

# Tonga Housing Ecosystem Mapping Report

2023



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Habitat for Humanity New Zealand would like to thank our stakeholders from the Government ministries, State-Owned Enterprises, non-government organisations, village representatives and members of the communities for their participation in our research. Furthermore, some of the information from this research was also taken from initial research on Tonga and resilient housing in 2020 through Caritas Tonga and drawn from a research project undertaken by Mr. Tavite Tonga from TIST in 2022, on improving access to building supplies after natural disasters.

The first Tonga Housing Forum in May 2023 was a platform that brought together key stakeholders in the Housing sector to garner information in the shelter and housing space. We are grateful to those who attended, as their input helped set the scene for this report.

Furthermore, we want to acknowledge all those who provided invaluable information, insight and shared their wisdom, knowledge and experiences to guide, inform and further develop our understanding of the relevant issues that impact on peoples' ability to achieve resilient housing in Tonga. The local research was led and undertaken by Katrina Ma'u Fatiaki, Victorina Leger, and Tavite Tonga.

It is Habitat for Humanity New Zealand's hope that these findings and recommendations for action at the community, sector and society levels will assist our government, civil society and communities to develop and implement the relevant policies and programs to support all members of society, but in particular our most vulnerable, to achieve affordable and resilient housing, ensuring that no one is left behind.

# Glossary of Acronyms

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| <b>Term</b> | <b>Definition</b>  |
|-------------|--|
| GESI        | Gender Equity and Social Inclusion   |
| HFHNZ       | Habitat for Humanity New Zealand   |
| LGBTQ+      | Lesbian, gay, bisexual, transgender and queer  |
| MEIDECC     | Ministry of Meteorology, Environment, Information, Disaster Management, Climate Change, and Communications |
| MLNR        | Ministry of Lands and Natural Resources  |
| NEMO        | National Emergency Management Office   |
| PUMA        | Planning and Urban Management Agency   |
| PWD         | People with Disabilities   |
| RSE         | Recognised Seasonal Employer (scheme)  |
| SPBD        | South Pacific Business Development   |
| SPC         | The Pacific Community  |
| SPREP       | South Pacific Regional Environment Programme   |
| TVET        | Technical and Vocational Education and Training  |
| TSDF        | Tonga Strategic Development Framework  |
| UN          | United Nations   |
| UNDP        | United Nations Development Programme   |
| WASH        | Water, Sanitation and Hygiene  |

# Executive Summary

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The right to housing is recognised as a fundamental human right, including equal and non-discriminatory access to adequate housing, and participation in housing-related decision-making at national and community levels (UN Habitat, 2014). Habitat for Humanity's vision is for a world where everyone has a decent place to live. In a Tonga-specific context this vision would mean all families and communities have the knowledge and resources to have a safe, dry house that can withstand weather events; all households and communities are prepared for extreme weather events including the effects of climate change; and all people with a disability have an accessible house.

The Tonga Strategic Development Framework (TSDF II) 2015-2025, defines the National Impact sought by TSDF II as "A more progressive Tonga supporting a higher quality of life for all". The TSDF II states "To expand beyond our traditional concept of quality of life to a wider definition requires appropriate, inclusive and sustainable growth and development with greater resilience to the threats from extreme natural events including climate change.". To accomplish this aim, we need to learn and apply new attitudes, skills and behaviours.

This Housing Ecosystem Assessment Report for Tonga provides a comprehensive analysis of the housing challenges faced by vulnerable populations across the country, including low-income households in low-lying coastal communities, formal communities and informal communities. The assessment highlights critical issues related to the four pillars of adequate housing: habitability, security of tenure, basic services, and housing affordability and proposes recommendations to address these challenges.

## KEY FINDINGS:

**Habitability:** Quality of housing in Tonga is highly vulnerable to growing impacts of climate change and natural disasters. In addition, location plays a crucial role in the housing ecosystem with coastal and low-lying areas facing flooding issues, exacerbated by lack of adequate drainage systems. Low-income households tend to be overcrowded and residents have limited housing knowledge, including knowledge of building codes and compliance. Combined with high cost of materials, this has led to homes being built that do not comply with building standards.

**Basic Services:** Basic services, such as electricity and water are expensive compared to the income levels in Tonga. Access to adequate sanitation facilities and low water pressure are additional problems. In low-lying areas like Popua, septic tanks leak during heavy rain causing health risks. The introduction of renewable energy projects is promising; however there have been challenges with electricity supplied through these systems due to inadequate management systems.

**Security of Tenure:** Tonga's land tenure system is complex with disparity in access between men and women. Barriers to land ownership include women's access to hereditary land being restricted (for widows, unmarried daughters, etc.) with strict rules of succession in favor of males and eldest son/grandson. Overall, land security is a major issue for everyone. The Land Act is complex and poses challenges for accessing homes and obtaining housing loans. The Ministry of Lands and Natural Resources are working on streamlining the process to obtain land deeds for the public, but there are still challenges to overcome due to the complexity of the process.

**Housing Affordability:** The high cost of materials continues to be a major issue, particularly for low-income households with no or minimal savings. Due to the high inflation rate, the cost of utilities has increased significantly, and this has had a direct impact for vulnerable families.

**Gender and Social Inclusion (GESI):** Women are not able to own land but are able to lease it. This does mean that their land rights are limited. Special needs and the voices of vulnerable groups, such as people with disabilities and Lesbian, Gay, Bi-sexual, Queer, Intersex (LGBQI) individuals, are often excluded from consultations related to building and the housing sector.

Their participation is sometimes treated as a mere checkbox requirement when donors insist on their involvement. People with disabilities report feeling disconnected and not included in these processes. It is crucial to ensure meaningful inclusion of vulnerable groups in the housing and shelter space. Disability and elderly care are prominent themes. Access to health equipment and emergency shelters is crucial for these vulnerable groups.

# RECOMMENDATIONS:

## 1. Community level programming:

At community level, the biggest barrier to resilient housing is the reality of climate change and natural disasters as outlined in previous sections. Furthermore, the other big issue is affordability and accessibility to land. The following highlight the issues with its recommendations on strengthening the housing sector and engaging the people in the community who are mostly vulnerable.

**Finances and Affordability:** The majority of the respondents highlighted that lack of finances was the first barrier. Not everyone has the means to build a resilient home because it is a costly practice. This also links to people's capacity to purchase quality building materials which is very limited. Materials and cost of the resources for building strong and quality homes is expensive and not everyone can afford this. One quote from our consultations was: 'You either build any type of house because of the resources or materials you have or you build a quality house but truth is, only the very rich and privileged people can afford this.'

### Recommendations:

- Government-funded housing subsidies or loan guarantee schemes for low-income earners not eligible to apply
- Partnering with banking institutions and offering low-income earners financial support for housing through their loan schemes
- Government to negotiate with local suppliers and hardware stores look at options for lowering the costs of materials and improve access to quality and affordable building materials

**Land Security:** Securing the land is the first step to building a resilient house in Tonga, and this is currently a significant barrier. There is also the issue of the disparity of land accessibility for women.

### Recommendations:

- Ministry of Lands and Natural resources to continue to update the public (using all medium, radio, tv and social media) on land processes and regulations so people are aware of them. This could be in the form of education and awareness programs so people know their land rights.
- Ministry of Lands and Natural resources to follow through amendments of the Land Act on women having access to own land with additional recommendation around improving the access to land titles.

**Reality of natural disasters:** The challenges faced when building in Tonga now is overwhelming as it is not just the category 4 & 5 cyclones that are becoming more frequent, but it is also about the severe weather patterns that are damaging to buildings. The question of how to build resilient homes that will withstand the changing patterns of weather conditions was quite concerning to many of the respondents that we consulted. Additionally, there are natural disasters such as the volcanic eruptions that happened in January 2022 which has also changed the way communities need to be resilient for such events.

## 2. Sector level:

The following recommendations cuts through the various sectors in both government, private sector and institutions that will add value into the housing sector. Moreover, strengthening coordination and collaboration between all agencies in the housing sector will strengthen the following recommendations:

- Consider incentives for locals studying further in the sector to return to Tonga. Many pursue further studies and never return due to the poor incentive for returning to Tonga.
- Focus on Sustainable and Resilient Housing. There should be an emphasis on the integration of sustainable and resilient features in housing design and construction. This includes incorporating energy-efficient technologies, utilizing renewable energy sources, implementing climate-resilient building practices, and promoting eco-friendly materials to enhance long-term sustainability and mitigate climate change impacts.

### 3. Societal level:

Taking a holistic approach to Housing is key and this requires government and the relevant key stakeholders to strengthen the housing sector through the following:

- Specific trainings need to be done with construction companies and architect services so they can provide sound advice to people wanting to build quality homes that need to be resilient.
- Builders need to be qualified also, many shared that often many people turn to unqualified builders who learn on the job to build their homes as this is cheaper than employing a fully qualified builder. The government needs to ensure that standards are in place to monitor the qualifications that builders have so that they comply with the building codes and not build without proper knowledge. Worth strengthening the existing associations that is like a Tongan Builders association.
- Training on Data Collection and Monitoring of housing needs. The collection and analysis of housing data to inform evidence-based policy and decision-making needs to be strengthened. This could be done by working with Statistics department on next census on what information to collect from the housing sector and also supporting Ministry of Infrastructure on this area to housing support is more targeted based on the needs on the ground.
- Many Tongan homes often build extensions over time to the primary house. There should be enforcement of regulations for the land the house is built on can account for additions.
- Empower the national technical capacity to monitor construction and compliance.

### 4. Further research:

Suggested areas for further research:

- Understanding relevant housing-related issues and trends through data collection and analysis (e.g. the impact of climate change, seasonal employment schemes and cultural factors on housing adequacy)
- Feasibility of loan guarantee schemes for low income earners, in consultation with key players in the banking and financial sector (e.g. Central Bank), as well as government ministries and agencies that have the mandate to improve housing affordability for vulnerable populations.
- Exploring affordable and climate-resilient housing designs that meet national building standards that suit our local context especially using our own local materials (e.g. climate, multi-generational living).
- Further integration of housing issues in national climate change adaptation policy design and implementation.

# Overview

The housing ecosystem encompasses the stakeholders, processes, structures, mindsets and conditions that intersect and influence the availability of, and ability to live in adequate, affordable housing. Taking an ecosystems approach enables changemakers to think holistically and identify where to intervene in systems to address root causes. Awareness of the housing ecosystem means being able to see these systems of relationships and conditions as they exist within communities, in formal and informal economies and settlements, and in broader social and political environments, locally and nationally. Each country will have a different ecosystem.

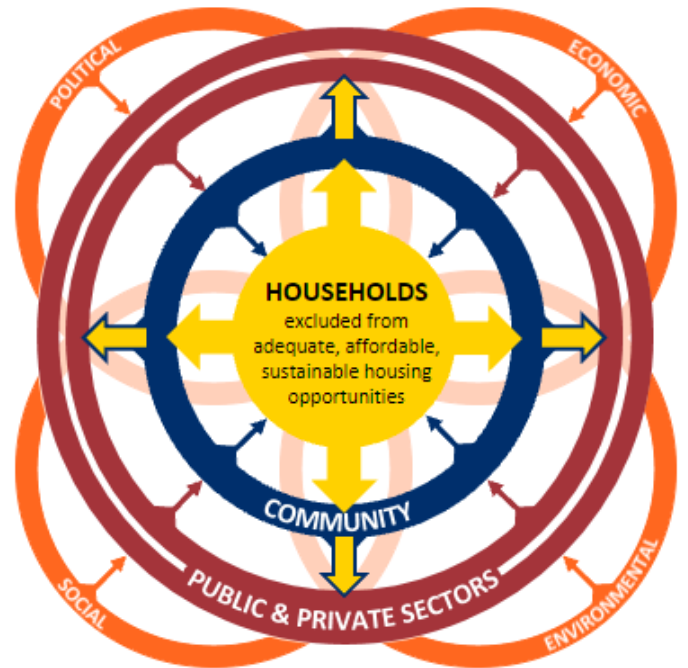
Habitat for Humanity New Zealand (HFHNZ) has undertaken mapping of the housing ecosystem in Tonga, led by a local consultant based in Tonga, as part of its Negotiated Partnership Programme in the Pacific which commenced in late 2021.

Systemic biases/power imbalances occur at all levels of the ecosystem. The social norms, institutions and external forces that comprise the housing ecosystem may affect different people differently, based on their race, class, ethnicity, sex, gender, religion, age, ability, sexual preference, citizenship status and other personal and/or group characteristics. Ensuring that disability organisations and women’s and youth organisations and groups are included in the stakeholder analysis ensures that the overall approach will reflect the needs of the whole community.

To better understand the barriers and opportunities in the ecosystem, HFH conducted research across the ecosystem.

Within the housing ecosystem, it is important to understand where we can create the most impact for the people we serve, as well as improve existing interventions. To do this we need to first understand the other people and institutions in the housing ecosystem. This also includes the ways in which these stakeholders may or may not work together to provide a coherent pathway to a home for vulnerable families. The housing ecosystem links to the housing continuum, or “Pathways to Permanence”. People need to be at the centre of our approach to assessment and design. We make decisions on where, when and how best to intervene based on evidence, on assessing and understanding the local housing ecosystem, and on community-defined needs and goals.

This report contains the findings and recommendations arising from the Housing Ecosystem Assessment process. Through the Housing Ecosystem Assessment, Habitat for Humanity intends to collaborate and influence the Housing Sector actors.



Civil Society Institutions



Government Institutions



Households



Institutions in the supply chain





# Methodology

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The report is based on information and data obtained through a combination of a desktop review, stakeholder interviews and focus group discussions. The desktop review considered existing documents relating to the broader housing ecosystem in Tonga and the Pacific, as well as online research. Stakeholder mapping led to the identification of people and organisations to be interviewed, based on their influence on the housing ecosystem.

The methodology comprised the following elements:

## 1. Country-wide analysis:

- Desktop analysis
- Stakeholder mapping
- Stakeholder interviews
- Identification of vulnerable population groups for further analysis

## 2. Analysis of vulnerable population groups:

- Focus Group Discussions with vulnerable population groups.

Interviews were conducted with public sector stakeholders, NGOs, and Donors. These included:

- Ministry of Infrastructure
- Prime Minister's Office – National Planning
- National Emergency Management Office (NEMO)
- Department of Statistics
- Ministry of Education and Training
- Tonga Institute of Science and Technology
- Local NGOs including: Talitha Project, Caritas, Live and Learn, Red Cross
- Building suppliers (PTH) and EM Jones
- Reserve Bank of Tonga
- Bank of the South Pacific
- Tonga Development Bank
- NATA – Disability

Based on the information obtained through the country-wide analysis, vulnerable population groups were selected for further analysis including focus group discussions with community members of these groups.

These focus group discussions were carried out in communities that were impacted by the Hunga Tonga Hunga Ha'apai volcanic eruptions, communities that were supported by Habitat for Humanity New Zealand through the 2023-2023 Tonga Shelter Repair/Rebuild Programme and communities affected by previous cyclones. The communities consulted with were:

- Informal Settlements - Tongatapu 4: Patangata and Popua
- Formal Settlements - Tongatapu 2: Havelu Area
- Coastal Settlements - Tongatapu 1: Sopus area, Tongatapu 5: Kanokupolu and Nomuka island

# Housing Ecosystem at a National level



# Part One - Housing Ecosystem at a National Level

## 1.1 COUNTRY CONTEXT

The Kingdom of Tonga comprises of 169 islands, 36 of which are inhabited. Hunga Tonga Hunga Ha'apa i is one of 22 volcanoes. The 6 most populated islands are Tongatapu, 'Eua, Ha'apai, Vava'u, and the two Niua's (Niua Fo'ou & Niua Toputapu). This research was focused on the main island of Tongatapu (Figure 1) where 80% of the population resides

The selected community areas were derived from formal, informal and coastal settlements in Tongatapu. The Digital Elevation Model (DEM) of Tongatapu shows the level of vulnerability of the island in terms of its level above mean sea level. It is considered in Tonga that 1-3 m above mean sea level are low-lying areas in Tongatapu, vulnerable to floods, tsunami and stormwater drainage issues.

The Figures below identify each individual community with reference to their level/height above mean sea level. Figure 2 shows that Sopu and Kolomotu'a communities are low lying areas owing to 1m height above mean sea level and also these are the tsunami inundated areas from the HT-HH eruption and tsunami disaster of 15 January 2022.

Similarly to Popua/Patangata community in Figure 3, this is also considered a low lying area in Tongatapu. Kanokupolu Area is one of the main affected areas in Tongatapu after the HTHH event where the tsunami inundation reached both ends of the village. Kanokupolu is at 2m above mean sea level.

As for Haveluloto community (Figure 4), it is situated in the central area on high grounds where its elevation is more than 3m above mean sea level. It is a formal settlement, not a low-lying area and considered an evacuation area for emergency response for any tsunami disaster.

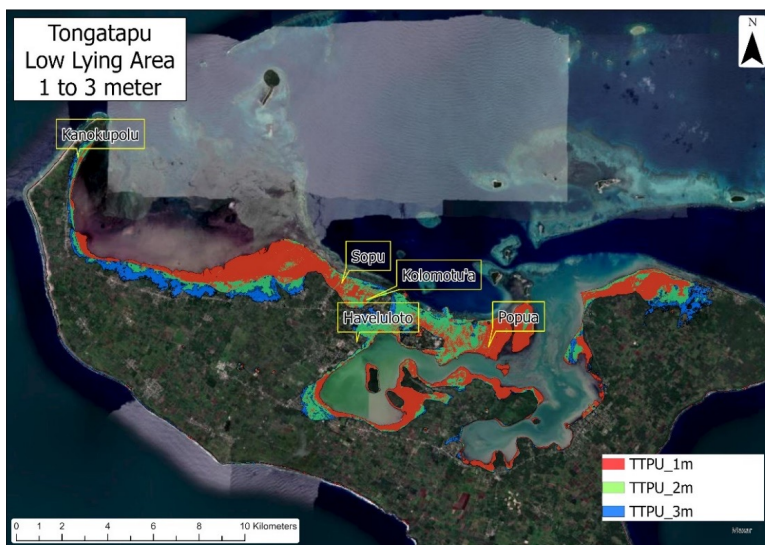


Figure 1: Map of Tongatapu DEM level 1-3m above mean sea level

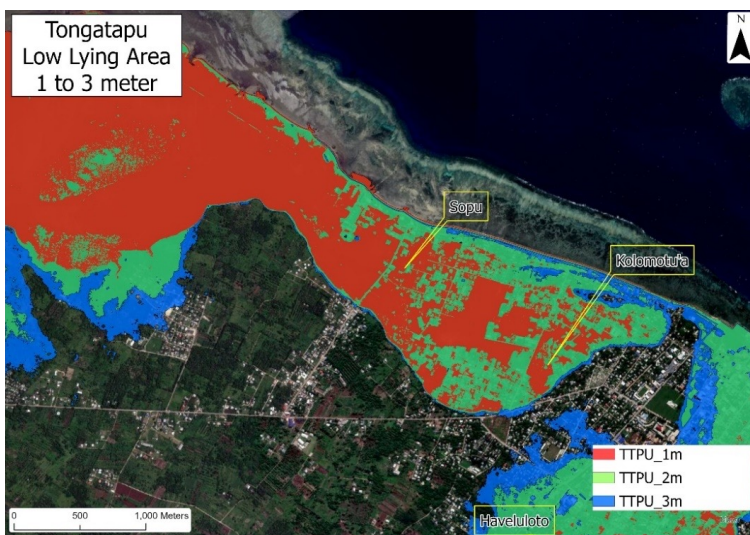


Figure 2: Kolomotu'a and Sopa Area DEM - 1m above mean sea level

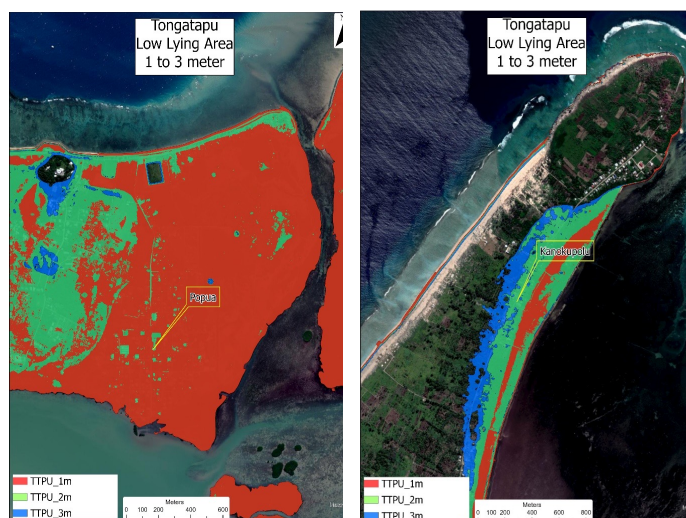


Figure 3: Popua Area and Kanokupolu DEM - 1m above mean sea level

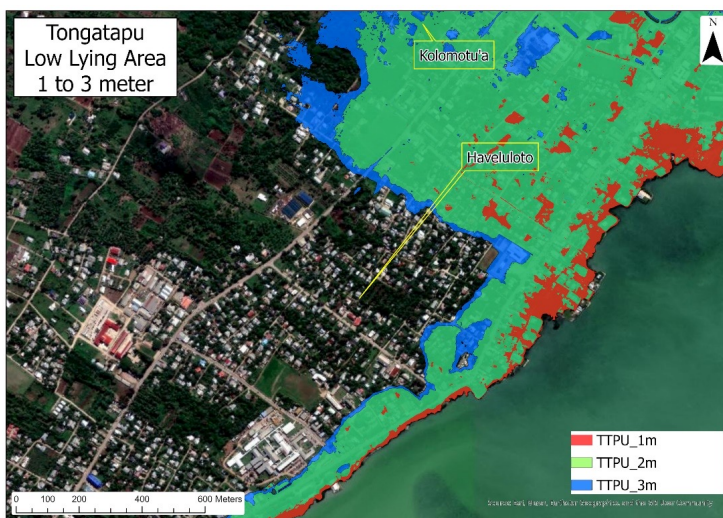


Figure 4: Haveluloto Area DEM - >3m above mean sea level

## 1.1.1 Geographic Context

### A country extremely vulnerable to natural hazards

Natural disasters, such as storm surges, earthquakes, tsunamis and particularly cyclones, are an ongoing concern. Tonga frequently faces Category 4 and 5 cyclones, and is in a state of constant recovery from previous cyclones. The 2017 World Risk Index ranks Tonga as second most 'at-risk to natural hazards' out of the 172 countries, with vulnerability increasing (World Risk Index, 2017). The Tonga National Development Strategy 2015-25 notes that building greater resilience to extreme natural events and the threat of climate change is essential for sustainable progress, and that Tonga needs to become better at planning and responding to the unexpected (Government of Tonga, 2015).

Tonga has been experiencing an average sea level rise of 6mm/year. Most of Tonga's communities are situated at low elevations, and the higher ground in Tonga cannot easily be adapted to support community relocations. Some Tongan communities have already relocated to other islands due to rising sea water levels. This situation has also led to the need to rebuild roads and paths to higher ground to protect them from rising seawater levels and flooding.

The country also experiences minor hazards and environmental conditions that contribute to housing deterioration and damage, including annual rainfall of up to 2,500 mm, high humidity, localized flooding, termites, and the presence of corrosive salt-spray. Risk reduction efforts focus principally on cyclone resistance, but all hazards are relevant to housing resilience. Climate Change is identified as the single biggest issue that will determine the future of Tonga over the coming decades (Tonga Climate Change Policy, 2016).

Nearly every disaster in Tonga disproportionately affects the housing stock. In recent major disasters, housing was one of the most affected sectors. After Tropical Cyclone Gita in 'Eua and Tongatapu, over 50 percent of total damage caused was to housing stock; Tropical Cyclone Ian in Ha'apai also caused 50 percent of damage to housing), and the Niuatoputapu tsunami caused 35 percent. The damage caused by Tropical Cyclones Gita and Harold to houses that were already substandard, was a significant setback to families already struggling financially. Tongan communities cannot repair or rebuild fast enough - after each cyclone season they are again faced with devastation.

Consultations with key government actors in 2019 identified that the island of 'Eua has high housing need, along with Eastern and Western Tongatapu. Tongan households will continue to experience high levels of threats to their shelter due to increasing risks from climate change and extreme weather.

## 1.1.2 Social, Economic and Political Context

### Small total population with over 20% living in urban areas

Tonga is a constitutional monarchy assisted by a privy council comprised of ministers and governors of Ha'apai and Vava'u divisions. The cabinet is responsible for the overall administration of government at both national and local level. There is a unicameral parliament, the Fale Alea, which has 26 members.

The elections in 2017 were the third under a new system, in which the country has been divided into 17 electoral constituencies, each of which elects one representative by universal suffrage of all adults aged over 21. Nine nobles are also elected, representing the nobles of the five island groups of Tonga. The elected members then elect the prime minister. The prime minister recommends members of the cabinet from among the elected members and has the power under the constitution to nominate up to four from outside the elected members.

Historically, land was mainly owned by the King and his Nobles. However, now most of the land is either owned by the Government, the King, Nobles, or registered by a commoner. Almost 75% of the population resides on Tongatapu, which is the main Island.

As of the latest census, the population of Tonga is 100,179 (Tonga Statistics Department, 2021), a very marginal drop of 0.1% per year between 2016 and 2021. Most Divisions observed similar reductions in population, with the highest drop of 1.6% during this period in Ha'apai. In Vava'u on the other hand, there was an increase of 0.6% per year.

The urban population in Tonga is 21,185 which is slightly more than one fifth of the total population. Tongatapu's population is 74,320, constituting of 74% of Tonga's total population. The urban population includes the villages of Kolofo'ou, Ma'ufanga and Kolomotu'a, which make up Nuku'alofa in Tongatapu.

The average population density is 154 people/km<sup>2</sup>. However, this varies widely across island divisions and districts. For example, the population density in Tongatapu is 285 people/km<sup>2</sup> compared to only 16 people/km<sup>2</sup> in Ongo Niua.

The population living in households is 99,429, while the number of people residing in institutions was 750. There are around 18,847 households, with an average size of 5.3 people. Almost one third of all people live in households with 7 or more household members while 7% of households have only one member.

### **A young population of predominantly Tongan ethnic origin**

About 98% of the total population is of Tongan ethnic origin. Of the 100,179 people on census night, 48,749 were male and 51,430 were female. This gives a ratio of 95 males to 100 females. Tonga has a relatively young population, with a median age of 22 years. About 42% of the total population are children aged 0-17, while only 6% were 65+ years old.

Prior to COVID-19, around two thirds (63%) of Tonga population aged 15 years and older were in the labour force or economically active, but only 37% received regular paid income (45.2% of males and only 28.4% of females). The employed population comprised 53.3% of the population - 65.8% males and 41% females. Given that there is no set minimum wage for the labour force, business owners can choose any amount and pay as they want.

Families experience challenges due to relatively high numbers of dependent children, low levels of income, and poor-quality housing – including those waiting for repairs due to damage from previous tropical cyclones. Issues are compounded for people with a disability who are less able to advocate or undertake any repairs for themselves. Issues of insecure or inaccessibility of land tenure, particularly for women-headed households, also undermine the ability of these households to access shelter assistance. See further details in the section on gender and social inclusiveness.

## **1.1.3 Laws and Governance**

The Tonga National Development Strategy 2015-25 includes Organisational Outcome 5.4: “Improved national and community resilience to the potential disruption and damage to wellbeing, growth and development from extreme natural events and climate change, including extreme weather, climate and ocean events, with a particular focus on the likely increase in such events with climate change.”

In Tonga, the Land Act (revised 2016) significantly influences housing policy and land ownership, through setting out the rules and regulations for the management of land, including rules of succession, allotments, ownership, leasing and renting land. Efforts are underway to amend the Land Act. Some changes have been implemented thus far. Following wide consultations with the public, the Royal Land Commission Report (2012) was released which outlines concerns about land issues and recommendations. The proposals received clearly showed concerns regarding the land tenure system and its history, the law of succession, women’s rights, freehold land, mortgaged land, leased land, abandoned land, land belonging to Tongans living overseas and the foreshore. A few of these recommendations have been acted on from the Ministry’s operational level.

Rosamond Bing, Former CEO for Lands and Natural Resources, shared that there is no progress on recommendations related to land tenure - such as legal reform for inheritance, freehold land and women’s rights to land. There has been limited progress on digitisation and record keeping for land administration and management, on establishing a legal advice unit for the Ministry, and the privatisation of survey and mapping functions. Furthermore, there is no progress on establishing an independent Land Commission and Land Tribunal. There is also no progress on new land titles systems such as freehold, land reclamation and tenancy agreements.

The Environment Management Act of 2016 also plays a role in governing laws related to housing. This Act sets out the requirements related to environmental management, including climate change issues, and decision-making processes. This also includes climate change relocations, i.e. residential homes moving inland.

The Tonga National Action Plan for Integrated Climate Change and Disaster Risk Management Plan falls under the Ministry of Meteorology, Environment, Information, Disaster Management, Climate Change, and Communications (MEIDECC). It involves multiple sectors, including building code control and transportation, with stakeholder engagement from various ministries.

Other relevant regulations include the Public Health Act of 2016, which sets out requirements for water and sanitation facilities in developments of both private dwellings and public premises.

The district, town, and town offices play a crucial role in housing recovery programs and community outreach initiatives.

### **Current Building Act and Code in need of updating to reflect current context**

The Building Act and Regulations of 2001, along with the National Building Code of 2007, are among the most important regulations. These regulations are currently being reviewed and will be brought up to date to reflect current permit and building consent issues.

The National Spatial Planning and Management Act falls under the Ministry of Lands and Natural Resources, with its separate planning unit. Historically, the National spatial planning and management act has been focussed on land consent. Other factors such as hazard analysis and environmental considerations were not thoroughly incorporated into the development criteria outlined by the Act. However, there are ongoing projects by the National Spatial Planning in Tonga to include urban resilience in the building permit fees and stormwater management.

### **Housing Recovery and Resilience Policy to guide Government efforts post-disaster**

The Emergency Management Act of 2007 has been replaced by a Disaster Risk Management Bill, recently endorsed by the government. This bill integrates disaster risk management into emergency activities, expanding the focus beyond immediate disaster response.

The Tonga National Housing Recovery and Resilience Policy of 2019 was developed based on past housing recovery programs undertaken in Tonga. While the initial discussions began in 2015, it was officially established and approved by Cabinet in 2019. This policy, which is key to the housing sector, is complex, and related to various areas of public policy. The activities described in this policy touch on various Tongan laws, regulations, and policy documents, including the following:

- Building Control and Standards Act (2016), Building Control and Standards Regulations (2016) and National Building Code (2007)
- District and Town Officers Act (1988)
- Emergency Management Act (Act No. 14 of 2007) and National Emergency Management Plan (2007)
- Environment Management Act (2016)
- Land Act (2016)
- National Spatial Planning and Management Act (2012) and regulations
- Public Health Act (2016) and Water Supply Regulations, (2016)

### **Rebuild efforts provide opportunity to build back better**

At present, the most effective means for promoting risk-informed and resilient housing construction is through the rebuilding that occurs after a major disaster. The Housing Recovery Policy promotes the idea that whenever public resources are spent on housing recovery, whether for relocation of households or for the repair or reconstruction of housing, those expenditures should improve the resistance of structures and reduce the exposure and vulnerability of households. In parallel, resources must be dedicated to educating homeowners and the public about risk reduction for housing and resilience-building for communities.

The Housing Recovery and Resilience Policy aims to improve the timeliness, fairness and efficiency of housing recovery programmes. But more importantly, it puts a priority on risk reduction and promotes self-recovery supported by technical assistance and training, so that Tonga homeowners and builders alike can each contribute to the larger goal of building the resilience of the Kingdom of Tonga, its built environment and its people.

However, the lack of guidelines or action plans to implement the Housing Recovery and Resilience Policy, especially on the area of housing resilience, is a significant barrier. Because the policy is so recent, there needs to be strategic planning by the relevant stakeholders to support implementation of the policy.

Tonga does not currently have a housing law or a disaster risk management law, which provide a legal and policy basis for housing recovery following a disaster in many countries. According to the Housing Recovery and Resilience Policy, emergency exceptions to laws and regulations are generally made administratively (on a case-by-case basis), which can cause delays and challenges. The government has not formalised exceptions, such as the need to approve core housing and transitional shelter plans. These are not included in the Tonga Building Code.

The loss of housing from disasters creates both economic and social shocks. Not only is a family's home its largest investment, damage or destruction can lead to displacement, reduced family income, increased expenditures and debt and the disruption of the normal family life. While Tongans in the diaspora often contribute generously after disasters, families may still be living in less resilient and poorer-quality housing for years after being affected by a disaster.

Financing disaster recovery is also creating fiscal pressure on the government. While housing is a private good, there are few options in Tonga for homeowners to affordably reduce risks from extreme weather events using market-based insurance. Therefore, not only do government revenues tend to fall after disasters, but the demands on government resources also grow at the same time.

In effect, government has become the “insurer of last resort” for the majority of Tongan homeowners, reducing the resources available for critical public investments.

### **Current policies and guidelines a barrier to effective building standards and processes**

The National Building Code was developed in 2007 and although it was reviewed in 2019, it has not yet been formally adopted. In addition, the building permit system and fees are outdated. The permit system does not take a holistic view to housing and omits requirements such as stormwater drainage for new buildings and developments, even though risk of flooding is high in Tongatapu.

### **Labour mobility encourages construction, but lack of sector capacity leads to unsustainable practices**

Labour mobility is increasing with many of the population enrolling into overseas employment schemes, resulting in increased opportunities for accumulation of savings for home building. Often, these homes are built by family and friends with little experience in construction, let alone climate-proofing homes.

There is very little national capacity to implement building codes and enforce building policies. With a small workforce and the inability to decentralize power to ensure building codes are adhered to, this is leading to many construction sites being built without regulation. In addition, there remains a large gap of skilled workers in housing. Many construction businesses rely on a labour force that has limited skills and experience.

### **Access to quality materials is limited by regulations and logistics**

Many loans can only be used for resources procured locally and not from international vendors. However, resources available in the local market can be low quality and at times resources required for building cannot be sourced due to infrequent shipping, logistics, and other varying factors. During disaster periods, prices for building supply can hike due to increased demand, making it challenging for those who are building or repairing homes, including NGOs implementing disaster recovery projects.

### **Urbanisation is driving unregulated construction in red zones**

Squatter settlements continue to increase as migration from outer islands draw people to live in the mainland. Peri-urban areas are known to be one of the most vulnerable and prone disaster areas in mainland Tonga.

## **1.1.4 Social Housing**

### **There is no dedicated public housing stock in Tonga.**

However, there are government quarters available, managed by the Ministry of Infrastructure through the Building Control Division. These government quarters are primarily for civil servants or former civil servants. Individuals who have worked directly for the government can request to reside in government quarters, subject to approval from the Prime Minister’s office and endorsement from the Cabinet. The facilities’ maintenance budget is limited and covers only minor works, with a quarterly budget allocation for major renovations. Currently government quarters are being renovated as they are not in a good condition. Some of these quarters are require major renovations and are almost unliveable.

There are also additional government quarters managed and maintained by the MOH and MET which are intended only for their workers working at outer islands or in Tongatapu.

## **1.1.5 National and Provincial Plans**

### **National housing schemes set up in the aftermath of natural disasters**

In February 2022, the Prime Minister Hon. Hu’akavameiliku launched the Government’s Hunga-Tonga-Hunga-Ha’apai Volcanic Eruption Tsunami Recovery Project for families who lost their houses during the 2022 volcanic eruptions and tsunami. The Government of Tonga estimates that loss and damage caused by the eruption and subsequent tsunami as being over TOP416.2 million, equating to roughly 36.4% of GDP, and the government is focusing on “building back better”.

The Ministry of Infrastructure is currently coordinating the repair and construction of 468 houses that were damaged during the events of January 15, including 286 houses



which are to be built, with about 60% of homes completed as of November 2023. This includes 157 houses in Tongatapu, 36 in 'Eua and 93 in Ha'apai.

This scheme is in addition to the housing scheme announced by the Government in 2019 to build more than 100+ homes following TC Gita (and subsequent cyclones) with each house costing about TOP \$60,000-\$70,000 and requiring a 10% deposit. This deposit amount was out of reach for low-income families.

More recently, the Government of Tonga announced the Affordable Housing Scheme which targets the 3.1% of the population living in extreme poverty, although this scheme has yet to come into effect. The scheme will focus on repurposing the container houses that were donated by the Chinese Government in the aftermath of the 2022 earthquake and tsunami into housing for low-income families. There will also be a government grant support scheme for those wishing to build their own homes.

### National plans reflect housing as an ongoing priority

The Tonga government's priorities on housing are outlined in the following documents:

**1. The Tonga Strategic Development Framework 2015-25:** This strategy sets out the National Impact sought as "A more progressive Tonga supporting a higher quality of life for all", through delivery of seven outcome pillars that incorporate inclusive development and sustainable development principals. These outcomes include (outcome 5.4): 'Improved national and community resilience to the potential disruption and damage to well-being, growth and development from extreme natural events and climate change, including extreme weather, climate and ocean events, with a particular focus on the likely Increase in such events with climate change'.

**2. Tonga Housing Recovery Policy:** This policy aims to make Tonga's planning and implementation of housing recovery programmes more systematic and efficient, and to make recovery programmes more timely, effective, and equitable for the Tongan population. It prioritises risk reduction and promotes self-recovery supported by technical assistance and training, so that Tonga homeowners and builders contribute to the larger goal of building the resilience of the Kingdom of Tonga, its built environment, and its people. The Tongan government has set up a unit that will implement this policy under the Ministry of Infrastructure, but is still in the process of raising awareness about this policy.

**3. Joint National Action Plan II (JNAP II) on Climate Change 2018-2028:** This is the strategic plan for climate change disaster risk management in Tonga. It recognises the role of government agencies as key actors, and political leadership, and is consistent with the Tonga Strategic Development Framework (TSDF) and the Sustainable Development Goals (SDGs).

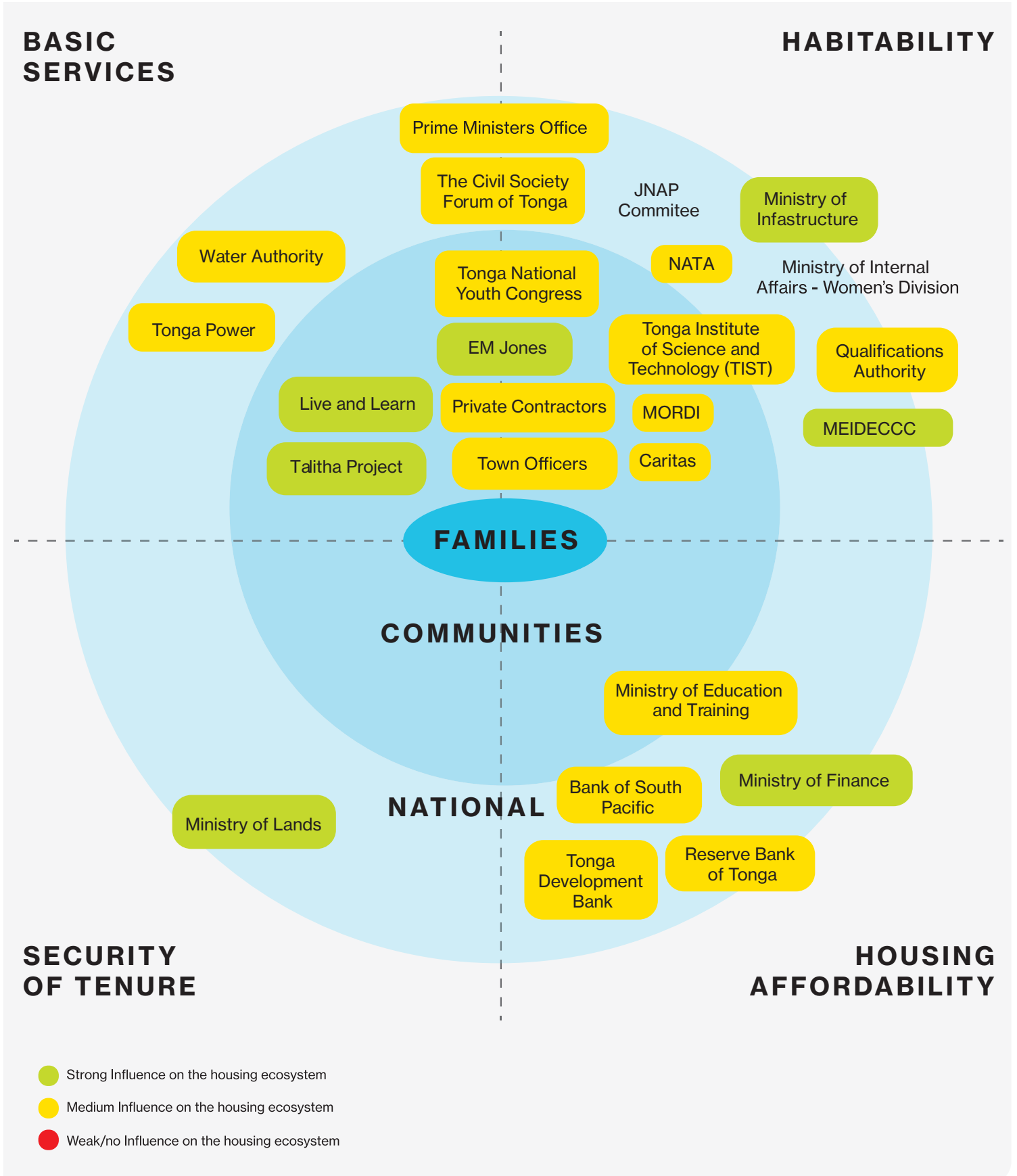
**4. WEGET Policy (The National Women's Empowerment and Gender Equality Tonga):** The Gender policy outcome 5 states to 'Create equal conditions to respond to natural disasters, environmental challenges and climate change.' The WEGET policy looks at the increased capacity of households to respond to natural disasters and to the impacts of environmental challenges and climate change. The policy sets out strategies to:

- Ensure equal access to information for all members of households relating to natural disasters (e.g., emergency measures; safe roads and shelters; securing the house and productive assets; protecting lives; and other important measures).
- Improve the maintenance and adaptation of basic infrastructure and services to climate stresses.
- Raise awareness of the increased vulnerability of certain members of the family (pregnant and lactating women, children, elderly people, people with disabilities) and certain households, and ensure they receive proper attention in the preparedness and recovery phases.
- Address inequalities for women's access to land, through advocacy to government.



## 1.2 STAKEHOLDERS

Tonga's housing ecosystem involves various stakeholders, each playing a crucial role in shaping housing policies, disaster response, land management, vocational training, and infrastructure development. This image below maps the relevant stakeholder against their sphere of influence (National, Community level, Family level), as well as the areas of housing they are responsible for or work in – e.g. Housing Affordability, Security of Tenure, Basic Services, Habitability.



## 1.2.1 Public Sector Stakeholders

The key public sector stakeholders are:

### **Ministry of Infrastructure and Housing Resilience Division**

The Ministry of Infrastructure (MOI) is a public sector stakeholder responsible for building consents and approvals of house plans and designs in Tonga. It holds a central role in the housing ecosystem as the national point of contact and approval authority for housing projects. The MOI also plays a significant role in formulating housing policies and programs. Its influence is paramount in ensuring that housing initiatives meet regulatory standards and promote sustainable development.

The Housing Resilience Division, operating under the Ministry of Infrastructure, was established to address the challenges posed by disasters and their impact on housing. This division has a specific focus on post-disaster rebuild programs. The division collaborates with non-governmental organisations (NGOs) to streamline disaster response efforts and implement the Housing Policy effectively. The shelter cluster, which is active in times of emergencies, falls under the Ministry of Infrastructure.

### **Tonga Institute of Science and Technology (TIST)**

TIST implements disaster response programming and plays a role in vocational training for the housing sector. Through its various trade courses such as Automotive, Carpentry, Electrical, Plumbing, and Welding, TIST equips the local workforce with the necessary skills for post-disaster reconstruction.

### **Ministry of Education and Training**

The Ministry of Education and Training plays a role in providing policy advice on primary, secondary, and post-secondary education, which aligns with the workforce needs in the housing ecosystem. As a key stakeholder in disaster response preparedness, the Ministry of Education and Training's governance of TIST is also vital in the vocational training sector related to housing.

### **Tonga National Qualifications and Accreditation Board (TNQAB)**

The Tonga National Qualifications and Accreditation Board (TNQAB) plays a significant role in administering qualifications and certifications for academic and vocational/trades training.

### **Ministry of Lands and Natural Resources**

The Ministry of Lands and Natural Resources holds significant influence in the housing ecosystem, as it is responsible for administering permits and land titles in Tonga. Its adherence to the National Agenda and relevant policies ensures effective land management, impacting housing affordability and security of tenure. However, challenges regarding land rights for women persist, and addressing these issues becomes critical in fostering more inclusive housing policies. The Geology Division of the Ministry of Lands and Natural Resources, and the Ministry of Health, manage the WASH Cluster.

PUMAs current mandate involves coordinating development and planning efforts across the whole of Tonga, a task which has not always proven to be easy.

### **Ministry of Internal Affairs - Women's Division**

The Women's Division within the Ministry of Internal Affairs is responsible for overseeing the Shelter Cluster, which is comprised of government agencies and NGOs involved in shelter-related work. Its role in coordinating and supporting vulnerable populations during disasters, especially women, is essential for ensuring equitable access to housing and disaster response initiatives.

### **Tonga Water Board (TWB)**

TWB is responsible for the provision of water on Tongatapu and parts of the Vava'u and Ha'apai groups and on the island of 'Eua. Tonga Water Board is part of the Utilities group, and its board of directors are shared with Tonga Power Limited and Waste Authority Limited.

### **Tonga Power**

Tonga Power is the sole electricity provider for the kingdom. Tonga Power generates, distributes and sells electricity to over 25,000 people in the Kingdom of Tonga (24% of the population), including on the outer islands of 'Eua, Ha'apai & Vava'u.

### **MEIDECC**

The Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, and Communications (MEIDECC) plays a role in disaster preparation and mitigation efforts. Its influence in coordination, logistics, and post-disaster needs assessments is crucial for fostering disaster-resilient housing and infrastructure development.

The Department of Energy within MEIDECC is responsible for the country's energy planning.

### **Ministry of Finance**

The Ministry of Finance wields considerable influence in the housing ecosystem, as it plays a central role in economic and financial matters in Tonga. Its decisions impact the allocation of resources for housing initiatives and can influence the affordability and availability of housing options.

### **Joint National Action Plan (JNAP) Task Force**

The Joint National Action Plan (JNAP) Task Force is comprised of key stakeholders in the Climate Change and Disaster Risk space, including government ministries, CSOs and private sector organisations. It plays a role in prioritising, coordinating, and collaborating on climate change and disaster risk actions nationwide. Its efforts contribute to enhancing the resilience of the housing ecosystem to potential environmental challenges.

### **Town Officers**

Town Officers serve as community representatives and initial points of contact for disaster assessments at the district level. Their influence in facilitating coordination, awareness, and reporting within constituencies aids in disaster response preparedness, and affects habitability, for local communities.

### **Reserve Bank of Tonga**

The Reserve Bank of Tonga holds significant influence in the housing ecosystem, as it ensures monetary and financial stability for the country. Their support in maintaining a stable economic environment impacts the affordability and accessibility of housing finance for citizens.

### **Prime Minister's Office**

As a champion for housing-related work, the Prime Minister's Office plays an essential role in shaping housing policies and projects. Its influence and advocacy can significantly impact the direction and prioritisation of housing initiatives in the country.

## **1.2.2 Private Sector Stakeholders**

The private sector also holds an important role in Tonga's housing ecosystem, providing financial services, building materials, and construction expertise. This section looks at the influence and impact of private sector stakeholders within the housing ecosystem, and explores their services and relevance.

Key private sector stakeholders are:

### **Bank of the South Pacific**

As a leading financial services provider in the region, Bank of the South Pacific (BSP) holds significant influence in Tonga's housing ecosystem. BSP offers various financial products and services that facilitate housing finance and development. Their impact on housing affordability and security of tenure can be substantial, providing citizens with access to housing loans and other financial resources.

### **Tonga Development Bank**

Tonga Development Bank (TDB) is a local bank recognized for its role in enhancing financial literacy and offering housing loans. Their national relevance indicates their importance in providing financial support for housing projects in Tonga. TDB's influence extends to empowering individuals and communities to access housing finance and improve habitability.

### **Building Suppliers**

EM Jones Group of Companies, established in 1911, is a family-owned business with a notable influence on the housing ecosystem. EM Jones is a supplier of building materials, and its pricing and supply practices can impact housing affordability and accessibility. Their contribution to the housing sector through manufacturing, retail, and rental services is vital for addressing housing needs in Tonga. The other two suppliers include Pacific Timber & Hardware Tonga (PTH), which opened in May 2008, and Anna's Gift Shop which was set up more recently than PTH.

### **Private Contractors**

Private contractors play a role in the housing ecosystem by executing house builds and other contracted work. Depending on their expertise and efficiency, private contractors can significantly impact habitability, security of tenure, and basic services in the housing sector.

### 1.2.3 CSOs

Civil Society Organizations (CSOs) in Tonga play a vital role in the housing ecosystem, representing various groups and advocating for their rights and welfare. This section provides an overview of the key CSOs that are active in this sector, and the contribution they make to community development and resilience.

#### **Tonga National Youth Congress**

Tonga National Youth Congress is a prominent CSO and the umbrella organization focusing on the interests of youth in Tonga. They actively engage in education, mobilization, disaster preparation, and relief efforts, making them a key player in promoting community development within the housing ecosystem. Through programmes that foster responsibility, citizenship, community service, and leadership, the Congress aims to improve the welfare of youth, contributing to a more vibrant and inclusive housing environment.

#### **NATA (Disability Group)**

NATA serves as the umbrella Disability NGO in Tonga, advocating for disability rights. Their influence in the housing ecosystem is essential for promoting accessibility and inclusivity for persons with disabilities. Through lobbying and advocacy efforts, NATA contributes to creating more accessible housing options and addressing the housing needs of disabled individuals, ensuring that housing solutions are tailored to diverse requirements.

#### **MORDI**

MORDI is a national CSO that contributes to the improved livelihoods of vulnerable communities in the rural areas in Tonga, including through shelter programming. Within the housing ecosystem, MORDI promotes community-based solutions, fostering resilience and self-reliance in addressing housing challenges.

#### **Civil Society Forum of Tonga (CSFT)**

Civil Society Forum of Tonga (CSFT) works to maximise impact and aid effectiveness in the Tonga Administration with a focus on the areas of gender, disability, elderlies, youth, livelihoods, and energy. CSFT is committed to creating a conducive environment for all CSOs' development through open dialogue, partnership, and collective decision-making. By empowering CSOs through capacity building and leadership development, CSFT enhances their collective impact in the housing sector. Their role in fostering collaboration and coordination among CSOs contributes to a more united and effective approach to housing issues.

#### **Caritas Tonga**

Caritas Tonga is a local member of an international non-governmental organisation that actively engages in disaster awareness and climate change campaigns, raising public awareness about environmental issues threatening Tonga. Within the housing ecosystem, Caritas Tonga promotes climate-resilient housing practices and community preparedness, contributing to building safer and more sustainable housing options. Caritas Tonga has also played a role as an implementer of shelter repair programmes focussing on build back safer methods.

#### **Live & Learn**

Live & Learn is an international non-governmental organisation that focuses on sustainable development and community empowerment. In Tonga, Live & Learn has implemented projects and programmes aimed at promoting sustainable practices, environmental conservation, climate resilience, and community development. While its primary focus is on environmental sustainability, their work can have an impact on the housing ecosystem as well, especially concerning sustainable and resilient housing practices.

#### **Talitha Project**

Talitha Project is a local Tongan non-government organization that was founded in 2009. Since 2018, it has implemented gender equality and humanitarian projects in partnership with CARE. Talitha Project implements projects with young women and adolescent girls as advocates for gender equality and healthy relationships.

The organisation's vision is the empowerment of young women and girls, through supporting them to pursue their dreams and fulfil their potential by providing various programs to help them make well informed decisions and skills and capacity development. Talitha Project has been involved in the housing sector through carpentry skills training for their youth network, as well as financial literacy and entrepreneurship training to support young women to become financially independent.

### 1.2.4 Engineers and Architects

Engineers and architects play a crucial role in the growing construction sector in Tonga. Their expertise and engagement in the housing sector contribute to ensuring the quality and technical standards of housing projects. As Tonga experiences an increase in construction activities, engineers and architects influence the housing landscape by promoting safe and sustainable housing development. Currently engineers and architects have their own networks but there is no formally registered association in Tonga.

## 1.2.5 Donors

Key donors in Tonga supporting the work in the Housing Sector have been New Zealand's Ministry of Foreign Affairs and Trade (MFAT), Australia's Department of Foreign Affairs and Trade (DFAT), World Bank, Asia Development Bank (ADB), European Union (EU), the Japanese government and the Chinese government.

Australia and New Zealand have long been committed contributors, providing aid across sectors such as infrastructure, education, healthcare, and disaster resilience, as well as budget support for the Government. The World Bank is another significant player, offering financial support and technical expertise across diverse sectors to address Tonga's development challenges.

The Asian Development Bank (ADB) contributes through financing projects in areas such as transportation, energy, and water supply, while also providing policy advice and technical assistance. The EU's assistance to Tonga covers a range of sectors, including governance, economic development, education, and climate resilience. Funding from the EU often comes in the form of grants, and the support aims to contribute to the sustainable development of Tonga.





Japan offers assistance, particularly in infrastructure projects, with a focus on economic and social development. China plays an increasingly prominent role, particularly in infrastructure development, as part of its broader engagement in the Pacific region.

The recently opened US Embassy in Tonga may mean additional donor opportunities through e.g. USAID. The United Nations also have a presence in Tonga, with an office housing UNFPA and UN Women.

## 1.3 NATIONAL HOUSING CONTEXT

### 1.3.1 Overview

Habitat for Humanity considers adequacy of housing to be a factor of the following four elements:

|   |  |
|---|--|
|  <b>HABITABILITY</b>                                 |  <b>HOUSING AFFORDABILITY</b>                             |
| Refers to the quality and liveability of the housing unit, and the household's ability to make quality-based decisions to achieve it. | Refers to the resources - primarily financial - necessary for a household to access a quality home, including using market-based services. |
|  <b>BASIC SERVICES</b>                               |  <b>SECURITY OF TENURE</b>                                |
| Refers to the legal and practical ability to defend one's right to own, occupy, use, or access a piece of land or property.           | Refers to the household and community level infrastructure and services that are required to make a home adequate and serve basic needs.   |

The following sections detail the housing ecosystem in Tonga at a national level, in terms of each of these four core elements.

### 1.3.2 Habitability

#### Poor quality housing stock

Poor quality housing stock, and a lack of building for resilience are persistent issues in Tonga. Housing quality is closely linked to health, education, and employment outcomes (Andrew Robinson, 2017).

The Minister for Infrastructure, Hon. Seventini Toumo'ua has shared that there is "a need for housing in Tonga that can withstand the extreme weather events that are happening more frequently. Climate change will have increasing effects on us here in Tonga, and especially for our vulnerable families who are already living in housing that has been damaged by previous cyclones, and those living by the coastline." (Tonga Housing Forum 2023)

#### Standardised design introduced in 1982

Tonga's Cyclone Housing Standard Design has been in use since Tropical Cyclone Isaac in 1982. This design was introduced after the destructive impact of Cyclone Isaac, which was considered the most destructive cyclone in Tonga at the time. The lack of building regulations and codes contributed to the vulnerability of houses during this event. To address this, the Home Building Manual for Tonga was established in 2001, followed by the Tongan National Building Code in 2007. The design was engineered to withstand wind speeds of up to 70m/s and underwent testing in Australia. This standardised design has remained in use for the past 40 years, despite advancements and changes in building practices. It continues to serve as a reliable option for housing reconstruction and recovery efforts in Tonga.



Since then, the government has implemented numerous housing reconstruction programs across the islands. For example, across Tongatapu and in Nuku'alofa, 1,039 and 193 houses, respectively, have been constructed through these programs. The design of these houses is aimed at providing shelter and facilitating the recovery process after a disaster. They are also extendable, allowing homeowners to adapt them to their household size. Government funding is typically allocated to support every affected household.

The challenge in Tonga lies not only in outdated building codes but also in the affordability of housing designs, including the cost of design drafting by an engineer, as well as cost of construction. The standardised housing designs that have been used are not accessible for individuals with regular incomes. This issue becomes particularly significant for low-income individuals who are more vulnerable to the destruction of their homes during disasters and have to repeatedly rebuild.

The Ministry of Infrastructure is aware of this problem and is exploring options for more affordable housing designs that cater to the needs of low-income individuals. However, it is important to note that controlling the prices of goods and construction materials is a global challenge, and Tonga is not immune to this phenomenon. Most materials are imported, and the lack of local resources contributes to the high construction costs.

**A range of housing modalities from traditional fale to contemporary styles**

Tongans have historically demonstrated ingenuity in constructing their homes, employing innovative solutions and adapting their techniques over time. Traditional Tongan dwellings, known as “fale,” have traditionally utilized wood for structural elements, thatch for roofs and walls, and ropes to secure various components. Fale were the predominant construction style in the islands until the introduction of industrial materials. The traditional “Fale” was mostly constructed from the coconut tree, was very cheap and very easy to make.

Over the last hundred years or so, there has been a transition away from thatch materials and today, traditional fale construction practices and knowledge have nearly vanished, rendering fale a rare sight in Tonga (Shelter Cluster Tonga, 2019).



Above Left: Traditional Fale. Above Right: Adaptive Design  
Below: Contemporary design



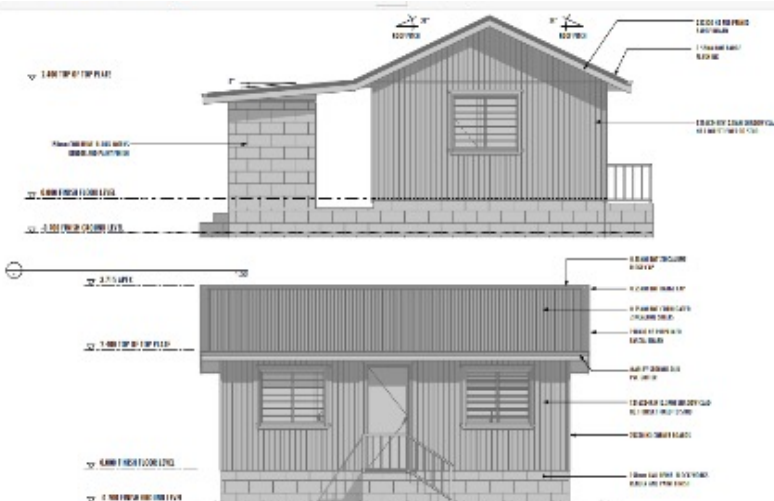
The adaptive design is very similar to the traditional fale, but the materials used are different from the traditional coconut build.

A combination of local and western materials utilized for the contemporary designs.

The Hunga Tonga Hunga Ha’apai Tsunami design has no reflection of the traditional design. The design is built to withstand severe cyclones. The design is flat and low, and is meant for areas that are dry, more inland, and not at risk of flooding.

For low-lying areas and shorelines, where there is a risk of tsunami inundation and flooding, there is an alternative design which is elevated off the ground to provide protection in the case of flooding. However, accessibility for those with disabilities is a challenge for this type of design.

Both of these designs are being used by the government for the Hung-Tonga Ha’apai rebuild project.



Left: Hunga Tonga Hunga Ha’apai Tsunami design

### Coastal and low-lying communities most at risk of inadequate housing

Geographically, inadequate housing is prevalent in coastal communities, particularly in the outer islands and areas like Tongatapu. These vulnerable locations are at high risk due to their proximity to the coast and climate change impacts.

Low-income renters in informal communities, such as in Patangata, face poor living conditions, overcrowding, and inadequate water and sanitation facilities. Informal settlements, like those near Popua, represent another vulnerable group in Tonga. These settlements have formed because of affordability issues, and remain at high risk due to their locations.

### Traditional skills could help increase housing resilience

Traditional skills which involve using coconut leaves, husks and other parts of the tree for shelter, ropes and taovala are slowly being lost. Although young people are still taught to make traditional materials including kafa, ipu kava, taufale, tokotoko, as part of their schooling, these skills are mostly utilised to make handicrafts and local souvenirs. The use of these skills for building materials is now very limited.

### 'Eua forestry plantation potential source of local timber

Historically, 'Eua has been the major supplier of local timber and processing both for supplying 'Eua itself as well as Tongatapu and other outer islands. The plantation is currently operational, but running at a very low level of utilisation due to the difficulties of transporting timber from the hill tops to the lower level of the island, lack of appropriate milling equipment and the logistical challenges of shipping onwards towards Tongatapu. Access by boat to Eu'a wharf is difficult, especially in bad weather. This means that regular reliable shipping services to and from the island cannot be maintained.

Many people in 'Eua utilise tree bark or offcuts from the milling process to build houses, fences, and pigsties as these waste materials are more affordable. The table below shows a few local timber species available in the island of 'Eua, and their suitability for different construction activities.

No formal strength testing has yet been carried out on locally grown wood, although this is something that the Ministry of Infrastructure is considering undertaking so that recommendations on safe usage can be made.

### Local timber

| Uses                                     | Local Name | Scientific Name |
|--|------------|-----------------|
| Wall framing, bearer, joists and trusses | Pulukamu   | Myristica       |
|  | Moli       | Orange          |
|  | Koka       | Euphorbiaceace  |
|  | Mahokani   | Mahogany        |
|  | Sita       | Red Cedar       |
|  | Paini      | Kauri Pine      |
|  | Loupata    | Teak            |
| Noggin, ceiling battens                  | Niu        | Coconut         |
|  | Kasia      | Raintree        |
|  | Ahi        | Sandalwood      |
|  | Mei        | Breadfruit      |

### Encouraging use of local traditional materials to reduce reliance on the supply chain

The cost of imported construction materials is up to 20% more expensive than local materials depending on the product and its use.

Many of the coconut trees and other trees grown previously have been cleared from pieces of lands and plantations to make room for commercial crops like squash, kava, vanilla, manioke (cassava) and 'ufi (yam) to export to family members overseas in exchange for money.

### Opportunities for use of local materials and traditional methods to ensure resilience after disasters

Historically, as a rite of passage, young boys were obligated to plant coconuts in their fathers' plantations to replace those that had been damaged or that had died. At the time, government required that copra and coconut trees be used for housing and shelter. Regular planting of coconuts allowed for a plentiful supply of building material to be available. Similarly, people used to plant ahi (sandalwood), which is a slow-growing hard-wood to provide building materials for future generations. These traditions are no longer kept, but would be helpful in terms of ensuring the availability of high-quality timber for construction and increasing the country's resilience in times of disaster.



## Housing Information

There is a lack of awareness and understanding of housing resilience and the Government’s housing policy, among the general public. People have limited understanding of what resilient housing entails and the materials needed to construct a strong home capable of adapting to changing climate conditions.

### No current agreed qualification for practicing construction professionals

The two largest TVET providers are the Tonga Institute of Higher Education (TIHE) and TIST. Both are government training institutions, and now fall under the remit of the Tonga National University (Skills Consulting Group, 2022). TVET providers are loosely grouped into government, Free Wesleyan Church, Catholic Church, and private sector (see Table 1.).

Some education and training providers accommodate those in employment by offering part time learning, and flexible delivery hours. Some, including TIST, include workplace attachments as a part of their TVET programmes, however, these are based upon time spent in the workplace rather than being outcomes based. There are no providers in Tonga that offer programmes with formal and accredited integrated workplace learning outcomes.

Notably, with the lack of an industry-led skills formation system, there is no current agreed qualification for practicing professionals in the construction sector (Australian Council for Educational Research and Scope Global, 2014).

Some employers deliver non-formal and non-accredited formal learning activities to their employees. These can be from skilled staff members or skilled professionals brought in from overseas. Some will also send workers overseas for skills development opportunities.

| System                 | Providers  |
|------------------------|--|
| Government system      | Tonga Institute of Science and Technology (TIST)<br>Tonga Institute of Higher Education (TIHE)                               |
| Free Wesleyan Church   | Tupou Tertiary Institute (TTI)<br>Pouono Trade Campus<br>Tupou College<br>Queen Salote College<br>Hango Agricultural College |
| Catholic Church system | ‘Ahopanilolo Technical College<br>St Joseph’s Business College<br>Montfort Technical Institute                               |
| Private Providers      | ‘Unaki ‘o Tonga Royal Institute  |
| Regional Providers     | University of South Pacific  |

\* Pouono Trade Campus, Tupou College and Queen Salote College provide training services under the auspice of TTI

Table 1 :Largest Tonga TVET providers by type

Source: Research into the Financing of Technical and Vocational Education and Training (TVET) in the Pacific: Tonga Country Report (Australia Council for Educational Research and Scope Global, 2014)

### Demand for skilled workers high, but possible oversupply of semi-skilled workers

It is difficult to accurately assess the demand for semi-skilled workers in Tonga. However, stakeholders generally agreed that whilst demand for skilled workers was high, evidence demonstrated only moderate demand for semi-skilled workers. One stakeholder noted that there may be an oversupply of semi-skilled construction workers.

More information is needed regarding the demand for construction skills in Tonga, particularly quantitative information. Under supplied and over supplied skills identified by stakeholders interviewed are shown in Table 2 below.

| Skills undersupplied   | Skills oversupplied   |
|--|---|
| <ul style="list-style-type: none"> <li>• Plumbers</li> <li>• Finishers and Joiners</li> <li>• Tilers</li> <li>• Quantity surveyors</li> <li>• Site foreman</li> <li>• Team leaders</li> <li>• Painters</li> <li>• Steel Fabricators</li> </ul> | <ul style="list-style-type: none"> <li>• Slight tendency to have a greater number of carpenters than other trades was reported. Though this is often seen locally as a starting point from where workers may transition into other trades</li> <li>• Block layers</li> <li>• Plasterers</li> <li>• Unskilled workers</li> <li>• Some limited evidence from stakeholders to suggest an oversupply of semi skilled workers</li> </ul> |

Table 2 - Identified undersupplied and oversupplied skills in Tonga

### 1.3.3 Security of Tenure

#### Land tenure is a complex issue in Tonga, with disparity in access between men and women

Land is a sensitive issue in Tonga, impacting access to, investment in, and affordability of resilient housing. The land tenure system in Tonga is complex, and historically and traditionally favours men. Land is associated with power and authority and there is disparity in access to land between men and women.

All the land in Tonga is the property of the Crown, and there are three types of estate tenure: noble or chief land, allotments, and state or customary leasehold land. Women cannot hold an estate, and rarely hold allotments, although they can lease land and build homes. However, women's investment in land/housing is not encouraged.

The most common types of tenure are:

- **Hereditary estate:** It is a life interest held by a Noble (called tofia) or Chief (matapule) and passed down from father to son. Estates are not held by women.
- **Town allotment:** It is a life interest held by a Tongan (rarely by women) and used for residential purposes. It is passed down from father to son. Normally located on a hereditary estate but may be located on Crown land. There are limitations on the number of town allotments a person can own, with a maximum of 30 plots.
- **Tax allotment:** It is the same as town allotments but used for agriculture instead of residential purposes. Often referred to as bush or country land and have a maximum lease duration of 20 years.
- **Lease:** A lease may be granted over Crown land, hereditary estates or allotments. It may be transferred or sub-leased. Unlike allotments, it may be held by foreigners and it is more commonly held by women. The maximum duration is of 99 years for leases of hereditary estates and town allotments and of 20 years for leases of tax allotments (agriculture).
- **Sub-lease:** Similar to a lease but it is not required to be registered if it is made for 3 years or less.
- **Permit:** Similar to a lease but the landholder retains greater degree of control as permits cannot be transferred or sub-leased.
- **Tenancy agreement:** Written agreements which may be registered (but are normally not). The majority of tenancy agreements are not legally enforceable, leading to disputes that may end up in court. Some tenancy agreements are verbal.
- **Licence:** Verbal permission to use land and/or housing, commonly granted to family or friends. It is not capable of being registered and it is very difficult to enforce, as it requires a court case and evidence of landholder's conduct. (Shelter Cluster Tonga, 2019)

In the Tongan culture, land is seen as sacred. Under the Tongan constitution and legislation there is inequality between nobles and commoners with the nobles' privileges to land rights codified in the constitution. The current Tongan system 'clashes head-on with basic human rights requirements', given the intrinsic inequalities in the Land Act (Salomon, 2008).

All land is the property of the Crown (but can be granted to the Nobles and titular chiefs or matapules as hereditary land). No land can be sold, but can be leased, and can be mortgaged according to the Land Act. The elements of rank, status and power are still very much preserved and are closely linked to the Tongan socio-political structure. Succession to estates and titles is strictly patri-lineal from father to the eldest son.

### Current land rights system does not align with human rights requirements

Barriers to land ownership include women's access to hereditary land being restricted (for example widow, unmarried daughter). There are strict rules of succession in favor of males and eldest son/grandson. In addition, the availability of land is restrictive under the estates/nobles, estates/Crown and hereditary/allotments system. There is no freehold land, there is a prohibition against buying and selling of hereditary estates or allotments and there are restrictions against foreigners owning hereditary allotments.

Land Evictions are by Court order following a trial before a Judge of the Land Court (with a right to appeal to the Court of Appeal). There are instances of voluntary surrender of occupation and compensation awarded by the Court or agreed between parties. Resettlement occurs usually in relocation to new sites post-disaster.

Whilst the Land Act states that a landholder must obtain a permit from the Minister of Lands prior to an alien/non-Tongan occupying or residing on his land, this provision is not enforced. Land security is a major issue. The Land Act is complex and poses challenges for accessing homes and obtaining housing loans. The Ministry is working on streamlining the availability of land deeds for the public, but there are still challenges to overcome. These challenges relate to the title holders of the land and issues around land ownership.

### Some limited protections for those occupying land they do not own

Adverse possession is not recognized in Tonga, which means that individuals in Tonga cannot claim ownership of a property solely based on occupying it for a certain period. However, it is lawful for a person to occupy land without the owner's permission until the owner takes steps to evict them. There are no laws against forced evictions, but case law stipulates that a landowner cannot evict someone who has been promised or induced to believe they could use the land for a certain period.

Additionally, a squatter who has unlawfully resided on the land for 10 years or more cannot be evicted. The government is required to consider the interests of squatters before granting leases or other interests in Crown land.

The Land Act allows the government to acquire land for public purposes, and compensation must be provided to the landowner for their land and buildings. In terms of tax allotments, a portion of land is reserved by the government for infrastructure such as roads. Re-locations do not have specific laws and are determined on a case-by-case basis in conjunction with donor funding agencies.

In 2017, the government developed a Resettlement Policy Framework consistent with World Bank principles on involuntary resettlement. After the eruption and tsunami in 2022, the resettlement process was managed by the government, with the King providing some of his crown land for the relocation of vulnerable communities.

### Unregulated squatter settlements in red zones continue to grow

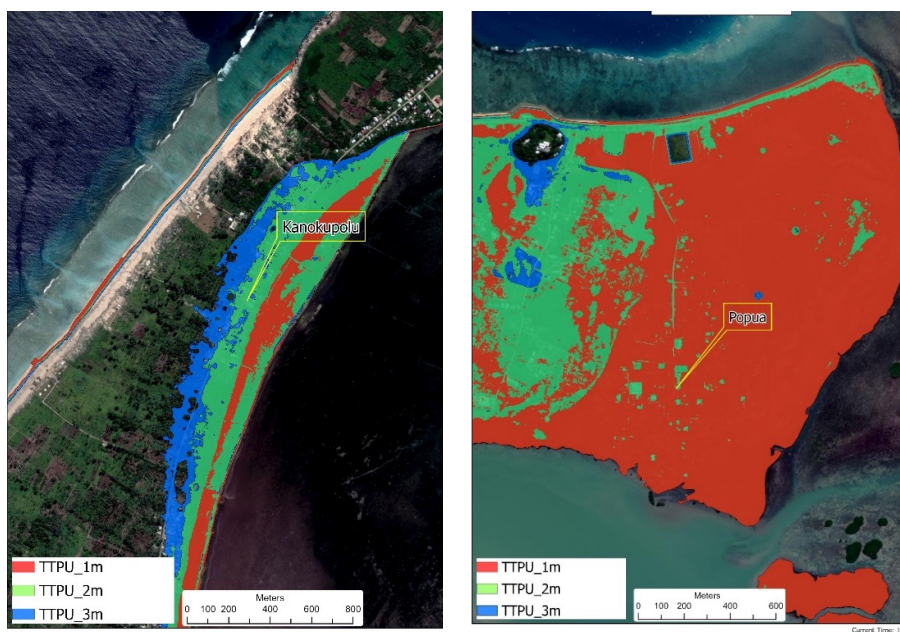
Building in 'red zones', including squatter settlements and low-lying coastal communities, is unregulated and continues to increase due to urbanisation.

Reference to Figure 3, earlier in this document, the area of Popua has been a red zone in Tongatapu but settlers choose to stay there, at their own discretion.

Kanokupolu Area (Figure 3) also has been recently declared as a red zone by the Government of Tonga and plans are underway to relocate these people to the central part of Tongatapu.

Although red zones have been indicated, the government has not fully enforced these, because of the cost implications of relocation.

Coastal and informal settlements such as Patangata and Popua were already designated as red zones in the past. Despite requests from the King for these settlements to relocate, the households did not move. In 2015, the previous government formalised their stay by allowing them to lease the land. In 2022, these same areas were affected by a tsunami, but the government cannot relocate them because they have already leased the land.



Other red zone areas such as the western side of Tongatapu are not informal settlements as the people living there actually own the land on an estate or allotment basis. Relocating these communities would be challenging as the government would need to compensate them for moving to another location and relinquishing their land, and the community members rely on access to the coast for fishing and other activities.

There is now a form of legal recognition through the issuance of permits for the settlers to live in those areas. However, it ultimately comes down to the choice of the settlers themselves, as they do not wish to vacate the area.

Whilst all informal settlements in Tonga have now been legalised, there is still a perception from outsiders that particularly communities are informal, for example the low-lying areas of Patangata. However, according to the land laws and their entitlement to the land, they comply with the legislation within the country.

### **Barriers to land ownership for non-citizens**

Immigrants, including the Chinese population (who represent 2% of the urban population) can hold leases and permits but are not allowed to own estates or allotments. Members of the Chinese minority often have tenancy agreements, which are generally not legally enforceable. Smaller minority religious groups, such as the Muslim community, also have access to land as they are citizens of the country. This means they can buy land or inherit it given their citizenship status.

## **1.3.3 Basic Services**

### **Electricity expensive for most Tongans**

Electricity in Tonga is expensive as the country relies heavily on diesel generators and the cost of diesel has been increasing significantly. On average, households in Tonga pay around TOP \$200 to \$600 per month for electricity. However, there is an ongoing TOP \$20.3m project funded by New Zealand to upgrade the network and install smart meters, which is expected to improve access to electricity. The project will reduce network losses, increase electricity access, and provide safe and reliable supply to approximately 4,872 households in urban areas.

In urban areas, 99% of the population have access to mains electricity, compared to 93% of the population in rural areas (Tonga Statistics Department, 2021).

In Tonga, the main source of energy for cooking is LPG (80%), followed by wood/coconut husk (10%), then biogas (5%) and electricity (5%) (Tonga Statistics Department, 2021).

There is also a national plan to transition to renewable energy to reduce the reliance on diesel. Tonga Power, alongside the government of Tonga, has set a target that by 2030, 70% all electricity generation sources will be generated from renewable energy sources.

The Outer Islands Renewable Energy Project, which is jointly funded by ADB, the Australian Government, the European Union, Denmark and the Global Environment Facility, is supporting Tonga to achieve this target, through the provision of solar power systems across 8 of Tonga's outer islands. This project commenced in 2013 and is due for completion in December 2023.

### **Water in urban areas generally reliable and rural supply improving**

Most of Tonga's islands are too low-lying to sustain fresh-water lenses, and many of the taller islands are comprised of hard rock, making boreholes a challenge to drill. Therefore, most potable water supplies are captured through rainwater collection (Shelter Cluster Tonga, 2019).

Water supply in Tongatapu, 'Eua and parts of the Vava'u and Ha'apai groups is managed by the Tonga Water Board and is supplied via ground bores. The piped water supply in urban areas reaches 6% of the population and is generally reliable.

In rural areas, communities rely on their own water supplies, such as underground water stored in tanks for distribution within the community. As of the latest census (Tonga Statistics Department, 2021), 65% of the population source drinking water from their own water tank, 15% source drinking water from a neighbour or community water tank, 14% buy bottled water and 6% have access to a piped water supply.

Water supply in Tonga is relatively affordable, with the average cost for households ranging from TOP \$20 to \$50 per month for piped water supply.

There is an ongoing National Water Tank Project managed by the Ministry of Agriculture, Food, and Forestry, in partnership with local communities which aims to distribute over 4,600 water tanks to households throughout Tonga, including both the main and outer islands.

### Most households have adequate access to toilets, but poor management of wastewater

In Tonga, 89% of households have a flush toilet with a septic tank, 5% have a pour-flush toilet with septic tank, 4% have a pit latrine, and the remaining 2% is split between flush/pour-flush toilets without a septic tank, composting toilets, hanging latrines or no facilities (Tonga Statistics Department, 2021). Septic tanks are rarely properly designed, usually consisting of single compartment tanks, and are not sized for the number of persons using the facility (Newton, 2008). Septic tanks sited in low-lying areas are liable to leak during periods of flooding, causing health risks.

### 1.3.4 Housing Affordability

| Housing Mortgage Accessibility   |   |
|--|---|
| <b>Banking Institutions</b>  | <p>Meet minimum financial requirements and capacity to repay. (e.g. stable formal employment and income with proven financial history with a bank (e.g. salary account))</p> <p>Proven sufficient security in place - Proof you can provide a minimum equity contribution, e.g. usually ranging from 10% - 20%. E.g. if you are planning on building a home and total cost of the project is \$200,000, you're then required to show evidence that you are contributing around \$20K - \$40K for the project. In Tonga, the piece of land is usually quantified as the home owner's equity contribution</p> <p><b>Basically only people who are working and earning a good income can be eligible</b></p> |
| <b>Private Money Lenders/<br/>Micro-Finance</b><br><br><b>1. SPDB Loan Institution</b><br><b>2. Five Star Finance</b><br><b>3. Federal Pacific Finance</b> | <p>Funds are from investments - International Finance Cooperation (IFC)</p> <p>Membership minimum age with the SPBD as a loan group in 21 years.</p> <p>As a new member, one can loan up to \$TOP1000 (\$623AUD)</p> <p>The interest rate is currently at 20% within the period of repayment which can be 1-2 years repayment plan.</p> <p>Both provide a maximum of up to \$TOP 10,000 (\$6226AUD) and a minimum of \$TOP 1000 with an interest rate of 10% and 16% respectively.</p> <p>Only meant for short term loan, and not a housing loan</p>  |
| <b>Savings Club</b>  | <p>Family and/or community based micro finance institution also called lili</p> <p>Meant for short term loans and or personal loans.</p> <p>People opt for this kind of micro financing as they will benefit from it at the end - the repayment of loans is distributed amongst the members themselves.</p> <p>It usually runs for 1 year as like savings to receive back in December but now people are also using it as a loan scheme.</p>  |

***“You either build any type of house because of the resources or materials you have or you build a quality house but truth is, only the very rich and privileged people can afford this.”***

***– Father age 50, Popua***

#### Loan options for low-income earners is limited and expensive

The table above sets out the minimum requirements for people to access loans from financial institutions in Tonga. There are also smaller savings clubs, where people can also loan money. These are small community loaning groups, with high interest rates.

Housing loan options for low-income earners are limited, which contributes towards poor housing conditions for families, given that they cannot access finance for home building or maintenance.

Participation in seasonal work schemes is helping some families to improve their housing situations. Of the 4,085 households that participated in the seasonal work scheme in 2021, 1,231 households used the additional income to build/renovate their home and 164 households purchased land allotments (Tonga Statistics Department, 2021).

#### Formal lending institutions have strong requirements for lenders

In Tonga, there are four main banks: BSP, ANZ Bank, MBF and Tonga Development Bank. To access mortgages from these institutions, individuals must meet the financial requirements, demonstrate stable employment and income, and

provide minimum equity contributions ranging from 10% to 20% of the total project cost. In Tonga, the piece of land often serves as the homeowner's equity. Eligibility is typically limited to those with stable incomes and good financial capacity.

The National Retirement Benefit Fund, which is available only to government civil servants, provides housing loans based on the amount of retirement savings collected, at interest rates often lower than those offered by banks.

Some individuals rely on retirement savings to finance housing. However, it is challenging for many people in Tonga to secure loans, and savings are often insufficient to build proper housing due to limited skills and resources.

### **Remittances significant contribution to Tongan finances**

Remittances play a significant role in Tonga's financial landscape. As labour mobility has increased, many Tongans rely heavily on remittances from abroad, which provide a common form of financial support for low-income households. Remittances and regular salaries are comparable in terms of income sources, as indicated by the recent census report (Tonga Statistics Department, 2021).

### **No rental controls in Tonga**

Renting a house in Tonga is not regulated. Although the Land Act mentions that holders of tax allotments are required to pay rent to the noble or chief who owns the land, the rent amount is determined by the landowner without any specific regulations or limits. This applies to minority groups, such as the Chinese, who lease land for their businesses.

### **Housing subsidies mainly aimed at recovery and reconstruction**

Housing subsidies in Tonga have been primarily focused on housing reconstruction and recovery programs. NGOs such as Habitat for Humanity, Tonga Red Cross Society, and the LDS Church play a role in addressing adequate housing. However, coordinating these efforts under a standard strategy remains a challenge for the government.

The extent to which housing subsidies serve low-income households varies, as these programs usually target affected and damaged households, particularly those in need of major renovations. In the past, the government has provided cash distributions ranging from TOP \$3000 to \$5000 based on the level of damage. Tax incentives for home ownership and rental are not currently available, and the understanding of the housing subsidy system among the public is limited.

There has been a significant increase in material and fuel costs, particularly evident after the volcanic eruption. In Tonga, the price of building materials has tripled since 2022, posing challenges for suppliers who are also impacted by shipping delays. Consequently, most families, facing natural disasters and cyclone season, opt for cheaper materials to quickly repair their homes, but this compromises the strength and resilience of their homes.

### **Recent natural disasters and pandemic have made housing and building materials less affordable**

High levels of poverty have been exacerbated by the impact of COVID-19 and the 2022 volcanic eruption, significantly impacting the economy. Tonga currently has the highest inflation rate in the region, affecting communities' ability to meet their needs and prioritize housing. Families who lost their homes due to the tsunami in the outer islands have been relocated to the mainland by the Government, resulting in challenges as they adapt to finding employment, especially when they were previously dependent on the ocean for income. The increased poverty level has further escalated since the volcanic eruption, with many people losing their jobs due to the combined effects of the eruption and the COVID-19 pandemic.

## **1.4 GENDER AND SOCIAL INCLUSION**

### **Women, PWDs and LGBTQI often excluded from consultation**

Special needs and the voices of vulnerable groups, such as people with disabilities and LGBTQI individuals, are often excluded from consultations related to building and the housing sector. Inclusive participation is sometimes treated as a checkbox requirement imposed by donors. People with disabilities have expressed feeling disconnected and not included in these processes. It is crucial to ensure meaningful inclusion of vulnerable groups in the housing and shelter space. Access to health equipment and emergency shelters is crucial for PWDs and the elderly.

Women are unable to own land in Tonga; they can only lease it. This issue has been a significant concern for women's rights advocates for years, and they continue to advocate for the government to review the Land Act and provide women with entitlements. Other marginalized groups, such as LGBTQ+ individuals, people with disabilities, and young people, also face discrimination regarding land access. For example, some young people struggle to access land due to not being registered as legitimate children. These are ongoing issues in Tonga.

Women also often lack access to education, technical skills, and construction knowledge, particularly in women-headed households. The gender responsibilities in Tonga often place the care-giving burden on women, limiting their opportunities for education and technical training in construction-related fields.

## 1.4.1 People with Disabilities

### Current housing and emergency shelter options are often inaccessible for those with disabilities

Housing designs often lack proper consideration of access for PWDs. For example, lack of drainage infrastructure creates additional challenges for individuals with physical disabilities, such as mobility or vision. External support from government or public facilities for emergency situations is limited.

There are several disability organisations in Tonga, which have housing models and designs fit for purpose in Tonga. However, there are some limitations in sharing information amongst organisations. There is an umbrella disability organisation called NATA that collaborates closely with the Pacific Disability Forum.

It is crucial to work strategically and establish meaningful partnerships with these organisations to ensure effective collaboration. There are also challenges with internal coordination within civil society and even within the disability space itself. Despite the limited number of organizations, they do valuable work.

Older people also need to be considered in housing issues. Older women and men are mainly cared for in the community, and there is one NGO known as the Ma'a Fafine moe Famili that provides support through an aged-care programme funded by the Australian Government. However, there is no dedicated housing or old people's homes, for those who cannot be looked after by their families.

## 1.4.2 Roles and Responsibilities

Traditionally, men were seen as the protectors of homes and providers of materials for building. They played a proactive role in the design phase of houses, while women were primarily involved in domestic duties and nurturing children. However, there is a growing recognition that gender roles have evolved, and both men and women can perform similar tasks and responsibilities.

Regarding work and monetary payment, both men and women are now contributing to the family income. Women have access to shelter, water, sanitation, and wash facilities, but there is still a cultural inclination towards prioritising young girls and women in accessing these facilities. Safety and privacy for women and girls remain a priority.

Families have a wide range of educational backgrounds, from diploma and certificate holders to degree qualifications and even Ph.D. holders. Ownership of land and property can be complex due to Tonga's land system, which includes Crown land, heritage land, town allotments, and tax allotments.

Disability affects men and women differently, with accessibility being a significant factor.

## 1.4.3 Power Dynamics

Women cannot own land, and although they can lease land and build homes, women's investment in land/housing is not encouraged. Despite this, the number of women leasing land and/or housing is increasing, with approximately 20% of leases now held by women (Shelter Cluster Tonga, 2019). Women's groups in Tonga from civil society continue to lobby for amendments to the Land Act.

There is recognition that both men and women have access to and control over assets and resources, including money. Decision-making in families is often led by the head of the family, traditionally the men, but women also hold influence. Women primarily care for and nurture children, while both men and women work to meet the family's needs. Household food sources include stores, markets, plantations, and fishing in coastal areas. There was no apparent difference in pay between men and women in the focus groups consulted with.

There is recognition of the importance of menstrual hygiene management, and several key bodies and NGOs in Tonga are actively involved in distributing menstrual hygiene products and information such as Talitha Project, Caritas Tonga and Tonga Family Health Association.

Gender-based violence is a concern in Tonga and the recent census (Tonga Statistics Department, 2021) indicated that a significant number of never-married women aged 15 to 49 years have experienced emotional, physical, or sexual violence from their current or most recent partner.

## 1.4.4 Women's participation in housing

To enable successful women's participation in housing, women need improved access to education and awareness, as well as funding options for housing. Remittances, private money lenders, saving groups, microfinance, and support from NGOs and the government play significant roles in funding housing projects. Barriers to women's participation in housing include gaps in knowledge and skills, lack of time due to household workload, and concerns about risks and/or insecurity.

# Vulnerable Population Groups

## Tonga Housing Forum

Improving housing resilience in Tonga through partnerships





# Part Two – Vulnerable Population Groups

## 2.1 OVERVIEW

The analysis focused on low-income households, with particular emphasis on:

1. Coastal communities
2. Formal communities
3. Informal communities

Common findings are presented for the low-income households, as well as specific findings for each of these vulnerable groups. There is significant overlap between findings from across these target groups, and therefore the findings are presented together.

## 2.2 COMMON FINDINGS ACROSS VULNERABLE GROUPS

### 2.2.1 Habitability

People in vulnerable communities have very poor housing conditions and are at high risk to cyclones. There is a lack of awareness of the building code and its requirements for housing, which results in many families constructing their homes without adhering to required standards.

Many community members consulted in with expressed the desire for the government to provide models or informational materials depicting what a resilient home should look like, including cost estimates and material sourcing. This type of information would support them in building resilient homes.

Natural disasters like cyclones cause flooding, particularly for communities in low-lying areas, and this is exacerbated due to the lack of adequate drainage. When flooding occurs, wastewater seeps from septic tanks, presenting health risks to the community members. Flooding also presents heightened risks and issues for PWDs, given the challenges in navigating flood waters and saturated ground.

Overcrowding within low-income rental areas is a significant issue that has been exacerbated by the relocation of families affected by the volcanic eruption. Households who rent, do so across all three communities (Informal/Formal and Coastal settlements) because they do not own land.

While living in crowded households poses challenges, families in Tonga have demonstrated remarkable adaptability and resourcefulness. Despite limited space and resources, they distribute roles and responsibilities equitably, emphasising safety and the well-being of all family members. This adaptability is closely tied to cultural values of shared responsibilities and collective well-being.

There is a lack of construction and technical skills among women, hindering their ability to manage their own homes and perform essential maintenance tasks.

### 2.2.2 Land Tenure

Access to land tenure varies across the different vulnerable groups. However, one common finding is the effect of the restriction of women from inheriting land estates. This means that women cannot own land, but rather lease it long term. In these cases, leases can be for more than 99 years, with renewals possible.

### 2.2.3 Basic Services

Lack of access to adequate water is due to not being able connect to the town water supply nor have access to water tanks. This causes sanitation issues of not having access to water, with some households not having proper flush toilets. Access to a power supply is also a notable challenge for residents in vulnerable communities, in particular in the outer islands, such as Nomuka. In some outer islands, such as Ha'ano, electricity is restricted to certain times of the day to ration the supply (Tonga Department of Energy, 2020).

Sanitation facilities and water pressure are problems, especially in low-lying areas like Popua, where septic tanks leak during flooding caused by heavy rains or high tides. The cost of utilities is very high, and the households for this area are low-income earners, (around \$10K a year), with their source of income reliant on the ocean ie fishing. Some of these homes are also using solar power as it is more affordable for them. Some also use less electricity due to high costs.

## 2.2.4 Housing Affordability

In the vulnerable communities consulted with, poverty plays a significant role in access to adequate housing. Since 2022, Tonga's inflation rate has been very high, resulting in a significant increase to the cost of living, including housing materials and utilities. Affordability poses a challenge for families in maintaining their homes, as limited financial resources often lead to compromises in the quality of construction materials used.

*Retired Father former civil servant, 68, "Building materials are expensive in Tonga, since the volcanic eruptions followed by Covid 19 everything has hiked up, prices of goods, especially building materials. It's easier for people to use the more cheaper materials because realistically not everyone is able to afford like one piece of decking wood which comes to \$70TOP for one. So most times, people wait till they are retired so they can take out their retirement to build a home or fix their home."*

Vulnerable households are often located in vulnerable geographical locations and also are low-income earners, with limited options to address their vulnerabilities. Utilities and the cost of living have also increased significantly, exacerbating this situation.

Rural communities, particularly those in the outer islands like Nomuka, heavily depend on government support for housing initiatives. Limited resources and accessibility make them reliant on government assistance, which poses challenges when housing targets are set ambitiously but struggle to be met in a timely manner.

*Mother from Nomuka, 54, "We are very much dependent on government support to our small poor island, especially when it comes to building of our homes."*

Many households have very limited assets and savings, reducing their capacity to invest in housing improvements. This contributes to the vulnerability of habitability, especially for families residing in low-lying and coastal areas, exposing them to natural hazards and climate-related risks.

In the targeted communities, many of the youth and men were engaged in overseas employment schemes (fruit picking), which does provide an additional source of income for those households.

## 2.2.5 Gender and Social Inclusion

One of the effects of the RSE (recognised seasonal employer) scheme for horticultural and viticultural work, (usually in New Zealand and Australia) is an increase in women-headed households within these vulnerable communities, with women responsible for caring for the children and elderly relatives.

Although there is a lack of construction and technical skills among women in the vulnerable communities, a few women are starting to pursue trade skills.

*Mother, 53, "My daughter is enrolled at TIST and I'm so proud of her, our girls are now venturing out to trade skills and this is so important to push them in these fields."*

Cultural norms and traditions play a pivotal role in defining the structure and organisation of all the households. Even in overcrowded living spaces, the deeply ingrained value of respect within Tongan culture ensures that families find ways to maintain a sense of privacy and consideration. For instance, bathrooms and sleeping arrangements may be separated by gender, highlighting the respect accorded to girls and women within the household.

*Father from Havelu, 55 years old "In the Tongan culture, the way we would set out the household is to ensure that we always partition off the girls rooms to the boys room. Brothers and sisters should never share a room. This shows our respect for the women in our families."*

People with disabilities are often overlooked in these vulnerable communities. Many homes are not disability friendly and so people with disabilities struggle with accessibility. Additionally, people with disabilities and the elderly need better access to health equipment and other resources to accommodate them for their needs. In addition, emergency shelters are often not disability friendly, presenting issues during disaster periods.

## **2.3 COASTAL COMMUNITIES**

Focus group discussions were held in Sopu area (Tongatapu 1) and Kanokupolu (Tongatapu 5) and Nomuka island. These communities are in low lying areas and have populations that include low-income and overcrowded households, with elderly people and people with disabilities.

Coastal communities are often affected by natural disasters such as tsunamis and cyclones and are also being impacted by sea level rise, which is leading to increased rates of coastal erosion and flooding. The coastal communities also grapple with poor drainage, exacerbating the levels of flooding. The increased flooding risk compounds the accessibility challenges for PWDs.

These communities find themselves heavily reliant on government support for housing. Limited access to resources and difficulties in obtaining construction materials further exacerbate the housing crisis, hindering the communities' ability to build proper and sustainable dwellings.

The livelihoods of the community members are strongly linked to the sea, rendering the prospect of relocating to urban areas a challenge. The complexities of this connection become particularly pronounced when considering the evolving risks associated with rising sea levels. Despite the increasing risk, families may be hesitant to move inland due to the profound attachment to their land.

## **2.4 INFORMAL SETTLEMENTS**

Focus group discussions were held in Patangata and Popua in Tongatapu 4. These communities are low-lying areas with overcrowded, low-income households. Key vulnerable groups in these communities include elderly people and people with disabilities.

Informal settlements were legalised in Tonga in 2015, which meant the government granted 30-year leases to the head of each family in Patangata and Popua. This effectively legalised the settlement which means they are now recognized as a community and can benefit from their Constituency development plans (IFRC, 2017). Whilst informal settlements are now legal in Tonga, they are still categorised by the unmanaged approach to their development and are still referred to in Tonga as informal settlements.

Informal communities in Tonga were a direct result of urbanisation, characterised by people from rural areas and outer islands moving into the urban areas and occupying coastal peripheries within the urban area which were not intended for residential use.

Historically, conditions in Patangata and Popua were poor - residents lived predominantly in temporary housing without running water or electricity. Since Patangata and Popua became legalised communities, conditions have improved. The security of tenure provided by leases has encouraged families to build permanent dwellings, and households now have running water and electricity, although WASH facilities are still not adequate.

Most homes in the informal communities are not built to standards and are highly vulnerable to natural disasters. A significant proportion of the houses are still substandard.

## **2.5 FORMAL COMMUNITIES**

A focus group discussion was held in the Havelu Area of Tongatapu 2. This is a tropical cyclone affected area, with a population that includes women-headed households, elderly people and people with disabilities.

Formal communities have more permanent housing and are less vulnerable than coastal communities and informal communities. However, houses are still in poor condition and are highly vulnerable to natural disasters. Home maintenance is a low priority, due to cost of building materials.

The land tenure challenges in urban areas (where formal communities are), mainly affect women's ownership of land. Rental costs are quite high in urban areas, presenting challenges for people who migrate to the formal communities to access better jobs. Most of the renters are people migrating also from the outer islands who do not have a home on the mainland to go to.

Access to water and sanitation can also be an issue as some homes do not have flush toilets nor have access to water tanks but are reliant on town supply water which can often be a challenge due to water pressure, depending on where the village is located.

# Analysis, Conclusions and Next Steps



# Part Three – Analysis, Conclusions and Next Steps

## 3.1 ANALYSIS

### 3.1.1 Overview

The key findings are summarized in the table below. These findings include analysis at a national level and analysis for vulnerable population groups:

|  <b>HABITABILITY</b>  |  <b>LAND TENURE</b>   |
|--|--|
| <p>Most homes are built not to standards and are vulnerable to natural disasters</p> <p>Informal communities have now been formalized and recognized by government</p> <p>Many households are not disability friendly</p> <p>In coastal communities, livelihoods are closely tied to the sea, making relocation to urban areas difficult.</p> <p>Many homes located in low-lying areas with high risk of flooding</p> <p>Women cannot own land</p> <p>Sea level rise becoming an increasing issue in coastal and informal communities, resulting in increased rates of coastal erosion and flooding</p> <p>Coastal communities are highly reliant on government support for housing due to lack of resources and access to materials from the main island hinders their ability to build proper housing.</p> | <p>Informal communities have now been formalized and recognized by government</p> <p>In coastal communities, livelihoods are closely tied to the sea, making relocation to urban areas difficult.</p> <p>Women cannot own land</p> |
|  <b>BASIC SERVICES</b><br>(primarily WASH and Energy)   |  <b>HOUSING AFFORDABILITY</b>   |
| <p>Lack of access to water and sanitation</p> <p>Lack of access to water and power is a core issue.</p>  | <p>Most families are poor and cannot afford to buy the proper building materials to building a strong and resilient home</p> <p>High cost of building materials</p> <p>Rent is quite high in the formal communities</p>            |

### 3.1.2 Habitability

Tonga is ranked as the second most 'at risk to natural hazards' out of the 172 countries (World Risk Index, 2017) and this vulnerability continues to increase. However, the threat of climate change provides an opportunity for Tonga to become better at planning and responding to the unexpected, to make sustainable progress in the area of housing, given the increasing focus and funding available for climate change adaptation programming.

Building resilience in the housing sector could take many forms. One of these could be to "get out ahead" of disaster damage through an ambitious retrofitting effort in the housing sector, a programme that deserves to be considered.

Government initiatives in housing often lag behind private projects, leading to delays and unmet demands. Addressing these challenges requires a multi-faceted approach, encompassing capacity building, increased awareness efforts, and strengthened government support.

Tonga's housing sector should be one of the pillars of a national and community resilience platform. Resilient housing will not only allow public funds that would otherwise be spent on housing recovery to be dedicated to other development purposes, but it will also reduce the social and economic disruption of households.

Lack of awareness of the building code highlights the need for comprehensive awareness campaigns and government programs on the building code to ensure safe and resilient housing construction and maintenance. Unfortunately, existing platforms for raising awareness are underutilized, presenting a missed opportunity to inform communities about crucial building regulations. There is an opportunity to utilise the fono (traditional village meetings) to support this raising of awareness.

Father, 60, "There is the fono that can be used to share information widely and updating the communities, but it isn't always utilised. Not everyone knows what a building code is, so it's no wonder people are building in different ways and any how which is not to standard nor complies to the government wants. But it goes back to lack of knowledge and awareness on the topic."

There is an opportunity for local materials to be incorporated into local building codes and standards. No formal strength testing has yet been carried out on locally grown timber, although this is something that the Ministry of Infrastructure is considering undertaking so that recommendations on safe usage can be made.

### 3.1.4 Security of Tenure

Tonga's land tenure system is complex with disparity in access between men and women. Barriers to land ownership include women's access to hereditary land being restricted with strict rules of succession in favor of males and eldest son/grandson. This particularly affects widows, unmarried daughters and female trustees etc.

Overall, land security is a major issue for everyone. The Land Act is complex and poses challenges for accessing homes and obtaining housing loans. The Ministry is working on streamlining the availability of land deeds for the public, but there are still challenges to overcome to improve the accessibility of key documents.

One significant barrier to security of tenure are the difficulties associated with securing the land. There are uncertainties of land issues for families due to the current land regulations which means that family land can be transferred to a new owner who may claim the land, or loss of family lands mean no security in terms of housing.

There is a need to explore options for relocation of housing in vulnerable low-lying and coastal communities. Providing access to secure and affordable land could offer a lifeline to families living in vulnerable areas prone to natural hazards. By relocating to safer zones, these families can mitigate the risks associated with living in high-risk environments. However, given the strong reliance of these communities on the sea for livelihoods and their ancestral linkages to the land, relocation of some communities may not be viable, in which case other adaptation options will need to be considered. Following the eruption and resulting tsunami from the Hunga Tonga-Hunga Ha'apai volcano, two entire communities, from the small Tongan islands of 'Atata and Mango, were relocated to the Kingdom's main island of Tongatapu and third largest island, 'Eua.

### 3.1.3 Basic Services

The high cost of utilities has direct impact on vulnerable families.

In Tonga, the accessibility of energy services faces obstacles due to the relatively compact energy industry serving numerous islands. This results in diseconomies of scale when providing energy to remote locations and small communities. The country's ability to maintain secure and reliable energy services is further complicated by the industry's small scale, dispersed structure, and dependence on imported technologies and fuels delivered through

lengthy and easily disrupted supply chains. Beyond the current absence of environmentally friendly technologies, the acceptability of energy services is also hindered by social acceptance issues, especially concerning safety, electricity costs, and the specific services needed for cultural and income-generating activities (Tonga Department of Energy, 2020).

There is some introduction of renewable energy projects, however there are challenges with electricity supply due to inadequate management systems.

### **3.1.5 Housing Affordability**

Housing affordability a key issue due to high inflation rates, high cost of materials and utilities. These costs continue to be a major barrier to adequate housing, particularly for low-income households.

Housing affordability is a major barrier, as it is linked to financial capacity. Employment opportunities and the ability to take these up, also play a role in accessing adequate housing.

Lastly, the housing design procedures themselves are costly and complex, which is a factor that contributes to the number of households that bypass the building permit process.

### **3.1.6 GESI**

With increasing education and awareness, families are becoming more open to redefining traditional gender norms. While cultural norms remain influential, there has been a transition towards greater gender equality in certain aspects of daily life. Advocacy efforts by women and civil society organisations continue to push for land ownership rights for women.

Education and awareness, funding options, and inclusive measures are essential to enable successful women's participation in housing and address the housing inequity in Tonga.

A notable opportunity lies in empowering women with training in construction and housing maintenance skills. The emergence of female engineers showcases the potential for women to play a vital role in the construction sector. Encouraging more women to venture into these areas can foster diversity and expertise, contributing to more resilient and inclusive housing solutions.

There is a need for improved support for elderly people and PWDs, given the lack of inclusive and caring housing options.

*Mother from Popua, 50 years old "In the Tongan culture, we have to ensure the safety of the girls and women when using the bathroom. So this also means their rooms would be located closer to the bathroom. Ideally, we should have two toilets, one for the girls to use and the other for the males. When this isn't the case, we always prioritise the girls and women in our family to use the bathroom/toilet first."*

Most of the existing housing structures in vulnerable communities are not accessible for PWDs. This shortfall not only presents challenges to the well-being of PWDs but also underscores the broader need for inclusive and accessible housing designs in the community planning and development processes.

## 3.2 RECOMMENDATIONS

### Sector and government engagement provides opportunity to address systems issues

#### 3.2.1 Community Level Programming

**Support at a community level is important to address the immediate needs of vulnerable communities, through:**

Increased support to improve housing resilience, in the form of additional funding and programming delivered at community level with an aim to improve resilience of housing to the impacts of climate change, including increasing natural disasters. Promoting sustainable building should focus on red zones as well as low lying coastal communities to the West of Tongatapu and those in outlying islands.

**Increased support for vulnerable households to access housing loans/subsidies. This could include:**

Government-funded housing subsidies or loan guarantee schemes for low-income earners not eligible

Financial support for low-income earners for housing through loan schemes through banking institutions

Housing information sharing at a grassroots community level, including through community-level financial literacy training and strengthening of existing village governance structures such as the 'fono' and using them to facilitate information sharing with community members to support access to adequate housing.

Empowering women with training in construction and housing maintenance skills

Improved support for elderly people and PWDs, either through dedicated healthcare facilities for elderly people/PWDs or specific housing for elderly people/PWDs.

#### 3.2.2 Sector Level Programming

**The following recommendations would strengthen the housing sector in Tonga, supporting the implementation of improved housing solutions at a national level:**

Improved coordination between the housing stakeholders in Tonga and Ministry of Infrastructure, including through reinvigoration of the Shelter Cluster to be active during peacetime and not only post disaster. A lead agency will need to be appointed to fill the current gap. This could also involve engagement with key stakeholders on the Housing Policy and/or specific trainings with construction companies and architect services to build capacity in providing resilient housing services.

Encouraging up-skilling of low or semi-skilled labourers through vocational construction training to ensure that the workforce is expanded.

Improved standards and monitoring of builder's qualifications to support higher levels of compliance with the building codes and higher quality construction.

Development and enforcement of regulations and guidelines for home extensions

Strengthening housing data collection and monitoring, including the government's capacity to monitor construction and compliance, led by the Ministry of Infrastructure and strengthening of housing data collection within the national census.

Housing designs and building codes to be improved to:

- Integrate of sustainable and resilient features such as incorporating energy-efficient technologies, utilizing renewable energy sources, implementing climate-resilient building practices, and promoting eco-friendly materials to enhance long-term sustainability and mitigate climate change impacts.
- Consider accessibility issues for elderly people and PWDs
- Incorporate traditional skills and materials into the design and build process, including locally grown timber.

Support for enforcing of existing housing legislations, policies and regulations

Consider incentives for locals studying further in the sector to return to Tonga. Many pursue further studies abroad, and never return due to the poor incentive for returning to Tonga.



### 3.2.3 Societal Level Programming

**Taking a holistic approach to housing is key. This requires government and the relevant key stakeholders to support housing at a societal level in Tonga, by:**

Strengthening of information sharing mechanisms to improve the public's understanding of land processes and regulations, building code requirements and resilient home design and specifications. This could include the continuation of Ministry of Lands and Natural Resources' efforts to update the public (using all medium, radio, tv and social media) on the land process and regulations. Specifically, information awareness should be focused on:

- Raising awareness of the Housing Policy and Housing Affordability Scheme
- Providing guidelines on construction methods for building resilient extensions to existing housing.
- Providing designs and specifications for a resilient home, including procurement options for materials.
- Raising awareness of the importance of the building code for compliance and standards in the housing sector.

Ministry of Lands and Natural resources to follow through amendments of the Land Act on women having access to own land. This has been in the pipeline for a while and remains ongoing, pending the Ministry taking this forward.

## 3.3 FURTHER RESEARCH

**As presented at the Pacific Housing Forum:**

- Feasibility of incorporation of local materials and local context into the building code
- Explore housing support for elderly care and PWDs

**In this report:**

- Understanding relevant housing-related issues and trends through data collection and analysis (e.g. the impact of climate change, seasonal employment schemes and cultural factors on housing adequacy).
- The feasibility of loan guarantee schemes for low-income earners, in consultation with key players in the banking and financial sector (e.g. Central Bank), as well as government ministries and agencies that have the mandate to improve housing affordability for vulnerable populations.
- Exploring affordable and climate-resilient housing designs that meet national building standards and suit our local context especially using local materials (e.g. climate, multi-generational living).
- Further integration of housing issues in national climate change adaptation policy design and implementation.

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