

The implications of climate change for the loss and damage caused by disruption of the essential link between people and their land.

Submission to the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts of the United Nations Framework Convention on Climate Change.

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Introduction

The purpose of this submission is to address some of the non-economic losses associated with climate change impacts on small island states in the Pacific Ocean. In particular the submission addresses the importance of land to most Pacific island people and costs and losses associated with either induced migration or forced relocation from customary lands.

The structure of the submission is as follows:

1. The importance of land to the great majority of Pacific Island people.
2. The processes under which climate change may render land either only partly habitable or uninhabitable altogether.
3. The implications of the loss and damage resulting from the reduction or loss of habitability: induced or forced relocation.
4. Possibilities to help ameliorate the losses and damage that may occur.

This submission is partly based on the following publications:

- Campbell, J.R. and Warrick, O. (2014) *Climate Change and Migration Issues in the Pacific*. United Nations Economic and Social Commission for Asia and the Pacific, Suva. ISBN 978-982-91410-3-3
- Campbell, J.R. (2014) Climate-change Migration in the Pacific. *The Contemporary Pacific*, 26(1): 1-28.
- Campbell, J.R. and Bedford R.D. (2015) Climate change and migration: lessons from Oceania, In A. Triandafyllidou (ed.) *The Routledge Handbook of Immigration and Refugee Studies*. pp. 304-311.
- Campbell, J.R. and Bedford R.D. (2014) Migration and Climate Change in Oceania. Chapter 8 in Piguet, E. and Laczko, F. (eds) *People on the Move in a Changing Climate: The Regional Impact of Environmental Change on Migration*. Springer, Dordrecht. pp177-204.
- Campbell, J.R. (2011) Climate change and population displacement, pp 320-341 in Narsey, W., et al. (eds) *Population and Development in the Pacific Islands*. UNFPA and USP, Suva.
- Campbell, J.R. (2010) Climate Change and Population Movement in Pacific Island Countries, in Burson, B. (ed.). *Climate Change and Migration in the South Pacific Region: Policy Perspectives*. Institute of Policy Studies: Wellington.

Campbell, J.R. (2010) Climate-Induced Community Relocation in the Pacific: the Meaning and Importance of Land, in McAdam, J. (ed.), *Climate Change and Displacement: Multidisciplinary Perspectives*. Hart Publishing, Oxford. pp57-79.

Campbell, J.R., Goldsmith, M. and Koshy, K. (2007) Community Relocation as an Option for Adaptation to the Effects of Climate Change and Climate Variability in Pacific Island Countries (PICs). Final report for APN project 2005-14-NSY-Campbell. Asia Pacific Network for Global Change Research, Tokyo.

The importance of land

Ninety-five per cent of land in Pacific Island Countries is under a variety of forms of customary ownership. Common features of such land are:

1. single individuals do not own land which belongs to 'the group' usually linked together through kinship,
2. land cannot be bought or sold (in most cases upheld constitutionally in independent countries),
3. land is not owned by any one generation but only used until passed on to the next, and
4. land cannot be separated from the group, or the people that make up the group.

Typically, people, land and culture are mutually constitutive, and cannot exist meaningfully if one or more of these elements is separated from the others. This essential connection cannot easily be understood in many cultures and is beyond economic valuation. Nevertheless, it is critically important for Pacific people that it should not be ignored or downplayed. It is among the most important cultural principles in Pacific Island communities. This relationship between people and land is described by Pond in relation to many parts of Polynesia:

'... in Cook Islands Maori, "enua" means "land, country, territory, afterbirth": in Futuna (Wallace) "fanua" means "country, land, the people of a place"; in Tonga, "fonua" means "island, territory, estate, the people of the estate, placenta" and "fonualoto", "grave". We can see that in some Polynesian languages, proto-fanua is both the people and the territory that nourishes them, as a placenta nourishes a baby'. (Pond, 1997: 32).

The importance of land is also encapsulated in the following quotations that relate to a range of Pacific Island communities from across the region (from Melanesia, Polynesia and Micronesia):

'The people of Nakorosule [a village in Fiji] cannot live without their physical embodiment in terms of their land, upon which survival of individuals and groups depends. ... Land in this sense is thus an extension of the self; and conversely the people are an extension of the land.' (A Ravuvu, 1988: 7)

'Land to a ni-Vanuatu is what a mother is to a baby. It is with land that he (*sic*) defines his identity and it is with land that he (*sic*) maintains his (*sic*) spiritual strength.' (The Hon Sethy Regenvanu, quoted in H van Trease, 1987: xi)

'The land has even been viewed as possessing a sacred or spiritual quality, expressed in the mental attitudes of Marshallese when they think of the land as the very root of their worldly existence.' (L. Mason, 1987: 4)

'No other single concern [on Kapingamarangi, a Pohnesian outlier in Federated States of Micronesia] generates the intensity of interest and emotion as does land. People may insult one another, but the insults will be forgiven; tempers sometimes flare and end in fist fights, but others will intervene, and the opponents will apologize and forget the incident; marriages break up, but the wounds heal. But a land dispute is never forgotten, nor do the opponents forgive each other, nor is the matter ever really settled, even when the litigants are long deceased.' (M. Lieber 1974:70)

Land, then, is critical to the meaning of life for most Pacific island people. It cannot be bought or sold, and indeed the only land which is freehold in the region tends to be that which was alienated in the relatively distant past (often prior to colonisation). The monetary value of land as a means of livelihood and as a site for settlement and associated infrastructure may be quantifiable, though even this may be difficult to estimate when a very large proportion of Pacific Island land is used for subsistence production. However, to place an economic value on the role of land in providing personal, emotional, group, customary, social and cultural security would be impossible to achieve and any quantification would be meaningless. Nevertheless, it is likely that climate change may bring about changes to land that will in turn disrupt the critical and immutable relationship that is an essential component of Pacific Island identity.

The land-people connection does not restrict people's mobility. Bonnemaïson (1994) uses the metaphor of the tree and the canoe to explain the mobility of the people of Vanuatu. The tree represents the roots that the people have in their land. Trees also provide the timber from which canoes are built, thereby enabling migration. But there will always be trees in the ground to sustain the connection. Accordingly, much early migration in PICs was circular. Growing urban numbers today suggest that the rates of return migration may be declining, but the roots still remain and possibility of return remains, even after several generations. However, the link between people and their land can be broken if the land becomes devoid of people. This is encapsulated in the Māori (New Zealand) notion of *ahi kā* which refers to keeping the home fires burning continuously by not interrupting occupation of the land. Forced community relocation has the potential to disrupt this bond. Under such conditions the relationship may be challenged and the cultural identity of communities and individuals placed at considerable risk.

This does not mean that land cannot be exchanged under any circumstances. There are many examples of communities that have been relocated to lands belonging to another group of customary owners. These have typically been made possible through alliances between leaders and exchanges of customary forms of compensation. There is a need to identify and examine such cases to further understanding of processes whereby land may be exchanged in ways that are culturally acceptable.

Impacts of climate change on the land

In this section the impacts of climate change that may disrupt the people-land bond in PICs are briefly outlined. In particular the effects that are likely to drive migration, either induced or forced, which may be described as impacts on the 'life support capacity' of islands, are outlined. Three aspects of this capacity that may be affected by climate change include (see also Table 1 and Figure 1):

1. land security, which is the physical presence of land on which to live.

2. livelihood security (especially food security) which refers to the productivity of subsistence and commercial activities.
3. habitat security which includes the provision of a safe and healthy environment.

Where the negative impacts are partial it may be that some members of a community may be able to live on their land, but it would be unable to provide the support for everyone and some members may need to migrate, reducing pressure on island resources and supplementing declining livelihoods at through remittances. This is often referred to as induced migration. Where the impacts are sufficiently serious it may be impossible for people to continue to live on the land in socially sustainable numbers, or without large amounts of resources to enable their continued settlement. In such cases forced relocation may be the outcome with whole communities displaced. Table 1 outlines these possibilities.

These scenarios outline the reasonably foreseeable physical and/or biological effects of climate change on Pacific Island Communities that are likely to be migration drivers. The migratory responses may be seen as indirect forms of loss and damage resulting from climate change and they have a number of quantifiable costs including transportation and resettlement costs including the provision of land, housing and infrastructure, especially in the case of community relocation. Even under conditions of induced migration the costs for individuals and families are likely to be significant including transportation, accommodation, finding employment, education, and the like. But these aspects of loss and damage do not include the social, psychological, cultural and emotional losses that may also result from the climate change migration which are the focus of this submission.

Implications of disruption of the people-land connection

It follows from the preceding discussion that climate change may disrupt the relationship between people and their land in a number of ways. The one which concerns most Pacific island people, particularly those living in low-lying situations including atolls, is the 'disappearance' of the land, the possibility that it will no longer exist. Understanding of how atoll landforms might respond to climate change, particularly sea-level rise, is still limited, but the possibility is very frightening for atoll dwellers as it is tantamount to losing part of one's body. More likely, perhaps, is that the land will no longer provide the life support systems (or reduce their effectiveness) that provide the physical human security and drive either induced or forced migration.

Induced migration is likely to be little different from contemporary forms of migration within, or from, PICs. These forms of migration leave a population continuing to be physically connected to land, keeping the relationship alive and the possibility of a return for the migrants always remains. Nevertheless the migrants may yearn for their land and separation from it may be a source of long-term deprivation. Important differences from existing voluntary migration are likely to be in the numbers of migrants likely to be seeking migration access to countries with the Pacific Islands region and beyond, and the migration of people from countries that currently have very limited legal access to international destinations. There are also concerns about the impact of large migration flows on the social sustainability of the communities that are left at the places of origin including insufficient numbers and distorted population structures (e.g. Barnett, 2008)

Forced migration, however, implies completely severing links with the land because it can no longer provide the essentials required for the continued residence of the community. This would result in complete severing of the connection to the land, and the likelihood that no-one will remain to sustain the relationship. This is little, if any, better than the possibility of the land no longer existing

above sea level. The loss and damage will be immense, irretrievable and impossible to compensate for.

The possibility of forced relocation also brings to light other issues associated with land. If the relocation is within a Pacific Island country, or to another Pacific Island country, land would need to be found upon which to resettle the displaced people. This would not only require land for settlement purposes, but also for livelihood needs, and for most relocated communities, fisheries rights as well. The implication is that communities at destinations may also have to give up some of their land, with some of the same sets of losses as will be faced by the relocatees. In existing cases tensions remain generations later among descendants of people displaced to make way for relocated communities. At the same time relocated community often are or feel excluded from the populations in the areas where they have been resettled.

An associated loss is that of national sovereignty. This would be the case if an entire country would lose all of its territory. While this is a non-economic loss, it is not the focus of this submission which is focussed on communities at the sub-national level.

Possible Approaches

Ideally, forced relocation would not be necessary if climate change was not occurring or if it could be substantially mitigated. It appears evident that any mitigation that is achieved under COP21 agreements will be insufficient to reduce the rate of climate change in such a way that the risks facing PICs will be ameliorated. The call for submissions asks for consideration of “[p]olicy, normative and institutional challenges and opportunities associated with minimizing, averting and addressing both internal and cross-border displacement.” As has been shown, land simply cannot be replaced and relocation is not a preferred option throughout most of the Pacific region. It is extremely difficult to see how any form of financial provision could adequately compensate for the loss of land. While relocation may help recover some people’s material needs it is very unlikely to enable emotional and spiritual losses to be overcome. However, as the term forced migration indicates, there may be a number of communities that are left with no other options. Accordingly it is important to identify some steps may help ameliorate some of these forms of loss and damage. There has been very little in depth research on this issue (indeed we are only beginning to understand the implications of climate change as a migration driver).

For this reason, the following list is tentative and there is a pressing need for more research into this issue. The list may be considered to be somewhat idealistic and expensive but the few cases of international, and many internal, relocations of Pacific Island communities have indicated that persistent and deeply held tensions have arisen between ‘host’ communities and relocated communities. It is difficult to perceive a quick fix to the problem – it will require careful and long-term planning at both points of origin and destination. Hastily planned and poorly conceived, relocations will result in festering problems that will last for generations.

1. The provision of assistance for adaptation as long as is possible to enable people to sustain their links to the land. The costs of adaptation should not be used to justify not implementing adaptations that may otherwise be possible.
2. The re-creation, as much as is possible, of levels of livelihood, settlement and habitat security in the resettlement sites. This requires ensuring that there is sufficient land (and fisheries) for subsistence and commercial requirements. It may also require destination countries to consider ways of enabling the lore of relocated peoples to be sustained in

destination countries. Examples are enabling access to fisheries for people whose traditional livelihoods are heavily dependent upon ocean resources, even where existing fisheries laws may be more restrictive. Similarly, planning laws may need to be amended where 'village style' living differs from settlement norms at destinations.

3. The facilitation of 'caretaker' groups to remain on islands that are largely uninhabitable and unable to support their entire populations. This may include provision of supplies (food and water) if livelihoods are fully compromised by climate change. Costs involved may include provision of transport and other links to the islands) including landing strips or jetties, in addition to subsidizing shipping and or aviation to enable the exchange of 'shifts' of caretakers and supplies to be delivered.
4. If relocation is within country or to another country within the Pacific Islands region, the facilitation of long-term planning for relocation so that should (and when) the need arise the process may be less culturally, emotionally and psychologically disruptive, both for the relocating community and the customary land owners whose land may be used for resettlement. This may involve the following steps:
 - a) Early planning and preparation for relocation at both points of origin and destination. This needs to be conducted in culturally acceptable ways and such ways that parties involved understand that this is planning for a contingency that may or may not eventuate (though certainty may increase with time it should not be used as a reason to delay proactive planning).
 - a) Identification of possible relocation sites. This may include seeking voluntary offers of land for consideration for resettlement from 'host' communities. Such offers would require forms of compensation. This approach would be in line with recent statements by the Prime Minister of Fiji and the Pacific Council of Churches drawing on the sense of solidarity among Pacific islanders in promoting a Pacific Island based 'solution' to the issue of forced migration.
 - b) Consultation with customary owners whose land may be used for resettlement. This would include governments and land-owners, and would include such issues as the needs of relocated communities and market and non-market forms of compensation.
 - c) Facilitation of early interaction between origin and destination communities. This would involve representatives of both communities conducting advance visits to each other's lands enabling potential relocatees to gain an understanding of the social, cultural and physical environments that they might be moving to, and alternatively, for the destination communities to understand the cultural, social and physical contexts of the community that may be forced to relocate.
 - d) Facilitation of early and preliminary settlement of an initial group of relocatees, making the way for a less disruptive relocation should the need arise.
 - e) Establishment of the site for relocation – construction of buildings (homes, schools, etc.) and infrastructure etc.
 - f) Facilitation of the actual resettlement.

Additional References

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Table 1 Likely effects of climate change on Pacific Islands and implications for human security

Main Effects	Implications
<p>Sea-Level Rise:</p> <ul style="list-style-type: none"> • inundation • coastal erosion • storm surge exacerbated 	<p><i>Land security</i> in coastal and atoll locations may be severely reduced and there may be impacts on <i>livelihood security</i> through loss of agricultural land and salinization of soils, plants, and water supplies.</p>
<p>Water Resources:</p> <ul style="list-style-type: none"> • rainfall uncertainty • increased frequency and magnitude of droughts • reduced quantity and quality of water resources • salinization 	<p><i>Livelihood security</i> may be affected by decreased agricultural productivity and <i>habitat security</i> may be adversely affected by water borne diseases.</p>
<p>Coral Reefs:</p> <ul style="list-style-type: none"> • reef degradation as a result of increased sea surface temperatures and increased ocean acidity 	<p><i>Livelihood security</i> may be compromised by reductions in fisheries and other marine resources dependent on healthy coral environments. <i>Land security</i> may be reduced by increased exposure to high waves and storm surges.</p>
<p>Agriculture:</p> <ul style="list-style-type: none"> • adverse effects from a variety of processes including temperature rise, reduced water availability, salinization, and exposure to tropical cyclones (wind, rain, and wave damage) 	<p>Reduced agricultural productivity would impinge on <i>livelihood security</i> and, where extremely severe, may render some locations uninhabitable (<i>habitat security</i>).</p>
<p>Human Health:</p> <ul style="list-style-type: none"> • changing disease vectors such as malaria and dengue • increased incidence of water-borne diseases • increased incidence of heat-related diseases 	<p>Effects on human health are likely to reduce the <i>habitat security</i> of island settlement locations and, where severe, may render some locations uninhabitable.</p>

Source: Campbell, 2014.

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Lost land security	Lost livelihood security	Habitat security severely reduced	Habitat security severely reduced	Livelihood security significantly but not severely disrupted	Land and livelihood security disrupted periodically
Community relocation	Community relocation	Community relocation or individual migration	Individual migration	Individual migration	Short-term migration
Drivers of reduced land, livelihood, and habitat security					
Atoll submerged	Salinization • Water inadequate • Crop failure	Changes in disease vectors such as malaria, dengue, ciguatera	Severe reductions in • Water supply • Food production	Moderate reductions in • Water supply • Food production	Increased frequency and/or magnitude of climatic extremes
Coastal sites submerged and/or eroded	Persistent drought • Water inadequate • Crop failure	Changes in water-borne disease incidence	Severely but not completely reduced land available for settlement or livelihoods	Moderate but not completely reduced land available for settlement or livelihoods	
Delta sites eroded or inundated		Temperature-related illnesses			
River sites eroded					

Figure 1. Forced and induced climate change migration effects on land, livelihood and/or habitat security. (Campbell, 2014)