

Transformative mobilities in the Pacific: Promoting adaptation and development in a changing climate

Carol Farbotko¹  | Celia McMichael¹  | Olivia Dun^{1,2}  | Hedda Ransan-Cooper³ | Karen E. McNamara⁴ | Fanny Thornton⁵

¹School of Geography, University of Melbourne, Victoria, Australia

²School of Geography and Sustainable Communities, University of Wollongong, Wollongong, New South Wales, Australia

³Research School of Computer Science, Australian National University, Canberra, Australian Capital Territory, Australia

⁴School of Earth and Environmental Sciences, University of Queensland, Brisbane, Queensland, Australia

⁵School of Law and Justice, University of Canberra, Canberra, Australian Capital Territory, Australia

Correspondence

Carol Farbotko, Brisbane, QLD, Australia.
Email: carol.farbotko@gmail.com

Abstract

Climate change is affecting Pacific life in significant and complex ways. Human mobility is shaped by climate change and is increasingly positioned by international agencies, policymakers, and governments as having an important role in both climate change adaptation and human development. We consider the potential for human mobility to promote adaptation and development among Pacific people in a changing climate. We argue that where Pacific people choose mobility, this should be supported and create opportunities that are responsive to the histories and existing patterns of mobility and place attachment among Pacific Islanders; commence from a position of climate and development justice; and advance human rights and socio-political equity. Transformative mobilities are where mobility, adaptation, and development intersect to achieve the best possible outcomes for cultural identity, human rights, adaptation, and human development goals across scales and in origin and destination sites.

KEYWORDS

climate change, displacement, migration, Pacific Islands, transformative mobilities

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 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. © 2018 The Authors. *Asia and the Pacific Policy Studies* published by John Wiley & Sons Australia, Ltd and Crawford School of Public Policy at The Australian National University.

1 | INTRODUCTION

Climate change is a threat to Pacific Island countries and territories (Barnett & Campbell, 2010; Nurse et al., 2014; SPC et al., 2016). Impacts vary across the region, depending on the sociocultural and economic context, and the geology and ecology of islands. However, rising global temperatures and associated impacts, including sea-level rise and more severe and frequent extreme weather events, are changing life in the Pacific Islands region in significant ways (Barnett & Webber, 2010). The impacts of climate change also contribute to the long-term degradation of critical ecosystems (e.g., coral reefs), as well as social and economic systems, with adverse consequences for Pacific Island communities' subsistence and livelihoods (SPC et al., 2016). Climate change is expected to generate and amplify human mobility (Adger et al., 2014), and the Pacific Islands are widely viewed as likely sites of climate-related migration, displacement, and resettlement. Nation states, individuals, households, and communities face complex and difficult decisions to move or stay where everyday lives, livelihoods, homes, and homelands are threatened by climate change impacts; for some, this decision-making is underway, and others are grappling with anticipated climate-related mobility.

Researchers, policymakers, and affected communities increasingly view climate-related mobility as a potential strategy for adaptation—one that allows migrants, their families, and communities to cope with climate change impacts (Barnett & Webber, 2010; Gemenne & Blocher, 2017; McLeman & Smit, 2006). This represents a significant shift away from earlier concerns about the national security implications of so-called “climate refugees” (Betts & Pilath, 2017; Elliott, 2010; Farbotko, 2017), and the positioning of climate-related human mobility as a failure of in situ adaptation, a negative outcome of climate change, and an unwanted transgression from an ideal orderly world (Black, Bennett, Thomas, & Beddington, 2011; Cresswell, 2006; McLeman & Smit, 2006). Furthermore, extensive research and policy discussions have debated whether and how human mobility can result in positive human development outcomes (Clemens, Özden, & Rapoport, 2014; de Haas, 2010; Global Forum on Migration and Development [GFMD], 2017; Wise & Covarrubias, 2009).

There are emerging calls to understand and harness human mobility as a process that can facilitate both climate change adaptation and human development (Gioli, Hugo, Máñez Costa, & Scheffran, 2016; McLeman, Faist, & Schade, 2016). Smit et al. (2001, p. 899) argue that “adaptive capacity to deal with climate risks is closely related to sustainable development and equity.” To date, however, the potential for integrating mobility, adaptation, and development has not been adequately examined or addressed (Gioli et al., 2016). Importantly, critical analyses warn that naively optimistic mobility–adaptation–development discourses risk reproducing strategies of contemporary neoliberal management of labour and shifting responsibility for successful adaptation and development onto “the vulnerable” (Bettini & Gioli, 2016). So, although the mobility–adaptation–development nexus has the potential to provide transformative opportunities for communities, households, and individuals in a changing climate, it is important to challenge simplistic assumptions of mobility as the panacea for human development challenges and/or climate change adaptation. Drawing such assumptions can fail to carefully and respectfully consider issues of agency, loss, culture, place, and immobility for those affected. A key question, then, is whether mobility can contribute to both climate change adaptation and human development, particularly in vulnerable areas where in situ adaptation options have been exhausted.

With a focus on the Pacific Islands region, this paper proposes and critically considers the notion of what we call “transformative mobilities” (see Figure 1) in which human mobility, climate change adaptation, and human development intersect to achieve positive social outcomes.

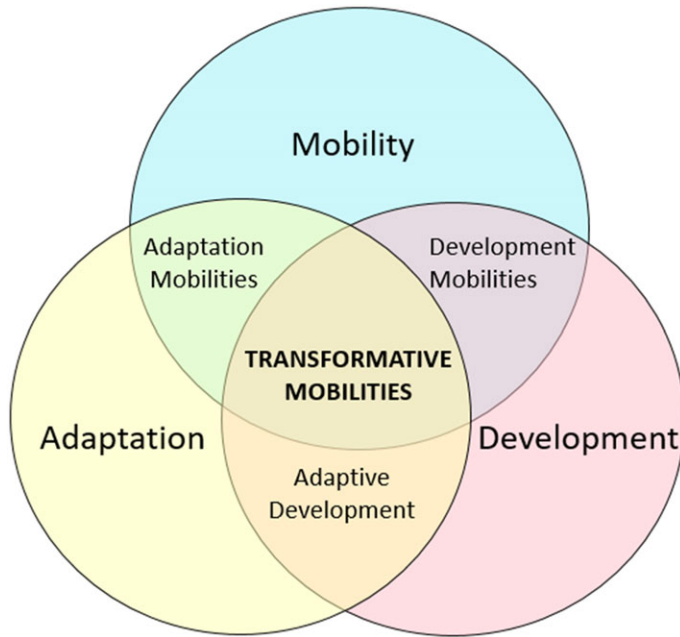


FIGURE 1 Transformative human mobilities

We broadly define these terms as follows. Human mobility includes internal and international migration, forced displacement, relocation, and short-term and circular migration. We understand climate change adaptation as referring to “the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities” (Intergovernmental Panel on Climate Change, 2014, p. 118). Human development “is about enlarging freedoms so that all human beings can pursue choices that they value” (United Nations Development Programme, 2016, p. 1). Both climate change adaptation and sustainable development are high priorities for all Pacific Island countries with the aims of reducing the climate vulnerability of communities, building resilience, and contributing to human development outcomes (Pacific Islands Forum Secretariat, 2013). There is a need to critically consider the opportunities and challenges for “transformative mobilities” whereby human mobility contributes to climate change adaptation and positive development outcomes across multiple scales and in places of origin, destination, and transition.

This paper discusses three core dimensions that should be central to any efforts to achieve transformative mobilities. First, climate change adaptation and development must recognise important Pacific realities of “roots and routes” (Bonnemaison, 1985; Clifford, 2001; Hau’ofa, 1993, 1998; Jolly, 2001), a premise that suggests that Pacific histories and everyday life are underpinned by mobility (routes) across the region but that Pacific Islanders have strong place attachment (roots). Discussion of how mobility in the Pacific is changing, and anticipated to change, in a warming world is situated within this broader understanding of Pacific roots and routes. Second, transformative mobilities must be attendant to notions of climate and development justice that broadly suggest that vulnerability, risk, or disadvantage cannot (and should not) be tackled by those who face it alone, but rather in cooperation with those whose resources or contributions to emissions are greater. Third, transformative mobilities must advance human rights and socio-political equity as part of adaptation and development pathways that are appropriate to Pacific lives and cultures.

2 | “ROOTS AND ROUTES” FOR PACIFIC ISLANDERS

Pacific Islanders often have deep-rooted cultural and spiritual relationships with their homelands. *Vanua*, *fenua*, *hanua*, *fanua*, and *whenua*—almost the same words from Papua New Guinea to New Zealand—refer to people and place: “the ground of belonging, the locus of being [Indigenous in the Pacific], the means of livelihood and the nurturer of life” (Havea, 2007, p. 51). Islander “roots” are a key dimension of cultural heritage; there are essential links between Islanders and their land, with homelands and customary lands widely considered an extension of self (Gharbaoui & Blocher, 2018). The histories, identities, and everyday lives of Pacific populations are tied to particular places as well as spanning a “sea of islands” (Clifford, 2001; Denning, 1980; Hau’ofa, 1993, 1998; Jolly, 2001). In this way, mobility is also central to Pacific Islanders’ histories and contemporary identities, with significant movements between islands in the region (Connell, 2010). Pacific people have a proud history of ocean voyaging and navigating: It was only through knowledge of seafaring that the widely dispersed islands of the Pacific were settled, long before other civilisations had developed ocean navigation systems. The contemporary lives of Pacific Island people are characterised by movement and migration, with Oceania a connected “sea of islands” and the ocean an important element of connectivity between communities (Hau’ofa, 1998). Currently, many Pacific Island nations have large proportions (over 30%) of their population living and working abroad, explained partly by preferential entry arrangements with Pacific Rim countries and seasonal migrant worker schemes. Internal migration is rapidly increasing from rural areas and outer islands to urban centres (International Organization for Migration [IOM], 2017a). Pacific people move, permanently and temporarily, to pursue work, health care, or education; reunite families or start new ones; participate in regional and international governance; and respond to adverse impacts on livelihoods and homes from environmental change or natural disasters. Movement is not necessarily about finding a “better life” in richer countries abroad, especially given that much Pacific mobility occurs within national borders or within the Pacific Islands region itself (Pacific Dialogue Ltd., 2014). These histories and everyday realities of Pacific mobility and rootedness need to be considered in the emerging and diverse types of climate-related mobility in the Pacific, including relocation and labour mobility, to allow for more positive livelihood outcomes.

Relocation of low-lying coastal villages in response to environmental changes is occurring in Fiji and the Solomon Islands, in both planned and ad hoc ways. For example, in 2014, residents of low-lying Vunidogoloa village in Fiji relocated 2 km inland (within customary land boundaries) to reduce exposure to ongoing coastal erosion, storm surges, and inundation events. Many government ministries and development agencies were involved in planning, implementing, and funding the relocation, and strong village-level leadership was central to building consensus and support among villagers. Community members designed the village layout, and weather-board houses were constructed. Government ministries and external organisations helped initiate new industries at the relocated site, including fish ponds for subsistence needs and sale as well as new crops (i.e., pineapple tops and banana shoots) to diversify livelihoods. In this way, Vunidogoloa is a site where climate-related mobility (i.e., relocation) coincides with both adaptation and human development imperatives. Vunidogoloa is currently the only village in Fiji to have moved its entire population; the move was enabled by short distance relocation within mataqali (clan) land that enabled an ongoing sense of connection and belonging to place and via access to international and national finance (McMichael, Farbotko, & McNamara, in press; McNamara & Jacot Des Combes, 2016). The Fiji government has identified 830 climate vulnerable communities that require relocation, of which 48 communities are in urgent need



of relocation with the aim to support their move via government funding with assistance from development partners (Republic of Fiji, 2016). In the Solomon Islands, flexible land tenure regimes have enabled low-lying communities to adapt to coastal erosion and associated destruction/damage to houses via ad hoc relocations and fragmentation of households and family units into smaller hamlets on higher (customary) land. With no national framework or policy to guide relocations in the Solomon Islands, these relocation decisions have been made by families. Some families planted gardens at relocation sites up to 12 months in advance to maintain subsistence food security (Albert et al., 2017). Among those community members that have remained rather than relocate, however, they have expressed “love” for their island homes and the need to stay to act as “guardians of the island and preservers of the deep cultural importance that it represents” (Albert et al., 2017, p. 5). These case studies suggest that relocation is most feasible when it occurs within customary land thereby enabling people to retain connection to their “roots.”

Labour migration has also been positioned as a potential pathway for climate change adaptation. Current discourse posits labour migration as a potential triple win for sending communities, receiving communities and mobile people (Bettini & Gioli, 2016). Kiribati’s “Migration with Dignity” policy, championed by former President Anote Tong, positioned international labour migration (among other forms of migration) as crucial to national adaptation planning. The idea of migrating with dignity is a response to an environmental future in which islands are inundated due to sea-level rise, allowing i-Kiribati people to leave with skills and other resources to enable easier settlement in new places (see Hermann & Kempf, 2017; Klepp & Herbeck, 2016). The “Migration with Dignity” policy underpinned the Government of Kiribati’s National Labour Migration Policy (Government of Kiribati, 2015) and climate change relocation strategy (Office of the President of Republic of Kiribati, n.d.). The policy itself is characterised by (a) voluntary labour mobility and voluntary immobility; (b) skilled labour as central to climate change adaptation; (c) long-term planning for multisited climate change adaptation, both within and external to Kiribati’s national borders; (d) circular migration options; (e) remittances; and (f) benefits to both sending and receiving communities (Farbotko, Stratford, & Lazrus, 2016; Klepp & Herbeck, 2016). In creating this policy, the former Government of Kiribati hoped that i-Kiribati communities in receiving countries, such as Australia and New Zealand, could then support other migrants to relocate, send remittances to Kiribati, and maintain i-Kiribati culture outside of Kiribati. The policy also aimed to enhance qualifications for i-Kiribati, so they are “migration-ready” for destination job markets and can migrate abroad with dignity. While the policy still exists, the current Prime Minister is less in favour of international migration and the focus of his government is on in situ adaptation efforts and for i-Kiribati to remain in the islands.

For existing international labour mobility programmes that involve Pacific people, such as New Zealand’s Recognised Seasonal Employer (RSE) scheme and Australia’s Seasonal Worker Programme (SWP), there have been mixed evaluations. Such programmes were not designed with climate change adaptation in mind but are now considered to be potential migration pathways that can support climate change adaptation. Yet workers have restrictions on their movements, face insecure and precarious work conditions, and lack access to permanent residency once in New Zealand or Australia (Bedford, Bedford, Wall, & Young, 2017; Petrou & Connell, 2018; Rockell, 2015; Stead, 2017). Poor treatment of SWP Pacific seasonal agricultural workers by private labour companies has even been described as modern day slavery (Doherty, 2017). There is some evidence that financial remittances help to improve access to education, alleviate poverty, and improve housing for SWP participant households leading to positive development outcomes at the household level (Gibson & McKenzie, 2011; Joint

Standing Committee on Migration, 2016). Furthermore, the agricultural skills and knowledge of SWP workers and other Pacific Island migrants in rural Australia can, if properly recognised and adequately supported, have positive outcomes for food security and climate change adaptation in both sites of migration origin and/or destination (Dun, Klocker, & Head, 2018; Klocker, Head, Dun, & Spaven, 2018). These case studies suggest that climate-related mobility can intersect with existing and new migration “routes” among Pacific Islanders, yet warn that such migration is not a straightforward panacea whereby (labour) migrants moving from sites of environmental vulnerability “help themselves” and their communities via livelihood diversification and remittance flows.

Some Pacific people, however, are expressing a preference to be immobile in a changing climate and to stay on Indigenous lands for cultural and spiritual reasons (Farbotko, 2018; IOM, 2017a; Mortreux & Barnett, 2009). McNamara and Farbotko (2017, p. 17) identified through their analysis of the Pacific Climate Warriors network that young Islanders are “resisting narratives of future inevitability of their Pacific homelands disappearing, and re-envisioning islanders as warriors defending rights to homeland and culture.” Indeed, some Pacific people cannot countenance life without a homeland to live in or return to, and express a preparedness to die on traditional territory rather than relocate (Farbotko et al., 2016). Climate change, in this sense, is an existential threat to Indigenous culture, identity, and connections to land and sea. Voluntary immobility among Pacific communities needs to be recognised and respected by research and policy communities concerned with mobilities in a changing climate (McMichael et al., in press). In these cases, different types of support may be needed as political, legal, psychological, cultural, and physical conditions change. For example, in Kiribati, it will be necessary to support those who choose to remain on the islands for the foreseeable future (Farbotko et al., 2016).

These examples of relocation, labour mobility, and voluntary immobility illustrate that climate-related mobility in the Pacific will intersect with the histories and contemporary realities of Pacific Islander “roots and routes.” Emergent discourses that bring together mobility, adaptation, and development must be sensitive to the historical, sociocultural, and political context of Pacific Islander roots and routes. We suggest that “transformative mobilities” will occur where Pacific Islander *roots* are acknowledged and maintained and where favourable structural and political conditions are enabled that support positive migration *routes*.

3 | CLIMATE JUSTICE

Pacific Island populations face an environmental future whereby homelands are affected by sea-level rise, environmental degradation, and more severe natural disasters. As has been frequently noted, this is unjust as Pacific Island nations have made limited contributions to anthropogenic climate change and have limited means to adequately mitigate greenhouse gas production, as their per capita emissions are low, yet they are significantly affected by actual and expected environmental changes. Accordingly, climate-related mobility in the Pacific Islands raises important questions of climate justice (Dreher & Voyer, 2015; Farbotko et al., 2016; Thornton, 2018). For example, there is the risk of donor reluctance to implement in situ climate change adaptation based on the assumption that people can and should simply move to better their circumstances (Barnett & Adger, 2003). Countries such as Kiribati and Tuvalu are often positioned as frontline victims of climate change that must anticipate the future uninhabitability of their homelands, yet availability of climate financing for such relocation is uncertain or non-existent.

Others have questioned the injustice inherent to the emerging mobility-as-climate change adaptation position, which sometimes uncritically proffers labour mobility in the global neoliberal economy as a solution (Felli, 2013). Here, a colonial sensibility has been noted, revealing the tendency of high-income countries not to acknowledge responsibility for the social consequences of climate change in the Global South (Klepp & Herbeck, 2016).

A key issue of climate justice is climate finance. As Williams and McDuie-Ra (2018, p. 87) write, “the demand for climate finance by Pacific states to combat climate change is derived from their inability to finance adaptation and mitigation projects from their own resources.” Yet this is only part of the story; the emerging international climate finance system seeks to tackle historic injustices inherent to greenhouse gas emissions and their effects. Financial transfers and resources from high-income countries (that produce high greenhouse gas emissions) will continue to be made available for lower income countries affected by climate change to meet current and future demands for climate justice. For example, the Global Environment Facility and other international donors have provided Kiribati with financial support for the Kiribati Adaptation Project that has focused on infrastructure and awareness-raising programmes (Klepp & Herbeck, 2016). Some projects with a human mobility focus have even been successful at gaining funding within the system (Thornton, 2018). Despite this, complex funding structures, limited donor co-ordination, and inadequate sources of finance have reduced the effectiveness of climate financing for Pacific Island countries and territories (Williams & McDuie-Ra, 2018). Betzold (2016) elucidates that the Pacific Islands region only receives a small share of global aid money for adaptation, which is then unevenly distributed across the region. Furthermore, climate finance is often donor driven, and it does not provide a holistic approach to tackling climate-related mobility from an adaptation and human development perspective in the Pacific or elsewhere. Mobility makes an appearance within the Loss and Damage mechanism, which has emerged in recent years under the umbrella of the United Nations Framework Convention on Climate Change (UNFCCC), not least due to efforts by Pacific leaders, and which rightly acknowledges the potential of adaptation-resistant impacts of climate change. However, it is stated unequivocally that Loss and Damage “does not involve or provide a basis for any liability or compensation” (UNFCCC, 2016, para. 52). A justice premise, in other words, is not supported by justice principles. That said, the Loss and Damage mechanism now includes a Task Force on Displacement whose mandate is developing. From a climate justice perspective, it will be important to clearly establish pathways and processes for linking human mobility with financing and to support initiatives that include both climate adaptation and human development as core outcomes.

4 | ADVANCING HUMAN RIGHTS AND IMPROVING EQUITY

Governed and forward-looking mobility is seen to represent a strategy of adaptation whereby environmental risks are avoided, labour migration is supported, remittance flows offer a buffer against environmental stress, and human development aims are met (Hugo, 2009). In this framing, human mobility is not a crisis; it represents a positive adaptive response to climate stress and a pathway towards positive human development outcomes. But to be transformative, rather than more narrowly adaptive, mobilities must contribute to positive changes in existing socio-political structures. Effective transformative mobilities will require that human rights are advanced and upheld, opportunities are created for everyday lives and livelihoods to continue

or improve, equity and resilience are enhanced, and participatory forms of governance are adopted that enable populations to act at least as equal partners in decision-making in a climate changing world.

Applied to the case of Pacific agricultural workers under the SWP in Australia, for example, transformative mobilities would ensure that human rights are maintained (e.g., via third-party observers from labour organisations) and that workers are aware of their rights; skills, finance, and other resources acquired during the worker's time abroad contribute to development goals and climate change adaptation in sending communities and nations; family members are supported during workers' absence; and workers are meaningfully involved in problem definitions and solutions (Brickenstein, 2015; Curtain, Dornan, Doyle, & Howes, 2017; Hepworth & Maclellan, 2017; Joint Standing Committee on Migration, 2016; Kautoke-Holani, 2018; Rohorua, Gibson, McKenzie, & Martinez, 2009). This would entail, for example, going well beyond quantification of remittances as a measure of development, to include the skills and knowledge gained via the broad suite of human experiences of working in another country (e.g., language skills, business skills and entrepreneurial development, experience in cross-cultural dialogue, and social ties formed) and heeding calls such as those by Union Aid Abroad to better integrate unions throughout the programme, especially during the predeparture process, so that Pacific Island workers are "aware of their workplace rights under Australian law and [are] given information on how to access their rights" (Hepworth & Maclellan, 2017, p. 3). Such calls must be effectively acted upon as a step towards achieving transformative mobilities in the Pacific, a place where labour mobility to Australia is on the rise and is increasingly likely to be considered as part of Australia's overseas development programme. This will require involvement and effective collaboration with multiple stakeholders across multiple countries and scales.

In relation to planned relocation, community-defined success likely involves ensuring that relocations are grounded in a bottom-up application of human rights principles (Bronen, 2011; Displacement Solutions, 2013), whereby communities themselves make decisions about their future and relocation allows for livelihood transformations to occur by addressing both quantifiable and nonquantifiable loss and need. This should take the form of improved development outcomes, better work and education opportunities, and greater levels of equity and access to resources (monetary and otherwise), as well as psychological and emotional well-being. Yet place-based cultural values should not be discounted among those relocating, because place attachment may be a resource for, rather than a barrier to, successful resettlement. Community activity thus should be maintained wherever desired by the community in the site of origin. This may take the form of farming, fishing, visiting spiritually important sites, collecting local materials for community or livelihood activities, and so on. These are not new ideas: Studies of the analogous context of development-forced displacement and resettlement consistently highlight that community relocations are financially, socially, and psychologically costly and are rarely successful when forced onto a community or in societies and communities strongly anchored to a particular place (Adger et al., 2009; Connell, 2012; McAdam, 2015; McLeman 2014; Schade, Faist, & McLeman, 2016; Scudder, 2012). It is important to ensure that climate-related migration, including in situations of movement across cultural and international boundaries for instance in the case of Kiribati or Tuvalu taking up Fiji's offer of land to relocate their citizens, occurs in ways that ensure agency and community-led decision-making and that sustain and promote human rights. It is only in this way that climate-related mobility will be truly adaptive (rather than maladaptive) and will contribute to broader human development goals.



5 | LINKING MOBILITY, ADAPTATION, AND DEVELOPMENT

The nexus of mobility, climate change adaptation, and human development is emerging in policy and practice. It is increasingly being recognised that mobility can be used to improve adaptive capacity and further development agendas and outcomes, not only in the Pacific (Curtain et al., 2017) but globally (Foresight, 2011). Many agencies and organisations—such as the IOM and the UNFCCC—understand human mobility to be an adaptive response to emerging and realised climate threats as well as a process that can support human development and sustainable development more broadly. In 2016, the United Nations General Assembly agreed to the development of a Global Compact on Safe Regular and Orderly Migration; debate about this Global Compact has included a thematic focus on the drivers of migration, including climate change (IOM, 2017b). An important theme in the United Nations (2015, p. 8) 2030 Agenda for Sustainable Development is the “positive contribution of migrants for inclusive growth and sustainable development” and the work needed to ensure that this contribution is valued and protected in a changing climate.

There is growing evidence of States' commitment to further develop platforms for advancing development and adaptation via human mobility, particularly migration. In 2006, for example, the United Nations High-level Dialogue on International Migration and Development led to the establishment of the New Zealand's RSE scheme and Australia's SWP as well as the GFMD (Bedford et al., 2017; GFMD, 2017). The GFMD—established to advance understanding and cooperation on the mutually reinforcing relationship between migration and development—is a voluntary, informal, nonbinding, and government-led process open to all States Members and Observers of the United Nations with opportunities for engagement by civil society representatives (GFMD, 2017) and continues to be an important hub for dialogue and knowledge gathering about how migration can contribute to development. More recently, a regional road map for implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific has strengthened “the linkages between international migration and development” as a thematic area of focus (United Nations Economic and Social Commission for Asia and the Pacific, 2017, p. 14). Meanwhile, global climate change policies and programmes increasingly position mobility as an adaptive process. The UNFCCC's Cancún Adaptation Framework (December 2010) recognised “climate change induced displacement, migration and planned relocation” as central to climate change adaptation (UNFCCC, 2010, p. 5). At its 2015 Paris Conference of the Parties, UNFCCC parties agreed to the establishment of a Task Force on Displacement that works to identify legal, policy, and institutional challenges, as well as good practices regarding the climate change–displacement nexus (UNFCCC, 2017). Importantly, the Task Force is associated with the UNFCCC's Loss and Damage mechanism, tasked with addressing some of the justice dimensions of climate impacts (UNFCCC, 2014). In recent years, least developed countries have also acknowledged and addressed some climate change mobility-related concerns through the UNFCCC-operated National Adaptation Plan process (and the former National Adaptation Programme of Action process). Other initiatives have developed guiding principles and statements around climate-related mobility including the Nansen Principles (Norwegian Refugee Council, 2011); United Nations High Commissioner for Refugees document Protection and Planned Relocations in the Context of Climate Change (Ferris, 2012); the Peninsula Principles on Climate Displacement within States (Displacement Solutions, 2013); the Guiding Principles on Climigration (Bronen, 2011); and the Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change (Protection Agenda; Platform on Disaster Displacement, n.d.).

Public policy across the Pacific Islands region is grappling with complex issues of climate-related migration, displacement, and resettlement (Adger & Barnett, 2005, p. 328; Barnett & McMichael, 2018). Many existing policies (national, bilateral, and regional and private and public) pre-date concerns about climate change and may have not yet undergone a process whereby climate change adaptation considerations have been formally incorporated. This includes New Zealand's RSE scheme, Australia's SWP, the Pacific Access Category in New Zealand, and education scholarships. In the Pacific, there are moves to address climate change and mobility at both regional and national scales. The IOM has initiated its Pacific Strategy 2017–2020 (IOM, 2017a) and aims to support government and civil society partners in the Pacific to facilitate voluntary migration as both a climate change adaptation and development strategy, including planned relocation and labour migration. At the regional level, under the Framework for Resilient Development in the Pacific, Pacific Islands Forum Secretariat members have committed to both addressing climate change and enabling freer movement of people and goods within and among countries (SPC et al., 2016). Its recommendations include granting protection to individuals and communities that are vulnerable to climate change and disaster displacement and migration, through national policies and actions, including relocation and labour migration policies, integrating human mobility into disaster preparedness, and supporting the protection of individuals and communities most vulnerable to climate change and postdisaster displacement and migration through targeted national and regional policies and regional labour migration schemes. There is explicit intention to “enhance resilience to climate change and disasters, in ways that contribute to and are embedded in sustainable development” (SPC et al., 2016, p. 2).

At the national scale, policies are being developed and pursued by Pacific Island countries that conjointly address themes of migration, climate adaptation, and development, such as Fiji's draft national relocation plan and their 5-year and 20-year National Development Plan that focuses on inclusive socio-economic development, policy shifts to expand development frontiers, and climate adaptation including relocation of low-lying villages (Republic of Fiji, 2016); the Tuvalu National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016 that examines opportunities under the Pacific Access Category and other migration schemes and expansion of existing migration and professional development schemes; the Marshall Islands National Strategic Development Plan: Vision 2018 that addresses climate change adaptation and works towards achieving sustainable development goals; the Kiribati National Framework for Climate Change and Climate Change Adaptation, developed in 2013, that includes a section devoted to population and resettlement (Government of Kiribati, 2015); and, more recently, a draft Vanuatu national policy on “climate change and disaster-induced displacement” internal displacement stemming from disasters and climate change (see also Thomas & Benjamin, 2018). It is striking that Pacific leaders are rapidly integrating mobility into national adaptation and development planning and policy, despite inherent complexities, putting Pacific leaders, arguably, at the global forefront in this arena. Accordingly, the policy landscape is rapidly becoming one in which human mobility in the context of climate change is conceived as potentially supportive of both climate adaptation and human development.

6 | CONCLUSION

Human mobility is increasingly positioned in international, regional, and domestic policy as providing pathways for adapting to climate change and promoting human development. Given that mobility will amplify in a changing climate, conceptual frameworks must be developed, debated,

and tested that jointly address the unfolding challenges of mobility, adaptation, and development. This paper seeks to contribute to this area by outlining a transformative mobilities framework. Our discussion has been informed by reflections on the Pacific, where complex cultural and socioecological systems are increasingly characterised by human mobility in a changing climate. We have discussed the potential for mobility, adaptation, and development to intersect and achieve good outcomes across scales and in origin and destination sites. We argue that, for the mobility–adaptation–development nexus to be more than a rhetoric of a triple-win solution or positive feedback loops (Bettini & Gioli, 2016), it is essential that climate-related mobility occurs with sensitivity to cultural contexts and histories, existing politics and processes of migration dynamics, a global moral awareness of questions of climate justice and climate financing, and commitment to ensure that human rights and equity are promoted and sustained.

ACKNOWLEDGEMENTS

There are no acknowledgements for this paper.

ORCID

Carol Farbotko  <http://orcid.org/0000-0001-8257-2085>

Celia McMichael  <http://orcid.org/0000-0002-4572-602X>

Olivia Dun  <http://orcid.org/0000-0002-3660-6827>

REFERENCES

- Adger, W. N., & Barnett, J. (2005). Compensation for climate change must meet needs. *Nature*, 436, 328. <https://doi.org/10.1038/436328c>
- Adger, W. N., Dessai, S., Goulden, M., Hulme, M., Lorenzoni, I., Nelson, D. R., ... Wreford, A. (2009). Are there social limits to adaptation to climate change? *Climatic Change*, 93(3), 335–354. <https://doi.org/10.1007/s10584-008-9520-z>
- Adger, W. N., Pulhin, J. M., Barnett, J., Dabelko, G. D., Hovelsrud, G. K., Levy, M., ... Vogel, C. H. (2014). Human security. In C. B. Field, V. R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, & L. L. White (Eds.), *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 755–791). Cambridge, UK: Cambridge University Press.
- Albert, S., Bronen, R., Tooler, N., Leon, J., Yee, D., Ash, J., ... Grinham, A. (2017). Heading for the hills: Climate-driven community relocations in the Solomon Islands and Alaska provide insight for a 1.5 °C future. *Regional Environmental Change*. <https://doi.org/10.1007/s10113-017-1256-8>
- Barnett, J., & Adger, W. N. (2003). Climate dangers and atoll countries. *Climatic Change*, 61(3), 321–337. <https://doi.org/10.1023/B:CLIM.0000004559.08755.88>
- Barnett, J., & Campbell, J. (2010). *Climate change and small island states: Power, knowledge, and the South Pacific*. London, UK: Earthscan.
- Barnett, J., & McMichael, C. (2018). The effects of climate change on the geography and timing of human mobility. *Population and Environment*, 39(4), 339–356.
- Barnett, J., & Webber, M. (2010). *Accommodating migration to promote adaptation to climate change Policy Research Working Paper 5270*. Melbourne, Australia: World Bank. http://papers.ssrn.com/sol3/papers.cfm?abstract%7B_%7Did=1589284

- Bedford, R., Bedford, C., Wall, J., & Young, M. (2017). Managed temporary labour migration of Pacific Islanders to Australia and New Zealand in the early twenty-first century. *Australian Geographer*, 48(1), 37–57. <https://doi.org/10.1080/00049182.2016.1266629>
- Bettini, G., & Gioli, G. (2016). Waltz with development: Insights on the developmentalization of climate-induced migration. *Migration and Development*, 5(2), 171–189.
- Betts, A., & Pilath, A. (2017). “The politics of causal claims: The case of environmental migration.” *Journal of International Relations and Development* 20(4): 782–804. <http://link.springer.com/10.1057/s41268-016-0003-y> (November 16, 2017).
- Betzold, C. (2016). Aid and adaptation to climate change in Pacific island countries. Development Policy Centre Discussion Paper #46. Canberra: Crawford School of Public Policy, The Australian National University
- Black, R., Bennett, S. R., Thomas, S. M., & Beddington, J. R. (2011). Climate change: Migration as adaptation. *Nature*, 478(7370), 447–449.
- Bonnemaison, J. (1985). The tree and the canoe: Roots and mobility in Vanuatu societies. *Pacific Viewpoint*, 26(1), 30–62.
- Brickenstein, C. (2015). Impact assessment of seasonal labor migration in Australia and New Zealand: A win-win situation? *Asian and Pacific Migration Journal*, 24(1), 107–129.
- Bronen, R. (2011). Climate-induced community relocations: Creating an adaptive governance framework based in human rights doctrine. *NYU Review of Law and Social Change*, 35, 357–407.
- Clemens, M., Özden, Ç., & Rapoport, H. (2014). Migration and development research is moving far beyond remittances. *World Development*, 64(December), 121–124.
- Clifford, J. (2001). Indigenous articulations. *The Contemporary Pacific*, 13(2), 468–490.
- Connell, J. (2010). Pacific islands in the global economy: Paradoxes of migration and culture. *Singapore Journal of Tropical Geography*, 31, 115–129.
- Connell, J. (2012). Population resettlement in the Pacific: Lessons from a hazardous history? *Australian Geographer*, 43(2), 127–142.
- Cresswell, T. (2006). *On the move, mobility in the modern western world*. New York, NY: Routledge.
- Curtain, R. L., Dornan, M. S., Doyle, J. J. G., & Howes, S. (2017). *Labour mobility: The ten billion dollar prize*. Washington D.C: World Bank.
- de Haas, H. (2010). Migration and development: A theoretical perspective. *International Migration Review*, 44(1), 227–264.
- Dening, G. (1980). *Islands and beaches: Discourse on a silent land, Marquesas, 1774-1880*. Carlton: Melbourne: University Press.
- Displacement Solutions. (2013). The Peninsula Principles on climate displacement within States. <http://displacementsolutions.org/peninsula-principles/>.
- Doherty, B. (2017). “Hungry, poor, exploited: Alarm over Australia’s import of farm workers.” *The Guardian*. <https://www.theguardian.com/global-development/2017/aug/03/hungry-poor-exploited-alarm-over-australias-import-of-farm-workers>.
- Dreher, T., & Voyer, M. (2015). Climate refugees or migrants? Contesting media frames on climate justice in the Pacific. *Environmental Communication*, 9(1), 58–76. <https://doi.org/10.1080/17524032.2014.932818>
- Dun, O., Klocker, N., & Head, L. (2018). Recognising knowledge transfers in ‘unskilled’ and ‘low-skilled’ international migration: insights from Pacific Island seasonal workers in rural Australia. *Asia Pacific Viewpoint*. (in press)
- Elliott, L. (2010). Climate migration and climate migrants: What threat, whose security? In J. McAdam (Ed.), *Climate change and displacement: Multidisciplinary perspectives* (pp. 176–190). Oxford, UK: Hart Publishing.
- Farbotko, C. (2017). Climate change and national security: An agenda for geography. *Australian Geographer*, 1–7.
- Farbotko, C. (2018). Voluntary immobility: Indigenous voices in the Pacific. *Forced Migration Review*, 57, 81–83.

- Farbotko, C., Stratford, E., & Lazrus, H. (2016). Climate migrants and new identities? The geopolitics of embracing or rejecting mobility. *Social & Cultural Geography*, 17(4), 533–552.
- Felli, R. (2013). Managing climate insecurity by ensuring continuous capital accumulation: ‘Climate refugees’ and ‘climate migrants. *New Political Economy*, 18(3), 337–363.
- Ferris, E. (2012). Protection and planned relocations in the context of climate change.
- Foresight. (2011). Final project report—Foresight: Migration and global environmental change. London, UK.
- Gemenne, F., & Blocher, J. (2017). How can migration serve adaptation to climate change? Challenges to fleshing out a policy ideal. *The Geographic Journal*, 183(4), 336–347.
- Gharbaoui, D., & Blocher, J. (2018). Limits to adapting to climate change through relocations in Papua-New Guinea and Fiji. In W. Leal Filho, & J. Nalau (Eds.), *Limits to climate change adaptation*. Cham, Switzerland: Springer.
- Gibson, J., & McKenzie, D. (2011). Australia’s Pacific Seasonal Worker Pilot Scheme (PSWPS): Development impacts in the first two years. *Asia Pacific Viewpoint*, 52(3), 361–370.
- Gioli, G., Hugo, G., Máñez Costa, M., & Scheffran, J. (2016). Human mobility, climate adaptation, and development. *Migration and Development*, 5(2), 165–170.
- Global Forum on Migration and Development (2017). *Global Forum on Migration and Development: Background and objectives*. Geneva: GFMD. <https://gfm.org/process/background> [accessed 9 October 2017]
- Government of Kiribati. (2015). Kiribati National Labour Migration Policy. Tarawa.
- Hau’ofa, E. (1993). Our sea of islands. In E. Waddell, V. Naidu, & E. Hau’ofa (Eds.), *A new Oceania: Rediscovering our sea of islands* (pp. 2–17). Suva: University of the South Pacific, in association with Beake House. http://www.apiasf.org/pdfs/2013_peer_report/Session_5b_EPIC_Scholars_Reading_Epeli_Hauofa_Our_Sea_of_Islands.pdf
- Hau’ofa, E. (1998). The ocean in us. *The Contemporary Pacific*, 10(2), 391–410.
- Havea, J., & Pacific Writing Forum (2007). The vanua is fo’ohake. In J. Webb, & K. Nandan (Eds.), *Writing the Pacific: An anthology*. Suva, Fiji: Pacific Writing Forum.
- Hepworth, K., & Maclellan, N. (2017). *Temporary labour mobility in Australian and the Pacific Islands: A discussion paper by Union Aid Abroad*. Sydney: Union Aid Abroad-ADEPHA.
- Hermann, E., & Kempf, W. (2017). Climate change and the imagining of Migration: Emerging discourses on Kiribati’s land purchase in Fiji. *The Contemporary Pacific*, 29(2), 231–263.
- Hugo, G. (2009). Best practice in temporary labour migration for development: A perspective from Asia and the Pacific. *International Migration*, 47(5), 23–74.
- Intergovernmental Panel on Climate Change, (2014). “Annex II: Glossary” [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: *Climate change 2014: Synthesis report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.
- International Organization for Migration (2017a). *IOM Pacific Strategy 2017–2020*. Canberra: IOM. <http://www.iomaustralia.org/regional-news/iom-pacific-strategy-2017-2020> [accessed 25 October 2017]
- International Organization for Migration. (2017b). Global compact for migration. Geneva. <https://www.iom.int/global-compact-migration>.
- Joint Standing Committee on Migration (2016). *Seasonal change: Inquiry into the Seasonal Worker Programme*. Canberra: The Parliament of the Commonwealth of Australia.
- Jolly, M. (2001). On the edge? Deserts, oceans, islands. *The Contemporary Pacific*, 13(2), 417–466.
- Kautoke-Holani, A. (2018). Labour mobility in the PACER Plus. *Asia and the Pacific Policy Studies*, 5(1), 90–101.
- Klepp, S., & Herbeck, J. (2016). The politics of environmental migration and climate justice in the Pacific region. *Journal of Human Rights and the Environment*, 7(1), 54–73.
- Klocker, N., Head, L., Dun, O., & Spaven, T. (2018). Experimenting with agricultural diversity: Migrant knowledge as a resource for climate change adaptation. *Journal of Rural Studies*, 57(Supplement C), 13–24.
- McAdam, J. (2015). Lessons from planned relocation and resettlement in the past. *Forced Migration Review*, 49, 30–32.

- McLeman, R. (2014). *Climate and human migration: Past experiences, future challenges*. New York, NY: Cambridge University Press.
- McLeman, R., Faist, T., & Schade, J. (2016). Introduction: Environment, migration, and inequality—A complex dynamic. In R. McLeman, J. Schade, & T. Faist (Eds.), *Environmental migration and social inequality* (Vol. 61) *Advances in Global Change Research*. Cham: Springer.
- McLeman, R., & Smit, B. (2006). Migration as an adaptation to climate change. *Climatic Change*, 76(1–2), 31–53.
- McMichael, C., Farbotko, C., & McNamara, K. E. (in press). Climate change and migration in the Pacific: Fiji, Kiribati and Tuvalu. In C. Menjivar, et al. (Eds.), *The handbook of migration crises*. Oxford University Press.
- McNamara, K. E., & Farbotko, C. (2017). Resisting a ‘doomed’ fate: An analysis of the Pacific Climate Warriors. *Australian Geographer*, 48(1), 17–26.
- McNamara, K. E., & Jacot Des Combes, H. (2016). Planning for community relocations due to climate change in Fiji. *International Journal of Disaster Risk Science*, 6(3), 315–319.
- Mortreux, C., & Barnett, J. (2009). Climate change, migration and adaptation in Funafuti, Tuvalu. *Global Environmental Change*, 19, 105–112.
- Norwegian Refugee Council. (2011). The Nansen Conference: Climate change and displacement in the 21st century. <http://www.unhcr.org/4ea969729.pdf>.
- Nurse, L. A., McLean, R. F., Agard, J., Briguglio, L. P., Duvat-Magnan, V., Pelesikoti, N., ... Webb, A. (2014). Small islands. In V. R. Barros, C. B. Field, D. J. Dokken, M. D. Mastrandrea, K. J. Mach, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, & L. L. White (Eds.), *Climate change 2014: Impacts, adaptation, and vulnerability. Part B: Regional aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1613–1654). Cambridge, UK: Cambridge University Press.
- Office of the President of Republic of Kiribati. (n.d.) Climate change action: Relocation. Retrieved from <http://www.climate.gov.ki/category/action/relocation/>
- Pacific Community (SPC), Secretariat of the Pacific Regional Environment Programme (SPREP), Pacific Islands Forum Secretariat (PIFS), United Nations Development Programme (UNDP), United Nations Office for Disaster Risk Reduction (UNISDR), & University of the South Pacific (USP). (2016). Framework for resilient development in the Pacific: An integrated approach to address climate change and disaster risk management 2017-2030. Available at: https://www.pacificclimatechange.net/sites/default/files/documents/FRDP_2016_Resilient_Dev_pacific.pdf
- Pacific Dialogue Ltd. (2014). South-South labour mobility in the Pacific: An overview. Brussels.
- Pacific Islands Forum Secretariat. (2013). Forty-fourth Pacific Islands Forum: Majuro Declaration for climate leadership. <https://www.forumsec.org/wp-content/uploads/2017/11/2013-Majuro-Declaration-for-Climate-Leadership.pdf> Retrieved 8 May 2018.
- Petrou, K., & Connell, J. (2018). ‘We don’t feel free at all’: Temporary ni-Vanuatu workers in the Riverina, Australia. *Rural Society*, 27(1), 66–79.
- Platform on Disaster Displacement. (n.d.) “Addressing the protection needs of people displaced across borders in the context of disasters and climate change.” Geneva: Platform on Disaster Displacement. <https://disasterdisplacement.org/the-platform/our-response>
- Republic of Fiji. (2016). 5-year & 20-year National Development Plan: Transforming Fiji. Available at: <https://cop23.com.fj/wp-content/uploads/2018/03/5-Year-and-20-Year-National-Development-Plan.pdf>
- Rockell, D. G. (2015). “Pacific Island labour programmes in New Zealand: An aid to Pacific Island development? A critical lens on the Recognised Seasonal Employer policy” (Unpublished doctoral thesis), Massey University, Palmerston North.
- Rohorua, H., Gibson, J., McKenzie, D., & Martinez, P. G. (2009). How do Pacific island households and communities cope with seasonally absent members? *Pacific Economic Bulletin*, 24(3), 19–38.



- Schade, J., Faist, T., & McLeman, R. (2016). Conclusion: Inequality and migration as adaptation—Where do we go from here? In R. McLeman, J. Schade, & T. Faist (Eds.), *Environmental migration and social inequality* (pp. 203–228). Cham: Springer.
- Scudder, T. T. (2012). *The future of large dams: 'Dealing with social, environmental, institutional and political costs'*. London: Earthscan.
- Smit, B., Pilifosova, O., Burton, I., Challenger, B., Huq, S., Klein, R. J. T., & Yohe, G. (2001). Chapter 18 Adaptation to climate change in the context of sustainable development and equity. In J. J. McCarthy, O. Canziani, N. A. Leary, D. J. Dokken, & K. S. White (Eds.), *Climate change 2001: Impacts, adaptation and vulnerability—Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 877–912). Cambridge: Cambridge University Press.
- Stead, V. (2017). “Mobility under constraint: Race and precarity in the Pacific Islander Seasonal Worker Program”, Paper presented at the Labour lines: Indigenous and Pacific Islander experiences of labour mobility in Australia workshop, Deakin University, Melbourne 22-23 June.
- Thomas, A., & Benjamin, L. (2018). Policies and mechanisms to address climate-induced migration and displacement in Pacific and Caribbean small island developing states. *International Journal of Climate Change Strategies and Management*, 10(1), 86–104.
- Thornton, F. (2018). *Climate change and people on the move: International law and justice*. Oxford, UK: Oxford University Press.
- United Nations (2015). *Transforming our world: The 2030 Agenda for Sustainable Development (A/Res/70/1)*. New York: United Nations.
- United Nations Development Programme (2016). *Human Development Report 2016*. New York: United Nations Development Programme.
- United Nations Economic and Social Commission for Asia and the Pacific (2017). *Regional road map for implementing the 2030 Agenda on Sustainable Development in Asia and the Pacific*. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).
- United Nations Framework Convention on Climate Change (2010). *Report of the Conference of the Parties on its sixteenth session*. Bonn: UNFCCC.
- United Nations Framework Convention on Climate Change (2014). *Warsaw international mechanism for loss and damage associated with climate change impacts*. Bonn: United Nations Framework Convention on Climate Change (UNFCCC). http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8134.php
- United Nations Framework Convention on Climate Change. (2016). Adoption of the Paris agreement, UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016).
- United Nations Framework Convention on Climate Change. (2017). “Terms of Reference of the Task Force on Displacement”. Bonn: United Nations Framework Convention on Climate Change (UNFCCC). http://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/tor_task_force.pdf
- Williams, M., & McDuie-Ra, D. (2018). *Combating climate change in the Pacific*. Cham, Switzerland: Palgrave Macmillan.
- Wise, R. D., & Covarrubias, H. M. (2009). Understanding the relationship between migration and development: Toward a new theoretical approach. *Social Analysis*, 53(3), 85–105.

How to cite this article: Farbotko C, McMichael C, Dun O, Ransan-Cooper H, McNamara KE, Thornton F. Transformative mobilities in the Pacific: Promoting adaptation and development in a changing climate. *Asia Pac Policy Stud*. 2018;5:393–407. <https://doi.org/10.1002/app5.254>