RESEARCH BRIEF ON LAND TENURE AND CLIMATE MOBILITY IN THE PACIFIC

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1.0 INTRODUCTION

1.1 Background

This research brief considers land tenure and human mobility in the context of climate change. The brief uses the shorthand description “climate mobility” to refer to human mobility related to climate change. The brief considers two main questions:

- What land tenure issues arise from climate mobility in the Pacific region?
- What land tenure issues should be included in Pacific climate mobility frameworks?

1.2 Structure and approach

The research brief reviews existing data and research, analyses current law and policy, and recommends measures for the Pacific region, which is defined to include Cook Islands, Fiji, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu. With the exception of Tonga, all these countries have legislation to recognise customary rights to land.

The brief is structured as follows: the first part identifies land tenure issues arising from climate mobility in the Pacific region, and the second part sets out recommendations for land tenure and climate mobility policies.

1.3 Methodology

The methodology is desk-based and includes case studies, as well as key informant interviews. The case studies were identified both by informants and a review of published literature. The informants were identified through the Technical Working Group on Human Mobility (TWG-HM) networks with the assistance of the Pacific Islands Forum Secretariat (PIFS) and the International Organization on Migration (IOM).

1.4 Constraints

There are two primary constraints, relating to **scope** and **evidence**. The scope constraint concerns land tenure as a cross-cutting issue. Land tenure is embedded in systems of cultural identity, land administration, urban planning, forest management, and marine resource regulation. This brief acknowledges the cross-cutting dimensions of land tenure – particularly through links with land-use planning. Nevertheless, the focus remains land tenure and intersections with climate mobility.

The evidence constraint concerns methodology. A desk review draws on published studies rather than field analysis. The reliance on published studies affects the evidence base. While there are now a number of studies of climate mobility in the Pacific region, especially in Fiji and Solomon Islands, there is a need for more studies of land tenure and climate mobility in Micronesia and Polynesia. This brief identifies these evidence gaps throughout the case analysis and includes them in the formulation of recommendations.

1.5 Key terms and concepts

Land tenure describes relations among people with respect to land and associated natural resources. The use of "land tenure" rather than "property rights" recognises the **significance of customary land tenure** in the Pacific region. Land tenure systems determine who can use what resources, for how long, and under what conditions.

Human mobility is defined in the Cancun Outcome Agreement for the UN Framework Convention on Climate Change (UNFCCC) to include migration, displacement and relocation. The Cancun Agreement describes migration in terms of **voluntary movements** of people; displacement in terms of **forced movements** of people; and relocation as the **planned process** of resettling people in a new location.[1]

Climate mobility is a shorthand description for human mobility related to climate change. The many reasons for people to move may include climate change as well as other factors such as education or employment. The causes of climate mobility are not the focus of this research brief. The focus is land tenure and human mobility relating to climate change.

Alienated land in the Pacific region describes state, public or Crown land as well as private land derived from Crown or government grant. The reason for the terminology is the legal principle that customary land was only alienable to the colonial sovereign.[2] Customary land is land that has not been the subject of sale or transfer (alienation) to the state or freehold owners.

1.6 Land law and customary tenure

With the exception of Tonga, all Pacific jurisdictions have legislation to recognise customary rights to land. All jurisdictions also **restrict the alienation (sale or lease) of customary land**.

Generally speaking, this includes prohibitions on the sale of customary land. However, transfers of customary land through "customary" mechanisms, such as gift or inheritance, are allowed to other customary group members.[3]

Pacific jurisdictions also prohibit or restrict the leasing of customary land. Where allowed, the mechanisms for leasing include land trusts, incorporated land groups, and land trust boards. Where prohibited, there may be mechanisms to convert customary land to alienated land in order to allow the sale or lease of the land. Annex A provides a summary of legal restrictions on dealings in customary land.

2.0. CLIMATE MOBILITY AND LAND TENURE

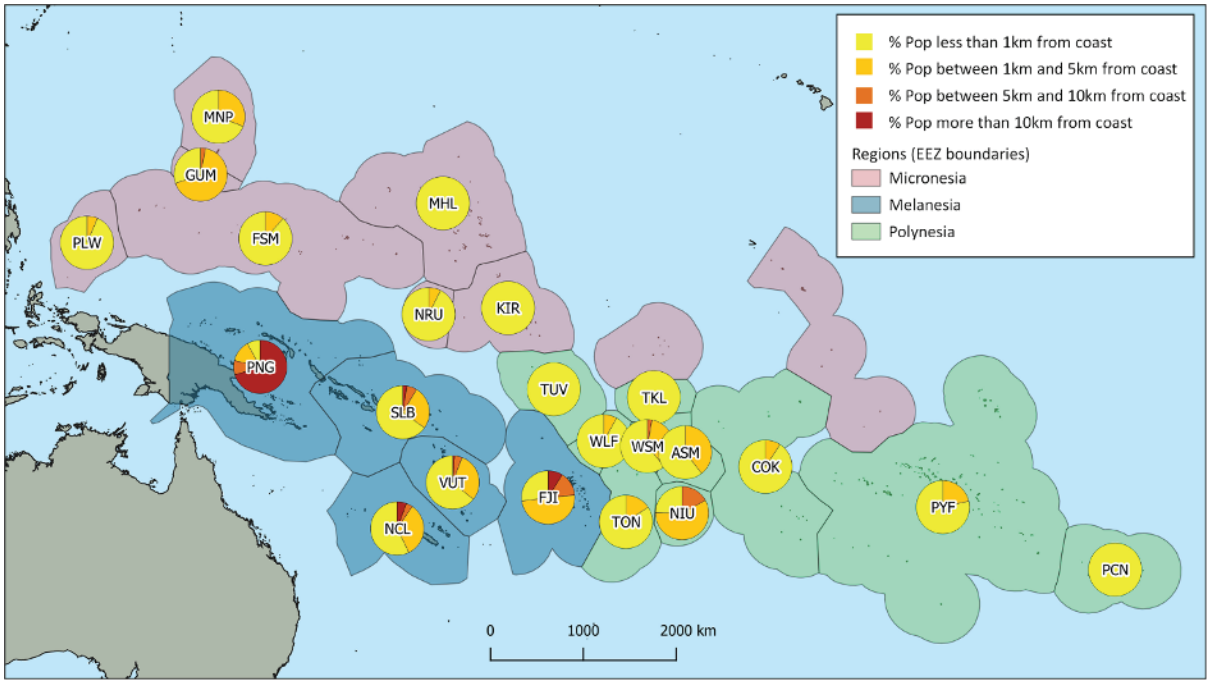
This section identifies land tenure issues arising from climate mobility. The discussion begins with effects of climate change in the Pacific region before moving to cases of climate mobility.

2.1. Effects of climate change in the Pacific region

The bioclimatic effects of climate change in the Pacific region include sea-level rise, increased storm intensity, rainfall variability, and sea-surface temperature rise. Forecast land-ocean effects include storm surges, floods, saltwater intrusion, soil salinisation, shoreline retreat, high-wind damage, and coral mortality. The Pacific region is highly exposed to land-ocean effects due to the large number of atolls, small islands and coastal settlements. According to a 2019 study by Andrew *et al*. of the Pacific region (excluding PNG):

- 57% of the region's population lived within 1 km of the sea (with 74% in that category for Polynesia, 47% for Melanesia [excluding PNG], and 72% for Micronesia).[4]

Figure 1. Coastal proximity of populations in 22 Pacific Island countries and territories



Source: Andrew NL, Bright P, de la Rua L, Teoh SJ, Vickers M (2019) Coastal proximity of populations in 22 Pacific Island countries and territories. PLoS ONE 14(9).

Further compounding factors for climate exposure in the Pacific region include population growth, urbanisation, coastal development, and habitability thresholds for low-lying atolls.[5] These compounding factors intersect with the **vulnerability** of certain individuals, households and communities.[6] At the same time, Pacific societies have attributes of resilience as a result of factors that include cultural networks and traditions of human mobility.[7]

There are high-confidence forecasts of increases in human mobility as a result of climate change in the Pacific region. But how many people may move, at what time scales, and to what destinations? While there is predictive work on destinations for Pacific migration,[8] there is no prospect of predictive certainty for future numbers and rates of Pacific climate mobility.

Even with rapid improvements in hazard assessments, the capacity to predict different rates and types of human mobility is constrained by the complexity of social-ecological interactions. That said, however, there are general trends worth noting. They include:

- increasing rates of rural-urban migration – particularly to informal settlements (see Section 2.7 below);
- estimates from the Internal Displacement Monitoring Centre that around 20,300 people in the Pacific region are at risk of displacement per year as a result of natural disasters;[9] and
- emerging country audits of settlements requiring planned relocation (e.g. in Fiji).[10]

While these trends have policy implications that are explored in Section 3, the risk of unexpected spikes in human mobility should also be considered in climate-proofing land tenure policy.

The first step to developing a climate-proof land tenure policy in circumstances of uncertainty is to analyse existing cases of climate mobility. While existing cases do not reveal future rates of mobility, they do provide a means to analyse **types of mobility** and their **interaction with land tenure** issues.

2.2. Classifications for analysis

Climate mobility is a complex phenomenon that may be analysed in terms of:

- manner of movement – e.g. slow/sudden, planned/unplanned;
- distance of movement – e.g. localised/regional, internal/international;
- duration of movement – e.g. brief/lengthy, temporary/permanent, circular/recurring; and
- place of movement – e.g. coastal/inland, rural/urban, outer/inner island.

For the purposes of land tenure analysis, this brief adapts John Campbell's classification of human mobility according to **distance** and **place** of movement.[11] The categories for analysis are:

- movement within customary territory;
- movement to other customary territory (rural);
- movement to alienated land (rural);
- movement to other customary land (peri-urban); and
- movement to alienated land (urban).

Although each category of movement may involve migration, displacement or relocation, the following generalisations are worth noting.

- Migration is more likely to involve movement to peri-urban and urban settlements.
- Protracted displacement is more likely to involve movement to other customary territory, or to alienated land in rural or urban areas.
- Planned relocation is not likely to take place to peri-urban areas but may otherwise involve customary or alienated land.

A further general proposition is that slow-onset sea-level rise is more likely to induce migration and relocation than rapid-onset disasters, which are more likely to cause forced displacement. Slow-onset disasters also allow more time to prepare for land tenure challenges in new sites for settlement.

2.3. Movement within customary territory

Movement within customary territory may be allowed for other customary group members without formal processes of leasing or converting customary land. This type of movement is the **preferred option** for a range of reasons, including cost, convenience, access to livelihoods, and maintenance of group identity and social welfare.[12] From a land tenure perspective, movement within customary territory has the potential to avoid the delays, expense and disputes often associated with formal processes of land acquisition and allocation.[13]

Box 1: Movement within customary territory in Fiji

In 2014, Vunidogoloa village in Fiji relocated two kilometres inland from its original site after sea-level rise and storm surges caused coastal erosion. The new five-acre site lies on customary land within village territory and did not require formal processes of land acquisition and allocation. The village consists of closely related customary lineages, with most members belonging to the Methodist Church. According to Tronquet *et al.*, the site belonged to a customary lineage (*mataqali)* that provided the land without compensation. The Government of Fiji provided funding for two-thirds of the cost of the relocation under Fiji's Disaster Risk Reduction Programme.

Sources: Tronquet, C. 2015. From Vunidogoloa to Kenani: An insight into successful relocation. The state of environmental migration 2015; Charan D., Kaur M. & Singh P. 2017. Customary land and climate change induced relocation: A case study of Vunidogoloa Village, Vanua Levu, Fiji. In Leal Filho W. (ed). Climate change adaptation in Pacific countries. Climate Change Management. Springer, Cham. 19–33.

Land tenure challenges may still arise even where people move within customary territory. As a general rule, these cases are more likely in cases of relocation, where contiguous movement to adjacent land is not possible due to geological conditions (e.g. steeply sloping land). Where contiguous movement is not possible, the alternative is proximate movement to a suitable site within customary territory. [14] Common land tenure challenges for this type of movement include community consent, and the provision of services and infrastructure.

2.3.1 Community consent

Most cases of movement within customary territory require community consent – either as a matter of custom or as a requirement of law. Consent is more likely where lineages are closely related or members of the same church and less likely where there is a perceived lack of lineage connections for subsidiary or "outsider" households.[15] Those who are most vulnerable to displacement in the Pacific region include individuals and households that are alleged to lack lineage connections to customary land.

Box 2: Community outsiders in Solomon Islands

Claims that some people are community or lineage "outsiders" often have historical causes that require reference to genealogy, past agreements, and the administrative processes of colonial governments. In Solomon Islands, for example, research cited by Fitzpatrick and Monson (2021) identifies a range of circumstances where people living on customary land may have a subsidiary or "outsider" status.

These include:

- people who claim rights to land through maternal or paternal lines of descent alone in patrilineal or matrilineal societies;
- descendants of individuals captured during pre-colonial warfare, or groups displaced by historical conflicts;
- descendants of migrants employed on colonial plantations or relocated as a result of colonial programs; and
- descendants of migrants to a customary area as a result of Christian evangelisation during colonial times.

All these cases may involve manipulation of genealogical or historical records by powerful individuals within a customary landowning group. Alternatively, the absence of written records may create space for competing historical narratives that lead to protracted disputes over rights to land.

Source: Fitzpatrick, D. & Monson, R. 2021. Property rights and climate migration: Adaptive governance in the South Pacific. Regulation & Governance, 15: 1.

Community consent can also be complicated by absentee landownership, which is particularly relevant to Niue, Cook Islands, Tokelau, Samoa and Tuvalu. These countries have large numbers of citizens who live elsewhere, mainly in New Zealand and Australia. For jurisdictions such as Cook Islands and Niue, legal requirements to obtain majority consent for transfers of customary land, or allocations of occupation rights to customary land, extend to non-resident members of the landowning group (see further Section 3).[16]

2.3.2 Provision of services and infrastructure

Planned relocation requires services and infrastructure, even when it takes place within customary territory. Land access may be required for house reconstruction, water connections and, if necessary, earthmoving equipment. The key land tenure issue is agreements with landholding groups to allow access for services, infrastructure, and site development. This issue raises questions of legal authority, including the authority of group representatives to enter into agreements for access to customary land.

2.4 Movement to other customary territory (rural)

This category covers several types of human mobility, including:

- movement on the basis of marriage relations;
- movement on the basis of trade or gift exchange relations;
- movement on the basis of agreement among leaders/representatives;
- movement through grant of leases to customary land;
- movement ordered by colonial governments; and
- movement without host community permission or consent.

All these types of movement can give rise to the land tenure challenges identified above, namely community consent and the provision of services and infrastructure. In the case of lease agreements, community consent may require identification of customary landowners, either as lessors or for legal consultation requirements. The identification of landowners is a common cause of conflict within and among customary landholding groups.

Other common land tenure challenges for movement to other customary territory include:

- the legal authority of leaders/representatives to enter into land agreements;
- the adequacy of legal processes to grant leases over customary land (including identification of landowners);
- the nature and status of land rights granted to people who move (and their descendants);
- rights to access water, forest, and marine resources for people who move and their descendants;
- the management of population growth when people who move are limited to fixed areas of land; and
- the management of conflict, including through interactions with formal mechanisms of dispute resolution.

These issues require a policy focus on processes for the grant of rights to customary land (see further Section 3).

This category of mobility – movement to other customary territory – carries considerable potential for **conflict with host communities**. Examples include colonial cases of forced inter-island relocation,[17] cases of protracted displacement by people who are unable to return to hazardous home areas,[18] and cases of historical agreements among leaders that are disputed by later generations.[19]

The potential for conflict with host communities is reduced in the case of movement through marriage or trade/gift relations. It is enhanced where there is insufficient consultation or inadequate agreement with customary group members. The form of human mobility is also relevant, as rapid disaster displacement limits the opportunity to negotiate agreements with customary landowners.

2.5 Movement to alienated land (rural)

This category includes:

- movement to alienated rural land gifted by the government, a church or other organisation; and
- movement to customary land that is converted to alienated land through the relocation process.

There are cases where people have moved to alienated rural land owned by government agencies, a church or other organisation. Pacific governments often focus on relocation to alienated rural land in order to avoid perceived complexities involved in movement to customary land. Land tenure challenges may still arise, however, from **historical disputes** over colonial land acquisitions, and the (ever-present) risk of conflict with neighbouring host communities.

Box 3: Inter-island relocation for the Carteret Islands

The Carteret Islands are a set of low-lying atolls in Papua New Guinea where relocation has been proposed since the 1980s as a result of coastal erosion and inundation. Some Carteret Islanders have relocated successfully through marriage or trade relationships with neighbouring islands, particularly Buka Island. Others have moved to Buka Island, and then returned to the Carteret Islands as a result of land disputes with host communities. Landowning groups on neighbouring islands have been reluctant to allow relocation on their customary land.

Early attempts to relocate Carteret Islanders to alienated land on nearby Bougainville Island also failed in the 1980s as a result of inappropriate site selection and conflict with host communities. More recently, several households have relocated to alienated land donated by the Catholic Church on Bougainville Island. This community-based initiative now includes a group of elders who are attempting to manage tensions with host communities through agreements and proposals to encourage inter-marriage among the various groups.

Source: Edwards, J. B. 2013. The logistics of climate-induced resettlement: lessons from the Carteret Islands, Papua New Guinea. Refugee Survey Quarterly, 32(3): 52–78.

2.6 Movement to customary land (peri-urban)

This category involves more complex forms of land tenure than rural customary land. The legal status of the land remains customary where the settlement lies outside the borders of alienated urban land.

Although some peri-urban settlements consist of closely related lineages, most have households that occupy or use land under various forms of informal arrangements with customary landowners. These land tenure arrangements include leases, family agreements, contracts of sale, and acts of possession that are not disputed by neighbours.[20]

Arrangements of this kind are described as "informal" because Pacific jurisdictions have prohibitions or restrictions on the alienation of customary land. The primary climate mobility challenge is that peri-urban settlements are "spillover" sites for urban growth that are disproportionately vulnerable to disasters and climate change. Yet many of their residents hold rights to land that are not enforceable through formal mechanisms or recorded in government systems of land administration.[21]

2.7 Movement to alienated land (urban)

This category includes movements to informal settlements, as well as formal land markets. In the Pacific region, most rural-urban migration takes place to informal settlements because of the limited supply of serviced land, and the cost of obtaining formal titles to land. The limited supply of freehold land also limits the role of formal housing markets, including subsidised public housing and condominium development.[22]

Although rates of urbanisation in the Pacific region vary considerably, general rural-urban migration trends remain higher than the global average. [23] In Cook Islands, Fiji, Marshall Islands, Nauru, Niue, Palau and Tuvalu, over half the population lives in urban areas.[24] And although parts of Melanesia have proportionately smaller urban populations, Melanesia generally has the largest cities with the largest numbers of informal settlers in the Pacific region.[25]

Urban land tenure is not only a matter of residential land. There are commercial and retail districts with areas of land for infrastructure. There are "wild" areas that have cultivated plantations or gardens. Poorer settlements may need to rely on forest resources, even in urban situations, including through firewood collection and harvesting fruits, nuts, coconuts and bamboo.[26]

From a land tenure perspective, urban settlements are broadly described as "informal" where rights to land are not obtained from government grant, or through agreements with registered proprietors of the land. Some informal settlers may have other forms of government documentation relating to land – such as a temporary occupation license, and some have registered rights to land, even where the settlement is designated as informal.[27]

2.7.1 Perceived tenure security

Survey evidence identifies relatively high levels of perceived tenure security in a number of urban Pacific informal settlements.[28] These perceptions of tenure security have several bases, including:

- relatively low levels of forced evictions (although this seems to be increasing);
- long-term undisputed possession of land in older settlements (some are more than 50 years old);
- community governance mechanisms that underpin access to land through family/lineage and other connections; and
- informal systems of lease and sale that are recognised by neighbours.

2.7.2 Recording informal land tenure

Even in cases of perceived tenure security, there are still significant land-related challenges for informal settlements. These challenges are related to high levels of population density, disproportionate exposure to climate or disaster-related risk, and increased competition for urban resources (also worsened by Covid 19). [29]

The central land tenure challenge is that land rights and transactions are not recorded in government systems.[30] This is not so much a question of tenure security, where a lack of recorded rights reduces investments in safer housing. The determinants of housing investment also involve social perceptions of tenure security, as well as intersections with other variables, such as poverty.

The key problem is the **need to link disaster and climate risk policy with tenure identification** for vulnerable urban settlements. While risk assessments are increasing in range and number, these assessments are generally not connected to mechanisms for identifying tenure relationships with land. Without information on tenure, there is limited capacity to focus on vulnerability or risk reduction, on human security and post-disaster recovery, or on planned relocation as a durable solution to displacement.

2.8 Tenure insecurity and urban displacement

Tenure insecurity can also contribute to risks of disaster displacement. Individuals and households with highly insecure forms of land tenure are not only more likely to live in hazard-prone areas but are also more likely to require protection measures in circumstances of displacement. These protection measures require targeted land tenure interventions as part of durable solutions to displacement (see Section 3 below).

2.9 Land-use planning

Land tenure is closely linked to land-use planning. Effective land-use planning helps to avoid human mobility through climate-proofing measures and to manage human mobility in new sites for settlement. Linking planning to tenure provides a means to:

- identify public land as potential sites for temporary or permanent settlement; and
- incorporate vulnerable settlements into climate risk management.

2.9.1 Urban planning

Urban planning in the Pacific region has not been able to guide urban expansion. All the largest cities have experienced unregulated processes of settlement growth and creation – including across boundaries with customary land. Available areas of public land are difficult to identify and informal settlements are proliferating in high-risk areas.[31]

2.9.2 Rural planning

Land-use planning in rural areas has not integrated sufficiently with customary mechanisms for the management of land. Rural communities do not have sufficient access to useful geospatial information on risk in order to prepare community-based plans for climate mobility. National planning is affected by the difficulty of distinguishing between public land and customary land.

3.0 POLICY RECOMMENDATIONS

The following section develops recommendations to address the land tenure issues identified in Section 2. These recommendations are divided according to legal distinctions between customary and alienated land. The recommendations cover land law and climate policy instruments. The overall goal is better alignment of land tenure frameworks with climate mobility policies.

3.1 Climate and disaster policy instruments

The following set of recommendations considers the extent to which climate and disaster policy instruments in the Pacific region include references to land tenure. The question is considered through a review of the following climate and disaster policy instruments:

- national development plans
- sustainable development policies
- disaster risk management plans
- climate action/adaptation plans
- relocation and displacement guidelines.

A full list of reviewed instruments is set out in Annex B. The review provides essential context for the list of recommendations set out in Section 3.2 below.

3.1.1 Land tenure

Some instruments identify the cultural significance of land tenure as a factor in climate risk management. For example, Niue's 2004 *National action plan addressing land degradation and drought* notes that land tenure within Niue is interlinked with socio-cultural factors which "must be taken into consideration when addressing sustainable land use".[32]

Other instruments identify land tenure as a component of climate risk. For example, the Vanuatu *National policy on climate change and disaster-induced displacement 2018* notes that "exposure to natural hazards combines with other factors such as insecure land tenure arrangements, especially in informal settlements in peri-urban areas". [33]

Very few instruments identify land tenure programs or recommendations. Exceptions are listed below.

- *The Fiji National Development Plan 2017*, which refers to tenure upgrading for formal settlements (including through administrative processes for the grant of leases to state land).[34]
- *The Vanuatu: National policy on climate change and disaster-induced displacement*, which supports tenure security for all, irrespective of tenure status, and identifies persons of concern to include "people living in informal or peri-urban settlements with insecure tenure arrangements".
- The *PNG National disaster risk reduction framework* 2017–2030, which calls for new building codes and reconstruction practices to make them more applicable… [for] informal and marginal human settlements.[35]

While Fiji's *Planned Relocation Guidelines* do not mention land tenure, there are plans to incorporate tenure issues into implementation procedures. These plans include strengthened processes for granting leases to customary land. Recent Vanuatu consultations on customary land have also identified land tenure as a key area for development of the relocation and displacement policy.

3.1.2 Land-use planning

A number of Pacific climate and disaster policy instruments include references to land-use planning. A typical example is provided by Papua New Guinea's *National climate compatible development management policy* (2014) which "highlights the importance of incorporating climate and disaster risk in land use planning for risk reduction and sustainable development".[36]

Some policy instruments go further and identify geographical information systems (GIS) as key to climate-resilient planning. Examples include:

- The *Fiji National Development Plan 2017*, which provides for capacity building to develop GIS to assist climate change projections for infrastructure and urban planning; [37]
- The Federated States of Micronesia *Strategic Development Plan 2004–2023*,which calls for GIS-based assessment of inundation risk; [38]
- The Palau *National disaster risk management framework 2016*, which calls for GIS-based assessment of coastal hazards and projected inundation and erosion friends as inputs into zoning and land use planning; [39] and
- The *Kiribati joint implementation plan for climate change and disaster risk reduction management 2014–2023*, which calls for "a national hub for GIS information to improve decision-making on sustainable development in the context of disaster risk reduction and climate change impacts".[40]

As set out in Sections 3.2 and 3.3, there is a need to integrate pro-poor tenure recording measures into GIS development in the Pacific region.

3.2 Customary land

The *Framework for resilient development in the Pacific* sets out several **guiding principles** that have particular relevance to climate mobility policy.

- Build on and help reinforce cultural and traditional resilience and knowledge of communities, who should be engaged as key actors in designing plans, activities and solutions.
- Acknowledge and factor in a traditional holistic worldview, where spirituality plays an integral role in constructing a meaningful life.

3.2.1 Kinship networks

These guiding principles highlight a basic need to emphasise customary land tenure as a source of resilience in circumstances of climate mobility. This means that climate mobility policy should:

- state a preference for contiguous or proximate movement of people within customary territory;
- incorporate cultural mapping to identify kinship or trade networks that assist people to move in the event of displacement or relocation; and
- provide priority assistance for people able to access land through identified kinship or trade networks.

3.2.2 Tenure assessments

There is a need to incorporate land tenure assessments into current policy mechanisms for relocation and displacement. Early triggers for a land tenure assessment include identification of high-risk areas through hazard, exposure and vulnerability assessments; implementation of needs assessments after rapid-onset natural disasters; and types of movement with high tenure risks (e.g. movement to other customary territory or non-contiguous movement within customary territory).

The UN-HABITAT publication – *Addressing land issues after natural disasters: Guidance for practitioners* – provides a set of questions for land tenure assessments after rapid-onset natural disasters.[41]

3.2.3 Leasing customary land

Section 2 identified a range of legal mechanisms to grant rights over customary land to community "outsiders" in the Pacific region. Most involve some form of lease as an alternative to the sale of customary land. These leases may be granted directly by customary landowners, or through mechanisms such as land trusts, incorporated land groups, or land trust boards.

All mechanisms for leasing customary land require further integration with climate mobility policy. This integration should include standard form lease provisions relating to:

- procedures for agreed enlargement of land in circumstances of population growth;
- rights of access to resources for livelihoods and water and sanitation;
- regular rental reviews to take into account increases in the value of leased land;
- procedures for dispute resolution;
- procedures for renewal of the lease; and
- transparent procedures for the distribution of rents.

3.2.4 Identification of customary landowners

Most, but not all, jurisdictions in the Pacific region have legal mechanisms to identify customary landowners where rights are granted to customary land. Although these mechanisms are well-known sources of disputes, improving existing systems for identifying customary landowners is a complex topic that highlights the importance of strengthening formal and informal dispute resolution mechanisms.

An alternative for climate mobility policy is to focus on processes for consent – where a lease is regarded as valid so long as requirements for free, prior and informed consent are met. These processes do not necessarily require a formal determination of customary land ownership and, if consent requirements are met, the lease itself is quarantined from disputes over customary land ownership.

Where absentee landowners present a policy problem for climate mobility, potential reform options also include a focus on consent. That is, consent may have majority or supermajority requirements only. Alternatively, there may be restrictions on decision-making (but not ownership). These restrictions may be based on factors such as place of residence, period of absence, and place of birth.[42]

3.2.5 Peri-urban settlements

Peri-urban settlements require a tenure "toolkit" to manage climate mobility risk. Such a toolkit includes existing mechanisms for:

- grant of land through family or lineage connections; and
- grant of land through leases with customary landowners or representative trusts, corporations or boards.

The toolkit should also include measures to accommodate informal mechanisms for the sale or lease of land by individual landholders. For peri-urban settlements, these informal transactions may not be legal because of prohibitions on the alienation of customary land but they require a climate policy response because of their growing use in hazard-prone informal settlements.

The tenure toolkit response is to allow for the recording of informal transactions in order to assist climate and disaster risk management. The recording is descriptive only and does not establish the legal validity of the transaction or affect the rights of customary landowning groups. Section 3.3 below identifies a mechanism to record informal transactions in urban and peri-urban settlements.

Recording informal tenure transactions provides a means to manage climate and disaster risk in informal settlements. The process allows risk management to align with information on people and their relationship with land in climate-vulnerable settlements. Over time, the recording of transactions may improve tenure security by providing a means to check prior transactions. However, the short-term focus is identifying tenure relationships with land to facilitate risk reduction, participatory planning and response, and early recovery from disasters.

3.2.6 Rural planning

Rural land-use planning requires further integration with customary systems for the management of land. The overall goal is a system of community-based planning in high-risk areas. To be effective, community-based climate planning requires access, in appropriate form, to geospatial data on hazards, as well as ecology, environment and terrain.

3.3 Alienated land

The following recommendations focus on: (i) public land, (ii) informal settlements, (iii) land administration, and (iv) land-use planning.

3.3.1 Public land management

Improving current mechanisms to identify public land in the Pacific region should be a focus of a climate mobility policy. A system of land audits should accompany the mapping of hazards, exposure, and socio-economic vulnerability. A key function of land audits is to identify potential sites in the event of disaster displacement or planned relocation. Land audits may also include the demarcation of **uncontested** public land.

The UN-HABITAT publication "*Addressing land issues after natural disasters: Guidance for practitioners"* provides further detail on land audits in contexts of rapid-onset natural disasters.[43] Further recommendations for land audits of uncontested public land may be found in the Nansen Initiative publication: *Land and human mobility in the Pacific: The effects of natural disasters*.[44]

3.3.2 Informal settlements

Urban informal settlements require a similar tenure "toolkit" approach as peri-urban settlements on customary land. While there are differences – including the potential to grant registered rights to land – the core climate concern remains identifying and, if necessary, recording tenure relationships in order to support community planning, risk reduction, and early recovery after disasters. This concern does not require the formalisation of land rights in urban informal settlements, and in fact a focus on formalisation may obscure alternative measures to align informal tenure with climate mobility policy.

There are current alternatives to formalisation that incorporate tenure recording into risk reduction measures for informal settlements in Honiara and Port Vila.[45] These programs apply the Social Tenure Domain Modelling (STDM) developed by UN-Habitat. STDM is a software tool that links people, tenure and areas of land. The software is flexible enough to include large areas of customary tenure, as well as high-density informal settlements.

The STDM software connects spatial units with tenure recordation. Tenure types include occupation, use, customary rights or informal rights. The key is a descriptive recording approach rather than a validation of legal rights. Recorded tenure may involve pre-existing documentation – which is scanned as an "authentic source document". Or the recording may be based on oral or physical evidence and take the form of notations on a map. Areas subject to competing claims are recorded as such and may be transferred to separate dispute mediation processes.

The World Bank's Affordable and Resilient Settlements Project in Vanuatu also includes measures to record and strengthen land tenure in informal settlements around Port Vila.[46]

The UN-Habitat publication "*Addressing land issues after natural disasters: Guidance for practitioners"* also sets out targeted land tenure interventions for informal settlers as part of durable solutions to disaster displacement.[47]

3.3.3 Land administration

Current systems of urban land administration in the Pacific region are based on overly formalist models that emphasise accuracy over cost and accessibility. The result is that obtaining registered rights to land is generally too expensive for migrant, displaced or relocated groups. The World Bank and International Federation of Surveyors have proposed a "fit-for-purpose" alternative based on:

- affordable technologies to build more comprehensive geospatial data;
- participatory methods to identify and record a range of tenure rights; and
- a legal framework with the flexibility to implement a fit-for-purpose approach.[48]

The STDM software illustrates this type of approach. While more work is required on legal frameworks, there is preliminary evidence from Nepal that a fit-for-purpose approach enhances resilience in contexts of disaster-induced displacement.[49]

3.3.4 Land-use planning

Community-based risk reduction planning provides a particular opportunity to link tenure records with geospatial data. The aim is to link people, tenure and areas of land in a scalable system of public information. The process supports climate risk management because it connects information on hazards and exposure with people and their relationships with land. The system identifies which people are vulnerable, where they are located, and what type of exposure they have to certain types of hazards.

UN-Habitat has developed a tenure-responsive land-use planning tool for application to informal settlements.[50] Participatory mapping identifies the form and function of land use, e.g. residential/non-residential, private/public, communal/household. Tenure descriptions are noted on the map and/or recorded in ways that allow cross-referencing with land-use products. UN-Habitat has also developed a related land readjustment tool known as PILaR (Participatory and Inclusive Land Readjustment) that facilitates road access and infrastructure provision in informal settlements.[51]

3.4 Implementing recommendations

Climate mobility policy provides useful entry points for land tenure recommendations for several reasons – including potential access to funding and targeted measures to avoid the political complexity of reforming land law itself. Many of the recommendations set out in this research brief may be developed through climate and disaster policy frameworks rather than deep-seated structural reforms to land law in the Pacific region.

ANNEX A

Customary land dealings in Pacific Island countries

	Is alienation prohibited?	If prohibited, how?	Is leasing permitted?
Cook Islands	Yes, except to the Crown	Legislation	Yes, after registration as native freehold
Fiji	Yes, except to the Crown	Legislation	Yes, but only through the Native Lands Trust Board
Federated States of Micronesia	No	na	Yes
Kiribati	Yes, except to governments and community organisations	Legislation	Yes, with court and ministerial approval
Marshall Islands	No	na	Yes
Nauru	No	na	Yes, with approval from the President
Niue	Yes, except to the crown	Legislation	Yes
Palau	No	na	Yes
Papua New Guinea	No	na	Indirectly by leasing to the state and leasing it back.
Samoa	Yes, except to the Crown	Constitution	Yes, with ministerial approval
Solomon Islands	Yes, except to the Crown	Legislation	No
Tokelau	Yes, except to the Crown	Legislation	Yes, with government approval
Tuvalu	Yes, except to the Crown	Legislation	Yes, with ministerial approval
Vanuatu	Yes, except to the Crown	Constitution	Yes

Note: Alienation refers here to the transfer of ownership of customary land. In some jurisdictions, the term alienation includes the sale of interests other than ownership.

Adapted from AusAID. *Making land work. Volume One: Reconciling customary land and development in the Pacific, 2008, p. 39.*

ANNEX B

The following national climate and disaster policy instruments were reviewed for this research brief.

COOK ISLANDS

- **Disaster Management Act 2007**
  extwprlegs1.fao.org/docs/pdf/cok138161.pdf
- **Cook Islands Climate Change Policy Assessment Report 2013**
  ccprojects.gsd.spc.int/wp-content/uploads/2016/06/CI5-Cook-Islands-CC-Profile-v2.pdf
- **Climate and Disaster Compatible Development Report 2013–2016**
  www.mfem.gov.ck/images/Climate__Disaster_Compatible_Development_Policy_Final_copy.pdf
- **National Sustainable Development Plan 2016–2020**
  www.adb.org/sites/default/files/linked-documents/cobp-coo-2017-2019-ld-01.pdf
- **Second Joint National Action Plan: A sectoral approach to climate change & disaster risk management plan 2016–2020**
  policy.asiapacificenergy.org/sites/default/files/The%20Cook%20Islands%202nd%20Joint%20National%20Action%20Plan%202016-2020.pdf

FEDERAL STATES OF MICRONESIA

- **Nationwide Integrated Disaster Risk Management and Climate Change Policy 2013**
  fsm-data.sprep.org/dataset/fsm-nationwide-climate-change-and-disaster-risk-management-policy/resource/292e23cd-fd9c.
- **Climate Change Act 2014**
  www.pacificclimatechange.net/sites/default/files/documents/1.%20Act%20of%20Congress.pdf
- **Strategic Development Plan 2004–2023**
  www.adb.org/sites/default/files/linked-documents/cobp-fsm-2015-2017-sd-02.pdf

FIJI

- **National Development Plan2017**
  www.fiji.gov.fj/getattachment/15b0ba03-825e-47f7-bf69-094ad33004dd/5-Year---20-Year-NATIONAL-DEVELOPMENT-PLAN.aspx.
- **Planned Relocation Guidelines: A Framework to Undertake Climate Change Related Relocation 2018**
  cop23.com.fj/wp-content/uploads/2018/12/CC-PRG-BOOKLET-22-1.pdf
- **Displacement Guidelines: In the Context of Climate Change and Disasters 2019**
  www.adaptationcommunity.net/wp-content/uploads/2020/03/Displacement-Guidelines-Fiji-2019.pdf
- **Republic of Fiji National Climate Change Policy 2018–2030**
  www.sprep.org/attachments/Climate_Change/Fiji-National-Climate-Change-Policy.pdf

KIRIBATI

- **Kiribati National Labour Migration Policy**
  www.unescap.org/sites/default/files/Kiribati%20National%20Labour%20Migration%20Policy.pdf

- **Kiribati Integrated Environmental Policy 2013**
  www.sprep.org/attachments/VirLib/Kiribati/KIEP.pdf
- **National Framework for Climate Change and Climate Adaptation 2013**
  www.president.gov.ki/presidentgovki/wp-content/uploads/2019/04/National-Framework-for-Climate-Change-Climate-Change-Adaptation.pdf
- **Kiribati Climate Change Policy 2019**
  extwprlegs1.fao.org/docs/pdf/kir193352.pdf
- **Kiribati Development Plan 2016–2019**
  www.mfed.gov.ki/sites/default/files/Kiribati%20Development%20Plan%202016%20-%2019.pdf
- **Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Reduction Management 2014–2023**
  www.mfed.gov.ki/sites/default/files/KJIP%20BOOK%20WEB%20SINGLE_0.pdf
- **Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2019–2028**
  www.climate.gov.ki/category/action/adaptation/kiribati-adaptation-program/

NAURU

- **Republic of Nauru Framework for Climate Change Adaptation and Disaster Risk Management 2015**
  www.refworld.org/pdfid/5b3f74384.pdf
- **Nauru National Sustainable Development Strategy 2005–2025: Partnerships for Quality of Life**
  https://www.sprep.org/att/IRC/eCOPIES/Countries/Nauru/2a.pdf

NIUE

- **National Action Plan Addressing Land Degradation and Drought 2004**
  www.sprep.org/att/IRC/eCOPIES/Countries/Niue/34.pdf
- **Joint National Action Plan for Disaster Risk Management and Climate Change 2012**
  www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/04/Niue_nationalactionplanforniuedrmcc2012.pdf

PALAU

- **Climate Change Policy for Climate and Disaster Resilience, Low Emissions and Development 2015**
  www.pacificclimatechange.net/sites/default/files/documents/PalauCCPolicy_WebVersion-FinanceCorrections_HighQualityUPDATED%2011182015Compressed.pdf
- **Natural Disaster Risk Management Framework 2016**
  www.preventionweb.net/english/policies/v.php?id=60116&cid=130.
- **Palau Master Development Plan 2020**
  www.mindbank.info/item/1541.

PAPUA NEW GUINEA

- **Atolls Integrated Development Policy 2007**
  www.publications.iom.int/fr/system/files/pdf/meclep_assessment_png.pdf
- **National Disaster Mitigation Policy 2010**
  www.refworld.org/docid/5b42f2a84.html.
- **National Climate Compatible Development Management Policy 2014**
  www.pacificclimatechange.net/sites/default/files/documents/National_Climate_Change_Policy1.pdf

- **PNG Climate Change Management Act 2015**
  www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Papua%20New%20Guinea%20First/PNG%20Climate%20Change%20Management%20Act%202015.pdf
- **Manam Resettlement Authority Act 2016**
  www.parliament.gov.pg/index.php/bills-and-legislation/view/manam-resettlement-authority-act-2016.
- **PNG Disaster Risk Reduction Framework 2017–2030**
  www.reliefweb.int/report/papua-new-guinea/papua-new-guinea-national-disaster-risk-reduction-framework-2017-2030
- **Sustainable Development Roadmap 2020–2030**
  www.pg.undp.org/content/papua_new_guinea/en/home/library/papua-new-guinea-s-sustainable-development-goal-13-roadmap-.html.
- **PNG Development Strategic Plan 2010–2030: Action Plan 'PNG Vision 2050'**
  png-data.sprep.org/dataset/png-development-strategic-plan-2010-2030
- **Papua New Guinea Vision 2050**
  www.treasury.gov.pg/html/publications/files/pub_files/2011/2011.png.vision.2050.pdf

REPUBLIC OF MARSHALL ISLANDS

- **National Climate Change Policy Framework 2011**
  www.adaptation-undp.org/resources/naps-non-least-developed-countries-non-ldcs/republic-marshall-islands%E2%80%99-national-climate.
- **Tile Ti Eo 2050 Climate Change Strategy: Lighting the Way 2018**
  www.unfccc.int/sites/default/files/resource/180924%20rmi%202050%20climate%20strategy%20final_0.pdf
- **Disaster Risk Management Action Plan 2008–2018**
  rmi-data.sprep.org/dataset/republic-marshall-islands-joint-national-action-plan-climate-change-adaption-and-disaster-1.
- **Joint National Action Plan for Climate Change & Disaster Risk Management 2014–2018**
  www.pacific-data.sprep.org/dataset/rmi-joint-national-action-plan-climate-change-adaption-and-disaster-risk-management-2014.
- **National Strategic Plan 2020–2030**
  www.theprif.org/sites/default/files/2020-08/Marshall%20Islands%20National%20Strategic%20Plan%202020%20to%202030.pdf

SAMOA

- **Samoa National Disaster Management Plan 2017–2020**
  www.mnre.gov.ws/wp-content/uploads/2017/08/Samoa-national-disaster-management-plan-2017-2020-final-web.pdf

SOLOMON ISLANDS

- **National Disaster Risk Management Plan 2009**
  www.preventionweb.net/files/22085_14656ndrmpsolomonsfinaliseddraftff2.pdf
- **National Climate Change Policy 2012–2017**
  www.adaptation-undp.org/sites/default/files/downloads/solomon_islands-national_climate_change_policy.pdf

- **Roviana Climate Change Resilience Plan 2013–2017**
  www.environment.gov.au/system/files/pages/f7e2f421-2423-40a3-8842-85a89805cb0a/files/roviana-climate-change-resilience-plan-2013-2017.pdf

- **Labour Mobility Strategy – 2019–2023 (2018)**
  www.mfaet.gov.sb/resources/strategies-policies/30-lmu/72-labour-mobility-strategy-2019-2023.html.

- **National Development Strategy 2016–2035 (NDS)**
  www.adb.org/sites/default/files/linked-documents/cobp-sol-2017-2019-ld-01.pdf

TOKELAU

- **Companion LivC Implementation Plan 2017–2022**
  www.tokelau.org.nz/site/tokelau/files/ClimateChange/LivCImplementPlan_web-2.pdf

TONGA

- **Pacific Adaptation to Climate Change: Kingdom of Tonga**
  www.sprep.org/attachments/Climate_Change/PACC_Report_of_in-country_consultations_Tonga.pdf
- **Tonga Climate Change Policy: A Resilient Tonga by 2023**
  ccprojects.gsd.spc.int/wp-content/uploads/2016/06/19.-Tonga-CC-policy.pdf
- **National Strategic Development Framework 2015–2025**
  extwprlegs1.fao.org/docs/pdf/ton168846.pdf
- **Joint National Action Plan on Climate Change and Disaster Risk Management 2018–2025**
  www.preventionweb.net/english/professional/policies/v.php?id=60141.

TUVALU

- **Tuvalu National Labour Migration Policy 2019**
  www.unescap.org/sites/default/files/Tuvalu%20National%20Migration%20Labour%20Policy.pdf
- **National Strategy for Sustainable Development 2016–2020**
  www.pacificclimatechange.net/sites/default/files/documents/NSAP%20Eng%20new%20web.pdf
- **Te Kaniva: Tuvalu Climate Change Policy 2012–2021**
  www.pacificclimatechange.net/sites/default/files/documents/TCCP%20Te%20Kaniva%20English%20final%20web%20new.pdf

VANUATU

- **National Policy on Climate Change and Disaster-Induced Displacement 2018**
  www.ndmo.gov.vu/images/download/Vanuatu-National-Policy-on-Climate-Change-and-Disaster-Induced-Displacement-2018-published.pdf

- **Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030**
  www.preventionweb.net/files/46449_vanuatuccdrrpolicy2015.pdf

WALLIS AND FUTUNA

- **Pacific Territories Initiative for Regional Management of the Environment Action Plan 2014–2018**
  www.integre.spc.int/images/pdf/INTEGRE/telechargements/Action_Plan_WallisFutuna.pdf
- **Seasonal Worker Programme 2012**
  www.dese.gov.au/seasonal-worker-programme.

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