



Climate Resilient Honiara

WP10: Locally Appropriate Peri-Urban Land
Administration Options
January 2020

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Executive Summary

Honiara has one of the fastest rates of urbanisation in the Asia and Pacific region. The rate of urban expansion in peri-urban areas is placing pressure on government to manage the growth and provide services and infrastructure to new housing areas. The growth is also expanding beyond the township boundaries into areas of Guadalcanal Province with higher potential for land disputes.

Land tenure is an important element of community resilience. However, plural land tenure systems exist in the Solomon Islands with formal land administration existing alongside the customary land tenure norms and systems and informal settlement. This creates potential for uncertainty in tenure and for disputes over land, which became violent on Guadalcanal during the Ethnic Tensions. The tenure insecurity and potential for land disputes presents problems for the Climate Resilient Honiara (CRH) project and project activities need to be mindful of local attitudes to land.

Land tenure is a cross-cutting issue that interacts with all components in the CRH project. Disputes over land adversely impacts the lives of those living in peri-urban settlements as well as the implementation of the project initiatives. A lack of secure tenure can also mean settlers do not have access to formal infrastructure and services such as clean water, human waste disposal, power for light and domestic appliances. Difficulty in accessing land with sufficient security of tenure can also force settlers into living on hazard-prone land. Uncertainty of tenure impacts spending on dwelling structures capable of withstanding increasingly severe climatic events.

It is clear that land tenure in Jabros (Gilbert Camp) and Wind Valley (White River) is complex, with both settlements crossing the Honiara township boundary and into Guadalcanal Province. Inside the township boundary land tenure issues are better understood, although most of this land is now settled. However, land outside the township boundary has a long history of being contested with 60 land disputes currently with the High Court. In identifying land outside the township boundary for CRH actions, one option is to look for land the government believes it legally holds, i.e. alienated land. However, this still may result in land rights being challenged in the courts which could have major impacts on the implementation of project actions.

Within the township boundary there is very little space for further urban growth. CRH actions that require decisions about where to site, will need careful consultation with the community and national and local government. This will be easier in cohesive settlements with effective committees or other effective community structures. The Community Development Committee (CDC) approach is one way forward.

If CRH infrastructure activities are not sited on Fixed Term Estates or unoccupied government land, then there is an increased risk of dispute. However, as the existence of all houses is accepted by government (subject to some resettlement programs), the critical way forward is to reach agreement with all stakeholders in the community on the location of these services, infrastructure and buildings. Therefore, the project needs to facilitate participatory and inclusive consultation that is culturally appropriate.



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Introduction

“The natural forest and sea resources provide a substantial part of the basis of the subsistence economy and livelihood in Solomon Islands. They are sources of essential goods and services, such as water, material for housing and transportation, food, medicinal plants and others. In this respect, the natural forests and the sea resources are central to the economic, cultural and social well being of all Solomon Islanders. They provide benefits to the resource owners, the provincial and national governments and the private sector. They can serve as the foundation for economic growth in the context of sustainable community living and human development” (Liloqula and Pollard, 2000).

Honiara has one of the fastest rates of urbanisation in the Asia and Pacific region. The rate of urban expansion in peri-urban areas is placing pressure on government to manage the growth and provide services and infrastructure to new housing areas. The growth is also expanding beyond the township boundaries into areas of Guadalcanal Province with higher potential for land disputes.

Land tenure is an important element of community resilience. However, plural land tenure systems exist in the Solomon Islands with formal land administration existing alongside the customary land tenure norms and systems and informal settlement. This creates potential for uncertainty in tenure and for disputes over land, which became violent on Guadalcanal during the Ethnic Tensions. The tenure insecurity and potential for land disputes presents challenges for the Climate Resilient Honiara (CRH) project and project activities need to be mindful of local attitudes to land.

Focussing on peri-urban areas of Honiara, Work Package 10 – Locally Appropriate Land Administration set out to assess the land tenure issues and provide recommendations for locally appropriate land administration options to support project actions in peri-urban areas. This report presents an assessment of land administration and options to secure and safeguard legitimate tenure rights and inform resettlement considerations on land identified for project activities, taking account of both the current legislation and customary tenure.

This information will inform actions in other project components and help with decisions on where to locate project activities in Ngossi and Panatina wards. The overall aim is to support AF Outcome 2 “strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses” (Agreement of Cooperation). To inform this review, meetings and workshops were held over several visits to Honiara, including an international expert workshop in Honiara in June 2019. The conclusions of this report are based on:

- An extensive literature review.
- A visit to Honiara in September/October 2017 as part of the Global Land Tool Network “Land Tenure and Climate Vulnerability” project. Workshops were held in Kukum Fishing Village and Aekafo-Feraladoa Informal Settlement Area.
- A visit to Honiara in February 2019 (consultations with Honiara City Council; Ministry of Lands, Housing and Survey; Ministry of Environment, Climate Change and Disaster Management;



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Acting Commissioner of Lands, SI National University). Workshops and transect walks took place in 3 settlements to assess local priority needs on the ground.

- A visit to Honiara in June 2019 with follow up meetings and an International land tenure workshop in Honiara on June 28th with break out discussions in three groups (i) Jabros/Gilbert Camp, (ii) Wind Valley/White River, (iii) Women's voice. See Appendix 1.
- The lead author would like to acknowledge the significant contribution from Stephen Boothroyd to writing this report, as well as the international expert advice from Jaap Zevenbergen, Don Grant. Luke Kiddle and Joe Foukona. Thank you to Alan McNeil and MLHS staff, senior community members, and HCC staff for making themselves available for meetings during our visits to Honiara.

The assessment of land tenure arrangements and appropriate land administration options also builds on recent research carried out by Mitchell and McEvoy on the links between land tenure and climate vulnerability in two of the five informal settlements; Kukum Fishing Village and Aekafo-Feraladoa Informal Settlement (funded by GLTN).

What this report does not do is to provide a comprehensive review and analysis of the process of land administration in Honiara and the peri-urban areas around the Honiara township boundary. While the report provides some suggestions for the introduction of fit-for-purpose approaches to land administration, the focus of this report is how land administration can best support CRH project activities as well as how the CRH project can help build capacity in land administration in relation to these activities.

In considering what are "locally-appropriate" land administration options, the report draws on international experience to consider what is culturally appropriate (according to the customary system of tenure), and legally appropriate (according to the formal land administration system).



Land tenure and governance in peri-urban Honiara

Background

Land tenure arrangements in Honiara currently arise from a complex history of land releases, and migration of people from other islands, with the largest number coming from Malaita. A result has been extensive informal occupation of government and private land within the city boundary. One impact of this is a disconnection between traditional multi-dwelling, extended familial occupation arrangements, and Western urban planning and subdivision since British occupation. Temporary housing schemes introduced in the 1960s and heavy migration to Guadalcanal between 1978 and 1981, have resulted in several informal Malaitan settlements throughout Honiara including the CRH project areas of Aekafo, Fera'ladoa, Koa Hill, Wind Valley and Gilbert Camp (Foukona and Allen, 2019).

The growth of squatter settlements led to disagreements and opposition from indigenous Guadalcanal people. The underlying causes of the Ethnic Tensions¹ are complex and historical. According to Liloqula and Pollard (2000) resentment over the over-exploitation of natural resources for development got worse, and Guadalcanal landowners were concerned about their resources being exploited by settlers and developers without considering the rights and wishes of the local indigenous people. This worsened due to the large number of people moving into their province. Land tenure, population pressure and uneven development were also significant factors. Local villagers complained that migrants were acquiring some of their lands illegally. However, Liloqula and Pollard (2000) noted that most non-indigenous settlers in Guadalcanal acquired their lands and properties through lawful means and according to local customs.

The Tensions between 1998 to 2003 resulted in an estimated 20,000 urban migrants (20% of the population of Guadalcanal Island) returning to their home islands (GIDPP 2004). There was also an inward migration of peri-urban settlers onto alienated land within the city boundary to avoid conflict. After the intervention of the international peacekeeping force RAMSI, a significant number of Malaitans returned to the city. However, land tenure issues are still sensitive, with most urban growth occurring within the town boundary and around the airport. Conflict over land remains a key land tenure risk for activities in all the CRH project settlements, especially in Jabros/Gilbert camp and Wind Valley/White River settlements. In both cases many settlers left during the 'Tensions' and returned later.

Other resilience challenges are the lack of quality of building materials, connection to infrastructure and services, and the level of exposure to natural hazards. A survey of settlements in 2008 showed that while older settlements had better quality housing, the more recent ones had temporary or semi-permanent structures without Honiara City Council (HCC) approval. Some were built on steep slopes, exposed to natural disasters such as an earthquake or landslide following prolonged rain (Chand and Yala, 2008). According to the 2016 Honiara Urban Resilience & Climate Action Plan (HURCAP), Informal Settlement Zones (ISZs) comprised almost 15% of the city's total land area, and about 28% of the city's

¹ A period of armed conflict between groupings within the local Guale population and the predominantly Malaitan migrants in Honiara that lasted from 1998 to 2003.



population. Informal housing also exists on road reserves and other accessible areas, such as the national cemetery and the botanical gardens. The ISZs have a much higher population density (about 50 residents per hectare) than the rest of the city, poor access to sanitation and electricity, and poorer quality housing materials which increases sensitivity. CRH settlements with very high population density are Ontong Java settlement (218 residents per hectare), and Fishing Village (112 residents per hectare). It was noted in the HURCAP that about two-thirds of households in Honiara have electricity access, although a number of off-grid houses were observed to be using small solar panels to generate power for devices such as mobile phones (Trundle and McEvoy, 2016, HURCAP).

Although Honiara's population growth is spreading across the HCC boundary, there is still some land available within the southern portions of the municipal boundary that could be developed. However, growth in these areas has been limited by a lack of road access, utilities and government land releases. A process of upgrading Temporary Occupation Licenses (TOLs) and un-licensed or lapsed settlement areas into Fixed Term Estates (FTEs) is underway and UN-Habitat currently supports this through the Participatory Slum Upgrading Programme. However, as Trundle and McEvoy (2016) note, the community negotiations, surveying, and relocation of informal settlements that obstruct road access and utilities access or are in areas at high risk from natural hazards, thereby requiring extensive administrative support and planning time.

A key challenge is finding land for urban expansion outside the HCC boundary. As this growth in informal settlements continues to spread beyond the township boundary appropriate land will need to be identified and released for new housing development. There are limited opportunities for this to happen within the township boundary by earmarking new land for housing or upgrading existing settlements. However, much of this additional land for housing will be on land outside the township boundary.

As well as the challenge of a lack of available land within the HCC boundary, dual customary and western land tenure systems means that there is some uncertainty of tenure security – even on alienated land. Some of land in peri-urban Honiara that was alienated during the British Protectorate era is still disputed by the descendants of the customary owners. On customary land in peri-urban areas, land disputes can also occur due to intra-clan conflicts over the distribution of benefits and who has the authority to allocate land to outsiders (Foukona 2015). This poses a risk for CRH project actions and activities – especially outside the township boundary .

As highlighted throughout this report, the complexity of land tenure has a significant impact on the climate vulnerability of people within the settlements, as well as their ability to implement adaptation measures that enhance resilience to climate-related and natural hazards. This complexity is further heightened by a limited understanding of how households' perception of tenure security impacts their decisions to improve housing and take steps to reduce their vulnerability. Also highlighted by this report is the importance of participatory and inclusive consultation on all matters that impact land.



Tenure Types

Most of the land within the HCC boundary is government land held as public land or registered estates, with many under lease for residential or commercial purposes (Foukona, 2017). Within the HCC boundary the formal land tenure arrangements include Fixed-Term Estate leases (FTEs), involving the lease of government land for a 50-year period. The Perpetual Estate (PE) title underpinning these lease arrangements is held by the Commissioner for Lands on behalf of the Solomon Islands Government (Foukona, 2015). Most of the area covered by the CRH project is within the township boundary and is therefore a mix of government land, FTE and Temporary Occupancy Licences (TOLs). However, settlement is spreading across the township boundary in Jabros/Gilbert Camp and Wind Valley/White River.

Fixed Term Estates (FTEs)

Formal land tenure is established through granting Fixed-Term Estate (FTE), which involves the lease of government-held land for a 50-year period. The Perpetual Estate (PE) underpinning these lease arrangements is held by the Commissioner for Lands, on behalf of the Solomon Islands Government (Foukona 2015). There are still some alienated PE titles in peri-urban areas.

While FTE provides a secure form of tenure, the number of people applying for FTE remains low. People from low-income households will only apply for FTEs if they are affordable, can be paid incrementally, and mean they can get access to services and finance. While the cost of FTEs has been reduced for low income people in recent years, the urban authorities have limited capacity to enforce them (Keen and McNeill 2016, Foukona 2017).

Much of the land directly to Honiara's south-west continues to be held through customary perpetual ownership, with lease arrangements developed through both demarcated FTE provisions, informal agreements, and customary arrangements such as *chupu* (which involves payment through feasting, the sacrifice of pigs, and gifting of *kastom* materials).

Temporary Occupancy Licenses (TOLs)

Most of the urban growth in Honiara involves informal settlements occurring on private and government land. Temporary Occupation Licenses (TOLs) were introduced by the British administration before independence in the 1970s to cope with the large number of informal settlers already present in the city (Sullivan & Larden 2007), and they provide an alternative form of formal land tenure rights. The original intent was to provide a temporary measure to manage unplanned urban migration, and at first only applied in designated Temporary Housing Areas (Foukona 2015). They provide only limited access to services, permanence and transferability. Restricted in access to services, building permanence, and transferability, a TOL involves recording a location and house number, and does not define the boundaries of the land linked to the house. This is the most common form of formal tenure in peri-urban settlements inside the township boundary .



Chand and Yala (2008) argued the system of TOLs has had three significant drawbacks (i) it has not been temporary as some people just settle in between houses with TOLs (ii) dwellings were constructed without the systematic provision of infrastructure and services, and (iii) after the Tensions payment of the annual fees dropped off and many have lapsed.

In the past TOLs were a useful interim land certificate and payment records are computerised and can be easily checked. However, the areas where TOL's have been issued continued to expand over time and many have now lapsed. TOLs need to be renewed every year against a fee which was, until recently, SBD 100/year. According to workshop participants, since 2016 the fee has been SBD 1,000 for 3 years. To apply for services (like connection to water or power) a letter from the TOL issuing authority is required confirming the status of the TOL. The letter is only given when the payments are up-to-date. As most people have arrears from the past, they need to pay all of those before such a letter is given.

An upgrading programme to convert TOL areas to FTE is underway in Honiara, however full payment of arrears is needed to start the process for conversion to FTE.

Customary Tenure

Most land in Solomon Islands (outside the township boundary) is under customary land tenure, subject to customary law according to Section 76 of the Constitution. In theory this means that customary law is integrated into the formal legal system and provides a legal basis for the recognition of customary land and marine tenure rights. Under customary law, every member of a customary landholding entity has rights to use and access customary land (Foukona, 2017).

A program of releasing land in low-risk areas, providing access to basic services (as well as ensuring road links), and enabling people to hold formal land titles, will not only improve tenure security but also enhance the resilience of communities to climate impacts. As informal settlements spread across the township boundary additional land for housing will be needed and this will have to be negotiated with Guadalcanal Province – and customary land owners – to agree on uncontested land for buildings and infrastructure.

There are several Perpetual Estate parcels outside the HCC boundary to the south and south-east, that were granted many years ago to the Lever Corporation and other parties. As shown in Figure 1, there are three PE parcels that include large areas of Greater Honiara and urban expansion is already encroaching into two of these areas. PE parcels 191-052-696 and 191-052-823 are to the south of the township boundary with the Jabros/Gilbert Camp settlement spreading across the township boundary. Parcel 192-017-009 lies to the east of the township boundary along the eastern bank of the Lunga River. According to a recent SIRF tender document, these three parcels are owned by the Solomon Islands National Government through the Commissioner of Lands.



Figure 1 The location of large PE parcels within Greater Honiara (Honiara township boundary in white, Greater Honiara is shown as yellow)

The MLHS have advised that they own the land under PE on parcels 191-052-696 and 191-052-823 and is investigating planning and subdividing these areas for Honiara Expansion (see SIRF tender document in Appendix 2). However, there is still the possibility of this being challenged in the courts which could delay development on these parcels.



Land issues and availability of land for settlement level CRH actions.

Several proposed CRH project actions will involve building facilities and infrastructure and in choosing where they are sited, it is therefore important that the risk of land disputes is minimised. This applies primarily to the components that relate to local engineering works, nature-based solutions and evacuation centres, as well as urban planning imperatives identified during the RMIT mission in September 2019. While cadastral maps and spatial data such as LIDAR are helpful in identifying suitable locations for Adaptation Fund activities and assessing hazard risk, the potential for land disputes also needs to be a key consideration. It is recommended that in all cases the choice of site is made by reaching agreement with all key stakeholders – whether within the township boundaries or outside. The following sections discuss relevant land issues in each of the CRH project settlements.

Kukum Fishing Village

Kukum Fishing Village covers 200 m of coastline between the Kukum Highway and the Iron Bottom Sound. Settlers arrived in the 1960s, and the village has grown to more than 60 households, with 463 people in the 2009 census. The original settlers were issued 25 FTE on the Kukum Fishing Village site, but over time new people have arrived from the islands under the Wontok system, with new houses built across boundaries and beyond the formal boundaries towards the sea. New Wontok members come from the islands and stay with family members. While some eventually move out into other areas of Honiara or into Guadalcanal Province, many end up staying and the settlement population keeps increasing. According to workshop discussions the largest household now totals 25 people.

According to comments during the community workshops the 25 blocks with FTE are the only properties with formal connection to water and electricity; as well as having sanitation facilities. Participants raised water supply and quality, as well as poor sanitation and lack of toilet facilities, as key issues. Approximately 30 houses were identified as being unauthorised with their occupants reliant on others with FTE for access to essential services (excessive use of water and electricity through these arrangements was noted as an issue). Much of the unauthorised housing is on the marine side of the community and beyond the coastal boundary. There has been a recent subdivision by the MLHS and this created about 40 FTE lots. However, the original FTEs are now due to expire and will need to be renewed.

Phase 1 engineering designs for Kukum Fishing Village are shown below.

Proposed Engineering Designs for Phase 1	Key land tenure activities
Communal Sanitation Block and Toilet Blocks	Identify suitable location in consultation with local community and other stakeholders.
Biodigesters	Identify suitable location in consultation with local community and other stakeholders.
Seawall	Surveying site by MLHS and outlining location plans. Potential capacity support from CRH project.
Evacuation Centre in Fishing Village	Key land tenure activities
Potential for construction of new Evacuation Centre	There is no suitable land for a new build.



The proposal to do a flood risk assessment and construction of a seawall along the coastal high-water mark has land tenure implications in Fishing Village. The MLHS has advised that land below high water (outside the boundary) is unclear at present. While it will not be declared customary land, the customary “custodianship” or guardianship may be recognised. This may mean that the “land” below the high tide line will be treated as Crown/Government land which will prevent titles being issued over the foreshore and seabed (as currently can happen) without government agreement.

Therefore the marking of the coastal title boundary is the responsibility of the MLHS, and both the MLHS and the HCC will need to support a project to build a seawall. It is recommended that the CRH project provides capacity building support to the MLHS to help them undertake the cadastral survey.

Aside from deciding about the location of the seawall, decisions are needed about whether to demolish the housing on the seaward side. This would involve the relocation of these families and decisions are needed by the MLHS on where they should be resettled, whether FTE is offered, and whether services are provided.

Ontong Java

Ontong Java Settlement was established by migrants from Ontong Java Atoll in the 1950s on the east side of the Mataniko River where it meets the coast. In 2009 it had over 500 residents (2009 National Census data). The community chose to apply for a single “Communal Title” (FTE) over the land (shown in red on Figure 2 below), run by the settlement’s trustees, instead of a series of individual FTE parcels as is the case in Fishing Village, for example. Each household is listed on the title and the community pays an annual fee to renew it.

A communal title was chosen because (i) the title was a cheaper and faster option; (ii) the MLHS advised that creating individual titles over the existing houses was too difficult, and (iii) there were concerns about creating “unequal” parcels of different sizes. This means that there is now one title over all the settlement which has very secure tenure, and the community is left to organise itself about where buildings and walkways are established. However, they are happy with the communal title arrangement and are not seeking individual FTE. Land issues in this settlement appear to be less significant, as in the early days of the settlement different options for tenure security were available. [Communal title over PE land within the HCC boundary].



Figure 2 Ontong Java Settlement on a single registered parcel shown in red

Phase 1 engineering designs for Ontong Java are shown below.

Proposed Engineering Designs for Phase 1 Ontong Java	Key land tenure activities
Flood levee	Surveying of site by MLHS and outlining location plans. Potential capacity development support from CRH project.
Drainage	Agree on location of construction of drainage channel and pavement in consultation with community and key stakeholders.
Evacuation Centre in Ontong Java	Key land tenure activities
Potential for construction of new Evacuation Centre	There is no suitable land for a new build.

The construction of a flood levee along the river bank has significant land tenure implications. Erosion of the Mataniko River bank during floods has caused the location of the river bank to move a long way into the communal title, with the settlement losing significant land. It is therefore important to site the levee bank flood defences in the correct title position to reclaim this lost land. The marking of the title boundary is the responsibility of the MLHS, and both the MLHS and HCC will need to support the project. It is recommended that the CRH project provides capacity development support to the MLHS to help them complete the cadastral survey.

Aekafo-Feraladoa

As discussed earlier Aekafo/Feraladoa is one of the informal Malaitan settlements in Kola'a ward in peri-urban Honiara. Aekafo was one of the first 'squatter settlements' recognised by the British Protectorate with TOLs being granted to many of its occupants in the 1970s. However almost all of these have now lapsed. Participants in the 2017 and 2019 workshops indicated that upgrading to FTE was a priority, and this upgrading process is underway by MLHS. The MLHS is systematically issuing

households with letters of offer to upgrade to FTE upon payment of a fee. At present the uptake is low and the cost of the fee, and lack of perceived benefit, seems to be a deterrent.

Meanwhile, houses continue to be built in hazardous locations along the river edge or in areas at risk of landslide. The increase in housing density and location near water sources is contributing to water quality issues (exacerbated by poor household waste disposal and sanitation practices).

It was reported that if a new person came to the settlement through Wantok connections, it was up to them where they built. If they built in a hazardous place, such as beside the river against advice, then that was their responsibility. Also, as there are no zoning or building standard controls enforced family labour and locally accessible materials are used to build, resulting in structures with low resilience to climate risk. A second report from a resident identified fear of the risk of floods and landslide and wanting to move to a safer place but there are no options to do this. The Participatory Settlement Upgrading Programme (PSUP) process to upgrade title has an uncertain timeframe. One unintended consequence of this proposed upgrading of title to FTE is that it creates a powerful incentive not to move – despite the disaster risk.

Phase 1 engineering designs for Aekafo-Feraladoa are shown below.

Proposed Engineering Designs for Phase 1 Aekafo-Feraladoa	Key land tenure activities
Ceramic water filters	Identification of site for ceramic water filter manufacture in consultation with the community and other key stakeholders. Consider tenure security of this site.
Rainwater harvesting and water conservation	Siting rainwater harvesting technology in consultation with community and other key stakeholders.
Low-Flow Pour-Flush Toilets	As this is within houses, there are no land tenure issues to address. Supporting the FTE subdivision process will indirectly support houses to implement these systems.
Biodigester for food / pig waste	Identification of potential location for onsite anaerobic digester in consultation with the community and other key stakeholders. Consider tenure security of this site.
Retention basins	This has the potential to cover several different types of land tenure (TOL/FTE/squatter, customary etc) and spread to outside the HCC boundary. Siting should be based on consultation with the relevant communities and ALL key stakeholders. This is discussed further in the next section.
Evacuation Centre in Aekafo-Feraladoa	Key land tenure activities
Potential for construction of new Evacuation Centre in Aekafo-Feraladoa	The project areas of Aekafo-Feraladoa include zones 19-23 and these are all within the HCC boundary. Identification of a suitable site will require extensive consultation with the MLHS and HCC (to identify available options), as well as the communities in each zone and other key stakeholders.

Given that the shortage of land is resulting in community members occupying hazardous land, making land available for CRH actions in the settlement zones may be problematic. Overcrowding and density make it hard to identify land for actions. This is even difficult in areas where the subdivision has been

designed. If there has not been provision for public land that could be used to site the ceramic water filters, rainwater harvesting and water conservation, and low-flow pour-flush toilets. Tension between Customary Landowners and Government may impede availability of land for CRH Actions. For example, proposals for retention basins and increasing the carrying capacity of streams will need to be carefully located based on participatory community and MLHS consultations.

Jabros/Gilbert Camp

As discussed earlier, temporary housing schemes introduced in the 1960s resulted in high levels of migration from Malaita to Guadalcanal in the 1970s to 1980s, with Gilbert Camp being one of the informal Malaitan settlements created in Honiara. There is no official boundary for peri-urban Gilbert Camp and may involve all of the housing outside the HCC boundary. Within the HCC boundary, the area of Gilbert Camp could potentially be defined by ISZs, as this was one of the areas formalised under the SIISLAP project. The Jabros settlement was first established in the 1980s, and since the Tensions the community had grown to 577 people according to 2009 Census and is only a small section of 'peri-urban Gilbert Camp'. Figure 3 shows the settlement spreading across the HCC boundary with approximately half the settlement on each side.



Figure 3 The chupu boundary of Jabros based on community input shown as a black line (Source: Alexei Trundle).

For the areas of Jabros within the HCC boundary the issues raised by the participants at the International Land Tenure Workshop participants were:



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- Uncertainty over who is the contact point for settlers in relation to MHLS and land owners.
- Capacity issues with MHLS/HCC enforcing building permissions over where new settlers build
- Subdivision plans don't match housing, and need to relocate properties affecting road widths.
- Infrastructure challenges include sanitation and safe water, power pole locations and patchy power supply, and bad access roads hampering rubbish removal.
- Using garden areas is a challenge, as they are too far away. The Women's voice group mentioned they are walking large distances to use garden areas.

The area of Jabros that falls outside the HCC boundary lies within PE parcel 191-052-823 which is shown in Figure 1. As mentioned earlier the MLHS have advised that they own the land under PE on this parcel and is investigating planning and subdividing these areas for Honiara Expansion. Therefore, the MLHS is a critical stakeholder in any decisions about the land outside the HCC boundary. Another key stakeholder is Solomon Water as this area includes one of their key water sources. The Ministry of Health and Medical Services is also a key stakeholder as this PE parcel is one of the recommended locations for the new hospital site (as shown in the SIRF tender documents in Appendix 2). Furthermore, if the hospital is built here, a major access route will be required. Other critical stakeholders are Guadalcanal Province and customary groups.

For houses outside the HCC boundary, challenges raised in the workshop by participants include:

- Uncertainty over underlying tenure – Customary or Government
- No physical planning outside Town Boundaries.
- Guadalcanal province has no official process of planning and subdivision.
- Further subdivision is challenged by the expansion of new houses not based on a plan.
- Garden areas need to be in close proximity.

Phase 1 engineering designs for Jabros/Gilbert Camp are shown below.

Proposed Engineering Designs for Phase 1	Key Land Tenure Activities
Ceramic water filters	Identification of site for ceramic water filter manufacture in consultation with the community and other key stakeholders. Consider tenure security of this site.
Rainwater harvesting and water conservation	Siting rainwater harvesting technology in consultation with community and other key stakeholders.
Low-Flow Pour-Flush Toilets	As this is within houses, there are no land tenure issues to address. Supporting the FTE subdivision process will indirectly support houses to implement these systems.
Evacuation Centre in Jabros	Key land tenure activities
Potential for construction of new Evacuation Centre in Jabros	<p>(a) For the areas of Jabros within the HCC boundary - Identification of a suitable site will require extensive consultation with the MLHS and HCC (to identify available options), as well as the communities in each zone and other key stakeholders.</p> <p>(b) For the areas of Jabros outside the HCC boundary and within PE Parcel 191-052-823 reaching agreement on a site is much more difficult. It will require extensive consultation with the MLHS and HCC and Guadalcanal Province (to identify available options), the Ministry of Health (to consider where the future national referral hospital will be cited) as well as the communities in each zone and other key stakeholders. It is suggested that the MLHS take the lead in any discussions.</p>

- Existing overcrowding and density make it hard to identify land for CRH Actions. This is even difficult in areas where the subdivision has been designed if there has not been provision for public land that could be used to site the ceramic water filters, rainwater harvesting and water conservation, and low-flow pour-flush toilets.
- Tension between Customary Landowners and Government may impede availability of land for CRH Actions.
- Finding a site for a new evacuation centre will be difficult and will need careful consultation with MLHS, Solomon Water, Ministry of Health and Guadalcanal Province as well as settlers.

Wind Valley/White River

Wind Valley is a predominantly Malaitan community at the western end of Honiara, with most houses inside the township boundary. Whilst the community is considered to be inside the town boundary it is evident that some households have built across the HCC boundary into Guadalcanal Province. The settlement has a strong community structure which provides an opportunity to consult on the location and siting of CRH activities. According to participants at the workshop the main land issues to be addressed related to CRH actions in Wind Valley include:

- Access to services,
- Fast tracking of subdivisions (approval) to get FTEs,
- Community Development Committee (CDC) - works on behalf of people with MHLS but no connection between the committee and HCC at present.

Phase 1 engineering designs for Wind Valley are shown below.

Proposed Engineering Designs for Phase 1	Key Land Tenure Activities
Ceramic water filters	Identification of site for ceramic water filter manufacture in consultation with the community and other key stakeholders. Consider tenure security of this site.
Rainwater harvesting and water conservation	Siting rainwater harvesting technology in consultation with community and other key stakeholders.
Low-Flow Pour-Flush Toilets	As this is within houses, there are no land tenure issues to address. Supporting the FTE subdivision process will indirectly support houses to implement these systems.
Evacuation Centre in Wind Valley	Key land tenure activities
Potential for construction of new Evacuation Centre in Wind Valley	<p>(a) For the areas of Wind Valley within the HCC boundary - Identification of a suitable site will require extensive consultation with the MLHS and HCC (to identify available options), as well as the local community and other key stakeholders.</p> <p>(b) For the areas of Wind Valley outside the HCC boundary and within Guadalcanal Province reaching agreement on a site is much more difficult. It will require extensive consultation with the MLHS and Guadalcanal Province (to identify available options), the local customary group, as well as the settlers and other key stakeholders. It is suggested that the MLHS facilitate this discussion.</p>

Locally Appropriate Peri-Urban Land Administration Options

Local experts have long called for recognition of the reality of informal urban growth and acceptance of dwellings within these settlements. In 2000, during the Tensions, Liloqula and Pollard argued that government should put in place infrastructure and support services so that settlers can remain and be economically viable (Liloqula and Pollard, 2000). Chand and Yala (2008), in a review on Informal land settlements in Honiara and Port Moresby recommended that government (i) accept informal urban settlement as a permanent feature, (ii) acknowledge the settlers are not deterred by a lack of secure tenure, and (iii) account for the consequences of inadequate urban land with secure tenure.

They argued that it is important to acknowledge that when formal arrangements are weak, informal arrangements evolve to allow settlement and the sale of land and housing. The problem is that these informal arrangements come with entrenched ethnic/tribal rivalries and political patronage in a system of property rights that overlaps the formal land administration system. Recognising the limitations of informal arrangements and the challenges of change, they recommended a transition from the informal arrangements into the formal planning, land administration and dispute resolution systems (Chand and Yala, 2008).

In practice, there is a general acceptance by MLHS of the validity of informal occupation and the priority is to create FTE for all existing houses. This involves systematic subdivision of informal settlements. A subdivision process was undertaken in 2015 (by Connie Lau working under SPC's program of support to MLHS) to map the spatial extent of households demarcated by GPS. However, such a subdivision needs to be prepared by the physical planning unit first. Then surveyors go to the

field and parcels follow the plan design, not always the actual buildings in the field, i.e. one house could be on two parcels. Therefore, decisions are needed on houses that do not sit within the new subdivision parcels.

Also, some parts of settlements are too highly exposed and should not be provided with FTE (e.g. where the houses are too exposed such as being next to a river). This would need a designation in the planning scheme that prohibits building in strips of land along streams, but this needs a thorough environmental risk assessment which has yet to be carried out. An opportunity exists for hazard assessment work by the CRH project to support the design of the designation in the planning scheme of “no-build” zones along streams.

Options for land administration responses to CRH engineering design and siting

Within the peri-urban settlements of the CRH project there are a range of land tenure contexts, each with different levels of tenure security and threat of land dispute. These can be summarised as:

1. Along the coastal boundary.
2. PE over state held land within the HCC boundary.
3. PE/FTE over settled land within the HCC boundary. This includes much of Kukum Fishing Village, and a small number of informal settlement houses in Aekafo-Feraladoa, Jabros/Gilbert Camp and Wind Valley.
4. Lapsed or current TOL within the HCC boundary. Many of the informal settlement houses in Aekafo-Feraladoa, Jabros/Gilbert Camp and Wind Valley fall into this category.
5. PE Parcel 191-052-823 within Guadalcanal Province. Informal settlements in Jabros/Gilbert Camp have spread into this parcel outside the HCC boundary.
6. Informal settlements on Customary land within Guadalcanal Province where no PE is evident. This includes part of Wind Valley settlement outside the HCC boundary. Also includes other parts of Gilbert Camp informal settlements outside the HCC boundary.

A category of “Communal title over PE land within the HCC boundary” could also have been included here but was discussed earlier in the section about the Ontong Java settlement. This section presents possible options that consider both Western and Customary laws when dealing with urban growth and aim to secure and safeguard legitimate tenure rights, and inform decisions on resettlement.

Along the coastal boundary

Kukum fishing village is the only one of the CRH settlements that has a boundary that is along the seacoast. While Ontong Java is close to the seacoast, there is a strip of private land between the Ontong Java communal title and the seacoast. One potential CRH engineering action (identified in phase 1) is the potential construction of a sea wall along the seacoast boundary of the Fishing Village settlement. This needs careful consideration as if it is located along the seacoast title boundary (high water mark) then there are several houses outside that will need to be demolished and the workshop participants indicated that these households should be resettled to another site. If it is agreed though extensive community consultation (including with the MLHS and HCC) that this is the most appropriate



location for the seawall, then a cadastral survey will need to be undertaken by the MLHS to define and mark this boundary so that the seawall can be constructed. While the MLHS will need to do this cadastral survey, it is possible for the CRH project to support this work and associated capacity building.

PE over state held land within the HCC boundary.

State (public) land exists within the HCC boundary and may be adjacent to or within some of the CRH settlements. Where the state land is needed for public purposes (for example Solomon Water infrastructure) then it will be unavailable for project activities such as retarding basins or evacuation centres. Where state land exists, the MLHS (and other Ministries) can decide whether it can be used for construction related to the CRH work packages (for example retarding basins). However, where the state land is not currently used for public purposes, or where part of this land is available, and the relevant Ministry agree – security of tenure is high and the risk of this being challenged is very low. Therefore, the MLHS should be involved in discussions about identifying land for CRH activities.

PE/FTE over settled land within the HCC boundary.

This includes much of Kukum Fishing Village, and a small number of informal settlement houses in Aekafo-Feraladoa, Jabros/Gilbert Camp and Wind Valley. Under the Land and Titles Act, Perpetual Estate titles vest in the Commissioner of Lands, who holds them in trust for the State. Therefore, property on Fixed Term Estates in land have the right to use this land for the length of the lease period. Land tenure rights are the most secure on land in peri-urban Honiara where a Perpetual Estate exists, or where PE has been converted into Fixed Term Estate leases. In these cases, the registered proprietor of the land can be identified, and the land is less likely to be challenged by others. This gives more confidence that consultation on choosing sites for CRH construction or siting of facilities will be effective – and not challenged by others. This is especially true for those parcels in Kukum Fishing Village – assuming that the recent subdivision by the MLHS that created about 40 FTE lots is renewed. Once again, the MLHS should be involved in any discussion about identifying land for CRH actions.

Lapsed or current TOL within the HCC boundary.

Many of the informal settlement houses in Aekafo-Feraladoa, Jabros/Gilbert Camp and Wind Valley fall into this category. The process of creating FTE involves the design of a subdivision over the existing houses, which can be quite difficult. Then these boundaries are measured with GPS and agreed by the landholders. Plans of subdivision for these exist and the selection of houses to provide FTE is made in a systematic way based on the assumption that all will be included. The first step is to send a letter of offer from the Lands Board for upgrade (from mostly TOL) to FTE. To accept the offer the landholder needs to pay about SBD\$2,000, but the exact figure depends upon the assessed unimproved capital value of the land, and the premium price is ten per cent of that. This is more than the requirement for TOL which is about SBD\$1,000 for a 3-year term.



The uptake of FTE conversions is low, and it appears cost is the major barrier. Also, a condition of uptake is not only payment of FTE but also all arrears of renewing TOLs (which can be quite significant, i.e. 20-30 years). The MLHS has negotiated for Solomon Water and Solomon Power to accept lapsed TOL as acceptable for connection to formal WASH and electricity systems (although there is some uncertainty who is responsible for urban water supply). So, there are quite a few benefits to having a TOL, and perhaps not enough incentives for TOL holders to go to the next step of converting their TOL to a FTE, which would also attract annual Council rates for the first time.

Also, given the general acceptance by MLHS of the validity of informal occupation, there is not a strong incentive to apply for FTE. Also, once settlers have a TOL document (even if lapsed) there is a perception that this increases their tenure security to a certain level, and renewal does not add to that in people's perception. Another impact is illegal land transactions, with examples provided of people illegally 'selling' land. People were buying informally despite being offered FTE and not taking it up.

We support the approach taken by the MLHS to upgrade through a process of subdivision, though recommend adopting more "fit-for-purpose land administration" approaches (as discussed later).

[PE Parcel 191-052-823 within Guadalcanal Province.](#)

After the June 2019 mission SIRF issued a request for Tender (See Appendix 2) that involved site investigations of various aspects of large areas of land south of the township boundary – in effect the areas that Honiara settlements are expanding into. The site investigations proposed in this tender represent the MLHS priorities in assessing and preparing land for urban expansion and these are broadly supported.

The SIRF tender is relevant to the Climate Resilient Honiara Project in that a very small part of the land covered by the SIRF tender (adjacent to the township boundary in Jabros/Gilbert Camp and within PE parcel 191-052-823) is also part of the CRH project. According to the SIRF tender document, Perpetual Estate parcel 191-052-823 is owned by the Solomon Islands Government through the Commissioner of Lands. We support the Commissioner of Lands in asserting that the land covered by Perpetual Estate on parcel 191-052-823 is not customary land and is owned by the national government. The Commissioner of Lands is the expert on this issue and is expressing the Government's position.

However, this area has a long history of land disputes and only the courts can finally decide on the issue of ownership. We strongly support one of the proposed actions outlined in the recent SIRF Tender - to assess "all land ownership issues or disputes, including court challenges and judgements". On this basis we suggest that the MLHS seek further expert legal opinion on the land tenure rights over PE 191-052-823.

This is beyond the scope and capability of the CRH project, and requires expert legal opinion on, for example, the relative merits of rights associated with the Perpetual Estate over parcel 191-052-823 in Jabros/Gilbert Camp. As part of this legal opinion the brief should include an "Assessment of all land ownership issues or disputes, including court challenges and judgements". We consider this is a key



priority for land administration in Greater Honiara and necessary to address much of the uncertainty over land rights outside the township boundary .

The CRH project can provide scientific support and capacity building for realisation of the work proposed in the recent *SIRF Request for Tender: Site Investigations for Urban Expansion (See Appendix 2)*. We are very supportive of the broader objectives of this tender and the site analysis envisaged – especially the review of land records and land disputes. We recommend that the MLHS seek legal opinion to confirm the MLHS claims to the Perpetual Estate land outside the township boundary – particularly in the Jabros/Gilbert Camp region. This would give more certainty over land rights going forward.

If the design of the proposed engineering action in Jabros (retention basins and increasing the carrying capacity of streams, including LiDAR and surveying) falls outside the HCC boundary, a meeting should be arranged with Guadalcanal Province (at their headquarters) to discuss possibilities for the location of CRH project activities within Guadalcanal Province.

[Informal settlements on Customary land within Guadalcanal Province where no PE is evident.](#)

This includes part of Wind Valley settlement outside the HCC boundary. Also, further upstream in Aekafo-Feraladoa outside the HCC boundary also fall into this category. These are the most difficult areas in terms of land tenure and the potential for land disputes.

Proposed engineering actions include retention basins in Aekafo-Feraladoa. This has the potential to cover several different types of land tenure (TOL/FTE/squatter, customary etc) and spread to outside the HCC boundary. Siting should be based on consultation with the relevant communities and ALL key stakeholders. This is discussed further in the next section.

International lessons for land administration

Given the scale of informality in Honiara, appropriate land will need to be identified and released for new housing development as a matter of urgency. Releasing land in low-risk areas, providing access to basic services and roads, with formal land titles, will improve tenure security and enhance the resilience of communities. Some land exists with the HCC boundary (either through finding new land for housing or upgrading existing settlements), however additional land for housing will be needed within Guadalcanal Province. This will require effective consultation with all stakeholders including Guadalcanal Province, customary groups, settlers, the MLHS and other relevant ministries, in order to establish new uncontested development. However, given Honiara's ethnic tensions, ongoing boundary disputes this will undoubtedly be a challenging task for policymakers (McEvoy et al, 2019).

As the land outside the township boundary has a long history of disputes, care must be taken in any decision to undertake project activities in these areas. It is our strong recommendation that any activity that requires land to be found (for example, building an evacuation centre) should undertake effective and transparent consultation with all stakeholders and get their input into the location. Within the township boundary this is important because there is so little available land left and care is needed in siting buildings, infrastructure and gardens. Outside the township boundary this is further complicated by the additional risk of land disputes (in the absence of court rulings), and the additional Guadalcanal Province stakeholders. Finding land outside the township boundary for use for project activities cannot happen unless all parties can reach agreement. It is suggested that discussions about land to be used for project purposes are facilitated by the MLHS using inclusive and participatory processes as discussed in the later section on PiLAR.

These processes should also be culturally appropriate and may involve the use of "Chupu" cultural practice of agreement that still exists in land tenure agreement. According to the Women's discussion group at the land administration workshop, land outside the township boundary could be accessed by developing relationships with customary land owners, providing money/ food aid to customary family owners. However, Chupu is practiced differently in different regions.

Good land governance initiatives that aim to improve security of land tenure will also increase the climate resilience of the most vulnerable settlements; reducing their exposure and sensitivity to climate risks and enhancing local capacity to adapt. Supported by anecdotal evidence from community workshops, there is some areas that the CRH project can provide scientific support for the processing of land titles and the establishment of new housing development areas (McEvoy et al 2019). This is a key focus of the CRH project and this report.

As part of this process the CRH project is implementing household surveys and community profiling and the results will be available in 2020. Community profiling helps to mainstream climate change considerations into land administration – allowing all decisions about land tenure and land administration to be based on awareness of hazard risk, including resettlement decisions and emergency response decisions. As part of this process cadastral mapping and land tenure security



assessment are important for designing community resilience actions affected by encroachment of housing, and to identify the number of informal settlers without TOL or FTE.

International experience shows that there is a range of measures that can help support land governance and improve tenure security. Adopting a “*continuum of land rights*” approach involves planning for all occupation of land including informal settlers without TOL or FTE and focussing on context-specific approaches to improving perceived tenure security, rather than only formalisation. The most relevant to peri-urban Honiara include principles of tenure responsive land use planning, gender evaluation criteria, fit-for-purpose land administration, participatory and inclusive land readjustment (PiLAR), alternative conflict resolution.

However, ideally a parallel formal land administration process is needed, and a legal representative is involved in proceedings. According to the Wind Valley group at the workshop the following was needed to identify land that can be used for CRH actions:

- Planning – made available for comment;
- Better communication of HCC plans;
- Coordination between MHLS, Disaster Agency, Finance Ministry, Environment Agency;
- A non-Landowner may not propose a subdivision;
- No FTE – No approval for building.

The women’s group argued for the establishment of committees to liaise with the Ministry of Environment and other stakeholders. They emphasised the importance of developing relationships with customary land owners in order to secure land agreements for identifying land for action: planning for disasters; planning for services; and planning for resettlement required.

Tenure-responsive land use planning

Tenure responsive land use planning – involves land use planning informed by cadastral mapping and understanding of tenure security, as well as by hazard risk. Key challenges include identifying suitable land for resettlement, slum upgrading, water catchment and infrastructure, and also for emergency shelter and for camps for short term displacement after disasters. In Aekafo-Feraladoa, for example, hazard risk mapping can inform the creation of zones along rivers that do not allow building. This can be further enforced by not providing FTE to houses in these very exposed zones. This would require enforcement of “no-build” planning zones supported by removing the incentive of offering FTE for these households and arranging for resettlement of these houses. This can be considered for phase 2 of the CRH project.

Gender evaluation criteria

Gender Evaluation Criteria – a tool to assess the gender-responsiveness of policies, laws and processes related to land and climate (as women bear the brunt of the impacts of climate and natural disasters, addressing these inequalities can have a big impact on household adaptive capacity). This will be a focus of further work in phase 2 of the CRH project (under community awareness raising).



Fit-for-purpose land administration

Part of the cost of providing FTE to those without, is the cost of field survey to define and mark the boundaries. This can be considerable in steeply sloping areas like parts of peri-urban Honiara. Fit-for-purpose land administration involves identifying low-cost ways of improving the efficiency of land administration processes and building capacity to respond to land issues needed to support resilience actions. These approaches should be designed to fit the purpose intended and generally involve replacing expensive western approaches with more low-cost alternatives. A common approach for countries in a similar stage of development to the Solomon Islands is to replace field surveys with imagery from satellites or drones, and in some contexts to replace fixed (dimensioned) boundaries with general boundaries that are based on features. In the context of informal settlements in Honiara, consideration could be given to using a combination of drones and low-cost field survey to create subdivision plans for adjudication and upgrading and removing the requirement for parcels to be marked in the field.

While the cadastral surveying to support the FTE subdivision process is comprehensive, there are opportunities to consider more fit-for-purpose approaches to speed up the process and reduce costs. There is evidence on the ground of the use of RTK GPS with base stations occupying existing survey control points. 100% increase in efficiency could be obtained by such users by accessing the GeoScience Australia Continuously Operating Reference Station (CORS) which outputs a RTK Corrections Service. Serious consideration should be given to presenting a Business Case to Government to apply for Grant Aid Funding to establish a CORS Network covering the Greater Honiara Area. The use of this technology can bring huge efficiencies during infrastructure design and construction, as well as surveying for property title boundaries.

Similarly the use of Unmanned Aerial Systems or manned fixed or rotary wing aircraft for non-conventional, non-vertical aerial photography, combined with modern image processing and photogrammetry can produce rapid "as-is" mapping of areas for housing development, to allow subdivision layouts to take full account of existing occupation and land contours to allow the subdivisions to be designed based on UTM coordinates for demarcation with RTK GPS as and when required. A review of the Surveyor General's Regulations regarding demarcation of parcels, allowing the parcel to be defined by coordinates, not markers, could allow rapid production of title documents, with demarcation to follow.

Regulatory framework

Implementing the FFP land administration principles above may require amendments to the regulatory framework, if current provisions require field surveys. At a higher level, there is also an issue with the institutional separation of Commissioner of Lands with the information he needs to do his job. Land records are held by Ministry of Justice and Legal Affairs in paper format and there has been no effort to digitise the records. This presents a security risk for the land administration system.



Geodetic Reference Framework

One issue for cadastral surveying is the small number of undamaged geodetic ground control points, which limits cadastral surveying to support the FTE upgrades using total station and GNSS equipment. There is an opportunity for the MLHS to make more use of the CORS station established by Geoscience Australia in Honiara. The MLHS should also seek expert advice on the use of technology such as Insar and Inmarsat to address the limitations in the ground control network. This is important as it can support the use of more fit-for-purpose field techniques for cadastral surveying.

Many different map projections, coordinate systems and geodetic reference frameworks are used for geospatial data in the Solomon Islands. The geodetic datum (GUX 1 ASTRO) from 1924 differs by a few hundred meters in some places from the World Geodetic System 1984 (WGS 84), which is applied in the region as the norm. Continuing with the outdated geodetic datum will hamper cadastral maps' compatibility with regional and international standards, and the use of most datasets in the Solomon Islands (World Bank, 2019). We agree with the World Bank that the adoption of one standardized coordination system across the Solomon Islands is a key priority. This is important for adopting a range of fit-for-purpose technologies to stream-line the FTE upgrade process (including drones and GNSS).

Maintenance of Land Records

As the World Bank team mentioned in their 2019 Aide Memoire, while the land administration system functions, it is sometimes impossible to tell from government records who owns a particular land parcel. According to the Registrar General estimates the backlog in the land register pending entries is up to 10,000 PEs, and the paper records are not safe from hazards. Therefore, the access to land tenure information is a major resilience issue (World Bank, 2019).

According to the World Bank, the Urban Division cannot keep up with TOL renewal so most TOLs do not get renewed when they expire. The World Bank reported that the MLHS and MJLA agree that core land records need to be digitized for added security and system resilience, and initial progress is being made through the Commissioner of Lands Division and Registrar General Division with a support from DFAT (World Bank, 2019). We also endorse this approach.

At the national level, the World Bank Project recommended that:

- Fundamental land records are digitized for security and ease of retrieval.
- Text records are georeferenced by relation to cadastral maps.
- Create a land administration solution to cover all land tenures.
- Establish and encourage adoption of a RTK CORS Network, initially using the broadcast corrections from the GeoScience CORS "SOLO" located inside the Solomon Islands Meteorological Office Upper Air observation office compound.
- Adopt the appropriate Reference Ellipsoid and UTM coordinate system for all geolocation to give consistency with GNSS equipment and consumer grade "GPS".



And we broadly support these recommendations, with the caveat that the concerned agencies exercise caution around vendor offers of free software licensing with annual license fees.

Participatory and Inclusive Land Readjustment (PiLAR)

Land readjustment is currently underway through the process of upgrading from TOLs to FTEs. In many cases, the roll out appears to be slower than planned. As is typical in other countries, the later stages cause delays (sending out offer letters, getting payment, and then registering at MoJ). International experience shows that some of this correspondence is also seen by the settlers as increasing their level of tenure security. While the FTE is a good instrument for upwardly moving settlers, who have a steady and reasonably paying job, for the urban poor the annual payments are not realistic. There is also a risk of those with FTE selling informally and moving on.

Currently, the upgrading process involves a systematic subdivision prepared by the physical planning unit where it appears the lots are based on planning rules around adequate road widths, house separation guidelines and adequate provision of services. In areas that are growing, the design of the subdivision can't keep up with this growth and some houses are not allocated parcels. While this is a relatively common approach it means that some settlers will not be provided with a parcel. In our workshop discussions there was some uncertainty in the community about the rationale for this process. Under the current approach there will be houses that do not fit within parcels it was unclear whether those living in such areas should be actively removed/relocated or left where they are. It is also unclear how much social 'unrest' the subdivided boundaries create when they do not match with the structures in place.

Participatory and inclusive approaches to land readjustment means involving the community in upgrading and resettlement processes and therefore improving providing perceived security of tenure for all. The subdivision and upgrading process would benefit from a more participatory and inclusive approach where the settler communities are able to have input into the design of these new subdivisions. Also lacking in the TOL to FTE conversion are some of the non-tenure elements of upgrading, such as the provision of community infrastructure and services.

Alternative land conflict resolution mechanisms

As discussed throughout this report, there is potential for land disputes to delay or stop CRH project activities. For example, vexatious land disputes have been lodged with the High Court by Guadalcanal customary groups on past land transactions despite an exemption that only transactions within the last 7 years can be entertained by the courts.

Formal court cases are expensive and there is also a risk of inflaming existing tensions over land (or creating new tensions). Local, culturally appropriate approaches to land dispute resolution may be more responsive than formal processes.

As discussed earlier, underlying causes of the Ethnic Tensions include land tenure, migration, population pressure and uneven development with perceptions that customary landowner resources were being exploited by settlers and developers without considering the rights and wishes of the local indigenous people. Care is needed as squatter settlements in and around Honiara spread further into peri-urban areas: this can lead to disagreements and opposition from indigenous Guadalcanal people.



Where there are disputes about how land has been settled or used, resolution through the courts is too time-consuming and costly.

Land Acquisition and Resettlement

As part of the formalisation agenda (and the need to resettle those displaced by the 2014 Mataniko River floods), 225 plots with FTEs were released under the 'April Ridge' relocation initiative. However, this new initiative was criticised for providing a complicated land tenure system, a lack of adequate supporting infrastructure, and restricted access to financial credit (McEvoy et al 2019).

As noted in the World Bank Aide Memoire, the land acquisition process is heavily litigated and customary areas are hardly ever considered as an option for large land development projects by external parties (World Bank, 2019).

One of the '*Principles of the Environmental and Social Policy*' of the Adaptation Fund most relevant to land administration is that this project is designed and implemented "in a way that minimizes the need for involuntary resettlement. When limited involuntary resettlement is unavoidable, due process should be observed so that displaced persons shall be informed of their rights, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation" (Agreement of Cooperation, Risk Analysis). In the context of the actions of Climate Resilient Honiara this is related to project actions and not overall government land administration decisions. **It is proposed that RMIT University continues to provide land administration scientific support to ensure that project actions at the local and ward levels are in line with this principle, and include training on how to achieve this principle.**



Conclusions

Within the township boundary there is very little space for further urban growth. Climate Resilient Honiara actions that require decisions about where to site, will need careful consultation with the community and national and local government. This will be easier in cohesive settlements with effective committees or other effective community structures. The CDC approach is one way forward.

If CRH infrastructure actions are not sited on FTE or unoccupied government land, then there is an increased risk of dispute. However, as the existence of all houses is accepted by government (subject to some resettlement programs), the critical way forward is to reach agreement with all stakeholders in the community on the location of these services, infrastructure and buildings. The project needs to facilitate participatory and inclusive consultation that is culturally valid.

It is clear that land tenure in Jabros/Gilbert Camp and Wind Valley is complex, with both settlements crossing the township boundary and into Guadalcanal Province. Inside the township boundary land tenure issues are better understood, although most of this land is now settled. A key concern for project actions outside the township boundary is the risk of land disputes. There are currently 60 land disputes with the High Court and these take a long time to be heard. In identifying land outside the township boundary that can be used for the CRH project, one option is to look for land the government believes it legally holds, i.e. alienated land. However, this still may result in land rights being challenged in the courts which could have major impacts on the implementation of CRH actions. A major conclusion from the workshops is therefore that ALL stakeholders be actively involved in discussions about the location of EACH project action or build. This may require strengthening of community committees in some settlements.

A key challenge facing the MLHS is to manage the spread of urban growth across the township boundary into Guadalcanal Province and into areas of more uncertain land tenure and high risk of land disputes. Outside the township boundary, finding land that can be used with less risk of disputes may require a blend of formal and customary approaches. This could involve identifying land the government believes it holds outside the boundary, i.e. alienated land, then undertaking culturally legitimate consultation with all affected stakeholders including the local customary group and Guadalcanal Province representatives - to agree that a project is worthwhile and should go ahead on the selected land.

We strongly support the aims outlined in the recent SIRF Tender, especially to assess "all land ownership issues or disputes, including court challenges and judgements". This is beyond the scope and capability of the CRH project, and requires expert legal opinion on, for example, the relative rights associated with the Perpetual Estate on parcels 191-052-696 and 191-052-823 in Mataniko and Barana and Jabros/Gilbert Camp.



References

Allen, M., (2012) Land, Identity and Conflict on Guadalcanal, Solomon Islands, **Australian Geographer**, 43:2, 163-180, DOI: 10.1080/00049182.2012.682294.

Foukona, J 2015, 'Urban land in Honiara: Strategies and rights to the city', **The Journal of Pacific History**, 50(4), 504-518.

Foukona, J., and Allen, M., (2019) *Urban Land in Solomon Islands: Powers of Exclusion and Counter -Exclusion*, Chapter 15, in *Understanding Oceania: Celebrating the University of the South Pacific and its collaboration with The Australian National University*, edited by Stewart Firth and Vijay Naidu, published 2019 by ANU Press, The Australian National University, Canberra, Australia.

Foukona, J., (2017) The rules of the game: Legal and political influences over land access in Honiara, in **Development Bulletin** No.78, Urban Development in the Pacific, August 2017, Editors: Pamela Thomas and Meg Keen, Canberra.

Global IDP Project (GIDPP). (2004) Profile of Internal displacement: Solomon Islands. Compilation of the information available in the global IDP Database of the Norwegian Refugee Council. Geneva, Switzerland.

Keen, M & McNeill, A., (2016) After the Floods: Urban Displacement, Lessons from Solomon Islands, **In Brief 2016/13**, State, Society and Governance in Melanesia, Canberra.

Keen, M & Connell, J 2019, 'Regionalism and Resilience? Meeting Urban Challenges in Pacific Island States', **Urban Policy and Research**, vol. 37, no. 3, pp. 324-337.

Liloqula R. and Pollard A. A. (2000) Understanding conflict in Solomon Islands: a practical means to peacemaking. **ANU discussion paper**.

McEvoy, D., Mitchell, D., and Trundle, A., (2019) Land tenure and urban climate resilience in the South Pacific, **Climate and Development**, DOI: 10.1080/17565529.2019.1594666

Maggio, R., (2016) "Big Confusion": The Land Question in Honiara and the History of Land Policy in Solomon Islands, **People and Culture in Oceania**, 32: x-xx, 2016.

Moore, C., (2015) Honiara: Arrival City and Pacific Hybrid Living Space, **The Journal of Pacific History**, 50:4, 419-436, DOI: 10.1080/00223344.2015.1110869.

Sullivan, M., & Larden, D. (2007) Chapter 15 - Strengthening land administration in Solomon Islands. In **Making Land Work - Volume 2**, Case Studies (1st ed., pp. 307–325). Canberra, Australia: Australian Government.



Trundle, A., and McEvoy, D., (2016) Honiara Urban Resilience & Climate Action Plan, Report developed for the United Nations Human Settlements Programme (UN-Habitat) Cities and Climate Change Initiative (CCCI).

World Bank (2019) Aide Memoire: Improving Resilience and the Resilience Impact of National Land and Geospatial Systems - Phase II Implementation Support (P170530); Solomon Islands Needs Assessment (P170722), Implementation Support Mission, May 27 – 31, 2019, Solomon Islands (see Appendix 3)

Appendix 1

International Land Tenure Workshop, Honiara, (28 June, 2019) – Program and Participants

An International Land Tenure Workshop was held in Honiara on 28 June 2019, with experts attending from Solomon Islands, Australia, New Zealand and the Netherlands. The workshop involved representatives from two peri-urban settlements (Wind Valley and Jabros/Gilbert Camp) as well as customary land custodians. National and city Government were represented and contributed to the discussions.

The workshop was structured as follows, with discussions in three groups (i) Jabros/Gilbert Camp (ii) Wind Valley, (iii) Women’s voices. Notes were taken during the Workshop by Luke Kiddle, Don Grant and Stephen Boothroyd. Notes on the Women’s View discussion was collected by Jaap Zevenbergen, Don Grant, Tarsilla Lehmann and others. Subsequent commentary from Alan McNeill, Alexei Trundle and Joseph Foukona has been included in the report.

AIM

- (i) Discuss and agree on land tenure issues in White River & Jabros/Gilbert Camp
- (ii) Discuss and agree on land tenure issues affecting adaptation in all case study settlements (including Fishing Village, Ontong Java and Aekafo settlements).
- (iii) Identify and develop locally appropriate land administration responses.

Participants: approximate number of people – 30. 4 break-out groups (1 group of women)

Program:

9.30 – 9.45	Welcome and prayer
9.45 – 10.00	Project overview and context – climate resilience actions (Darryn McEvoy)
10.00 – 10.40	Introduction to land tenure issues in Jabros/Gilbert Camp and White River (Alexei Trundle)
10.40 – 12.00	Breakout groups (4) to discuss and agree on priority land tenure issues to address in each settlement
12.00 – 1.00	<i>Lunch</i>
1.00 – 1.30	Local perspectives on the key points from the morning discussion (MLHS contact point, Ward Councillor 1, Ward Councillor 2).
1.30 – 2.00	An overview of land tenure issues affecting the implementation of resilience actions - (David Mitchell, with inputs from the project team)
2.00 – 3.30	Facilitated breakout groups (4) on land administration responses to address land tenure issues affecting the <i>Climate Resilient Honiara</i> Project. <ul style="list-style-type: none"> • Key issues include: <ul style="list-style-type: none"> ○ Encroachment on customary land. ○ Land disputes. ○ Low-cost TOL to FTE conversion methods. • Co-design process – if we do this, this will be the result. Is this a good outcome? • To resolve land tenure issues that block resilience actions. • To make recommendations on FFP LAS.



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- 3.30 – 4.30 Break out groups report back on priority land administration actions.
- 4.30 – 4.50 International experience of land administration in informal settlements: what lessons could be relevant for the Honiara context? (Jaap Zevenbergen)
- 4.50 – 5.00 Workshop close (McEvoy / Mitchell)

	Name	Position	
1	Joses Naumai	Chief – Jabros / Jabros/Gilbert Camp	Jabros/Gilbert Camp Group
2	Tim Tabel	Community elder who negotiated original custom agreement – Jabros/Gilbert Camp	Jabros/Gilbert Camp Group
3	Cyril Olia	Jabros/Gilbert Camp	Jabros/Gilbert Camp Group
4	Solomon Leonard Saii	Ward councillor (Panatina)	Jabros/Gilbert Camp Group
5	Adrian Joe	Chief of Barana Village, the customary land owners for the central southern peri-urban area	Jabros/Gilbert Camp Group
6	Mary Samani	Chief’s wife – Wind Valley	Women’s Voice Group
7	Savina Abana	Wind Valley	Wind Valley Group
8	Nick Nua	Original surveyor for Honiara post-independence (Ontong Java)	Wind Valley Group
9	Freddy Rausaenile	SINU	Jabros/Gilbert Camp Group
10	Josephine	Vois Blong Mere	Women’s Voice Group
11	Stella Waioha	Vois Blong Mere	Women’s Voice Group
12	Jenny Puhara	MLHS urban section	Women’s Voice Group
13	Nancy Jolo	HCC	Women’s Voice Group
14	John Clemo	HCC / CRH project	Wind Valley Group
15	Donald Kudu	Consultant / MLHS	Wind Valley Group
16	David Mitchell	RMIT University	
17	Steve Likaveke	CRH project	
18	Jaap Zevenbergen	University of Twente	Women’s Voice Group
19	Luke Kiddle	VU Wellington	Jabros/Gilbert Camp Group
20	Don Grant	RMIT University	Wind Valley Group
21	Stephen Boothroyd	RMIT University	Jabros/Gilbert Camp Group
22	Darryn McEvoy	RMIT University	
23	Silvia Gallo	UN-Habitat	Women’s Voice Group
24	Tarsilla Lehmann	RMIT University	Women’s Voice Group

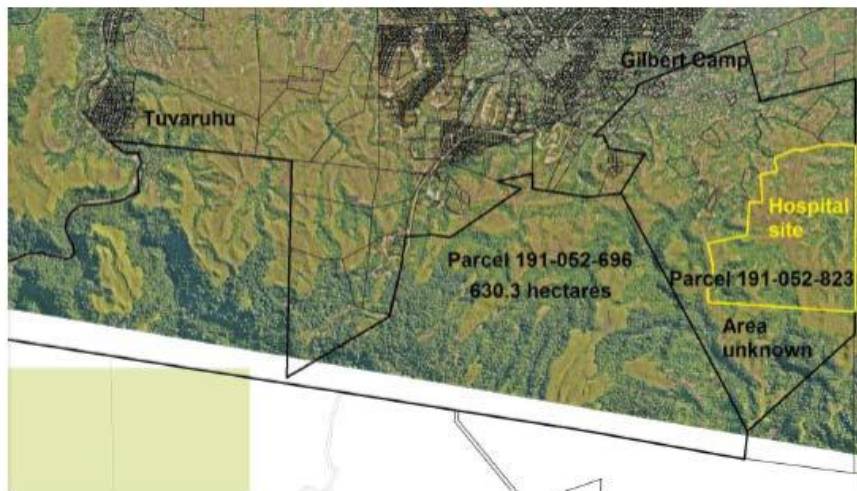
Appendix 2

Land SIRF Tender sites



Honiara Capital Territory - light grey line, Honiara LiDAR data – yellow line, SIRF Tender Parcels – lilac line

Parcels 191-052-696 & 191-052-823 (Mataniko / Barana / Gilbert Camp)



These parcels lie to the south of the Honiara city boundary. Both parcels are owned by the National Government through the Commissioner of Lands.

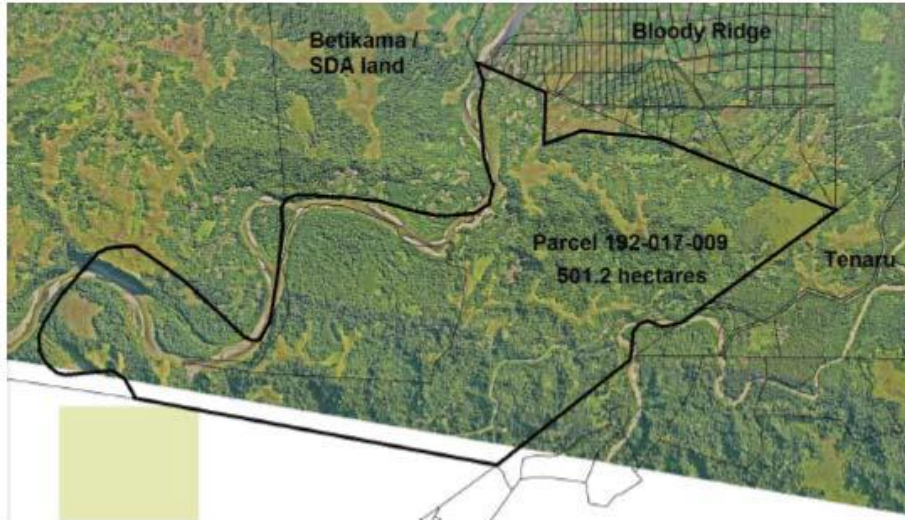
Part of Parcel 191-052-696 is situated inside the unofficial Barana Community Park. A squatter settlement next to Tuvaruhu on the Mataniko River is encroaching into Parcel 191-052-696.



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Parcel 192-017-009



This parcel lies to the east of the Honiara city boundary and along the eastern bank of the Lunga River. This parcel is owned by the National Government through the Commissioner of Lands. Squatters are occupying parts of the land, including New Kolina village next to the Lunga River, and there are also squatters along the Tenaru River.



Appendix 3 World Bank Aide Memoire – Solomon Islands

Improving Resilience and the Resilience Impact of National Land and Geospatial Systems - Phase II
Implementation Support (P170530); Solomon Islands Needs Assessment (P170722)

Implementation Support Mission, May 27 – 31, 2019

Aide Memoire

INTRODUCTION

1. The World Bank team² visited the Solomon Islands from May 27 to 31, 2019 to launch a *Land and Geospatial System Resilience Needs Assessment* on the Solomon Islands including specific considerations on access land for development³. The Needs Assessment aims to developing an Action Plan for increasing land and geospatial systems' resilience and impact in the Solomon Islands. This mission represented a preliminary situation analysis on the land and geospatial systems in the Solomon Islands. The mission team met with the officials of the Ministry of Finance and Treasury (MFT); the Ministry of Lands, Housing and Survey (MLHS); and the Ministry of Justice and Legal Affairs (MJLA) in Honiara; and travelled to Gizo to meet the Provincial Government and MLHS and MJLA Divisions, and to inspect land use and issues in the Gizo town including informal settlements and a close by tourism site. The mission wrap up meeting was held on May 31, 2019 at MFT, and the World Bank Country Representative and the IFC Tourism Project staff were briefed on the mission findings at the mission exit. The mission team wants to express its deep appreciation to the Solomon Islands Authorities over the immemorable hospitality and collaboration extended to the team during the visit.

SUMMARY OF MISSION FINDINGS

2. Some 80% of lands in the Solomon Islands are held through customary tenure belonging to tribes often constituting of few hundred people with particular genealogy, customs, and language in common. Other lands have been alienated to State, Provincial Assemblies or to Tribal, Communal or Private parties through a Perpetual Estate, and some of these are further leased out for residential or commercial development. The Commissioner of Lands (now through the Land Board) can issue Fixed Term Estates (FTEs), not leases but equivalent to leases in every way apart from the name. Foreigners or foreign companies cannot own Perpetual Estates (PEs), but can own leases and FTEs if they have a term of maximum 75 years. In addition, the government has regularized growing informal settlements through a system of Temporary Occupation Licenses (TOL). The Estates and TOLs records, as well as (theoretically) the customary tenure holding records are being split to the Registrar General's Division in MJLA (estates) and various Divisions in MLHS, as there is not a comprehensive land register in the Solomon Islands. The Valuer General's Division facilitates valuation maps for Honiara and helps the provinces to do their own valuation maps. The Surveyor General's Division maintains cadastral mapping system that is comprehensive, but it is a manual system that is not yet utilizing the digital and GPS era to increase efficiency. Overall, the land administration system is functional and gets the job done. However, the current paper records are not safe from hazards, and in general the land administration and management

² The mission included Mr. Mika-Petteri Törhönen (Lead Land Administration Specialist, GSULN), Mr. Abbas Rajabifard (Professor of Land Administration and Disaster Management, University of Melbourne), Mr. Dongkyu Kwak (Senior Land Administration Specialist, GSULN) and Tevi Obed (Disaster Risk Management, GSU08) and was supported by Ms. Linda Manele (Program Assistant, EACSB).

³The access to land for development work was done in part for the benefit of IFC's Tourism Market Creation Project in the Western Province of the Solomon Islands (IFC Tourism Project, P602286).



ADAPTATION FUND



services, and revenue collection are hampered by system inefficiencies and manual era processes, communication and access to information. Notably, the access to land tenure information is a major resilience issue. It is difficult and often impossible to establish from government records who owns what land or property in a location, or what the type or value is a built asset in the location, or whether there are any. Among others, the compromised access to land tenure information has major implications to investments on land and thus to growth, and among others to tourism development. Also, the overall geospatial infrastructure and standards need upgrading and mainstreaming for improved production and access to information and services, fundamental for disaster risk preparation and responses. The way forward, however, is clear and doable, and not technically or volume vice extraordinary. The land and geospatial systems in the Solomon Islands will benefit enormously from digitalization of records, and modernization of processes to a digital era. In addition to system upgrading, activating forward looking land tenure services that can assist willing groups to make land available for development (on a mutual and shared benefit basis) will have a major impact development in the Solomon Islands.

MISSION FINDINGS

Land Tenure and Administration

- 3. Land, Resilience and Development in the Pacific Island States.** Access to land is a major issue in the Pacific Islands in relation to all development and infrastructure investments. Investment projects are often delayed or cancelled due to uncertainties over tenure to land. Similar challenges are met in disaster response situations as there are no reliable sources of information on the impacted assets, and their owners due to lack of comprehensive land registers, maps or public lands inventories prior to disasters. In terms of geospatial systems and data, as the location-based platforms for resilience, the vastly scattered Pacific Islands present a real challenge for the National Geospatial Reference Networks of location and heights and all types of mapping. Compromised geospatial base has direct negative implications to for example to tsunami, flood and landslide modelling, and to the national capability to put in place disaster response and early warning systems. Thus compensation valuation, reconstruction assessing and beneficiary identification are often very difficult. The key challenge in land recording is provided by legal pluralism and the prevailing customary tenure systems that apply to 80-90 percent of land areas in the Pacific Islands. Customary tenure and lands symbolize the entire cultural heritage of the Pacific Islands and is thus the underlining basement of all land use and administration. It is thus given that all development in the Pacific Islands is likely to mix complex and delicate statutory and customary processes and decision making. Among others customary tenure systems and land use planning combination is typically not agile enough to serve rapid urbanization, and in the Pacific Islands this has resulted to a vast phenomenon of informal settlements in urban areas that are highly at risk to natural hazards like cyclones, earthquake, tsunami and flooding. The combination of growing population and complicated access to land has also been reported to increase pressure on natural resources and led to over exploitation of land-based resources. In rural settings, the intensifying competition over land and natural resources by for example expanding agriculture and commercial forestry are being accused of causing deforestation, and leading many customary owners losing control of their traditional lands. On the other hand, the Pacific Island states are heavily reliant on their natural resources for output, employment and earnings of foreign exchange. All in all, the legal pluralism, complicated tenure arrangements, incomplete and insecurely kept land records, poor planning and growing informal settlements increase vulnerability of population and generate considerable risks across the Pacific Islands which is ranked as one of the highly vulnerable regions in the world to the negative impacts of natural hazards. The situation in the Solomon Islands and its Western Province was found to feature many common to region land issues and challenges, but in a scale and prevalence that would also allow shift improvement with well targeted actions and investment.

4. **Land tenure in the Solomon Islands.** All land was once held under customary land tenure in the Solomon Islands. Today the tenure systems are, customary tenure (~80%) belonging to tribes; alienated state, provincial, and private lands held through a PE and sometimes passed on for residential or commercial development through a FTE or lease. Foreigners and foreign companies can only own leases or FTEs for terms of a maximum 75 years. There are also growing informal settlements around Honiara and provincial towns including in Gizo, which the government have attempted to regularize through a system of Temporary Occupation Licenses (TOL) renewable every three years. However, as the demand on land has stayed high, TOLs have de facto become a permanent tenure arrangement. Recognizing this, the MLHS's current policy is to phase out TOLs for replacement with FTEs that would open them to real property transactions including use as collateral for loans.
5. **Land Administration System in the Solomon Islands.** There is a land administration system in the Solomon Islands vested with powers to deal with all lands, but in practice it currently covers only areas alienated from the customary tenure areas. The land register is in the Registrar General's Division in MJLA, but it records only PEs and FTEs along with UK patents and other non-land related items. TOLs are recorded in the Urban Division of the MLHS, and a Record on Customary Tenure Areas is held at the Land Reform Division of MLHS. The Land Board of MLHS adjudicates alienation with the Commissioner of Lands as its Secretary, and the Surveyor General's Division carries out cadastral surveys of alienated land and subdivision as a prerequisite for registration to the Land Register. The Valuation General's Division is responsible of valuing alienated properties for recurrent property taxes. All registered PEs and FTEs can thus be found from corresponding cadastral maps in two scales at the Surveyor General's Division. All land administration processes and records in the Solomon Islands are paper based (cadastral maps are carved in linoleum, PEs/FTEs kept as 'cards') and manual, and kept in one copy the MLHS/MJLA building in Honiara with limited climate, dust and fire control. The Commissioner of Lands and the Registrar General with DFAT support have worked towards digitizing the land register and archives, but the process has not concluded. The Registrar General estimates the land register and pending entries (due to a mapping backlog) to contain up to 10,000 PEs. About 500 alienations and subdivisions, and 100 mortgages are registered per year. There has been no customary tenure area registration since the Customary Land Record Act allowed registration in 1994, but there are 2 pilot registration processes on-going with promising prospects.
6. **Cadastral Surveys and Valuation.** The current cadastral system includes a parcel map, cadastre index map and public sector cadastral surveyors of the Surveyor General's Division. The surveying infrastructure is conventional and practices partly digital in Honiara and fully paper based in the Western Province for example. In Gizo, all surveying is carried out in local coordinate system as the national coordinates system's control points have disappeared close to the settlement areas. All surveys, regardless of whether manual or digital originally, are drawn to linoleum in 2 scales (1:100 and 1:1000) before completing a subdivision. There is a notable backlog (some thousands of land parcels) in the drawing delaying alienation. The mission team does not know any other country in the world that would still establish and maintain cadastre maps manually in linoleum. The Valuer General's Division is responsible of producing a valuation map of Honiara reflecting market values, which is used for defining land rents and property rates. The Division also supports Provinces in preparing their value maps for land rents.
7. **Challenges.** The Solomon Islands has a paper and manual processes era land administration system that thus it is interconnected and slow, or even cumbersome in operations and queries. For example, the cards-based land registry does not work as a rent roll (due to one by one retrieval needed case by case) and thus the Commissioner of Lands Division cannot actively monitor land rents due or in arrears. The Division just records rents as they are being registered. Similarly, the Urban Division cannot keep up with TOL renewal control, and de facto most TOLs



do not get renewed upon expiration. The Commissioner of Lands Division estimates several million Solomon Island Dollars (SBD) revenue loss annually due to land rent arrears and non-renewed TOLs. That estimate would be higher if it considered also the land rent stagnation. Land rent terms are typically not updated during the lease term and thus the lessee has a prospect for the same land rent for 75 years although the law would allow periodical updating. It is also clear that the land administration information in the Solomon Islands is in a passive use to say the least. While it is good that all registered rights are connected to maps, access to information on registered rights is fragmented (card by card) and area-based queries or investigations by any party, public or private, are cumbersome to implement. Finally, the land acquisition/alienation process is heavily litigated typically concerning customary tribes' claims for a higher share of compensation from the alienation, and result to lengthy processes. The access is so slow, and perceived risky, that customary areas are hardly ever considered as an option for land development by external parties. The markets focus on alienated lands, but the stock is limited and information not easily available for the market and investors.

8. **Land Resilience Impact.** Solomon Islands is vulnerable to extreme weather, floods, cyclones, earthquakes, volcanic eruptions, landslides, droughts, high tides, and tsunamis. There is an evident need for a land administration and geospatial system that provides for the security of tenure and shares information on land and property, and their location and owners for disaster emergency response, possible compensation, reconstruction and infrastructure improvement. The current system covers only some 20% of the area and in a disconnected and slow access way. One among the core questions is whether the customary tenure holders' interests and holdings are secure without any kind of recording to the government's system? The Bank team does not have an answer to that, but there is a global evidence that customary tenure systems face growing pressures when population grows, and urbanization and commercial interests progress and approach customary areas. Not having a registered right may increase vulnerabilities in such cases. Also, in case of a disaster, virtually no assets or property in customary lands have been recorded in any public system. For example, the government in Solomon Islands or in the provinces does not have information buildings outside the alienated areas. The government's ability to define eligibility of families for assistance or compensation, or the volume of compensation, is weak. The Bank team thinks that the current situation may not be in the best interest of tribes. Customary lands recording on a voluntary basis could be addressed with a careful process that would not violate or compromise the customs and the tribes' sovereignty and not endanger the rural population whose access to customary lands might vary between multiple and dynamic customary tenure arrangements, socio-cultural ties and mutual understanding with customary owners.

Geospatial Systems

9. **Geospatial Infrastructure and Services in the Solomon Islands.** Geospatial information and services are critical for evidence-based decision-making, good land governance, disaster resilience and emergency responses, civic engagement as well as for growth, productivity and tourism development. Modern geospatial information systems and location-based services have a high potential for triggering social and environmental benefits. Cadastral maps, topographic maps and geodetic coordinate reference networks serve as the base for geospatial systems to accommodate land tenure, administration and taxation, as well as land management, planning and land development functions and services. Governments need to play a leading role in setting up geospatial infrastructure as a public good, as well as generating and maintaining the core geospatial datasets. In the Solomon Islands, MLHS has a mandate to acquire, organize, store and share geospatial data as well as to maintain records of all lands of the territory. Compared to the nationwide task, MLHS's geospatial infrastructure, data coverage and service development are in a conceptual phase. There is an opportunity for rapid progress and catch up, as the Solomon Islands can benefit from the ample experience and lessons learned with vast number of countries that already have an advanced geospatial infrastructure and service base, and avoid mistakes that others have made in developing their geospatial systems.



10. **Geospatial Data Sets in the Solomon Islands.** Geospatial data is being provided for multiple uses in the Solomon Islands in digital form. The existing paper cadastral maps have been scanned, digitized and georeferenced since 1990s, and in Guadalcanal, MLHS uses very high-resolution images (from LiDAR 2017 captured for the Ministry of Health and Medical Services) as base maps for cadastral map verification. But, MLHS still produces and maintains paper/linoleum maps as the legal maps. Regulations do not recognize digital cadastral maps as authoritative. There are also data compatibility issues, requiring harmonization. In terms of topographic mapping, the National Geographic Information Centre (NGIC) at the MLHS hosts maps in scale 1:50,000 and digital terrain models in scale 1:5,000 (with 5m index contour line) generated in 2003 by the Defense Imagery & Geospatial Organization (DIGO) with support from the Government of Australia. Those topographic maps have been shared offline with other government ministries upon a request. MLHS also hosts and shares ad hoc digital images that cover small areas where other governmental projects have been implemented.
11. **Access to Geospatial Information and National Spatial Data Infrastructure (NSDI).** Given the current situation that a proper geoportal hasn't yet implemented, most of digital geospatial datasets of the Solomon Islands government and providers are stored in multiple network folders and accessed directly by a raw file level. Due to the nature of the file sharing system such as low security and degrading performance, an immediate attention needs to be given to develop a geoportal. Opening the access to such geospatial products as web-services, can practically solve difficulties in disseminating digital maps and images. Combined with the potential establishment of a geoportal for everybody's benefit, mechanism for coordinated acquisition of geospatial data may be a valuable upfront input in geospatial infrastructure that could considerably improve the effectiveness and quality of geospatial data generation across all sectors. In order to achieve this objective, a set of NSDI elements would be reviewed and improved including governance, legal and policy framework, financial, data, standards, coordination, capacity building, sharing and engagement.
12. **Geodetic Reference Framework.** There is a practice of applying multiple map projections, coordinate systems and geodetic reference frameworks for geospatial data in the Solomon Islands, and that poses core obstacles for the interoperability of geospatial data. There are clearly also equipment, communication line and capacity issues that cause these problems. Scarcity (or damaged) of geodetic control points are also reported, and these are critical challenges in efficient mapping and geospatial data production. The geodetic datum (GUX 1 ASTRO) applied to cadastral maps in Solomon Islands dates back to 1924 and is less accurate than modern datums. The Gux 1 Astro differs by a few hundred meters depending on the location from the World Geodetic System 1984 (WGS 84), which is applied in the region as the norm. Continuing with the outdated geodetic datum will hamper cadastral maps' compatibility with regional and international standards, and the use of most datasets in the Solomon Islands.
13. **Communication Lines.** Broadband infrastructure offers important opportunities for advancing economic growth and promoting communications as well as very literally for improving land and geospatial services. The world has crossed the halfway line in 2018 in terms of Internet use, with 51.2 per cent of the world population using the Internet, while the internet penetration rate in the Solomon Islands has reached around 12 per cent of the population. Due to the limited coverage of the internet services that mainly rely on satellite links in other islands beyond Honiara, sharing land and geospatial data between line ministries and local governments remains very limited. However, in recent years, the GOSI has funded the submarine fibre-optic cable deployment running 3,400 km from Sydney to Honiara including some domestic telecommunication linkages. With the launch of submarine cable that is scheduled by 2019, the wider internet access will catalyze the overall advancement of



land and geospatial information system.

- 14. Geospatial Systems Resilience.** As mentioned the Solomon Islands are highly exposed to a range of climate and natural hazards and incomplete land records add on to the physical climate vulnerability in particular in the customary tenure areas. As geospatial infrastructure and access to geospatial information is equally compromised ability for disaster preparation and response is definitely compromised. When actual interests cannot be located, disaster responses can create new problems such for example with temporary shelters causing resistance by unconsented customary owners on whose lands the displacement camps are being erected. The problems repeat in post disaster investments where infrastructure investments are held back through lack of location based systems to identify interest holders. It is also simple that single paper maps are quite vulnerable in the Solomon Islands in case of natural disasters or simply fire hazards. Digital maps are more secure than paper based maps as they can be multiplied and secured in more than one safe locations. Geospatial infrastructure provides the platform that is needed for preparing for destructive natural disasters, ranging from providing evacuation information for civilians to supplying critical disaster information to emergency services. National land administration systems and geospatial information systems together are fundamental for disaster risk management by providing pre and post disaster tenure, land use, land valuation and zoning information within a unified geospatial platform for planning, monitoring and implementing responses.

Tourism

- 15. Access to Land for Development.** Based on an initial analysis and confirmed in various discussions in the Western Province and in Honiara, it is evident that tourism investments from a bit more established circles are being considered for alienated lands only. According to the IFC team in Honiara, this for the Western Province context will mean along the lines of 10 to 20 currently available sites for a tourism investment. While progress can be made in a more systematic identification and marketing of those sites, and in the mid-term through expediting FTE issuance, the true change in tourism development would require opening up suitable sites in the customary tenure areas to credible tourist investors. This will not be easy or simple, as the customary tribes still commonly perceive land alienation equivalent to land taking, and it is not a common or well understood mean for customary tenure groups to alienate sites for their own PE for leasing as FTEs to investors. Instead, a new lease on customary lands would start with a lengthy alienation process that as we know is prone to litigation and disputes. There are also well published past events between tourism facilities and customary groups that will caution tourism operators from entering to investing in sites in customary tenure areas.
- 16.** However, having said all above, it is also well known that customary tenure groups are seeking ways to bringing investment in their areas. This may not be every tribe in every location, but all interviewees during the mission where reporting a growing interest among the tribes to engage in commercial activities. Also, the 4 pilots that MLHS are implementing on customary tenure area recording are going on well perhaps signaling changing attitudes towards the governmental land administration. Also, a large number of tribes have engaged in logging and other businesses already, commercial contracts are not all new to the customary tenure groups. Thus, as a thought for further vetting with the local authorities and communities, one could think it useful to consider a more active approach for encouraging tribes to signal out sites suitable for investments and development, and progressing alienation of these sites as PEs for possible leasing to investors. Re the government, one would have to provide such a service with a full caution to customary sensitivities and start with thorough awareness raising and consultation activities. Should a Tribe then want to proceed with preparing part of their areas for investment, some land use planning and legal aid would need to be provided in support. Once a tribe would have completed their intention and a suitable plan, and expedited alienation could follow, and the resulted alienated



site could be channeled to the market through existing investment promotion mechanism(s). Such an approach could work where there would be a truly willing customary group that could be brought to a trusting relationship with the MLHS.

Emerging Conclusions; Ways Forward

- 17. Land Tenure and Administration.** There is a wide consensus in MLHS and MJLA that the core land records need to be digitized for added security and system resilience, and initial progress is being made through the Commissioner of Lands Division and Registrar General Division with a support from DFAT. The World Bank team endorses the approach fully and suggests that a further step towards a fully digital land information system could be taken that would serve all land and geospatial records maintained by MLHS and MJLA. Digital records, integrated information system and web-based services, in particular utilizing the opportunities coming with the new communications cable would create a land administration solution capable to cover and all land tenures and all lands. Incrementally, this would lead into phasing out of paper-based products and processes towards a fully digital land administration system, processes and services. Digital systems are more secure than paper-based systems, and their shareability and impact capabilities are non-comparable to manual systems. The digital records and systems will also open up the era of governmental dataset interlinkages, which for the land administration for example would mean a vivid link with the census register for the title holder information sharing, and connection to address register for example. Also, natural linkages would be to land planning and building authorities linking plans and building data, and on and on. Sustaining and supporting the land administration system by developing a capacity building program including training and study tours, for all staff. The digital records would also allow easy querying and extraction, and the Commissioner of Lands Division's capacity to collect and monitor land rents would escalate. Digital records would also enhance the Value General's land valuation capacity allowing a development of a standardized approach and application for valuation nationwide. Finally, comprehensive and secure land records would offer a critical protection of rights when population is displaced by a disaster. Once complete, the land records will have multiple social, growth and revenue impacts, and allow protection of rights in the moments of disasters and allow informed responses after the disasters. This would assist with prevention and recovery due to any disaster.
- 18. Land Administration and Management to Support Tourism Development.** It is obvious that security of tenure and perception of risks are among the keys for attracting credible tourism investors to the Solomon Islands. In the end the tribes need to want to do tourism business seriously enough, and be willing to render full predictability over changes in the group and relations with possible investors, and the Bank team does not have the means to say how many tribes would be now ready for such a commitment. But, for the government's side, a more active approach for alienating lands for tourism could pay dividend in increased investments that can be seem to offset easily the increased investment, which would include alienation through community sensitization, consultation, planning and legal aid, and expedited registration and advertisement to investors. Such a process could be piloted embedded in the (upcoming) customary lands recording pilots.
- 19. Geospatial Systems; Technical and Institutional Aspects.** It is recommended that MLHS takes a pragmatic and fit-for-purpose approach to improving geospatial information systems, preferably using open source solutions, for short-term upgrading of its systems. The recent advancements in geospatial technologies makes this cheaper and more efficient than ever. With a strong focus on capacity development, incremental innovation, transparency and compliance with the concept of NSDI (standards, formats, policy, coordination, sharing and distribution), various technical interventions should proceed, as they require no immediate legal or institutional reforms. Later, it is imperative that the Government support policies that enable the inter-connectivity, sharing,



and use of geospatial data in order to facilitate data availability, accessibility and quality.

20. **Geodetic Framework and Capacity.** Adoption of one standardized coordination system across the Solomon Islands is a key priority towards nationally consistent and integrated geospatial data and services. It needs to be applied as the standard to all land surveys and geospatial data production. This should be facilitated by the restoration of national coordinate system and adequate ground control networks allowing full usability of geodetic information among the geospatial stakeholders. It is important to gradually develop capacity and to introduce modern technologies GPS (GNSS) equipment. As an interim solution before the maturity of national geodetic framework, the use of global GNSS correction services⁴ would provide practical approaches for mapping with less investment and shorter time, considering the volume of geospatial demands.
21. **Geospatial Data Management.** Currently, the information security risks and data vulnerabilities are very high due to absence of proper security management and systems. It is strongly recommended to develop a simple geospatial server within the government intranet to accommodate all existing data in a safe place. Access control and data backup should be in place to prevent any unintended data loss. The geospatial server will also considerably improve the speed of handling large size images by building an image pyramid comprising multiple mosaics of images at a different zoom level. This will provide an immediate solution to stop not only using the shared network folders, but also accessing raw images.
22. **Geospatial Services for Support Tourism Development.** Geospatial information systems provide a good pre-screening tool for potential sites for tourism development and for required environmental and social risk mapping and assessments. Further, access to digital maps providing touristic points of interests for travelers allow them to plan a trip, locate restaurants, accommodation, shops and tourist attractions. Online map services, rich internet contents and active communication with users by posting reviews and uploading pictures, serve as revenue drivers for the tourist industry and attracting visitors. The sector is worth investing in, the net benefits of geospatial services have proven to exceed investment costs 10 times.

Next Steps

23. This preliminary analysis of land administration and geospatial systems resilience has been updated based on stakeholder comments from the MLHS. The findings in the Aide Memoire will inform an eventual full report on the resilience impact and access to land for development in the Solomon Islands.
24. The next mission has been agreed for September 23 – October 2, 2019. The objective of the mission will be to further develop the current ideas to a costed and time lined an Action Plan. The mission team will likely to be strengthened with a Social Development Specialist to consult communities and advice on community sensitization processes for customary tenure pilots, and a Land Lawyer for working through regulatory prospects and requirements for change.

Annex 1. Mission Agenda and Officials Met During Mission

⁴ There are multiple global GNSS correction providers such as Leica Zeno, Trimble RTX, Hexagon TerraStar, Atlas Hemisphere and OmniSTAR



ADAPTATION FUND



Date	Activity	Remarks
Mission team	<ul style="list-style-type: none"> Mika-Petteri Torhonen (Lead Land Administration Specialist, TL, mtorhonen@worldbank.org) Professor Abbas Rajabifard (Lead Land and Resilience Specialist, abbas.r@unimelb.edu.au) Tevi Maltali Obed (Disaster Risk Management Specialist, tobed@worldbank.org) Dong Kyu Kwak (Senior Land Administration Specialist, dkwak@worldbank.org) 	
May 26	<ul style="list-style-type: none"> Bank team arrives 	
Monday, May 27	<ul style="list-style-type: none"> Meeting with Ministry of Lands, Housing and Survey <ul style="list-style-type: none"> Mission briefing: Mr. Stanley Wale (Permanent Secretary), Mr. Alan McNeil (Commissioner of Lands Acting, AMcneil@mlhs.gov.sb), Mr. Jimmy Ikina (Surveyor General) Discussion of overall mission agenda Stakeholder Meeting: Existing Services, Status of land Administration and Geospatial Information Systems <ul style="list-style-type: none"> Jimmy Ikina (Surveyor General) Dalton Hone (Chief Cartographer) Nelson N.Rorea (Senior Cartographer, NRorea@mlhs.gov.sb) Nixon Qurusu (Deputy Registrar General, Nqurusu@rgo.gov.sb) Buddley Ronnie (Under Secretary Technical, Bronnie@mlhs.gov.sb) Steve-Daniel Likaveke (UN-Habitat PSUP Project Coordinator, SLikaveke@mlhs.gov.sb) Mary Enya Tegavota (National Recorder, Customary Rights Registration Pilot Project, MEnyyaTegavota@mlhs.gov.sb) 	<p>MLHS</p> <p>MLHS MJLA</p>
Tuesday, May 28	<ul style="list-style-type: none"> Meeting with Ministry of Finance and Treasury <ul style="list-style-type: none"> Mr. Barnabas Vote (Chief Policy Advisor, bvote@mof.gov.sb) Mr. Mathew Pitavato (Deputy Director- FEDU) Meeting with Ministry of Justice and Legal Affairs <ul style="list-style-type: none"> Office of the Registrar General (Nixon Qurusu, Deputy Registrar General) Meeting with Ministry of Lands, Housing and Survey <ul style="list-style-type: none"> Customary Tenure Pilot Project (Mary Enya Tegavota, National Recorder) National Geographic Information Center (Nelson N.Rorea, Senior Cartographer) Travel to Gizo in Western Province 	<p>MFT</p> <p>MJLA</p> <p>MLHS</p>

<p>Wednesday, May 29</p>	<ul style="list-style-type: none"> • Meeting with Western Province Government <ul style="list-style-type: none"> - Mr. Christian Mesepitu (Deputy Premier, cmesep2@gmail.com) - Mr. Patrick Toiraena (Deputy Provincial Secretary, ptoirana@gmail.com) • Meeting with Gizo Land office: Initial assessment and identification of land and geospatial resilience, visit to informal settlements <ul style="list-style-type: none"> - Mr. Arvin Tutuo (Chief Lands Officer, ATutuo@mlhs.gov.sb) - Licensed Surveyor 	<p>Provincial Office</p> <p>Local Land Office</p>
<p>Thursday, May 30</p>	<ul style="list-style-type: none"> • Mission team leave Gizo to Honiara • Meeting with Ministry of Lands, Housing and Survey <ul style="list-style-type: none"> - Mr. Bronwyn Oloni (Valuer General) 	<p>MLHS</p>
<p>Friday, May 31</p>	<ul style="list-style-type: none"> • Wrap-up meeting and closing • The World Bank management briefing (WB only) 	<p>MFT, MLHS, MJLA WB</p>