of Mangrove Ecosystem Services: Case Study From Bua Province, Fiji Islands." *Ecosystem Services* 38: 100970.
- Penderverana, L. 2021. *Pursuing Livelihoods and Re-Imagining Development in the Oil Palm Regions of the Guadalcanal Plains, Solomon Islands*. Canberra, Australia: Australian National University.
- Ride, A. 2019. "Riots in the Solomon Islands: The Day After." *Australian Outlook*, April 26.
- Ride, A. 2022. *Riots in the Pacific: Control and Change*. APSC Discussion Paper. Canberra, Australia: Australia Pacific Security College, Australian National University.
- Ride, A., H. Eriksson, J. Tutuo, C. Gomeze, and D. Boso. 2021. "Catching Fish in the COVID19 Currents: Food Security and Governance in Rural Communities in Solomon Islands." In *COVID in the Islands: A Comparative Perspective on the Caribbean and the Pacific*, edited by Y. Campbell and J. Connell. New York: Springer.
- Sabaratnam, M. 2011. "IR in Dialogue ... but Can we Change the Subjects? A Typology of Decolonising Strategies for the Study of World Politics." *Millennium* 39, no. 3: 781–803.
- Saemala, F. 1982. "Solomon Islands: Uniting Diversity." In *Politics in Melanesia*, edited by R. Crocombe and A. Ahmed. Suva, Fiji: University of the South Pacific.
- Sanga, K., and M. Reynolds. 2021. "Bringing Research Back Home: Exploring Indigenous Melanesian Tok Stori as Ontology." *AlterNative: An International Journal of Indigenous Peoples* 17, no. 4: 532–542.
- Scheidel, A., D. Del Bene, J. Liu, et al. 2020. "Environmental Conflicts and Defenders: A Global Overview." *Global Environmental Change* 63: 102104.
- Schirch, L. 2022. "Decolonising Peacebuilding: A Way Forward out of Crisis." In *Berghof Handbook for Conflict Transformation*. Berlin/Tokyo: Berghof Foundation/Toda Peace Institute.
- Schwarz, A., A. James, H. M. Teioli, P. Cohen, and M. Morgan. 2014. *Engaging Women and Men in Community-Based Resource Management Processes in Solomon Islands*. Honiara, Solomon Islands: WorldFish.
- Sheaves, M. 2009. "Consequences of Ecological Connectivity: The Coastal Ecosystem Mosaic." *Marine Ecology Progress Series* 391: 107–115.
- Silva, N. K. 2004. *Aloha Betrayed: Native Hawaiian Resistance to American Colonialism*. Durham, NC: Duke University Press.

- Solomon Star. 2017. "Mining Protest." *Solomon Star*, December 17.
- Spalding, M., M. Kainuma, and L. Collins. 2010. *World Atlas of Mangroves*. Oxford, UK: Earthscan Publishers Ltd.
- Tahu Paia, M. 2021. "Solomon Islands Tok Stori: Environmental Conflict and Peacebuilding." Paper presented at the Solomon Islands National University/University of Melbourne, November 17–18, 2021.
- Truth and Reconciliation Commission (TRC). 2013. *Confronting the Truth for a Better Solomon Islands: The Final Report of the Solomon Islands Truth and Reconciliation Commission*. Honiara, Solomon Islands: Solomon Islands Truth and Reconciliation Commission.
- Tuhiwai-Smith, L. 2005. *Decolonizing Methodologies: Research and Indigenous Peoples*. Dunedin, New Zealand: University of Otago Press.
- UNSG. 2010. *Progress Report of the Secretary General on Peacebuilding in the Immediate Aftermath of Conflict*. New York: United Nations.
- Wallerstein, I. 1974. *The Modern World System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. New York: Academic Press.
- Watson-Gegeo, K. A., and D. W. Gegeo. 2014. "Heavy Words and Important Silences: Kwara'ae Children Learning the Indigenous Epistemology of Willingness and Rank." *Pacific Studies* 3: 172–201.
- Weerawardhana, C. 2019. *Decolonising Peacebuilding: Managing Peacebuilding From Northern Ireland to Sri Lanka and Beyond*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- Woroniecki, S., H. Wendo, E. Brink, et al. 2020. "Nature Unsettled: How Knowledge and Power Shape 'Nature-Based' Approaches to Societal Challenges." *Global Environmental Change* 65: 102132.