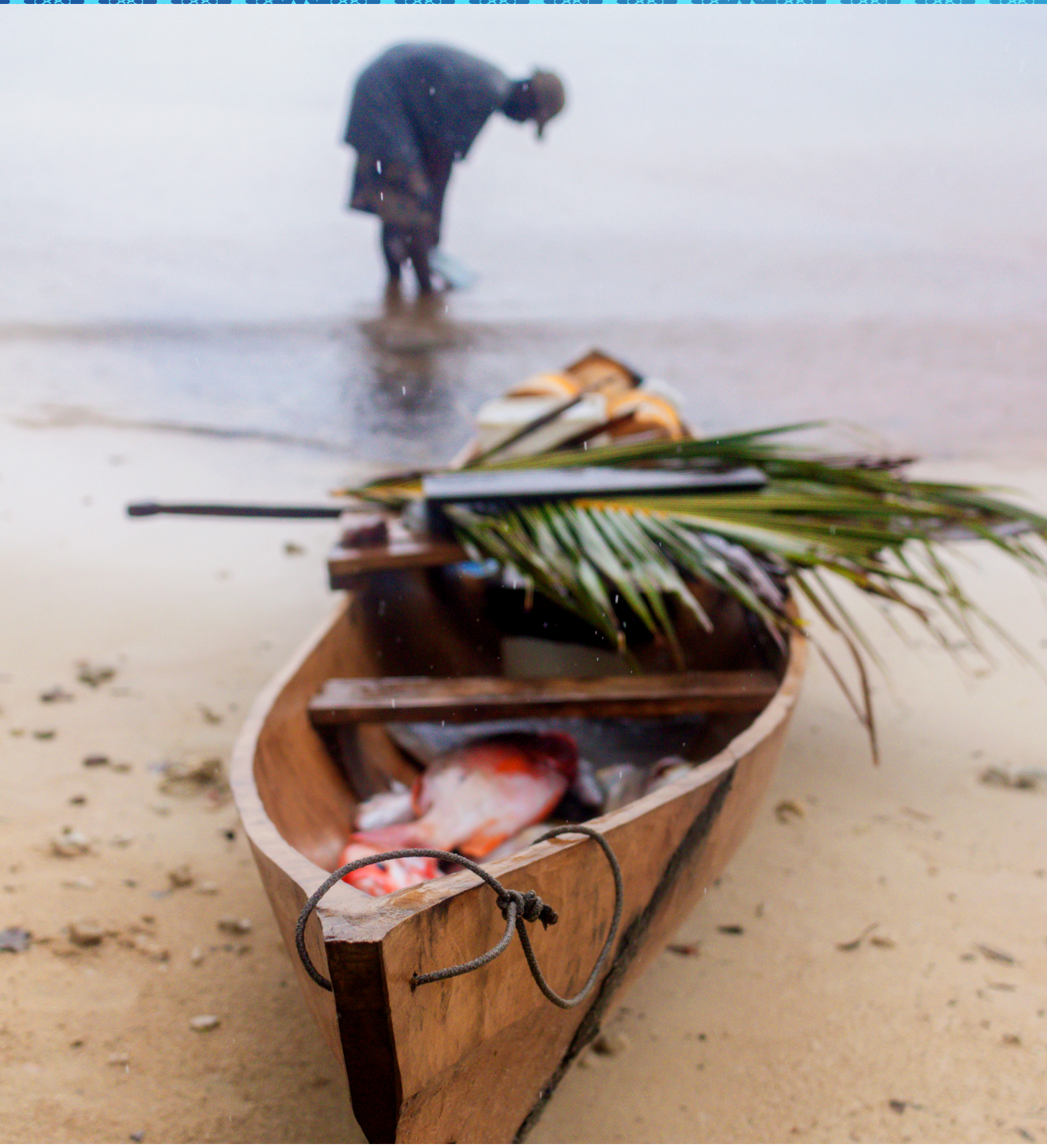
PACIFIC RESILIENCE PARTNERSHIP
STRONGER TOGETHER

USING TRADITIONAL KNOWLEDGE TO INFORM PLANNED RELOCATION FOR PACIFIC ISLANDS COMMUNITIES

Barrett Ristroph | Feb 2023



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This research brief was prepared by Dr. Barrett Ristroph under the guidance of the Pacific Resilience Partnership Technical Working Group on Human Mobility (PRP TWG-HM), chaired by the International Organization for Migration. Inputs were received from a peer review committee chaired by Sabira Coelho, IOM and comprising Ashley Carl, IOM Celia McMichael, University of Melbourne; Nacanieli Bolo, IDMC; Francesca Marzatico, University of Otago; Bruce Burson, New Zealand, Pefi Kingi, Pacificwin; Alex Azarov, Conciliation Resources. The TWG acknowledges all the valuable inputs received from TWG members and others in developing this research brief. Progressing the research brief has been made possible with the generous support of the Swiss Confederation through the Intra-ACP GCCA+ Adaptation to Climate Change and Resilience Building (PACRES) Action. It was identified as a means to provide critical information to fill knowledge gaps which can feed into policy and programmatic recommendations and support policy development with the areas of the research briefs identified and selected by the PRP TWG-HM through outcomes from webinars, online surveys and consultations with stakeholders.

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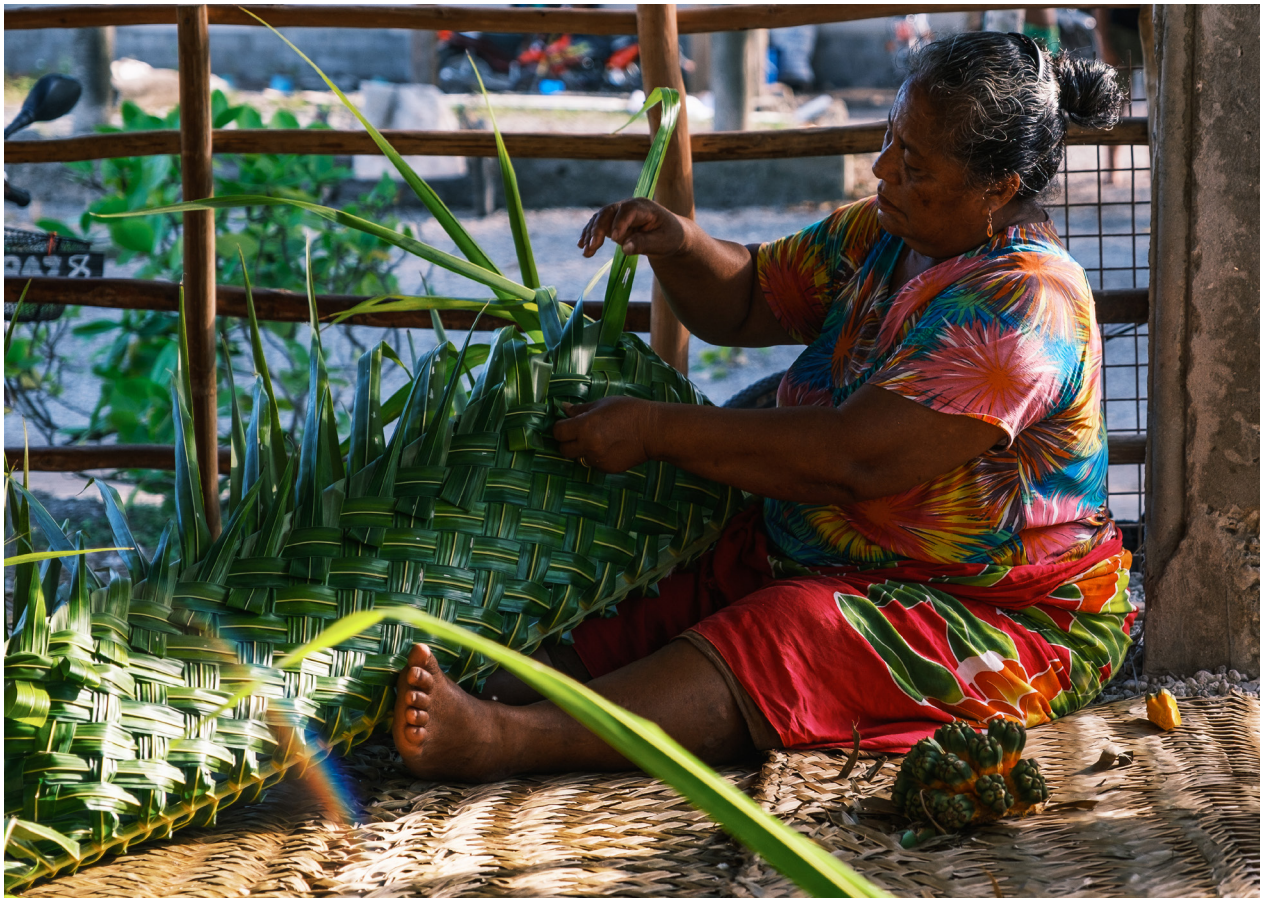
EXECUTIVE SUMMARY



Among the range of options available to households and communities on Pacific Islands impacted by climate change and related disasters, relocation has emerged as a last resort. A field of research has emerged to better understand "climate mobility," from migration to other islands, to the relocation of entire communities to higher ground. The scope of this study is planned community relocation, and how the knowledge, values, and relationships (referred to collectively here as "traditional knowledge") of community residents in Pacific Islands can and should shape planned community relocation. Gaps in the study are outlined therein, including how traditional knowledge can inform other types of climate mobility and the need for this kind of research to have better grounding in a Pacific Island-based perspectives, languages, and knowledge-systems.

This paper first outlines the importance of using traditional knowledge in relocation decisions, including the following:

- Determining when and whether to relocate and what alternatives may be available;
- Applying knowledge of historical relocations (voluntary and forced) to the present day;
- Determining habitability; sites suitable for relocation;
- Understanding land ownership and following the appropriate customary protocols to move to a new site;
- Preserving a sense of place and respecting community culture and spirituality;

- Avoiding re-colonizing communities, addressing relocation trauma, and securing climate justice; and
- Ensuring sustainable infrastructure and avoiding maladaptations.

Next, it discusses challenges for applying and bridging traditional knowledge, including the following:

- Top-down, rapid processes associated with externally led relocations that are not conducive to the time and effort needed to gather traditional knowledge;
- Difficulty in documenting traditional knowledge and values and bridging it with other knowledges that inform the relocation process;
- Cultural barriers to sharing knowledge; and
- Loss of knowledge over time due to environmental, social, and economic pressures

Finally, the paper offers recommendations for better collecting, sharing, and bridging community knowledge, including the following:

- Accepting that traditional knowledge may dictate staying in place;
- Ensuring a participatory approach for relocation, following customary protocols;
- Collecting knowledge in a manner that is inclusive yet acknowledges traditional leadership and values;
- Storing traditional knowledge so future generations of a community can use it;
- Fostering knowledge exchanges and relationship building between those who give and receive assistance, and between resettlers and those in receiving areas;
- Trust-building and respect for custom and traditional processes;
- Bridging traditional knowledge with other knowledges so that external knowledge is not used to invalidate what a community understands and values;
- Preserve the original site and access to the site where possible;
- Creating a sense of place at the relocation site;
- Addressing grievances regarding relocation and the use of knowledge; and
- A willingness on the part of international donors and national governments to continually refine relocation operating processes.

1. BACKGROUND

The movement of people in the Pacific due to the effects of climate change is sadly a growing issue that needs our collective attention. The region must come together and work out a strategy for how to best ensure that the rights and wellbeing of our Pacific sisters and brothers who are facing displacement and relocation are protected and nurtured. This must include those who do not want to move. (UN ESCAP 2016)

The words of Dame Meg Taylor, former Secretary General of the Pacific Islands Forum, frame the challenges that peoples across the Pacific Islands face as they grapple with climate change and climate-related disasters. Researchers, funders, and Pacific Region governments are showing increasing interest in the potential for large-scale movement from climate-vulnerable and disaster-prone areas (Oakes 2009; Campbell 2014, Pacific 1), including permanently relocating entire communities away from low-lying coastal areas (Campbell 2022-1, p. 4). Given the expense of such relocation, many have looked to their national governments and international donors for help. One challenge of this help is that the knowledge and values of those being relocated can be overlooked or inadequately considered.

Based on a literature review and interviews conducted with Pacific officials, community leaders, and experts in late 2022, this paper considers Pacific knowledges, beliefs and value systems of Pacific communities have been and could be incorporated into planned relocation. In this paper, 'planned relocation' or 'community relocation' refers to an entity outside of the community assisting the community to move, pending inhabitability due to climate change/disasters. More generally, 'planned relocation' can refer to any planned process of settling persons or groups of persons to a new location. It is one of three forms of human mobility or population movement considered by the Platform on Disaster Displacement based on the Cancun Climate Change Adaptation Framework. Other forms include 'displacement' (understood as the primarily forced movement of persons due to disaster or other factors), and 'migration', which is primarily voluntary movement of persons.

The paper's focus on planned relocation should not diminish the importance of recognizing the knowledge and values of Pacific Island communities in all forms of mobility, from temporary displacement to long-term, international individual or household migration. Nor is it intended to suggest that any particular community or population should be relocated at all. Rather, the focus on planned relocation acknowledges that this form of climate mobility is tied to considerations of habitability in the face of climate change, in contrast to individual and household migration that may be based on a combination of factors outside of climate. Ideally, the recommendations from this paper also apply to disaster-related displacement; however, it is difficult to incorporate traditional knowledge into crisis response in the absence of prior planning.

2. THE NATURE OF TRADITIONAL KNOWLEDGE

There are many names for the type of knowledge that is passed between generations and rooted in the culture and traditions of place-based peoples in the Pacific Region, including 'traditional', 'Indigenous', 'folk', 'local', and 'cultural' knowledge. While many sources use the term 'traditional knowledge' (FRDP 2016; PIFS 2022), this may not fully capture the evolution of knowledge over time (Lauer 2012, p. 184; Campbell 2006, p. 3; Ristroph 2012, p. 84). Also, a narrow focus on 'traditional' knowledge can ignore the modern practices and needs of communities—everything from access to services and climate finance to diversifying livelihoods.

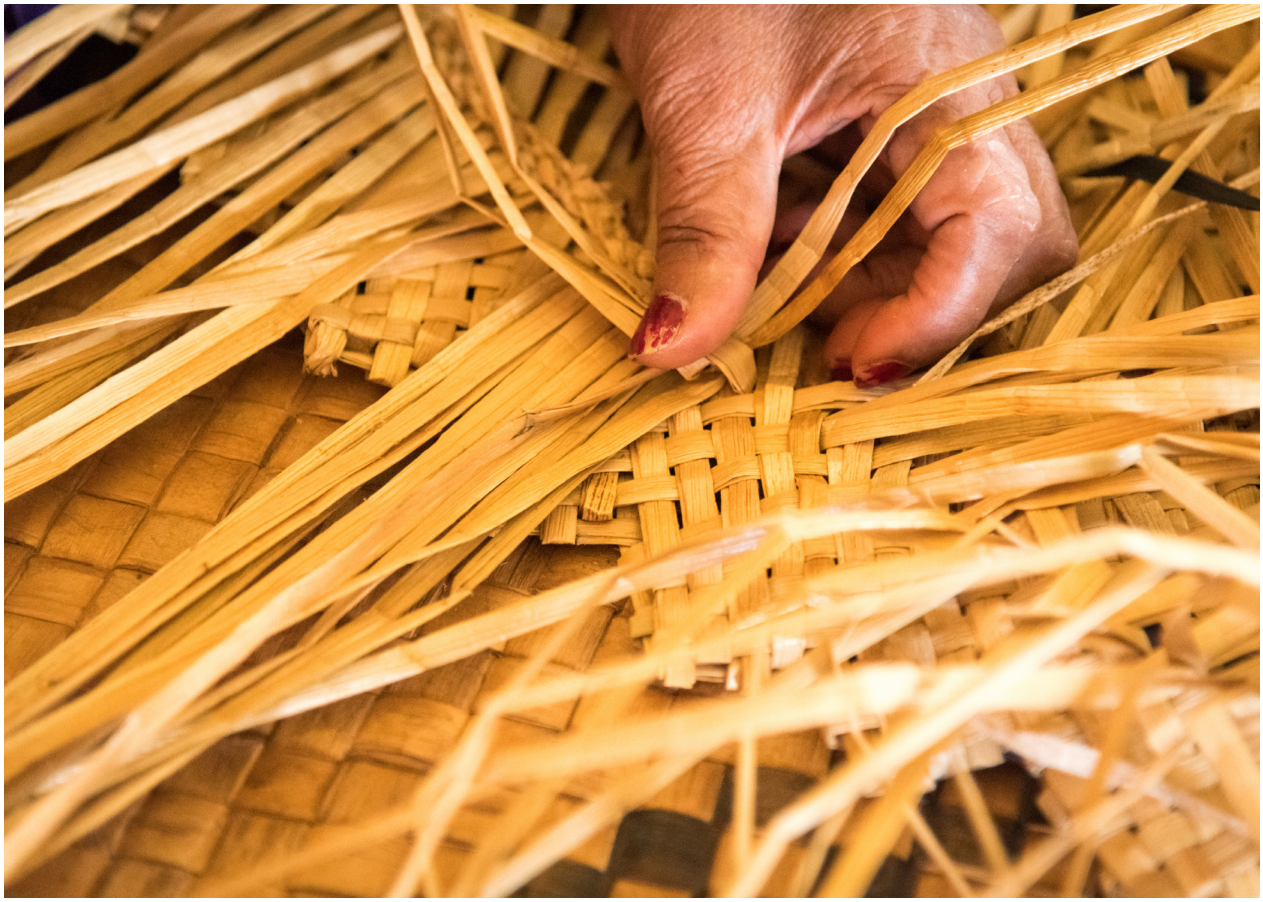
In many cases, 'Indigenous knowledge' may be a more appropriate term, since many of the communities that face relocation in the Pacific Region are Indigenous (Bower and Weerasignh 2022, p. 22), and the term reflects the cosmologies that are fundamental to the knowledge holders. For example, in Fiji, the term Vanua refers to the relationship between the Indigenous iTaukei people and the natural and spiritual world, which is central to governance and decision-making (Transcend Oceana 2022, p. 6). Similarly, the term va, va'a, or vaha is understood in many Pacific Island cultures as the spatial and relational context within which secular and spiritual relationships unfold and are given value (Anae, 2007).

Still, 'Indigenous knowledge' may not be broad enough to cover the mobile and transplanted communities across the Pacific Region that hold place-based knowledge. Further, different types of knowledge within a community may serve different roles in relocation. For example, local and traditional knowledge about hazards can help make the decision as to whether to move, while traditional and Indigenous knowledge about land tenure can inform site selection.

Acknowledging the shortcomings of the term but aiming to align with PIFS terminology, this paper uses the term 'traditional knowledge' as a shorthand for the collective and hybridized forms of Indigenous, traditional, and cultural, and local knowledges about a people's environment and history that should inform climate mobility in the Pacific Region (Lauer, 2012, p. 184, Ristroph 2012, pp. 85-86). While a collective term is used, it should be recognized that different aspects of these knowledges may have greater importance at different points in relocation processes.

Traditional knowledge is distinct from so-called 'Western knowledge' (often referred to as external knowledge and defined as knowledge based on methods originating from Europe and North America), but external knowledge may be hybridized into traditional knowledge (Connell 2018, p. 83; Rakova 2022). Traditional knowledge is broader than the Western sense of 'knowledge,' since it encompasses the values, practices, and relationships that are intertwined with knowledge (Kim 2022). It includes the traditional forms of governance and kinship networks that allow Pacific Island communities to respond to climate change and disasters by pooling and accessing resources (Granderson 2017, 548). Governance structures and kinship networks can also help preserve traditional knowledge and create a sense of place at the relocation site.

3. HOW TRADITIONAL KNOWLEDGE INFORMS PLANNED COMMUNITY RELOCATION



3.1 Determining when and whether to relocate and what alternatives may be available

Traditional knowledge is essential in assessing vulnerability and determining whether and when planned relocation should occur (UN Refuge Agency 2014, pp. 21, 23; IFRC 2021 p. 20; Brookings et al 2015, p. 19). Climate-related mobility policies that do not consider traditional knowledge and the full range of options for adapting fail to recognize the power of communities to adapt in-situ using their own knowledge (Perumal 108, p. 57; Farbotko 2018; Bryant-Tokalau 2018, p. 46). Further, 'resettlement schemes always fail when the people who are moved do not want to be, and/or have no control over the choice of destination and process of movement' (Barnett & O'Neill, 2012, p. 10). Community relocation is more likely to be positively viewed when community members perceive it as necessary to address the risks they are facing (McNamara et al, 2020).

It is important to consider traditional knowledge about long-standing patterns of environmental change, in addition to other forms of knowledge (Campbell 2022-2, p. 26). For example, traditional knowledge can be used to map a community's hazard areas to determine which may become uninhabitable (IFRC 2021, p. 30). There may be an overreliance on 'Western' knowledge, including sea level rise projections and other data that are not scaled to specific islands (Makondo and Thomas 2018; Campbell 2022-1, p. 8). The dramatization of 'climate refugees,' particularly for I-Kiribati with no high ground in their own country, can be counterproductive to a meaningful consideration of when

communities are no longer habitable (see Connell 2018). Factors aside from climate change that contribute to erosion and degradation need more consideration, as they could be more easily reversed (Biribo and Woodroffe 2013). Non-material factors based on the community's concept of uninhabitability and habitability must be considered as well (Farbotko and Campbell 2022). Habitability is not just about material elements of human security, but also about cultural considerations, cosmologies and relationships to land (Farbotko and Campbell 2022, p. 189).

For some communities, it may be possible that only a portion of the community moves and the rest remains in place, based on household preferences and ties to the original site. By moving some of the people exposed to climate risk away from an affected area, the capacity of the remaining population to adapt to climate change may be enhanced (Edwards 2013, p. 131). Where communities must split, there may be a preference to remain in close proximity or connected by a road (Edwards 2013, p. 131). In split relocations, a community's values and traditional knowledge should determine which residents will resettle first (IFRC 2021, p. 40).

More consideration (and input from community members) is needed in determining whether new sites should be as close as possible to the original sites. In a number of Pacific Island relocations, this has been a practical decision because it allowed residents to stay on land they customarily owned, and allowed them to maintain livelihood and cultural/spiritual connections to their ancestral lands. Relocations that allow residents to maintain ties to their old village may be more successful (Perumal 2018, p. 54). But it must be determined whether the distance is sufficient to move people out of harm's way (Bower and Weerasinghe 2021, p. 22) Where the new site is not in close proximity, the feasibility of moving graveyards should be considered (Bower and Weerasinghe 2021, 22).

3.2 Knowledge of past relocations

Pacific islanders have long histories of mobility (Kirch 2017, Tiraa 2022, Sevudredre 2022, Dumaru 2022). Traditional knowledge about where previous generations lived, why and how they moved, and where their kin are now can be helpful in modern relocations (Martin 2018, et al p. 12; Sevudredre 2022). Many can trace their ancestries back to other islands (Kim 2022; Sevudredre 2022) where present-day kin may be able to provide land for relocation. Since many Pacific Islanders look to their past to inform their future (Sevudredre 2022, Newport 2022), sharing knowledge about past relocations can ease the difficulty of discussing future relocation (Janif et al. 2016; Vanuatu 2018, p. 44; Tronquet 2015, p. 137). For example, ahead of the relocation of Vunidogoloa, Fiji, the Pacific Conference of Churches and the Nansen Initiative held a community workshop where residents shared stories of the past, including a prior relocation (Tronquet 2015, p. 136).

In addition to the history of voluntary mobility, colonial involuntary relocation in the Pacific Region must be acknowledged. This includes the relocation of inland communities to the coast for ease of administration, even where their historical locations protected them from disasters (Martin et al, 2018, p. 12; Campbell 2006, p. 24). It also includes relocations for the convenience of the mining industry and those testing nuclear weapons (Tabe 2019; Edwards 2013). Many historic relocations have been failures due to the lack of consideration for water, food, and livelihoods—they are lessons in how not to manage future relocation (Ronneberg 2022).

3.3 Determining sites suitable for relocation

What a community values determines whether a new site will be habitable. Knowledge of soil type, access to water, availability of natural resources, proximity to food sources, and potential hazards is important when a community relocates to an unsettled area (Calamia, 1999, p. 5; Mycoo 2022, p. 2068). Relocation must consider what will happen to traditional livelihoods at the new site (McNamara et al 2020; Lund 2022; Piggott-McKellar, Pearson, and McNamara 2020). It is important to take into account where farmers will plant not only food, but also medicinal plants (for those who rely on traditional medicine) (Lotawa 2022). Site planning must also take into account future population growth and community expansion (Lotawa 2022).[1] Knowledge of all of these dimensions can only be garnered through traditional knowledge.

For the relocation of Taro Island residents to Choiseul (Solomon Island), a collaborative team of the provincial government and international agencies worked with local residents to identify culturally suitable locations for fishing, boat access, pedestrian access to the shore, subsistence gardens, pig hunting, gathering building materials; and to consider issues for adjoining customary lands (Benintende, 2021, 1179; Haines, 2016, p. 7).

3.4 Land ownership and following customary protocols to move to a new site

While external facilitators of relocation may view certain lands as available for relocation, in many cases people are already living there in accordance with long established customary rights of usage (Boege 2018, p. 2; Boege and Rakova 2019, p. 11, Fitzpatrick 2022, p. 2). In many Pacific Island nations, a large percentage of land (as high as 99% in Vanuatu) is customarily owned (Tiraa 2022; Kim 2022; Lund 2020, Vanuatu 2018, p. 34; Edwards 2013, p. 68, McDonnell 2021). Traditionally, relocations have taken place through customary norms that recognize the rights of the customary title holders and seek permission to move there (Bower and Weersinghe 2021, p. 23; Kim 2022; Lotawa 2022; Talagi 2022). Knowledge of customary title and methods for negotiating access to these lands through traditional leaders is important for planned relocations. Further, knowledge of informal settlers and potential tensions between settlers and newcomers is important (IFRC 2021, p. 33).

Relocations are easier and have traditionally occurred where the relocating community already has customary title or are kin to those who hold it (Perumal 2018, p. 55). For example, Vunidogoloa, Fiji was relocated to higher ground, nearly two kilometres inland from the original village site, but still within the customary boundaries of the community (Tronquet 2015, p. 129). In contrast, if a relocating community feels that they are not welcomed by the spiritual ancestors and their living families in particular lands, or if a traditional leader would lose leadership and status in a relocated situation, then relocation is more complex (Kingi 2022). For example, residents in Toguru, Fiji, may be reluctant to relocate away from their settlement due to the lack of customary rights to alternative sites (Yee 2022, p. 46). Often, externally led community relocation processes fail to take into account the time it takes for the relocating village to follow traditional protocols for obtaining permission to live on the land of a receiving community (Lotawa 2022).

1 This was not taken into account with the Tukuraki relocation in Fiji (Lotawa 2022).

Talagi provides an example of a community relocation from Tuvalu to Niue, based on a 'gentlemen's agreement' negotiated by two leaders concerned about the impacts of climate change. The Tuvaluan community had cultural ties to Niue and understood the importance of showing respect for the receiving community. They came with knowledge of food security and hunting in the sea, which they freely shared with the receiving community. In turn, the receiving community shared their land and way of growing food. The relocating community learned Niuean, and the receiving community learned Tuvaluan. The two groups intermarried, strengthening social ties that have bound the agreement to this day. (Talagi 2022) This may be an important case to further explore when considering how to preserve culture in cross-border relocations, especially in the case of atolls.

Another example comes from Papua New Guinea, where attempted relocations of the Carteret Islands residents to the main island of Bougainville during the 1980s and 1990s derailed, in part due to lack of rights to land and fishing (Edwards 2013, p. 63). Relocation efforts in the 2000s, led by the non-profit Tulele Peisa, took a different approach focusing on relationship building. Tulele Peisa brought chiefs and elders from the receiving area to visit the Carteret Islands (Boege and Rakova,2019, p. 6). The extended visit enabled Bougainville leaders to see the difficulties faced by Carteret Islanders and enabled the leaders to be more welcoming (Rakova 2022). Further, Tulele Peisa arranged for a group of youth (consisting of residents from both the Carteret Islands and Bougainville) to conduct outreach in the receiving area by going from household to household and spending time with families (Rakova 2022). Together, the resettling and receiving communities have taken part in a number of customary practices that helped build their relationship, (Rakova 2022), and as with the Niuean community, the two groups have intermarried. Finally, Tulele Peisa has developed inclusive programmes which are of benefit for both resettlers and hosts and avoid situations in which newcomers are better (or worse) off than the members of host communities, including a program to teach agricultural techniques (Boege and Rakova 2019, p. 5; Edwards, 2013, p. 74; Rakova 2022).[2]

3.5 Preserving a sense of place and respecting community culture and spirituality

The preservation of community identity and culture, including ties to traditional lands, architectural designs, traditional practices, ancestral burial grounds, and livelihoods, is important not only in planned relocation, but in all forms of climate mobility to establish a sense of place at the new site (Tiraa 2022; UNHRC 2014, p. 17; Singh et al 2020; Edwards 2013, 69). Community members and local groups have much more knowledge of these aspects of culture and place than the national government or aid organizations (Perumal 2018, 55).

Culturally appropriate methods for community participation and consent are essential (UNHRC 2014, p. 22). Perumal (2018) provides an example of a temporary relocation in Vanuatu after Cyclone Pam. The lack of community consultation by the relocation funders denied the community a chance to express preferences for movement along certain social networks or kinship networks (Perumal 2018, p. 55). This, in turn, led to a community that was significantly less well-integrated into its host community (Perumal 2018, p. 55).

2 A contrasting example comes from the relocation of Tukuraki, Fiji, where the relocating community received homes and amenities that were better than those of the clan who had agreed to share the land used for the resettlement. Since then, the Fijian government has adjusted its relocation policy to consider the development of the receiving community (Lyons 2022)

Vunidogoloa, Fiji, provides an example where the community consented to the relocation and agreed on the relocation site (Bertana 2018, 911). The spiritual dimension of the relocation was important: residents named the new site 'Kenani' after the Biblical Canaan. They perceived their new village as a place given to them by God, which contributed to commitment to the relocation (Tronquet, 2015, 129).[3] External facilitators respected the village's preference for identical houses such that all households would be treated equally (Borsa 2020).

But there were also aspects of the relocation that were inconsistent with preserving and respecting the community's culture and spirituality. The new layout was designed to resemble a Western-style subdivision rather than following a traditional layout (Bertana 2018, pp. 915, 916). As such, the village lacks the traditional vegetated, symbolic space that functions similar to a shrine. Vunidogoloa residents were known as traditional bone healers, able to heal fractured bones through traditional practices (Sevudredre 2022). There was concern regarding whether they would retain the ability to heal at the new site, given the lack of space for ceremony (Sevudredre 2022). Without such spaces, acknowledgement of traditional cultural practices and knowledges that identify each clan can be lost. (Sevudredre 2022).

Still, the relocation recognized the villagers' cultural, emotional, and spiritual ties to their traditional territory and the burial place of their ancestors: ancestor remains were exhumed, and the local church provided for the transfer of the burial site (Borsa 2020). The old village site was left in place so villagers could continue to visit it (Tronquet 2015, 136).

The relocation of Narikoso village, Fiji, provides a contrasting example where the lack of community input had a negative impact. The initial relocation effort, which involved clearing a site and bringing in equipment, destroyed mangroves and trees along the shoreline (Simpson 2020; Bertana 2019, p. 3). The clearing was not carried out in the way villagers advised and allowed sediment to flow out to sea and damage the coastal reefs on which the villagers' livelihoods depended (Simpson 2020, Bertana 2019, 3). The location selected by the government was unstable, and some felt that a better location could have been found had there been more consultation with knowledgeable village members (Simpson 2020).

A later relocation effort provided for only a partial relocation of seven houses, leaving most of the village in the original site. Community members felt that they had little input regarding the relocation site, the lay-out of the new relocation village, and the design of the houses. They felt that the new houses were too small for the traditional way of living together, and that the lay-out of the village failed to follow traditional village forms (Anisi, 2020, p. 7). The village was split in two, with a new site consisting of seven households and the original remaining site with the unrelocated homes (Campbell 2022, p. 19).

Since these relocations, the Fijian government has convened stakeholders, including women and youth from communities that relocated, who have provided input and shared information with communities planning to move (Gaunavinaka 2022). The Fijian Ministry of Economy has worked to incorporate this input into Standard Operating Procedures to better incorporate local voices and adhere to traditional protocols for negotiations related to customary land (Lund 2022).

3 In contrast, relocation can be impeded by religious view that God will care for communities in their present locations regardless of climate change, or that residents have no agency to adapt if climate change is the will of God (Mycoo 2022, p. 2091; Farbotko 2005).

3.6 Avoiding re-colonizing communities, addressing relocation trauma, and securing climate justice

Many planned relocation cases in the Pacific Region take place amidst legacies of colonialism. (Bower and Weerasinghe 2021, p. 22). In some places, there is a sense that the present-day government continues to make top-down decisions outside of traditional/ Indigenous protocols (Kim 2022). There can also be the sense that residents must accept whatever conditions of relocation are imposed, even if they are unsatisfactory (Lotawa 2022). As a result, relocation may meet the standards of funders and external entities without addressing those of the community (Lotawa 2022). Respecting and including traditional knowledge can help to re-indigenise the process for selecting and designing a new development.

3.7. Ensuring sustainable infrastructure and avoiding maladaptations

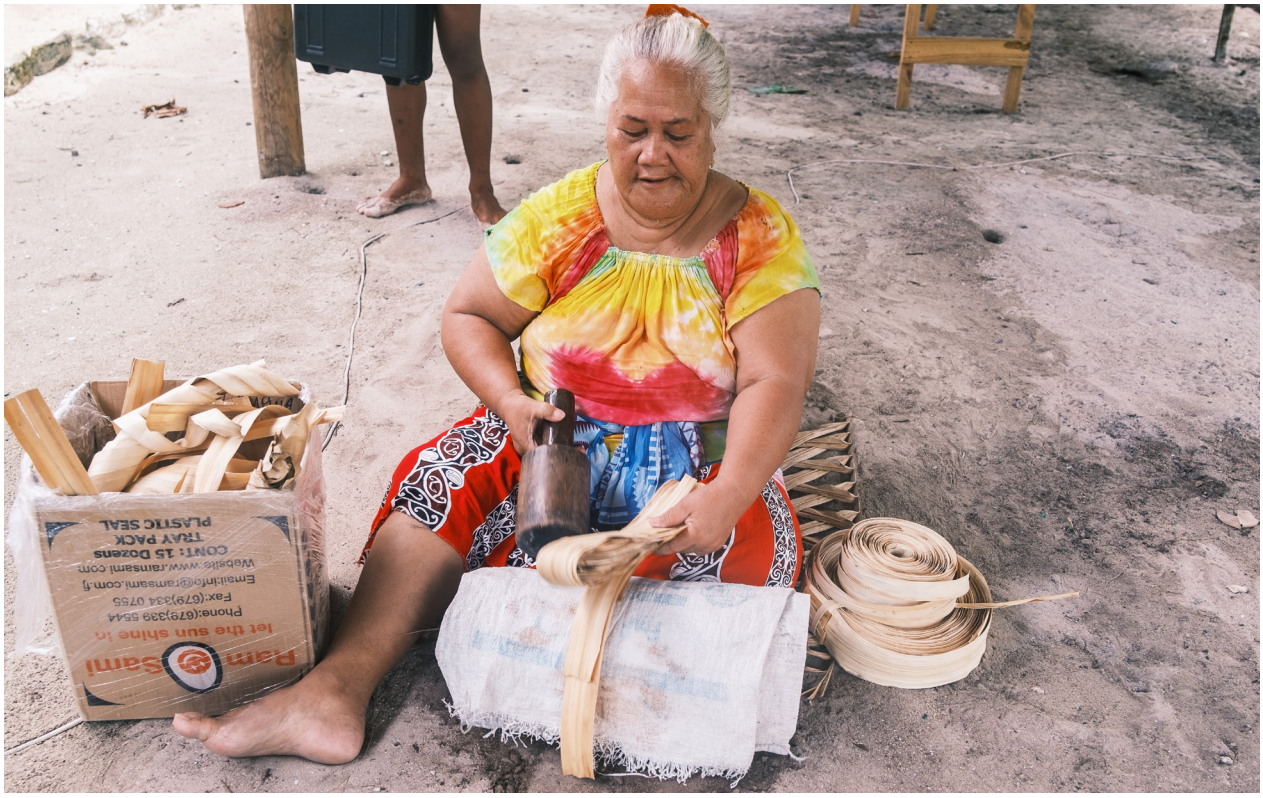
Community involvement and knowledge is important to develop adaptation strategies and infrastructure that is functional in a particular environment and that communities can maintain themselves once donor or government funding and technical support is gone (Janif 2016, p. 7). What works well on one island doesn't necessarily work well on another island (Tiraa 2022). Adaptations and relocation methods must be country- and context-specific (Newport 2022).

There are many examples of efforts to adapt to climate change that have resulted in a 'maladaptation', where the efforts are unsustainable or even counterproductive (Ristroph 2019-1, p. 117; Ristroph 2019-2 p. 12,). Seawalls are an example, as they can easily fail and lead to additional erosion or scouring of the shoreline (Ristroph 2019-1, p. 130; Nunn 2009, p. 217). Lotawa (2022) noted that the only thing still standing from some adaptation projects is the signboard saying where the funding came from. McNamara et al (2020) described the poor integration of local and available resources into infrastructure at a relocation site in Vanuatu, which impeded replacing equipment parts, as well as poor design elements, which rendered maintenance more difficult than necessary. Other studies suggest the traditional infrastructure can fair better in severe storms (Campbell 2006, p. 31), if only because the collapse of thatched roofs results in damage that is more easily reparable and less likely to cause injuries to inhabitants (see von Seggern 2021, p. 9).

This is not to suggest that traditional infrastructure alone will sustain all relocated communities, particularly if there is still a risk of flooding at the new site. Nunn (2009, p. 219) suggests that relocation was the traditional adaptation for flooding rather than flood-resistant technology. He points out that more and more, communities in the Pacific Region and elsewhere have become more sedentary with greater dependence on more expensive infrastructure and amenities. As such, traditional knowledge in designing infrastructure is still important but may be insufficient (Ristroph 2019-2, p. 6).

4. CHALLENGES FOR APPLYING AND BRIDGING KNOWLEDGES

While many national and international policies strive to incorporate traditional knowledge into adaptation and relocation, they often fall short (Nalau et al 2018, p. 852). This section outlines some of the major pitfalls that external facilitators face in using traditional knowledge. It is important to emphasize that these challenges can be overcome through the efforts of community residents and leaders.



4.1 Community relocations can be top-down processes that are not conducive to the time and effort needed to gather traditional knowledge

As discussed in Section 3.1, the Pacific Region has a history of externally led relocations without adequate input from residents. This is true not only of colonially mandated relocations (e.g., Banaba Island), but also of more recent relocations where there may have been consultation but not full participation by residents (e.g., Narikoso and Denimanu, see Piggott 2019, p. 13). It can be particularly challenging where national priorities are not consistent with those of a relocating community (Burkett 2015, p. 76).

Nunn (2009, p. 220) suggests that any kind of top-down adaptation solution is likely to fail on Pacific Islands, not only because of the ineffectiveness of knowledge transfer, but also resistance from those who may see it as interfering with their land tenure. Thus, while it may be disfavoured by some national governments, Nunn emphasizes the importance of 'bottom-up' initiatives. Such initiatives are understandably difficult, since meaningful input and leadership from the community level takes time and resources (Ristroph 2018, p. 13). Nevertheless, community relocations must be driven by demand from the communities, not from upper-level governments (Lund 2022).

4.2 International donor-funded methods may not adequately document and bridge traditional knowledge and values

Many Pacific Island residents are adept at combining external knowledge with their own observations (Connell 2018, p. 83). Still, their values and stories cannot always be easily translated into the language and formats used by external relocation facilitators (Boege and Shibata, 2020, p. 10; Ristroph 2012, p. 93). Often traditional knowledge is documented by outsiders and may be stripped of context and values (Shin and Månsson 2017, 14), which can offend the knowledge holders (Boege and Shibata, 2020, p. 13). If traditional knowledge is not presented alongside other (external) knowledges, on par with these knowledges, other knowledges may be privileged over the knowledge of community residents. In the worst case, external knowledge could dictate a relocation when residents do not see it as appropriate.

4.3 Cultural barriers to sharing knowledge

Village-centric and family-centred knowledges may be closely guarded and may not be shared beyond a family or community. There may be reluctance to share knowledge that is considered sacred or fundamentally important to a community or a family's livelihood, lest it be misused (Calamia, 1999, p. 8; Kingi 2022; Ristroph 2012, p. 98). For example, it may not be known beyond a particular community or family that particular lands or waters are 'fono' (forbidden for public access and use) due to a transgression or death in the space (Kingi 2022).

Cultural politeness can mean that village residents listen to what outsiders have to say without fully sharing their thoughts (Sevudredre 2022, Lotawa 2022). This means the external facilitators may think that residents agree with the terms of a proposed relocation even when they do not (Sevudredre 2022). On the other hand, it may also be the case that those who lack relevant knowledge are still inclined to share it. Nunn (2009, p. 220) suggests that in some Pacific Island cultures, it would be inappropriate to refuse to give advice when asked, even if one is not qualified to give it.

4.4 Loss of knowledge

The environment has changed overtime on many Pacific Islands with development and overexploitation of natural resources as well as climate change (Calamia, 1999, p. 5). Modern disasters and extreme weather can exceed the adaptive capacity based on traditional knowledge (Lotawa 2022).

In some cases, knowledge has become less useful where traditional methods of food procurement are no longer possible (for example, where crops can no longer be grown due to environmental degradation (Edwards 2013, p. 73). Knowledge regarding agriculture or architecture that applies to one location may not apply to the relocation site. For instance, architecture must adjust for communities moving from a sandy coastal terrain to more interior sites situated on soil and mud (Edwards 2013, p. 70).

Social change is also an issue: the forces of colonization, urbanization, mechanization, globalization, and external aid have eroded traditional knowledge (Ristroph 2012, p. 96; Granderson 2017, p. 555; Campbell 2006, p. 29; Lauer 2012, p. 177). Granderson (2017, p. 554) gives the example of knowledge loss on the island of Tongoa, Vanuatu, as traditional leaders have left for urban centres, diminishing the extent to which customary

rules on natural resource management can be enforced and muddying traditional land rights. Some studies suggest that traditional knowledge has been better conserved in the more remote, peripheral islands, and less so in the larger, more population-dense islands (Bryant-Tokalau 2016, p. 4; Nunn 2009).

Much of a community's traditional knowledge may be passed down orally between generations, rather than transcribed or digitized. At the same time, colonial languages and Western systems of literacy have diminished the importance of oral traditions in many Pacific societies (Janif 2016; Nalau and Handmer 2018, p. 9). Colonization also affects kinship networks that can support adaptation and relocation (Granderson 2017, p. 554). The marginalization of traditional knowledge can lead to a vicious cycle, where community members believe that the knowledge is not important and begin to disregard it themselves, leading to further diminishment (Suvadredre 2022; Mercer 2009, p. 219).

The fact that colonization has caused many problems should not suggest that all of the systems in place prior to colonization were ideal in terms of fairly distributing traditional knowledge. Some traditional hierarchies have limited the input of vulnerable groups, particularly women (Mycoo 2022, pp. 2077, 2090; Bertana 2018: 912; Granderson 2017, p. 555; Vanuatu 2018, p. 19, Dumaru et al 2020, p. 62). For example, in the relocation of Vunidogoloa, new houses were built without kitchens, suggesting the women were not sufficiently involved (Moore 2022). Failure to include women's input on the feasibility of carrying out their tasks at a new site can result in greater inequity (Campbell 2022, p. 24).

5. RECOMMENDATIONS AND STRATEGIES FOR INCREASING THE APPLICATION OF TRADITIONAL KNOWLEDGE TO PLANNED RELOCATION

Pacific Island governments are at the forefront of climate change impacts and are increasingly supporting planned relocation efforts. They have the opportunity to design relocation models that work for the current conditions on Pacific Islands, rather than cutting and pasting designs from elsewhere (Lotawa 2022). Rather than a narrow focus based on projected climate conditions and building new houses, there must be an understanding of what is needed to sustain a community physically, economically, culturally, and spiritually into the future. Bringing local/Indigenous communities into the planning process and following their customary protocols related to land is key to this understanding.[4] The strategies in this section serve as recommendations for external relocation assistance. They may be adopted by individual countries or on a Pacific Region-level to support using traditional knowledge in planned relocation.

5.1 Accepting that traditional knowledge may dictate staying in place

It cannot be overstated how closely tied many Indigenous peoples are to their lands on Pacific Islands (Tiraa 2022; Kim 2022; Lund 2021; Singh et al 2020). These ties exist alongside the phenomenon of individual/household migration to urban centers and other countries in search of better opportunities, particularly among island nations that have a

4 Further, working with communities to incorporate their traditional knowledges and protocols into relocation planning is consistent with the 2003 UNESCO convention on intangible cultural heritage, ratified by 13 Pacific Island Nations (UNESCO 2020).

political relationship with more developed countries (Tiraa 2022). In particular, younger generations may want to leave a community to take advantage of opportunities elsewhere, while older generations prioritize connections to ancestral lands and maintaining traditions. While Pacific Islanders are profoundly tied to their ancestral land, they also have the agency and the ability to choose how to adapt (McLeod et al 2018, p. 179, Oakes 2019, Perumal 2018, p. 58; McMichael, Katonivualiku, and Powell 2019).

A number of scholars have emphasized the importance 'voluntary immobility,' recognizing that Pacific Island residents may choose to stay in the place where they are despite the risks (Newport 2022, Farbotko 2018). For those considering climate mobility, planned relocation of a community is seen as a 'last resort' when other options have been exhausted (Fiji 2018, Tiraa 2022, Lund 2022). Where relocation is chosen, it should be recognized that climate mobility is a spectrum rather than a binary in which a community must completely relocate or stay (Dumaru 2022; Piggott-McKellar and McMichael 2021). Part of the community may want to (and should have the right to) stay in its present location (Newport 2022). The community may consider slowly adjusting its boundaries; taking a staggered relocation approach where new families move first; securing a site on customary land for future generations who may want to relocate; or planning for temporary post-disaster labour migration (Dumaru 2022, Dumaru et al 2020, p. 63, 68).

5.2 Ensuring a participatory approach for relocation, following customary protocols

Community participation and adherence to customary local protocols regarding communication and negotiations are fundamental to planned relocation (Kim 2022; Talagi 2022, IFRC 2021, pp. 45, 48). There is a need for a participatory process through which traditional knowledge is shown to have value and fostered within the community (Mercer et al 2009, p. 219). Acknowledging the importance of the knowledges and knowledge holders helps build trust that facilitates relocation planning (Boege and Shibata, 2020, p. 10). Acknowledgement recognizes that Indigenous communities are already empowered—'the glass is already half full, we just need to top off.' (Sevudredre 2022).

The relocation process must take place in and through the communities themselves using languages and terms that are familiar to them (Lowata 2022, Dumaru 2022).[5] The community would need to consent to all aspects of the relocation, including ways to ensure connections to ancestors and relatives buried in original locations are sustained (Vanuatu 2018, p. 44). Relocation discussions should build on existing processes within communities for considering climate change adaptation measures and making decisions (Dumaru 2022).

5 Ideally, policies and procedures to guide relocation could be translated into the local language to see if they make sense there, and then translated back into a more meaningful English rendition (Sevudredre 2022).

5.3 Collecting and storing knowledge

There are likely cultural protocols that should be followed for collecting knowledge, such as approaching community elders to get their permission (Mercer et al 2009, p. 223; Boege and Shibata 2020, p. 15). Those who collect knowledge should respect that some forms of traditional knowledge are only meant for a certain group of people, who may be unwilling to share, or who may want to ensure that it is properly safeguarded.

Just as there are different views on the need for relocation within a community, there are different knowledges and levels of these knowledges (Boege and Shibata, 2020, p. 3; Lauer 2012, p. 183; Ristroph 2012, p. 95; Walshe and Nunn, 2012, p. 192). Traditional knowledge holders should be drawn from all groups, including village and church officials, elders, youth, and women (Anisi, 2020, p. 8). Drawing on the knowledge of elders is particularly important (Talagi 2022). It may also be helpful to involve the larger diaspora of those who have left a community but still support it (Dumaru et al 2020, p. 65)

There can be a tension between the cultural norms associated with traditional knowledge and the egalitarian/inclusivity aspects of international human rights. It is important to acknowledge the traditional relations within a community (Transcend Oceana p. 9), but also create a space for all community voices to be heard. Depending on the cultural norms of the community, it may be important to have separate forums for different groups of people, so each can speak freely (Mercer 2009, p. 231). Inclusion of women is important not only because they are often the stewards of traditional knowledge, but also because in some locations they are not typically part of decision-making processes and do not always have the opportunity to express their views (Yee 2022) or may simply defer to men (Lyons 2022). Addressing the group as a whole could leave out the voice of women, perpetuating inequalities (Piggott 2018, p. 8) Fiji's 2022 draft Standard Operating Procedures for Relocation (SOPs) have tried to address this problem by separately consulting women and other groups in the community about a potential relocation, and requiring 90% of people in each group (men, women, elders, youth, LGBTQ, and those with a disability) to give their approval before any assessments or discussions with government can begin about relocation.

A wide range of knowledge(s) should be collected and documented to facilitate relocation, from knowledge on the natural and built environment to that regarding culture and relationships that can contribute to resilience. 'Community mapping' (collecting knowledge on existing community structures, assets, capacities related to construction, and livelihoods) is useful to rebuild a sense of place and belonging at the relocation site (IFRC 2021, p. 51). In particular, it is important to understand the context in which residents live in order to select and design a site that can support traditional livelihoods and cultural practices (Burkett 2015, p. 80), including sacred space. Residents should be asked what memories they have of previous settlements and how past relocations may have occurred (Sevudredre 2022, Dumaru 2022). A formal government policy to preserve knowledge of clan origination and foster inter-island relationships could facilitate relocations along clan lines (Kim 2022).

While knowledge collection may occur in a segregated manner, it could be helpful to have some sort of community-wide knowledge-sharing forum so that knowledge which is appropriate for sharing is not held only by a certain group (Walshe and Nunn 2012, p. 192). An example is the Pacific Conference of Churches/Nansen Initiative forum held in Vunidogoloa, Fiji, prior to relocation. Such forums, if held in a culturally appropriate manner

in connection with village traditions, could facilitate a common vision on adaptation and relocation (Ristroph 2018, p. 11). These forums can also help facilitate intergenerational dialogues to improve understanding between younger and older community members and find ways to address the needs of the different generations.

Finding a way to store knowledge in a culturally acceptable manner is important for ensuring that it is maintained for future generations. While it may not be considered "traditional," software such as Geographic Information Systems that allows a community to safeguard and access data may be useful (Chambers et al 2017; Calamia 1999).

5.4 Knowledge exchanges and relationship building

It may be useful to foster partnerships and knowledge exchanges between a relocating and a receiving community (or the community that holds customary title to the relocation area), along the lines of Tulele Peisa's Elders and Chief exchanges and community outreach (see Section 3.4 above). Efforts to ensure equity among resettlers and the receiving community are likewise important (Gharbaoui and Blocher, 2017). For example, resettlers should not end up with bigger and better houses than their hosts. In some cases, there may be a need to provide compensation to the receiving community, not just a lump sum, but in the form of a continued benefit such as a tax credit, to avoid resentment over time (Ronneberg 2022).

Mechanisms to negotiate knowledge transfers, alongside of mechanisms to negotiate land transfers, could be important to relocation success. It can be helpful for resettlers to learn from those at a receiving site about how to cope with the local environment (Edwards 2013, p. 79).

5.5 Trust-building and respect for custom and traditional processes

Trust between the relocating community, the receiving community, and any external relocation facilitators is an essential aspect of relocation (Paea 2015, p. 11). People tend to have greater trust in those from their own community or cultural background (Paea 2022). External facilitators should spend time in dialogue (*talanoa* or 'talk story') with the community to build trust (Paea 2022; Dumaru et al 2020, p. 9).

Longer planning time frames and open-ended, adaptive processes can help build relationships and trust among the various actors, allowing for more meaningful community participation (Transcend Oceana 2022, p. 5; Boege and Shibata, 2020, p. 3; Campbell 2022, p. 25). For example, in the Carterets Island relocation, Tulele Peisa reached out to families facing relocation several years before starting relocation, and likewise invested much time in outreach to the receiving communities and relationship building between hosts and settlers (Rakova 2022). In Fiji, it is important to follow the traditional Indigenous process of *I Sevusevu*, which begins with respect to the traditional owners of the land and formally informs leaders of a new program or project (Transcend Oceana p. 13).

Longer time frames are important not only for negotiating relocation on customary lands in accordance with the appropriate protocols (see Dumaru et al 2020, p. 66), but also for transactions with other types of land tenure (see Fitzpatrick 2022, pp. 7-9). In some cases, there will be a need to sort out title and complete probate prior to land transfers (Talagi 2022). External facilitators should be prepared to fund lengthy negotiations with receiving communities (Talagi 2022).

5.6 Bridging knowledges

It is important to share external knowledge with communities so they can combine it with their own knowledge and make informed decisions. Without being fully informed of the climate risks, communities may not be able to properly consent to relocation (Lund 2022). Prior to the Vunidogoloa relocation, government officials shared information in community meetings about the forthcoming risks and offered alternatives without imposing relocation (Bertana 2018, 911). Tulele Peisa has made similar efforts, not only with relocating communities, but also to share external knowledge about climate change and adaptation strategies with other communities (Rakova 2022).

When bringing together knowledges, external knowledge should not be privileged over traditional knowledge (McLeod et al 2019, p. 2). Relocation should not be dictated by external knowledge when it is contrary to a community's knowledge and values. Qualitative, community perspectives should go alongside quantitative data rather than being forced into an 'evidence based' framework (Newport 2022). Likewise, external facilitators must be mindful of the tendency to privilege international human rights values over traditional values.

Ministries, academics, and non-profit groups with expertise in social services, cultural preservation and local languages may be helpful in bridging knowledges and values (Connell and Coelho, 2018, p. 48; Paea 2022, Dumaru 2022). Vanuatu's incorporation of the Ministry of Culture into its National Policy on Climate Change and Disaster-Induced Displacement (2018) provides a good example. In any case, it is important that Pacific Island communities retain control of their knowledge. Those who help compile and bridge traditional knowledge should ensure that it is for the benefit of the communities rather than just for the sake of an academic paper.

5.7 Efforts to preserve the original site and access to the site

Preserving the original site of a community and all of its physical aspects may not be possible in the face of climate change. Still, to preserve the culture and identity that are intertwined with traditional knowledge, it is important to have some way to literally or figuratively allow residents to return to the original site. For example, Tulele Peisa recognizes that the Carterets Islands may become uninhabitable, but they are nevertheless working with communities to preserve the island shorelines by reforesting them with mangroves (Rakova 2022).

5.8. Creating a sense of place at the relocation site

'Place-based programming' is social support to build a sense of place and cohesiveness at a relocation site, so that those relocating can mentally and physical invest in the new site (IRFC 2021, p. 52). Well-designed place-based programming helps overcome resistance to living at the new site and eases the trauma of the move (IRFC 2021, p. 52). A key aspect involves identifying what must be transported to the relocation site (including ancestral remains) to restore the sense of place (IRFC 2021, p. 62).

An example of a place-based initiative comes from the Banaba island residents who were forcibly relocated to Fiji in 1945. Residents were concerned that they would lose knowledge of their original culture and assimilate into Fijian culture, particularly as much of the knowledge exists only in textbooks, written in a language that is not their own (Edwards 2013, 131). Edwards (2013, p. 132) describes the adoption of December 15th

as Banaban Day—an effort to keep culture alive. Place-making initiatives are relevant not only to planned relocation for communities, but also to other forms of migration. Roman (2013, pp. 88, 157) describes I-Kiribatis communities in New Zealand that actively strive to preserve their language and culture, even in the face of cultural loss.

5.9 Addressing grievances

In any relocation (or process that upsets the existing order), there may be grievances. Specific to traditional knowledge, there may be disputes regarding which overarching pieces of knowledge or values should guide the relocation process. Those who facilitate relocation may want to have a process for facilitating grievances regarding traditional knowledge and other issues. This process could build on existing mechanisms within the community for conflict resolution. Transcend Oceania (2022, p. 25) offers an example of a process where it brought together different groups with different forms of leaderships, including an important chief, to resolve a conflict. Grievance procedures by international entities such as the World Bank may provide a floor (but not a ceiling) from which to model a local process (see World Bank 2021, 2001).

5.10 Willingness to continually refine process

There is still much to learn about how to best use traditional knowledge in the relocation process, and what works well in some communities may not work well in others. Thus, external relocation facilitators should be willing to adapt policies and procedures to learn from past experiences. For example, the Fiji SOPs are supposed to be a 'living document' updated regularly in response to lessons learned with successive relocations (Lund 2022, Fiji SOPs 2022 p. III-71). This is important, as it remains to be seen how the relocation will affect overall livelihoods for future generations (Ronneberg 2022).

6. KEY GAPS AND AREAS FOR MORE RESEARCH

Most of the research on traditional knowledge and climate change focuses on disaster preparedness (e.g., IPCC 2014, p. 24; Bryant-Tokalau 2016, p. 3; Campbell 2006, p. 29; Hiwasaki, et al 2014, p. 18; Lauer 2012, p. 183). There is a need for more research on how communities have historically used their knowledge to select, design, and adapt to new sites. As relocations continue to occur in the face of climate change, there will be a need to evaluate the short- and long-term outcomes from the perspective of communities, as well as the processes for community involvement. It could be useful to map which agencies are involved in relocation in a particular jurisdiction and show how they might best advocate the integration and protection of traditional knowledge. This should provide insight on how to better integrate processes to obtain and use traditional knowledge into plans, policies, and guidance, so traditional knowledge will be treated on par with external knowledge. For example, UNHRC (2014, p. 7) calls for the development of reference documents based on experience from previous displacement and relocation guidance from sources such as the World Bank Guidelines on Involuntary Resettlement (2001).

This paper focuses on traditional knowledge in a narrow aspect of climate mobility—where a single (entire) community completely and permanently moves its boundaries to a contiguous or non-contiguous site over a short period of time. It would be helpful to have a separate paper on how traditional knowledge enables community and cultural continuity in other contexts, including temporary displacement and individual/household migration to other islands or countries.

Just as there are gaps in the substance of research, there are gaps in the process by which research is conducted. A major limitation of this paper was that it was written by an external researcher without a presence in the communities that are the subjects of this research. The only language used in this research was English, which does not adequately capture all aspects of and sensitivities around traditional knowledge. Research should be carried out with Indigenous residents that can talk to communities in their own language (Newport 2022). Research should be owned by the subject communities, so that they can better advocate for themselves (Newport 2022).

7. CONCLUSION

Communities across Pacific Islands have rich collections of knowledge about their environment, history, and culture—knowledge that is essential for selecting, designing, and adapting to relocation sites, and for preserving community identity in the new sites. Too often, there is a power imbalance in which external relocation facilitators dictate the terms of relocation and fail to adequately obtain the traditional knowledge, consent, and participation needed for successful relocations. For those communities that actively choose to relocate, there must be a participatory process that respects local customs and protocols, particularly those for acquiring the right to live on lands under customary title. Bringing traditional knowledge to the forefront is not always easy; significant investments of time and funding are required just to generate the trust needed for knowledge sharing. It can be helpful to work with experts in relocation processes that have sufficiently 'localized' understanding and adequate cultural-sensitivity training, and/or national experts familiar with cultural contexts and protocols. The process should be approached with a sense of humility and a willingness to adjust as needed for each community. Processes will benefit from evaluations and additional research from the perspective of communities.

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