policy brief

Key Points

- Given the rapid urbanization in the Pacific island countries, sustainable infrastructure investments and provision are crucial to curb urban poverty and informal settlements.
- Housing provision for informal dwellers is associated primarily with landownership, subdivisions, governance, and legal institutional frameworks. Lack of tenure due to customary landownership remains standard across the Pacific, yet differing by country. Land reform is required to mitigate the challenges.
- Affordable housing in urban areas is also associated with high-cost building materials due to excessive imports and scarce local supply coupled with high wages. Therefore, skills training of land dwellers by introducing repair and renovation programs will aid in improving living conditions.
- Regional collaboration on urban planning and housing policies can increase awareness of the problems of urbanization as well as opportunities for economic and social development to improve reforms in sustainable housing and green infrastructure.

The Dynamics of Urbanization, Housing, and Land Provision in the Pacific Island Countries

Wawan Juswanto, Senior Economist, ADBI
Vedanti Kelkar, Research Associate, ADBI

Asia has undergone tremendous urbanization and infrastructure growth in the past decade, with almost half of the population now residing in urban areas. More than half of the world's megacities are in Asia and the Pacific, and they constitute hubs of knowledge, culture, commerce, and industry. Parallel to the rapid growth of Asian economies, intense infrastructure investments are necessary to cater to the needs of the growing urban populations. Building quality and resilient infrastructure in developing Asia will require financial investments of approximately $1.7 trillion annually until 2030 to withstand the shocks of climate change (ADB 2017). Especially in the Pacific island countries (PICs) where regional interconnectivity and integration remains a challenge with rapid urbanization, providing sustainable infrastructure is key to ensuring the livelihood, economy, and climate adaptation of the region and necessary to achieve the Sustainable Development Goals.

The PICs are at risk due to a decline in the region's ecosystem resulting from environmental and climate change impacts, social inequities, failed project procurement, health emergencies, supply chain issues, stranded assets, and reduced social license. All these problems are leading to an infrastructure debt risk, for example, with a cost blowout of over $1.5 billion in Fiji alone. The country requires climate change investments of $9.3 billion to sustain the development of reliable infrastructure to mitigate climate change impacts. Global estimates show that 60% of carbon emissions arise from the construction and operation of the existing infrastructure stock, and a further 35%–60% of the future carbon budget will be taken up by infrastructure (Sprigg 2018). Sustainable infrastructure often has been perceived in the form of asset types and/or classes such as renewable energy, rainwater harvesting, green building certifications, and so on. While these can be categorized as specific asset types, they do not conform to the understanding of green infrastructure as an asset itself. According to the Asian Development Bank (ADB) and

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the Inter-American Development Bank, "infrastructure projects that are planned, designed, built, operated and decommissioned in a manner that is durable and ensures economic, social, financial, environmental and institutional equity over the entire life-cycle of the project" are those that can only be termed sustainable infrastructure (Sprigg 2018).

The PICs have an approximate total population of 9.93 million, with a total land area of approximately 53,000 square kilometers (UNFPA 2014). Inadequate housing has plagued the countries, with over 570,000 households living in poverty, in urban areas, squatter settlements, and villages (Habitat for Humanity

2009). Given the rapid urbanization witnessed in the PICs (Table 1)—one in four are urban residents—sustainable infrastructure investments and provision have become all the more crucial due to growing urban poverty and informal settlements. These characteristic informal settlements in the Pacific are widely categorized as urban villages. The 2012 ADB report *The State of Pacific Towns and Cities: Urbanization in ADB's Pacific Developing Member Countries* identified the needs of governments and development partners in the Pacific to meet the increasing demand for urban housing, land, and infrastructure to address the challenges of the growing populations residing in informal and squatter settlements (ADB 2012).

Table 1   Population Size, Population Growth, Rate of Natural Increase, and Urbanization in the Pacific Island Countries

	Population Size	Year	Population Growth (%)	Year	Rate of Natural Increase (%)	Year	Urbanization (%)	Year
Cook Islands	15,007	2016	−0.5	2013	1.0	2011	70.8	2016
Fiji	884,887	2017	0.6	2017	1.2	2011	55.9	2017
Kiribati	115,300	2016	1.3	2015	2.3	2010	57.0	2015
RMI	55,000	2016	0.4	2013	2.1	2011	73.8	2011
FSM	104,600	2016	0.3	2013	2.0	2010	22.0	2010
Nauru	10,800	2016	1.8	2013	2.9	2011	100.0	2011
Niue	1,611	2016	−0.2	2013	0.5	2011	36.0	2011
Palau	17,800	2016	0.3	2015	0.6	2011	78.0	2015
PNG	8,151,300	2016	2.3	2013	2.8	2011	13.0	2011
Samoa	195,979	2016	0.9	2016	2.0	2011	19.6	2011
Solomon Islands	651,700	2016	2.3	2016	2.7	2011	18.6	2013
Tokelau	1,499	2016	1.9	2015	1.4	2011	0	2011
Tonga	100,651	2016	−0.1	2016	2.0	2011	23.0	2016
Tuvalu	11,534	2016	1.1	2013	1.4	2011	52.0	2016
Vanuatu	272,459	2016	2.3	2016	2.6	2011	25.0	2016

▮ Recent data

FSM = Federated States of Micronesia, RMI = Republic of the Marshall Islands, PNG= Papua New Guinea.
Source: National Minimum Development Indicators, Statistics for Development Division, Pacific Community.

The PICs have been largely diverse in terms of geography, resources, population, culture, language, and economic status. Major common problems identified in all PICs include small domestic markets and limited economic growth leading to poverty and decline in living standards. High population growth and accelerated rates of rural-to-urban migration have also led to large squatter settlements in urban and peri-urban areas with poor facilities and lack of housing development mechanisms. Other noticeable issues are the land disputes and ethnic tensions prevalent in communities. Most PICs have limited and poor resource management; they have been receiving substantial development assistance from external sources but are poorly managed. As 70% of the population in the PICs now lives in urban areas, the issue of informal settlements, housing, land, and its subsequent vulnerability remains at the forefront against the backdrop of climate change risks (Hassan 2018).

Major Issues in Housing Provision

Housing provision for informal dwellers in the PICs is associated with four primary categories: landownership, land subdivisions, governance and legal institutional frameworks, and the capacity of informal dwellers to build adequate housing on their own.

There are three types of landownership in the PICs: customary, public, and freehold. Almost 80% of the land is under customary ownership in most countries in the Pacific (Australian Aid 2008). Understanding the dynamics of landownership is key to housing provision in the PICs. Continued growth of informal settlements alongside urban growth contributes to increased vulnerability when houses are built on land with high levels of exposure to potential disasters. There has been a rapid emergence of informal settlements, where people often lack formal tenure rights to occupy the settled land. Sometimes the occupancy is illegal or, in some cases, extra-legal (not against the law but not recognized by it) (Mitchell et al. 2014).

Although Box 1 illustrates briefly the example of Fiji, the lack of land tenure for informal settlements remains standard across the Pacific, yet the country-to-country context differs, and the customary land tenure systems vary greatly. Therefore, while generalizing may not be appropriate, it is helpful to understand that they share features, such as that access to land typically comes

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Box 1   Country Example: Tenure Security in Fiji

The United Nations Human Settlements Programme has defined security of tenure as "the right of all individuals and groups to effective protection by the state against forced evictions" (UN-Habitat 2003).

In the case of Fiji, however, a former government official defined a squatter or informal settler as "a person who is in occupation of State, Freehold or Native land illegally or without any form of security of tenure or without any consent from the landowner" (Lingam 2005). The informal sector in urban regions in Fiji employs approximately 40% of the workforce. Due to the increasing demand for affordable housing, the provisions made by the government in this regard are not enough as the cost of living is very high (Clark 2015). However, the situation is more complicated as many Fijians live in squatters on native land with the consent of the landowner under informal arrangements called *vakavanua*, whereby the informal dwellers also pay a small rent, and the conditions of the housing and allied services are as dilapidated as other informal settlements (Kiddle 2011).

Therefore, in the context of Fiji, an informal settlement can be categorized as both illegally occupied land and informally leased-out land by the owners.

from groups based on kinship or other relationships to the custodians of the land. Land units are generally individual or small household units with the males, particularly elders or senior men, making decisions concerning the group's land matters. With land being a very communal entity, the transfer of land can only happen within the existing social and political groups. As some groups expand and others die out, the right to access land is constantly adjusted and redistributed (Hassan 2018).

Thus, little provision of affordable housing stock for low-income groups and the status of informal dwellers with no title to land are common across the PICs. Lack of security of land tenure and occupancy rights in both urban and rural areas is making it difficult for poor and low-income earners to gain access to finance and improve their living conditions (Sprigg 2018).

In addition to land tenure issues, the lack of subdivided plots and weak land administration have been identified as primary constraints to land tenure reform in the PICs. In most cases, local authorities lack the legal authority,

financial capacity, and staff to support in the planning and coordination with the local and central governments on land management issues. In smaller island countries, the lack of legal authority stems from the concern over duplication; in others, it reflects the relative newness of democratic processes and the continuing evolution of local governments. Overall, the political support for local governments is also limited, with preference given to traditional local leadership structures that are built into the system of dominance of customary land (Hassan 2018).

In most cases, in postdisaster recovery or disaster mitigation reform planning, the key challenges faced by government institutions during reconstruction and relocation concern the occupation and ownership rights of land parcels. Favorable outcomes arise when land authorities successfully coordinate and include the community in all their decisions, but, in most cases, the capacity of governments in the Pacific to coordinate and implement policy reforms often falls short (Mitchell et al. 2014). Box 2 gives an example of the laws governing land administration in Fiji.

Table 2   Land System Distribution of Tenure Systems in the Pacific

	Public [a]	Freehold [b]	Customary [c]
Cook Islands	Some	Little	95%
Fiji	4%	8%	88%
Kiribati	50%	<5%	>45%
Marshall Islands	<1%	0%	>99%
Micronesia, Federated States of	35%	<1%	65%
Nauru	<10%	0%	>90%
Niue	1.5%	0%	98.5%
Palau	Most	Some	Some
Papua New Guinea	2.5%	0.50%	97%
Samoa	15%	4%	81%
Solomon Islands	8%	5%	87%
Timor-Leste	Some	Some	Most
Tokelau	1%	1%	98%
Tonga	100%	0%	0%
Tuvalu	5%	<0.1%	95%
Vanuatu	2%	0%	98%

[a] Includes crown land and land owned by provincial and local governments.
[b] Includes land that is not strictly freehold, but similar in characteristics, such as the "perpetual estates" found in Solomon Islands.
[c] Timor-Leste does not yet have a separate legal category of "customary land," even though most of its rural land remains under customary forms of authority.
Source: Australian Aid (2008, compiled and calculated from various other sources including field trips and interviews).

Box 2   Country Example: Land Administration in Fiji

The indigenous Fijians are governed by the Fijian Affairs Act, which allows them to easily lease out land as the municipal councils do not have jurisdiction over their land as these are governed by the same act. This has been a primary challenge in access to governance mechanisms over land administration in Fiji not only to construct affordable housing but also during disaster response (Clark 2015).

Table 2 shows by country the distribution of land tenure systems and the dominant ownership patterns in the Pacific. In most countries, landownership is largely customary, posing a problem to land acquisition, land-use planning, and housing. The provision of affordable housing in urban areas of the PICs is also associated with the high cost of building materials due to excessive imports and scarce local supply coupled with high wages. Due to the lack of enforcement of building codes and its legal implications, the resultant difficulty in construction works also adds to the construction costs. Additionally, the growing trend among communities to build cyclone-resistant housing along with using western and modern materials has added to building expenditures. Another aspect is that plots need to be serviced adequately for housing leases to be issued, possibly involving various assessments for compliance. These add up and increase the costs for registering land and building, ultimately discouraging private sector involvement (Hassan 2018).

Particularly in terms of housing characteristics, informal communities in the PICs have houses made from materials for poorly constructed shack-like dwellings such as rotting plywood, rusted corrugated iron, and scraps of timber. The high salinity in the air typical of the tropical environment of most PICs also adds to the vulnerability through rusting of exposed metallic materials. Equally challenging for the settlements is the lack of waste removal and sewage drainage. Due to the ever-continuing urbanization, the demand for housing among communities has resulted in a scarce supply of resources for affordable housing among urban residents, thereby challenging their ability to build adequate housing (Clark 2015).

The need to use alternative building materials found in the Pacific landfills to create affordable housing is evident (Clark 2015), but, given their small populations, the PICs generate comparatively less waste. This, coupled with poor interregional connectivity, has led to expensive infrastructure investments toward recycling and reuse. Thus, the PICs need to address how to reduce the building material cost for a single house so that these amounts can be redirected toward constructing more houses, in turn providing residents the skills to build their own homes and additional opportunities for income generation (Clark 2015).

Efforts Undertaken in Housing Innovations

The PICs have made several efforts toward increasing the provision of affordable housing. For example, the Housing Authority of Fiji is responsible for providing affordable housing for Fijians. In the past few decades, however, it increasingly has become a commercial entity, as opposed to a national housing provision authority, selling housing units at market prices and making profit for the authority through the sales. Contrary to expectations, therefore, the Housing Authority is unable to change the situation of affordable housing stock. In the case of informal settlements, the Housing and Squatter Resettlement Unit in Fiji has been the agency dedicated to upgrading existing squatter settlements by coordinating with the Housing Authority, municipal councils, native land trusts, and nongovernment organizations (NGOs) (Kiddle 2011). Additionally, the Housing and Squatter Resettlement Unit has also been working with NGOs such as the Ecumenical Centre for Research, Education and Advocacy (ECREA) and Habitat for Humanity to build and repair squatter housing in the country to assist with upgrading the informal communities. This sometimes has entailed temporary relocation, which has been accompanied by challenges.

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Since 1993, Habitat for Humanity has been supporting the renovation and building of homes in urban and rural areas of the PICs, especially Fiji. Through financiers and community credit programs, they have reduced housing costs to approximately $10,000 (Kiddle 2011). Despite the relative success, the scale of the Habitat for Humanity program is small, with only 20 new homes built annually, but there are hopes to become involved and collaborate with local authorities to plan land subdivisions for natively leased lands. Therefore, the land tenure issue remains at the center for Habitat for Humanity to make progress and have a larger impact.

Several other NGOs, members of civil society, donors, and international organizations have also been making efforts to provide housing for informal settlements in the PICs. From 1990 to 1996, ADB led a multi-donor initiative for providing low-income housing in the PICs along with the World Bank, the United Nations Development Programme, and the Government of Japan. It focused on promoting an incremental approach to housing provision through self-help initiatives and skills assistance aimed at reducing basic housing standards, thereby reducing the building costs of housing subdivisions. However, despite these motivations, the initiatives and innovations were not accompanied by a supportive regulatory environment or policy reform (Kiddle 2011).

Countries in the Pacific have been exploring ways to improve their housing situation, either through land reforms (as described in Box 3) or through collaboration with NGOs, international organizations, and civil society by initiating self-build, repair, and maintenance programs to help sustain quality housing. Some have also taken the stringent path of land reforms to gain larger benefits and impact. Nevertheless, the PICs continue to be challenged with land, housing, and urbanization issues on a deeper level as more strategic efforts are needed to address individual problems. They need to be accompanied also by policy reform in order to gain sustained benefit through investments, efforts, and initiatives.

Box 3   Country Example: Land Policy Reforms in Papua New Guinea and Vanuatu

Papua New Guinea and Vanuatu have been among the pioneering countries to undergo processes for land reforms to foster land-led economic development as well as sustainable and equitable growth.

In Papua New Guinea, the National Land Summit in August 2005 brought members of the government, civil society, the national policy think-tank, and other stakeholders from the private sector and academia to formulate a strategy of consultation, public information, consensus, and coalition building (Australian Aid 2008). This was subsequently followed by a series of action steps leading to the implementation of land reforms from 2008 onward.

On the other hand, in Vanuatu, the country witnessed a rapid growth in land development accompanied by the emergence of a lively real estate market leading to profit generation for foreign investors, thereby isolating customary landowners from the development benefits (Australian Aid 2008). This led to the National Land Summit in September 2006 headed by the customary land chiefs as forerunners for land reforms resulting in a broad consultative process to ensure sustainable land management as well as fair dealings with equity and stability. In 2008, the implementation of land reforms commenced, with the country undergoing a strong consultative process that included several stakeholders, strong community leaders, and bureaucratic support.

Conclusions and Policy Recommendations

The key to a sustainable housing policy in the PICs is successful land reform. Addressing the problems of inadequate housing includes recognizing that squatter settlements are a permanent feature and require basic services to sustain. Along with the identification of suitable land for housing for poor and low-income households, weak land administration has been one of the main constraints of the land reform issue. It is essential that an effective legal framework be established when dealing with land-related matters where customary landowners and developers can directly communicate with mediation from the state. To tackle the issues of urbanization and informal settlements, it is necessary that land tenure questions be addressed proactively by state intervention through the dispute settlement machinery, special land courts, policy mechanisms, and procedures to appoint skilled personnel. Additionally, the skills training of land dwellers for rebuilding, maintaining, and generating secondary

"The key to a sustainable housing policy in the PICs is successful land reform."

sources of income by introducing repair and renovation programs for housing with the materials available will aid in improving the living conditions of the people. More knowledge about appropriate and sustainable technologies is crucial to develop the technical capacity of people in order to keep housing projects affordable. Such efforts will also support PICs in dealing with the immediate effects of climate change. At the same time, regional collaboration on urban planning and housing policies can increase awareness of the problems of urbanization as well as opportunities for economic and social development through well-thought-out reform strategies. In the PICs, sustainable land and housing infrastructure can be a by-product of greater green finance, institutional capacity governance, and efficient resource management.

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