ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project Category:	Regular
Country:	Fiji
Title of Project/Programme:	Increasing the resilience of informal urban settlements in Fiji that are highly vulnerable to climate change and disaster risks
Type of Implementing Entity:	Multilateral
Implementing Entity:	United Nations Human Settlements Programme (UN-Habitat)
Executing Entity:	Ministry of Local Government, Housing & Environment and People's Community Network, Fiji Local Governments (Lami, Lautoka, Sigatoka)
Amount of Financing Requested:	US$4,200,000

Project background and context

Socio-economic context[1]

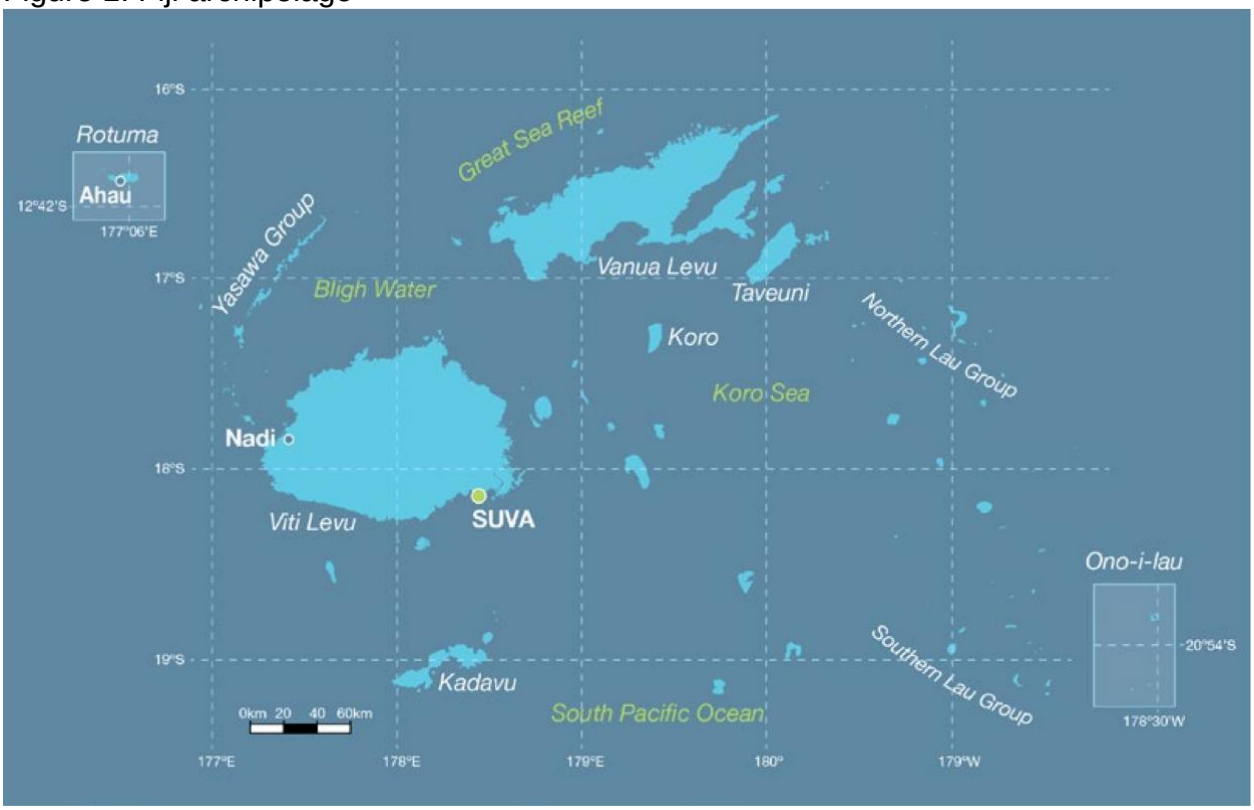
Fiji is an archipelago of 332 islands (of which approximately 110 are inhabited). The country's population of approximately 865,000 resides primarily on the two largest islands, Viti Levu and Vanua Levu.

Fiji is geographically and culturally the centre of the Pacific, and has historically served as a regional hub for banking services and communications, as well as for flights and shipping to other Pacific islands. Fiji has a gross domestic product (GDP) of US$4.53 billion and a gross national income of US$4,870 per capita. The economy is primarily based on agriculture, sugar and tourism, with tourism being the largest foreign exchange earner over the years. Studies estimate that approximately 20 per cent of Fiji's national economy is generated through the informal sector. This sector includes subsistence agriculture, informal manufacturing and services and owner-occupied dwellings. Further, the sector is estimated to employ approximately 40 per cent of the country's work force. This is especially the case in urban areas, where informal settlements have absorbed a large proportion of the population. More women work in

[1] Figures based on Fiji Draft Post-Disaster Needs Assessment. Tropical Cyclone Winston, February 20, 2016. Government of Fiji May 13, 2016

the informal economy than men – though this is also the case in the formal labour market of Fiji. [2]

Figure 1: Fiji archipelago



Despite its larger size and position within the Pacific, Fiji faces some of the geographic and structural challenges common to other smaller Pacific island countries, including high levels of vulnerability to external shocks and natural disasters.

While the country has achieved broad coverage in the provision of basic social services, 35 percent of Fijians live below the poverty line, unable to meet basic needs. Although poverty has recently declined, 44 percent of the rural population and 26 percent of the urban population still live in poverty.

Since 2007, over half of Fiji's population live in urban areas (2 cities and 10 towns) and the urban population is growing faster than its rural counterpart. Although some municipalities are urbanizing more quickly than others, all are confronting challenges related to growth. These include urban poverty and unemployment, environmental risks, climate change and disaster risks, land administration and infrastructure provision and maintenance.[3]

[2] UN-Habitat (2012) Fiji's National Urban profile.
[3] UN-Habitat (2012) Fiji's National Urban profile.

There has been an increase in the number and density of informal settlements in many cities. For example, the 2006 Greater Urban Management Plan records 50 informal settlements in the Greater Suva Urban Area. This number had risen to over 100 by 2011. For all of Fiji, UN-Habitat has mapped 171 informal settlements while the government indicates 240 informal settlements. Those informal settlements are home to approximately 20 percent of the total urban population. These settlements are often located in high-risk peri-urban areas, or just beyond the municipal boundary, placing them beyond the jurisdiction of the municipality. Similarly, iTaukei (i.e. indiginous people) villages are excempt from municipal council regulations as per the Local Government Act. This means that such villages and informal settlements have limted access to urban services.

Climate variability/disaster risks[4]

Fiji is located in the Pacific Ocean's tropical cyclone belt. The island nation experiences frequent cyclones (on average, one cyclone per year) and with them damaging winds, rain and storm surges. Besides cyclones, the country suffers from other extreme events associated with climate change such as extreme rainfall, flooding, droughts and temperature extremes as well as sea-level rise.

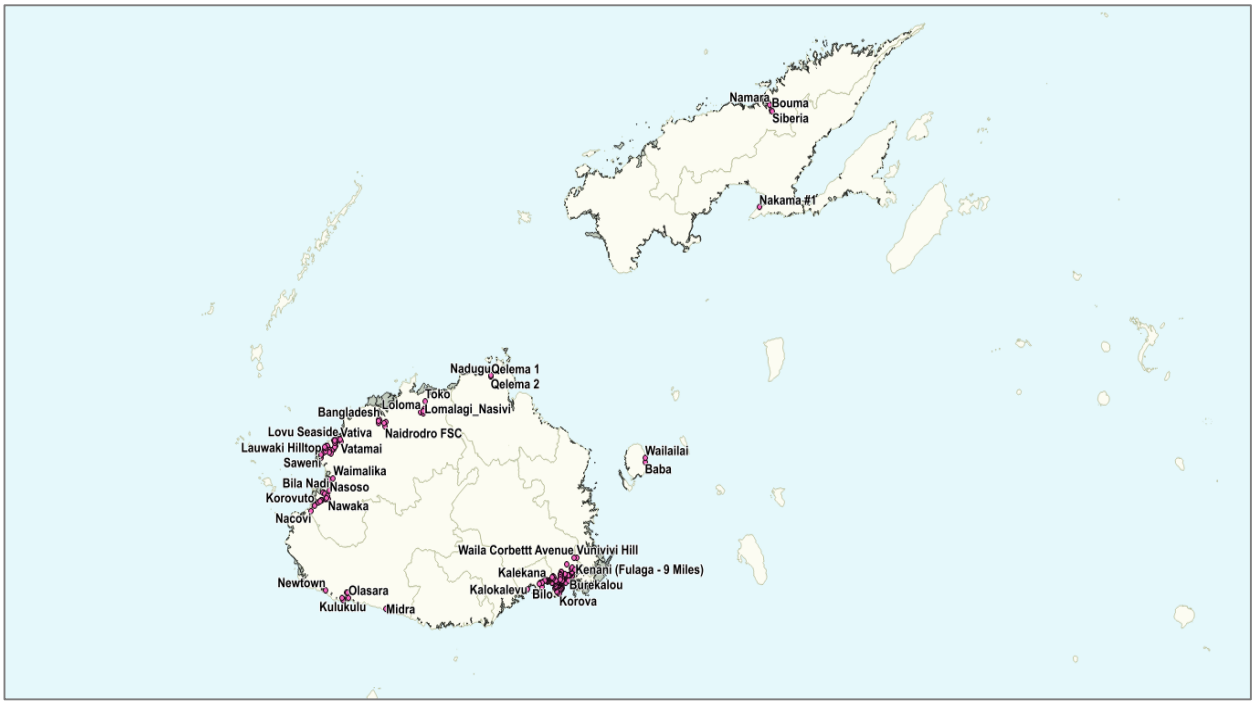
In the past few decades, Fiji has been affected by multiple devastating cyclones. In 2012 alone, Fiji experienced two major flooding events and one tropical cyclone (Evan). The effects of natural disasters in Fiji are far reaching, negatively impacting on, among other sectors, agriculture, housing, transport infrastructure, basic service provision, tourism and primary industries. Between 1980 and 2015, disaster events in Fiji have resulted in average annual economic damage of around US$16 million and impacted around 40,000 people each year. In the same period, at least 186 people were killed by flooding and storm events. Climate and Disaster impacts are expected to increase in Fiji, rising to an average of US$85 million per year in losses due to tropical cyclones and earthquakes.

Being mountainous in its interior, cities and towns are mainly located on the coast and along rivers. The result is that Fiji's towns and cities are particularly exposed to seaborne and riverine natural hazards, cyclones, storm surges, coastal and riverine erosion, landslides, floods and already occurring sea level rise due to climate change. Mangrove deforestation and coral reef extraction in order to accommodate urban development and for reasons of income generation are increasing the vulnerability of urban areas to coastal hazards, as both mangrove forests and coral reefs provide effective barriers against storm surges and cyclones. Of particularly critical concern are the residents of informal settlements in towns and cities as many such settlements are located in highly vulnerable areas, such as riverbanks and pockets of coastal land.[5]

[4] Figures based on Fiji Draft Post-Disaster Needs Assessment. Tropical Cyclone Winston, February 20, 2016. Government of Fiji May 13, 2016

[5] UN-Habitat (2012) Fiji's National Urban profile.

Figure 2: locations of informal settlements in Fiji



General climate change trends, projections and impacts[6]

Table 1: Climate change trends

Intense storms/ Cyclones	Tropical cyclones are one of the most severe events to Fiji, and the country has experienced them on numerous occasions in the past four decades. They usually affect Fiji from November to April but have occurred in October and May. On average, one cyclone affects some part of Fiji every season, with the greatest risk during El Niño periods. There have been seasons when Fiji has had no cyclones and seasons with four cyclones (1984/85) and five cyclones (1992/93).
Heat and drought	Major droughts (meteorological) in Fiji have been associated with El Niño events. During moderate to strong El Nino events, the annual rainfall is reduced by as much as 20–50% over most parts of Fiji as experienced during the 1982/83, 1986/87, 1992/93 and 1997/98 events.
Heavy rain/ Floods	Large-scale flooding in Fiji is mostly associated with prolonged heavy rainfall during the passage of a tropical cyclone, tropical depression and/or enhanced, slow moving convergence zone. Localised flash flooding during the wet season (November to April) is quite common.
Sea level rise/ Flooding	Sea flooding is usually associated with the passage of tropical cyclones close to the coast. However, heavy swells, generated by deep depressions and/or intense high pressure systems some distance away from Fiji have also caused flooding to low-lying coastal areas. At times, heavy swells coincide with king tides and cause flooding and damage to coastal areas.

[6] Republic of Fiji – National climate change policy (2012, p 4-7) and the Fiji (2011) Climate change adaptation initiative reports

Table 2: Climate change projections over the course of the 21st century

Intense storms/ Cyclones	Stronger tropical cyclones/storms are expected (moderate confidence).
Heat and drought	Dry season rainfall is projected to decrease (moderate confidence); Surface mean air temperature and sea surface temperature are projected to continue to increase (very high confidence); the intensity and frequency of extreme hot days are projected to increase (very high confidence);
Heavy rain/ Floods	Wet season rainfall is projected to increase (moderate confidence); intensity and frequency of extreme rainfall are projected to increase (high confidence);
Sea level rise/ Flooding	Mean sea level is projected to continue to rise (very high confidence); Ocean acidification is projected to continue (very high confidence);

General climate change impacts

- A sea level rise of 50cm will have far reaching impacts on coastal ecosystems such as accelerated coastal erosion, salt water intrusion into the fresh water lens and ground aquifers, increased sea flooding, loss of arable land and human settlements.
- The combination of sea level rise, high intensity rainfall and stronger tropical cyclones would further exacerbate the vulnerability of communities, which are exposed to more frequent coastal flooding, storm surge and strong winds.
- The combination of change in rainfall and increase in surface air temperature will have compounding effects on agricultural production and may become a threat to food security, water resources and human health. For instance, an increase in extreme hot days would have negative effects on health of young children and elderly people.
- Coral Bleaching may have impacts on those whose livelihoods depend on fishing and on tourism with a proportion of settlers in the west employed in this industry.

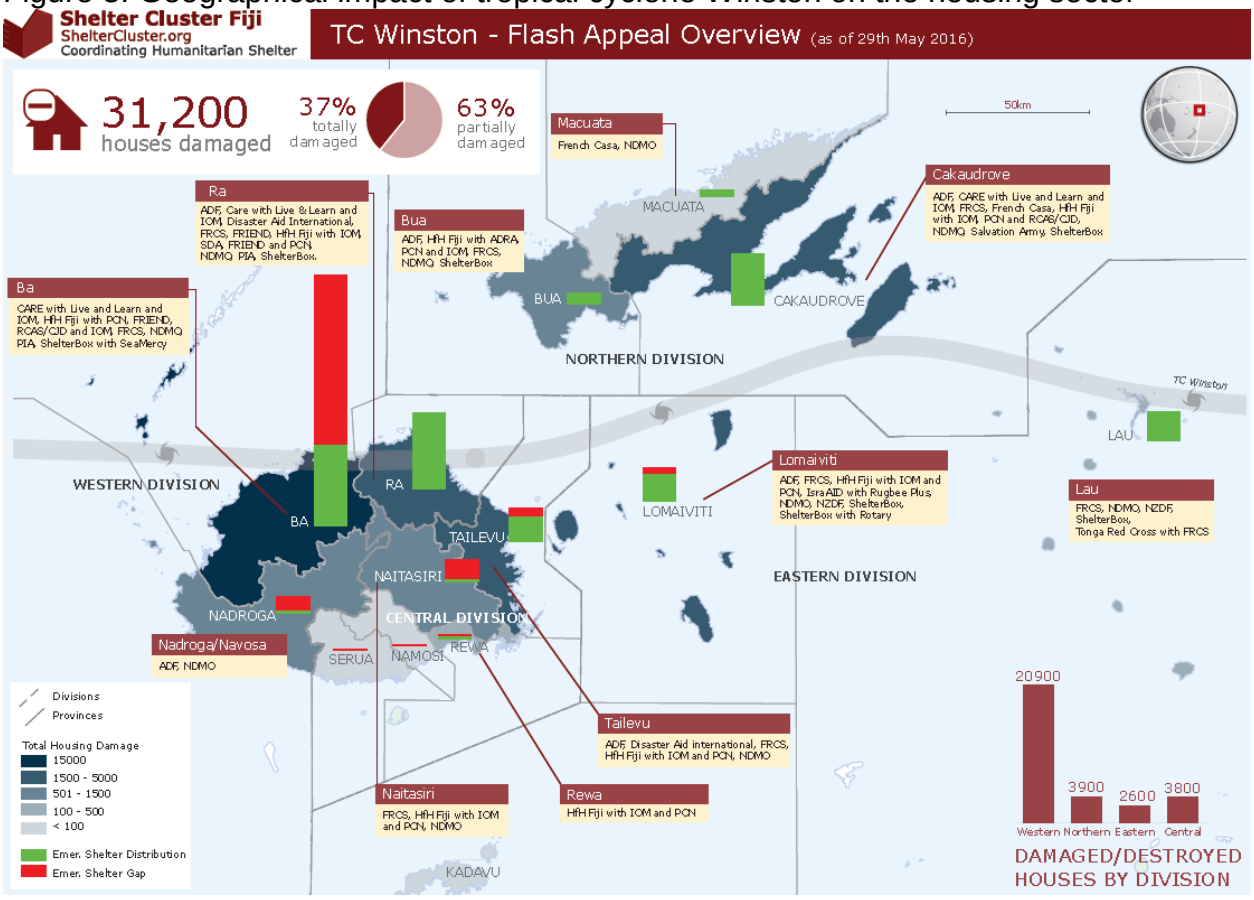
Example of an extreme event: tropical cyclone Winston

On February 20, 2016, Tropical Cyclone Winston, an extremely destructive Category 5 cyclone, struck Fiji. Winston was the first Category 5 cyclone to directly impact Fiji and the most intense cyclone on record to affect the country. The cyclone impacted approximately 540,400 people; equivalent to 62 percent of the country's total population and 44 fatalities were subsequently confirmed. Entire communities were destroyed and approximately 40,000 people required immediate assistance following the cyclone. 31,200 houses, 495 schools and 88 health clinics and medical facilities were damaged or destroyed. In addition, the cyclone destroyed crops on a large scale and

compromised the livelihoods of almost 60 percent of Fiji's population.[7]

Damage and losses have been the largest in the environmental[8] and urban/housing sector. Winston destroyed 7.5 percent of the total housing stock and caused major damage to a further 6.3 percent of houses. Total damage to houses, 99.9 percent of which are privately owned, totalled US$350 million.

Figure 3: Geographical impact of tropical cyclone Winston on the housing sector



Damages were particularly severe in urban informal settlements, where less permanent structures exist. The settlements are far from homogenous, but based on a 2015 survey of 31 informal settlements,[9] only 10 percent of houses were concrete and the remaining 90 percent were timber frame and tin, iron of varying construction quality and, in many cases, built using recycled materials. The overall lower quality in comparison to the wider housing stock is likely to reflect a higher incidence of poverty found within many of informal settlements and uncertainty regarding tenure security, in particular in those

[7] Fiji Draft Post-Disaster Needs Assessment. Tropical Cyclone Winston, February 20, 2016. Government of Fiji May 13, 2016

[8] Estimation of environmental losses include ecosystem service losses for 2016-18 for native forests, mangroves and coral reefs. Total recovery time may stretch beyond this timeframes

[9] Informal settlement survey carried out by the People's Community Network, November 2015.

settlements located on privately owned land.[10]

Focus of the proposal

The present proposal focuses on increasing resilience to climate change and disasters in informal urban settlements. Fiji is an insignificant contributor to climate change, but the country is very vulnerable to its impacts. Climate change is expected to bring about an increase in the frequency and/or intensity of extreme events such as flooding, droughts and cyclones and long-term impacts such as sea-level rise, higher temperatures and coral bleaching, with particular negative impacts on informal settlements.[11]

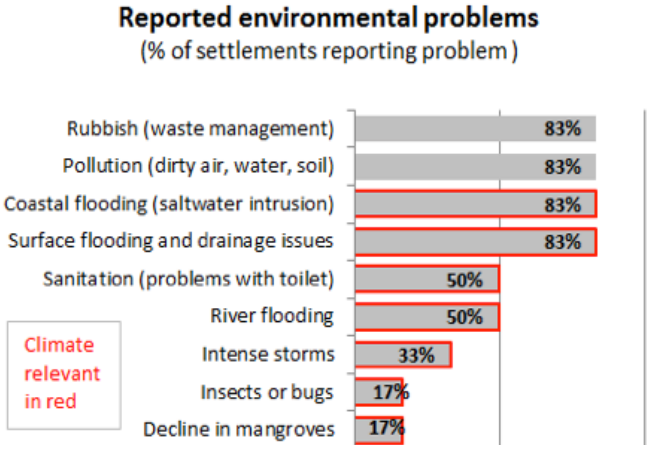
Rapid countrywide profiling of climate vulnerable informal settlements

This project will focus on informal settlements across three key climate vulnerable Fijian urban areas and towns, including sites in the Greater Suva Urban Area. These cities and towns, and the selected settlements, are a combination of the most climate vulnerable urban settlements in Fiji and those with contextual factors that make them important sites for proposed strengthening, resilience and adaptive capacity initiatives. A preliminary selection process resulted in 14 target settlements of which eight were included in consultations for the development of this project.

Table: 3: Selected towns and settlements

Area/town	Settlements within 50m of coastline, rivers or mangroves (% of settlements in area)	Number of settlements in town/city
Lami	23 (82%)	28
Sigatoka	2 (67%)	3
Lautoka	9 (33%)	27
Nasinu	10 (31%)	32
Suva	15 (30%)	50
Nadi	3 (18%)	17
Total	62 (37%)	157

Figure 4: reported environmental problems



Exposure. The selected cities and towns all include significant coastal and riverine exposed areas. The settlements selected are considered exposure hotspots because they are within 50m of a river, coastline or mangrove area and exposed to all four of Fiji key climate impacts. While all Fijian settlements are

[10] Informal settlements have grown on all categories of land in Fiji. The settlements on state land (including settlements established 40 or more years ago) tend to be located within town boundaries; settlements on iTaukei land are found within urban areas and also in less regulated peri-urban areas; and a smaller number of settlements are on freehold land.

[11] Republic of Fiji – National climate change policy (2012, p Vii)

exposed to (1) intense storms/cyclones and, (2) heat/drought, the selected settlements are also particularly exposed to (3) heavy rain/river & surface flooding, and (4) sea level rise/coastal flooding. Table 3 shows that the towns selected for this project have the highest percentage of informal settlements in these exposure areas. Based on scoping research undertaken for this project, all settlements report climate related environmental impacts with an average of 2 or more impacts. Figure 4 shows that coastal and surface flooding are the most common climate issues but a range of other impacts are also reported.

Sensitivity. Recent research on Fijian informal settlements undertaken as part of the UN-Habitat Participatory Slum Upgrading Programme[12] found that these communities have multiple sensitivities to climate change impacts. Based on UN Habitat's [13] framework for socio-economic sensitivity they include the following:

- *Demographics.* Fijian informal settlements can have dramatically lower levels of employment (employment to population ratio of 15% versus 50% in the general population) and household income is less than 30 percent of the average city-wide income. Certain settlements households have substantially higher proportions of children.

- *Housing.* 36% of dwellings in informal settlements are of very poor quality, making them highly vulnerable to storms and high winds. Informal settlements have 2-3 times the rate of tin or iron walled dwellings (also a proxy for dwelling quality) to general urban areas in this study. 18% of informal settlement households experience overcrowding (more than 3 persons per bedroom).

- *Welfare and human development*. 18% of Informal settlement households have inadequate sanitation and 11% inadequate access to water. Informal settlement households have dramatically lower incomes relative to the general population (F$212 per week vs. $613 for the general population).

- *Production and investment*. Around 20% of informal settlement households are reliant on farming. All informal settlements are tenure insecure; a legal status which acts as a disincentive to housing investment. Droughts and floods directly impact agricultural livelihoods.

Adaptive capacity. The cities and towns in this study show cross-section of contextual factors that will influence adaptive capacity initiatives. The selected sites thus balance the project's focus between areas where initiatives are most likely to have success, and those where initiatives are most needed:

[12] People's Community Network (2016) Settlement Situation Analysis: Greater Suva, Nadi, Lautoka, Ba, Levuka and Labasa – Draft Report, UN Habitat Participatory Slum Upgrading Programme Phase II.
[13] United Nations Habitat (2014) Planning for Climate Change: A strategic, values-based approach for urban planners, United Nations Human Settlements Programme (UN-Habitat), Nairobi.

- *Economic wealth*. While all informal settlements are poor, those close to major cities (i.e. Lami, and to a lesser extent Lautoka) have on average higher income levels given their access to a more diversified labour markets. Settlements in regional towns, such as Sigatoka, are likely to have lower incomes.

- *Information, human resources and capacity.* Two major climate related projects[14] and three major citywide projects which have had informal settlements as a key focus[15] have been undertaken in Lami. This will provide a robust information base to inform both institutional and community level planning and resilience strengthening. Lautoka has had a UN Habitat Urban Profile prepared that provides in-depth analysis of environmental, sectoral and institutional features that will particularly inform institutional strengthening activities. Sigatoka will benefit significantly from the enhanced information and data that this project will bring to resilience planning.

- *Organisational and social capital*. Lami Town Council has had in-depth involvement in a range of multi-stakeholder settlement upgrading and climate resilience programs and projects that have built their networks at a metropolitan, national and international level. However, as a small council with relatively limited technical expertise they will also benefit significantly from support and resources the project will bring. Lautoka has had involvement in a range of major projects (e.g. a port expansion) and NGO-led settlement upgrading programs and will both draw on these resources and build new networks through this project. Again, Sigatoka will particularly benefit from awareness raising and institutional capacity building that inclusion in this project will bring. Selected settlements range from those that have had strong involvement in settlement upgrading and environmental management projects in the past, to those which have historically missed out, thus benefitting particularly from inclusion.

Rapid vulnerability assessment of key settlements

Within the selected cities and towns, settlements have varying vulnerabilities that the project aims to respond to. In order to inform settlement selection and program design, a rapid vulnerability assessment has been undertaken based on a survey of 115 households and focus groups in eight informal settlements (569 households with a population of 3118). For all focus group discussions, the assessors ensured that men, women, elderly, all ethnic groups, fisher folk, farmers, people with disabilities and community leaders were represented. For the household surveys and focus groups, ethical briefings were given. Initially 14 settlements had been identified in the three

[14] These projects are: (A) UN Habitat (2012) Cities for Climate Initiative - Lami Town Fiji Climate Change Vulnerability Assessment, United Nations Human Settlements Programme (UN-Habitat), Nairobi, (B) United Nations Environment Program (2013) An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands Technical report.

[15] These projects are: (A) UN Habitat PSUP Phase I Greater Suva Urban Profile (2012), (B) UN Habitat PSUP Phase II Settlement Situation Analysis (2016), and (C) Cities Development Institute Asia - Inclusive Urban Development in the Greater Suva Area (2013).

towns (891 households with an approximate population of 4782). These cities and informal settlements were selected in consultation with the Ministry of Local Government, Housing and Environment and the Climate Change Unit of the Ministry of Economy (the Designated Authority of the Adaptation Fund) as evictions and displacement for these settlements are highly unlikely (and thus tenure insecurity does not pose a significant risk for the project) and given their highly vulnerable conditions to climate change (see Table 5 below). Additional scoping of suitable informal settlements for the project will take place should this concept note be approved The final selection of the target communities will take place in the first months of the project. The project aims to reach a population of at least 6000 and thus scoping will increase. Table 5 illustrates the key exposures, sensitivities and adaptive capacity of this sub-set of settlements included in this rapid assessment ('the focus settlements'). It is noted that this assessment method is high level and will inform the development of the holistic and comprehensive tool as part of the project itself. This assessment illustrates settlements selected for this project show significant exposure and sensitivity and, with only a few exceptions, relatively low adaptive capacity in their current circumstances.

Table 5: key exposures, sensitivities and adaptive capacity of sub-set of settlements

Climate vulnerability parameters[16]	**Lami**				**Siga-toka**	**Lautoka**		
	Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato
Exposure (climate and environmental hazards)	2	4	4	3	4	4	4	5
Sensitivity (vulnerable population groups, housing, welfare and human development, Land production and investment)	10	13	16	6	12	9	11	11
Adaptive capacity (information, human resources and capacity, organisational and social capital)	1	2	2	1	0	1	0	0
Vulnerability = (Exposure + Sensitivity) - Adaptive capacity	11	15	18	8	16	12	15	16

Note: indices are based on a composite of 26 vulnerability indicators (**including consideration of vulnerable groups).** See Annex 1 for full index.

The focus settlements included in this assessment are likely to be strongly indicative of the selected settlements for the project and are thus appropriate sites for the study on several key parameters.

[16] United Nations Habitat (2014) Planning for Climate Change: A strategic, values-based approach for urban planners, United Nations Human Settlements Programme (UN-Habitat), Nairobi.

Key impacts. The most serious and the most common climate impact revealed by this rapid assessment is effluent overspill from poor sanitation infrastructure during river and sea flooding events resulting in skin and other sicknesses in children. This occurred in most settlements and is a combination of climate impacts (flooding), land management practices, dwelling and sanitation design and construction, and children's and parents' behaviors and activities. There are several other climate, environment, infrastructure/ services, livelihood, and human health impact chains reported and observed in these settlements. For example, a lack of solid waste services results in drainage and flooding issues, and impacts on children's and adults health, water-borne, insect-borne and malnutrition (due to reported impacts on farming lands).

Figure 5: Standing in front of their house that was destroyed by TC Winston is a household in Vunato. This settlement is exposed to all four key climate hazards as well as additional environmental hazards, making it one of the most climate exposed settlements in Fiji.

Source: PCN (2016)

Exposure: As a representative sample, the eight focus settlements illustrate the likely exposures of the 14 selected settlements for the project and likely the 62 settlements Fiji-wide who are in close proximity to waterways and thus exposed in four ways to climate impacts. This rapid vulnerability assessment has confirmed that flooding from rivers and the sea is the most commonly reported climate hazard with wide reaching impacts on health, housing, livelihoods and vulnerable groups.

Sensitivity: This rapid vulnerability assessment shows that there are key existing sensitivities among vulnerable population groups, particularly: children, women, ethnic minority groups[17], and the elderly. There are also key ecosystem change impacts on both livelihoods and housing stock[18].

- *Vulnerable population groups.* There are several groups the RVA has shown as particularly sensitive to existing and increased climate impacts. It has found that five of the eight settlements reported specific impacts of existing climate issues on vulnerable groups. These include:

  - *Women's inclusion.* Three of the eight settlements had a high proportion of female headed households. In two of the focus settlements women were said to have the sole burden of responsibility for managing household affairs and money and caring for children and the elderly. In four out of five informal

[17] In Fiji, indigenous people are the majority and Indo-Fijian people and non-Fijian groups (from the Solomon Islands) may experience social exclusion.

[18] Annex 1B provides an overview of socio economic data collected during the rapid assessment that provides the background for the sensitivity Analysis.

settlements where female headed households were recorded, the household income was significantly below the average household income in the settlement (see table in Annex 1b). Detailed vulnerability assessments will further explore women's vulnerabilities and the project will ensure a particular focus on women's participation in the development of resilience plans to enable project resources to support resilience building and concrete adaptation actions that benefit women. Also, as noted above, children have been identified as particularly vulnerable groups to several climate, ecosystem, infrastructure and behavioural dimensions.

- *Ethnic minorities.* Three of the eight settlements had a higher proportion of ethnic minorities whose particular sensitivities as a result of their membership of these groups, (for example lower levels of bonding and linking social capital), will be incorporated into the development of the assessment tool and inform plans.

- *Older people* were also found to be particularly vulnerable to flooding and mobility issues it creates, with associated reduction of independence and social participation and increased support needs. Project resources will prioritise projects which enhance inclusion and participation of the elderly.

- *Housing*. The RVA has shown particular sensitivities of housing and sanitation infrastructure to climate and ecosystem impacts. Most settlements (five of the eight) had more than 50% of dwellings with poor or average construction quality and six of the eight had greater than 40% of dwellings with sanitation discharging directly (untreated) into the local environment (often the settlements storm water drainage). Half the settlements had inadequate water connections, in many cases these include connections that are prone to contamination from effluent overspill in communities. The full project vulnerability assessment will identify those most sensitive and exposed households and key resilience strategies and opportunities for improvements.

- *Welfare and human development.* Five of the eight settlements had an average household income below the Fijian Basic Needs Poverty Line making their adaptive capacity particularly compromised, and their inclusion in the project particularly important. Half of the settlements reported high rates of climate related health issues (water and insect borne disease, diarrhea, dengue fever) which in most cases had a clear relationship to environment conditions.

- *Production, investment and land.* Most settlements reported ecosystem dependent occupations (commercial fishermen) and livelihoods (subsistence farming/fishing). In half of the settlements, residents involved in fishing reported a reduction in fish stocks in that last 5 years.

Adaptive capacity: While only a few settlements reported significant features contributing to adaptive capacity, all were in Lami and illustrate the lasting impact that

resilience and upgrading projects can have. For example, all settlements around Lami Bay were aware of the importance of mangrove conservation and its role in protecting against sea flooding and several had undertaken replanting as an ecosystem adaptation response. One settlement involved in a major settlement upgrading program reported having developed broad organizational and social capital and networks and demonstrated a more sophisticated awareness off and plans for ecosystem, land management and infrastructural adaptation strategies. These illustrate that the government institutional strengthening and capacity building components combined with community level resilience strengthening stand a good chance of success across the project sites based on previous experience.

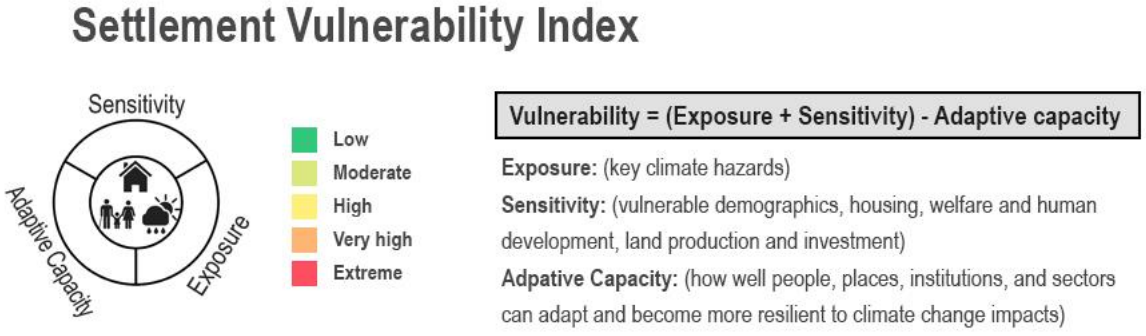


Figure 6: identified exposure, sensitivity and adaptive capacity in assessed focus settlements in target town Lami

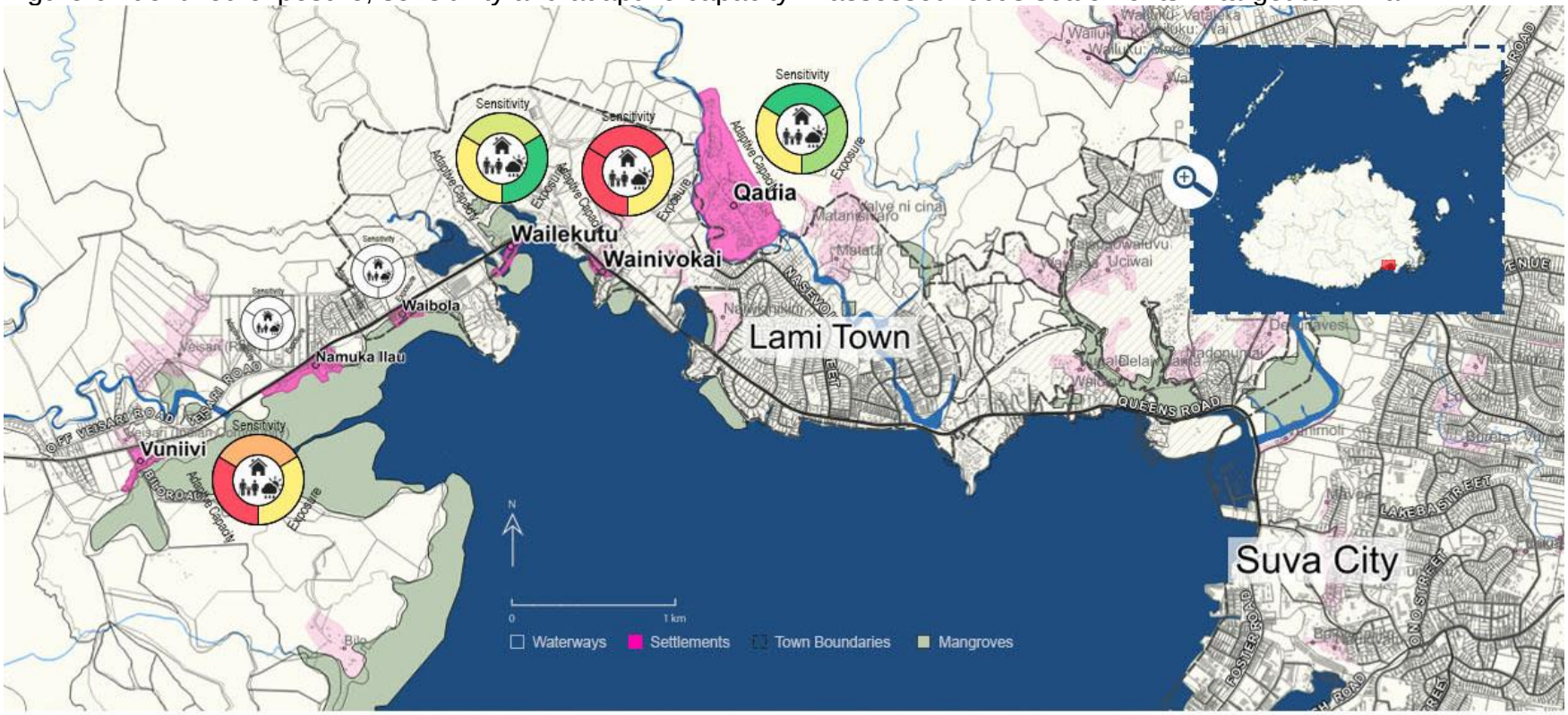


Fig. 1. Fig. 2. Fig. 3. Fig. 4. Fig. 5. Fig. 6. Fig. 7. Fig. 8.

Figure 7: identified exposure, sensitivity and adaptive capacity in assessed focus settlement in target town Sigatoka

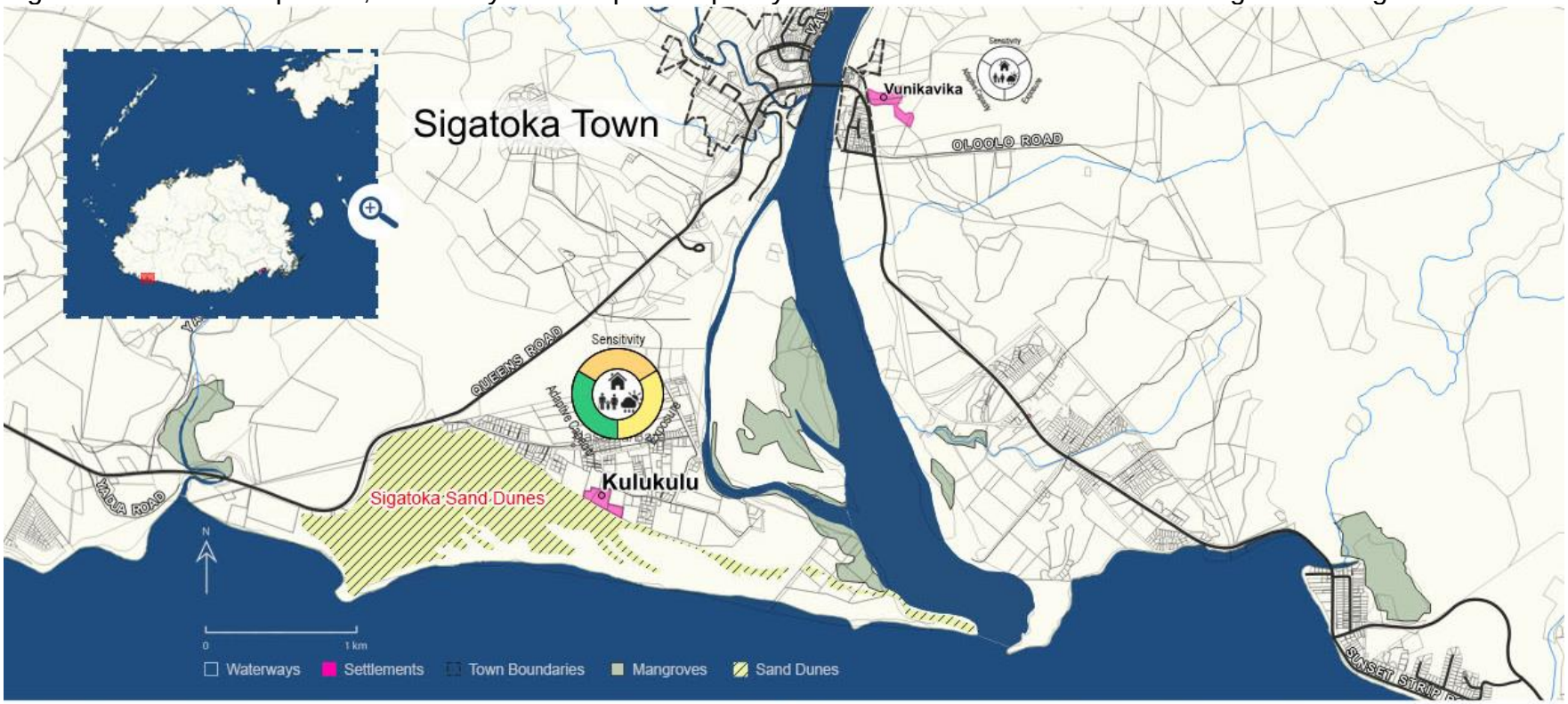


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Figure 8: identified exposure, sensitivity and adaptive capacity in assessed focus settlements in target town Lautoka

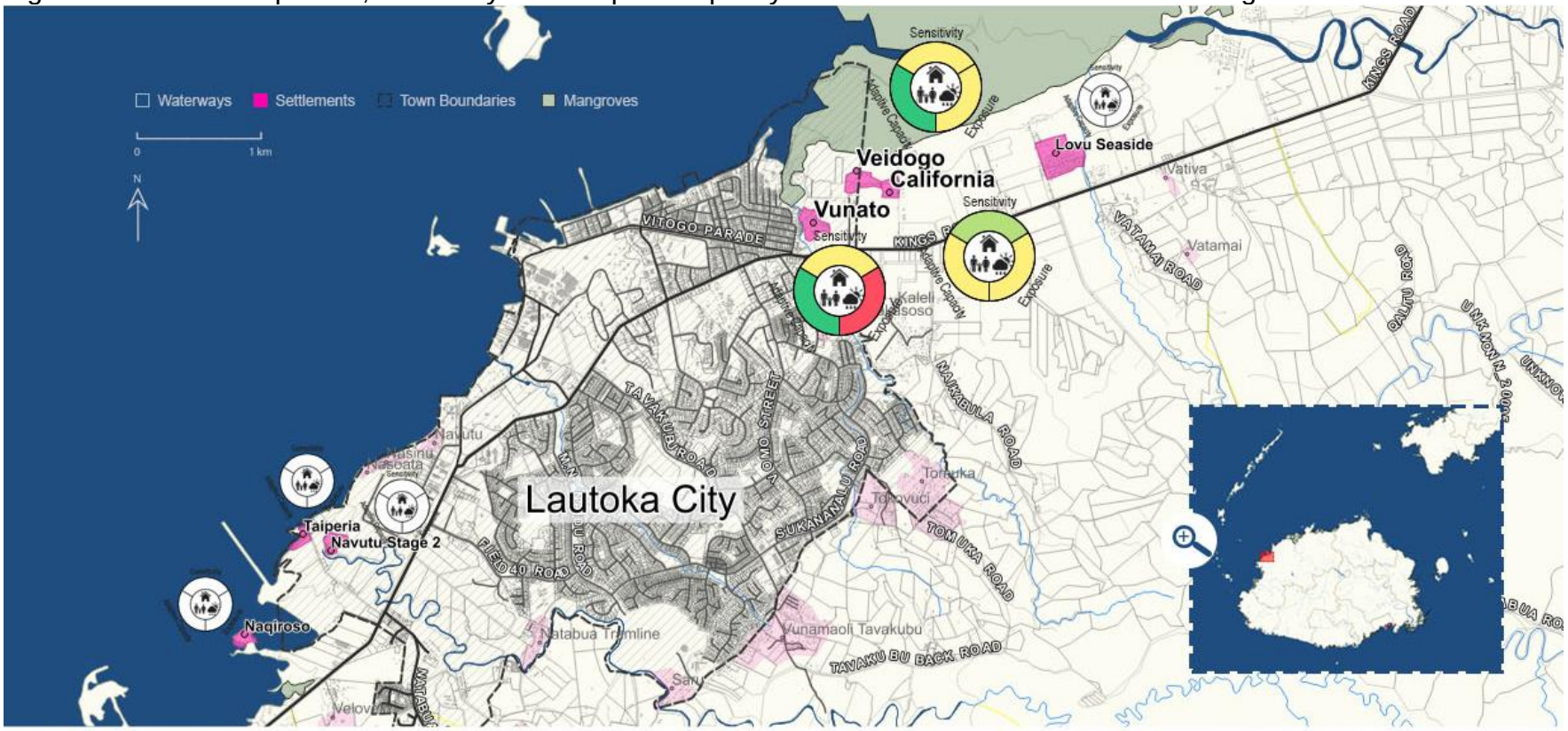



Fig. 1.


Fig. 2.


Fig. 3.


Fig. 4.


Fig. 5.


Fig. 6.

Key to Figures - Lami

Fig: 1: Outlet from Wainivokai household toilet piped direct into shoreline in front of dwelling.
Fig: 2: Child from Wainivokai settlement standing in front of raw sewerage running from houses nearby.
Fig: 3: Mother with child in Wainivokai explaining that the sea saturated mud area in front of them used to be dry 10 years prior.
Fig: 4: Household in Vuniivi settlement, located in a mangrove area with a high water table. Sewerage, solid waste and polluted water rise above household floor pictured once a month during king tides. Cyclone Winston damage still visible.
Fig: 5: Community leader of Vuniivi settlement pointing towards rust caused from once a month king tide sea floods.
Fig: 6: Community leader in Qauia settlement (sector 14) pointing to the 2015 flood water levels.
Fig: 7: Farmer in Qauia settlement having highlighted settlement plantation areas damaged from recent flooding.
Fig: 8: Lady in Qauia settlement pointing to the flood levels reached in 2015 within her household.

Key to Figures - Sigatoka

Fig. 1: Sigatoka sand dunes highlighted as increasingly shifting towards Kulukulu settlement.
Fig. 2: Kulukulu settlement view from sand dunes, highlighting encroaching sand that covers settlement after storms & cyclones.
Fig. 3: Kulukulu residents, predominantly Indo-fijian as pictured.
Fig. 4: Kulukulu household pictured, highlighting the unsafe practice of storing water for drinking when water connection runs dry. Noting extremely high levels of dengue fever recorded in settlement.
Fig. 5: Burnt household from settlement fire which destroyed half the settlements households in early 2016.

Key to Figures - Lautoka

Fig. 1: Lautoka city sewerage pipe pictured overflows daily between 3-4am directly into river next to Vunato settlement. During times of flood, often thanks to a combination of king tides and rain this affected water then floods settlement.
Fig. 2: Vunato resident highlighting pollution from nearby coconut oil factory also running into river.
Fig. 3: Elderly female resident in Vunato fishing for subsistence in same polluted river.
Fig. 4: Children from both Vunato & Veidogo settlements collecting plastic waste daily, taken to recycling facility set up in Veidogo settlement.
Fig. 5: Vunato family having lost their house following tropical cyclone Winston 2016.
Fig. 6: Veidogo resident drying out household goods including her children's clothes and textbooks following the floods from cyclone Zena 2016.

Whist the project targets the vulnerable settlements as indicated above and as such supports key climate change strategies as well as the government's commitment to informal settlements upgrading (which emphasizes resilience), the Designated Authority and the Executing Agency have requested strong capacity development support for local authorities to ensure the success of the planned interventions and to sustain their impact. Further, whilst the policy framework is seen as conducive for community-level climate resilience building as well as for informal settlements upgrading, the government of Fiji has strongly articulated that some policy support is critical for making this project a success.

Project Objectives

The overall objective of the project is to increase the resilience of informal urban settlements in Fiji that are highly vulnerable to climate change and disaster risks.

This will be achieved by:

1. Institutional strengthening for enhanced local climate response:
    - Reduce vulnerability at the city-level to climate-related hazards and threats with a particular view to community level resilience (AF Outcome 1)

2. Local (community/informal settlement) resilience strengthening:
    - Strengthen awareness and ownership of adaptation and climate risk reduction processes and capacity (AF Outcome 3)

3. Enhancing resilience of community level physical, natural and socio-economic assets and ecosystems:
    - Increase adaptive capacity with relevant development and natural resource sectors (AF Outcome 4)
    - Increase ecosystem resilience in response to climate change and variability-induced stress (AF Outcome 5)

4. Awareness raising, knowledge management and Communication:
    - Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication.

Project Components and Financing

Table 6: Project components, expected outputs and outcomes and budget

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1.Institutional strengthening to enhance local climate response actions	1.1.1. City-wide (updated) risk and vulnerability assessment conducted for Lami, Sigatoka and Lautoka.[19] 1.1.2. Hazard maps produced[20] 1.1.3. City-wide climate change action plans developed for Lami, Sigatoka and Lautoka.[21] 1.1.4. Urban Planner / Resilience officer established.	1.1. Reduced vulnerability at the city-level to climate-related hazards and threats (AF Outcome 1)	**295,000**

[19] Consistent with Fiji INDC: Undertake vulnerability assessment for all communities by 2019
[20] Consistent with Fiji INDC: Develop hazard maps and models for all potential hazards (including sea level rise, storm surge, flood and tsunami) by 2020.
[21] Consistent with Fiji INDC: Develop climate and disaster resilience plans for urban and rural communities (prioritising squatter settlements and other vulnerable communities) by 2019.

2. Local (community/informal settlements) resilience strengthening (soft)	2.1.1. Assessment and planning tool for community vulnerability assessment and action planning developed.[22] 2.1.2. Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in Lami, Sigatoka and Lautoka.[23] 2.1.3. Community-level resilience, recovery and upgrading plans developed in identified informal settlements.[24] 2.1.4. Targeted population groups participating in adaptation and risk reduction assessment and awareness activities focused on (at least): ❑ Early warning systems needs assessment ❑ Housing assessments and resilience training ❑ Environmental and eco-system management 2.1.5. Targeted household and community livelihood strategies strengthened in relation to climate change impacts, including variability, through: ❑ Training for resiliency skills (including for carpenters and other artisans) ❑ Training in coastal zone/ecosystem management ❑ Strategy development for food security and sustainable agriculture	2.1 Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity (AF Outcome 3)	**480,000**

[22] Consistent with Fiji INDC: Development of a Local Government Self-Assessment Tool for Climate Change Resilience by 2016

[23] Consistent with Fiji INDC: Undertake vulnerability assessment for all communities by 2019

[24] Consistent with Fiji INDC: Develop climate and disaster resilience plans for urban and rural communities (prioritising squatter settlements and other vulnerable communities) by 2019.

3. Enhancing resilience of community level physical, natural and social assets and ecosystems (hard)	3. 1.1. Physical, natural, and social assets and ecosystems developed or strengthened in response to climate change impacts, including variability based on identified and prioritized needs as articulated in the community resilience strategy with a consideration of the following sectors and options: ❑ Urban development and housing (e.g. resilient housing) And secondary sectors: ❑ Communications and DRR (e.g. early warning system) ❑ Food security and sustainable agriculture sector (e.g. food diversification) ❑ Human health and welfare (e.g. mosquito exposure reduction) ❑ Marine and fisheries (e.g. ecosystem management) ❑ Waste and waste infrastructure (e.g. 3R) ❑ Water resources and infrastructure (e.g. resilient water supply, sanitation, etc.) All adaptation options will seek mitigation co-benefits as well as up and downstream resilience, and generally environmental, social and economic co-benefits	3.1 Increased adaptive capacity with relevant development and natural resource sectors (AF Outcome 4) and increased ecosystem resilience in response to climate change and variability-induced stress (AF Outcome 5)	**2.610.000**
4. Awareness raising, knowledge management and communication	4.1.1. Lessons learned and best practices regarding resilient urban community development/ housing are generated, captured and distributed to other communities, civil society, and policy-makers in government appropriate mechanisms.[25] 4.1.2. Regional Advocacy and replication 4.1.3.	4.1. Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication;	**150,000**
5. Project/Programme Execution cost			**335,825**
6. Total Project/Programme Cost			**3,870,825**
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			**329,020**
Amount of Financing Requested			**4,200,000**

[25] Consistent with 2012 Fiji National climate change policy: Objective 3: awareness raising strategy 2: Use a range of available communication technologies to conduct outreach activities related to climate change adaptation and mitigation.

Projected Calendar

Table 7: project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	03-2017
Mid-term Review (if planned)	03-2019
Project/Programme Closing	03-2022
Terminal Evaluation	09-2021

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. The project components

The target towns and informal urban settlements are characterized by a high exposure to multiple climate hazards but especially cyclones and floods. Climate sensitivity is underpinned by rapid urbanization and population growth, underlying vulnerabilities (poverty, limited access to basic services, gender inequalities, weather dependent livelihoods, environmental and ecosystem degradation) and limited adaptive capacity at household, community and governance level.

In order to achieve the overall project objective, "to increase the resilience of informal urban settlements in Fiji that are highly vulnerable to climate change and disaster risks," the project combines horizontally and vertically interrelated resilience strengthening of institutions, communities and physical, natural and social assets and ecosystems.

By taking a comprehensive approach of city-level institutional capacity strengthening including support for community level actions for resilience building that respond to current and future needs, all actions will benefit the inhabitants of the informal settlements while aiming to sustain the identified concrete adaptation measures. Therefore, with a strong mix of soft and hard interventions, it is anticipated that local resilience including at the household, community and informal settlements level is sustainably strengthened.

The specific needs of women, indigenous people, people with disabilities and youths will be considered at all stages of the project. This is achieved through engaging representatives of these vulnerable groups in community and stakeholder consultations with a community-based approach and people's process[26] – where community groups are formed and sustained throughout all stages of the project and through which communities participate in project implementation: in planning and executing activities and monitoring.

Component 1: Institutional strengthening to enhance local climate response actions.

In line with AF outcomes 1 and Fiji priorities[27], this component will focus on reducing vulnerability to climate-related hazards and threats both at the city/town and community level by:

[26] Development driven by people/Support Paradigm: when people stays at the center of development planning process, the resource can be optimized with greater utility impacting larger number of people: http://sopheapfocus.com/wp-content/uploads/2010/06/Picture-31.png People's process of development can be witnessed through the evolvement of people's desire to improve their lives. Humans developed their settlement from living in caves, then building shelters, and now home. Along this settlement evolution, they had also established certain norms, standards, and a mutual understanding surrounding their community. That is called the people's process of development.

[27] Especially FIJI INDC (2015), Fiji National Climate change policy (2012) and National Development strategy (2015).

1.1.1. Conducting city-wide risk and vulnerability assessment
1.1.2. Producing hazard maps
1.1.3. Developing city-wide climate change action plans
1.1.4. Urban Planner / Resilience officer established.

The information generated by the vulnerability assessments (see method and expected outcomes in annex 3) and production of hazard maps will allow city/towns to identify the most vulnerable informal settlements and will provide them with the evidence base to assess if the identified settlements may need to be relocated due to climate hazards in the future. This would result in the exclusion of such settlements from component 3 (infrastructure) of the project unless adaptation options are viable. The vulnerability assessments would also provide the basis for planning for resilient development, including identifying low risk areas for development and identifying and prioritizing intervention that are resilient, sustainable and focused on the needs of vulnerable groups. Proposed interventions will be presented in the climate change action plans. The establishment of an urban planner/resilience officer is needed from a sustainability point of view: to anchor the project holistically at the city-level and expand it to other cities/towns and informal settlements.

The activities are related to increasing the resilience of informal settlements because settlements do not stand-alone; they are part of a wider urban system and climate change impacts and disaster risks are not limited to settlement borders – thus impacts and risks can only be understood and mitigated by understanding wider systems. Therefore, these activities allow for a more holistic approach for climate sensitive urban and settlement planning and development.

Component 2: Local (community/informal settlements) resilience strengthening

In line with AF outcomes 3 and Fiji priorities[28], this component will focus on strengthening awareness and ownership of adaptation and climate risk reduction processes and capacity by:

2.1.1. Developing an assessment and planning tool for community vulnerability assessment and action planning.
2.1.2. Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in Lami, Sigatoka and Lautoka.
2.1.3. Developing community-level resilience, recovery and upgrading plans in identified informal settlements.
2.1.4. Involving targeted population groups in adaptation and risk reduction awareness activities focused on (at least):
   - Early warning systems
   - Housing assessments and resilience training
   - Environmental and eco-system management

[28] Especially FIJI INDC (2015), Fiji National Climate change policy (2012) and National Development strategy (2015).

2.1.5. Targeted household and community livelihood strategies strengthened in relation to climate change impacts, including variability, through:
- Training for resiliency skills (including for carpenters and other artisans)
- Training in coastal zone/ecosystem management
- Strategy development for food security and sustainable agriculture

The assessments under component 2 are providing a higher resolution compared to those under component 1 (1.1.1. – 1.1.3.) and focuse on the community/settlement level. Although similar, information generated by vulnerability assessments at this level (see method and expected outcomes in annex 3) will allow communities to plan for resilient development, including identifying low risk areas for development and identifying and prioritizing intervention that are resilient, sustainable and focused on community needs (and especially those of vulnerable groups). Proposed interventions will be presented in the community-level resilience, recovery and upgrading plans. To ensure awareness and ownership over the project activities, targeted population groups will be involved in all steps (planning, implementation, monitoring, etc.) of project activities, including trainings to assess housing and resilience, managing the environment and eco-systems and setting up early warning systems. An assessment and planning tool for community vulnerability assessment and action planning will be developed to ensure communities can easily participate in conducting the vulnerability assessments and in developing community-level resilience-, recovery- and upgrading plans. To minimize reduction or loss of livelihoods due to climate change impacts and variability, communities need to establish resilient livelihood related strategies, including being trained as per above. As for food security and sustainable agriculture strategies, these could include diversification of crop species, switching to more durable crop species (resilient to flood, drought, salt water and diseases) and improved land management practices.[29]

Lacking adaptive capacity in communities in informal settlements is mainly related to a limited understanding of climate change impacts and risks and response options – thus assessing these risks and planning for mitigating them are required for implementing 'hard' interventions in an appropriate and sustainable way.

Component 3: Enhancing resilience of community level physical, natural and social assets and ecosystems

In line with AF outcomes 4 and 5 and Fiji priorities[30], this component will focus on increasing the adaptive capacity of relevant development and natural resource sectors and increasing ecosystem resilience in response to climate change and variability-induced stress by:

4. Developing or strengthening currently vulnerable physical, natural, and social assets and ecosystems in response to climate change impacts, including variability,

[29] Suggested adaptation measures in the agriculture sector in National climate change policy (2012, p 52).
[30] Especially FIJI INDC (2015), Fiji National Climate change policy (2012) and National Development strategy (2015).

based on identified and prioritized needs as articulated in the community resilience strategy, with a consideration of consideration of the following sectors and options:

- ❑ Urban development and housing (e.g. resilient housing)

And secondary sectors:

- ❑ Communications and DRR (e.g. early warning system)
- ❑ Food security and sustainable agriculture sector (e.g. food diversification)
- ❑ Human health and welfare (e.g. mosquito exposure reduction)
- ❑ Marine and fisheries (e.g. ecosystem management)
- ❑ Waste and waste infrastructure (e.g. 3R)
- ❑ Water resources and infrastructure (e.g. resilient water supply, sanitation, etc.)

The results of the vulnerability assessments, disaster risk maps and the subsequent climate change action plans and community resilience plans will guide the selection of sub-project locations and their focus (e.g. housing, sanitation, water supply, mangrove planting, etc.)

In other words, Components 1 and 2 will allow local authorities, communities and households to identify areas and infrastructure systems most vulnerable to climate change, prioritize measures to protect existing infrastructure and plan, construct and maintain appropriate new infrastructure systems on safe locations and/or with technical standards that will protect the infrastructure from climate change impacts and natural disasters.

The design of the infrastructure will be holistic, meaning that it will look at Building Back Better principles (to protect it from climate change related hazards) but also to use resources efficiently (including energy) and to minimize exposure to heat and mosquito incidence. This will be done by using local knowledge and following relevant guidelines/building codes

Sub-projects will be selected and prioritized by using planning for climate change tools combined with a community-based approach. This will ensure that the prioritized projects contribute to local climate change adaptation while being appropriate for the community. Depending on the complexity of sub-project development, community members will be involved (e.g. for simple digging and masonry work, semi-skilled and skilled labour from the communities will be recruited and further capacitated).

Relevant resilience project results may include (as suggested by the National climate change policy[31] - which is in line with the Fiji INDC):

The urban development and housing sector:

[31] National climate change policy (2012,) Annex 3: sectoral implications of climate change

- ❑ Construction of buildings and structures away from foreshore areas, riverbanks and floodplains;
- ❑ Utilisation of cyclone and flood resilient construction methods;
- ❑ Utilisation of construction materials resilient to strong winds, water damage, high solar radiation and salt spray;
- ❑ Flood control through: diversion channels; the building of weirs, cut-off channels, retarding basins and dams; and river-improvement activities such as channel widening, dyke construction and river-bed excavation;
- ❑ Catchment management, including reforestation, land-use controls, protection of wetlands and soil conservation.

Secondary sectors:

Communications (and disaster management)

- ❑ Telecommunication for emergency calls and warnings

Food security and sustainable agriculture

- ❑ Diversification of crop species
- ❑ Switching to more durable crop species (resilient to flood, drought, salt water and diseases)
- ❑ Improved land management practices.

Human health and welfare:

- ❑ Developing or improving disease early warning system.
- ❑ Identifying and protecting the health of the most vulnerable groups in society
- ❑ Climate proof water, health and sanitation infrastructure

Marine and fisheries:

- ❑ Preservation of mangrove areas, coral reefs and other coastal zones;
- ❑ Improved watershed management to reduce river bed and bank stability;
- ❑ Increased construction standards to minimize soil run-off and erosion during construction activities.

Waste and infrastructure

- ❑ Reduction of household waste burning;
- ❑ Promotion of household composting, including use of compost toilets;
- ❑ Increased recycling facilities and collection.

Water resources and infrastructure:

- ❑ Diversification of water supply sources and storage types;

- ❑ Upgrade and replacement of aged water supply, wastewater and storm-water infrastructure;
- ❑ Education and awareness activities at community level to improve awareness of water conservation.

Component 4: Awareness raising, knowledge management and communications.

In line with AF guidelines Fiji priorities[32], this component will ensure the project implementation is fully transparent, all stakeholders are informed of products and results and have access to these for replication. This is done through:

4.1.1. Lessons learned and best practices regarding resilient urban community development/ housing are generated, captured and distributed to other communities, civil society, and policy-makers in government appropriate mechanisms.
4.1.2. Regional Advocacy and replication

Lessons regarding resilient urban community development/ housing include community specific resilient housing and other infrastructure construction techniques and planning and development processes (in guidelines). To maximize community ownership and awareness, communities will be involved in monitoring (besides planning and executing project activities). As other islands in the Pacific experience similar climate change issues, lessons will also be shared at the regional level. This will be done through the Pacific Urban Forum, various Regional Meetings, Regional Agencies and regional online media.

B. Economic, social and environmental benefits

The severe climate impacts on Fiji cause loss of lives and damage properties, community assets and the environment, exemplified by Cyclone Winston in 2016. The frequency and severity of these events is projected to increase.

By implementing a combination of institutional, community and assets risk and vulnerability reduction measures, especially in vulnerable/poor urban areas, this project is expected to provide reductions in future climate related economic, household and livelihood losses, reductions in vulnerabilities of women, indigenous people, disabled people and youth and reductions in environmental degradation.

Given that communities, and especially vulnerable groups, will be involved throughout the project, they'll have the opportunity to directly influence project activities and outcomes, thus influencing their direct project benefits. The design of houses for instance will consider the needs of inhabitants looking at safety, disabilities, household-based livelihoods, etc. Besides that, the design will be adapted to local impacts of floods

[32] Especially FIJI INDC (2015), Fiji National Climate change policy (2012) and National Development strategy (2015).

and storms, but also exposure to heat and mosquito's. Moreover, local and durable materials will be used (if possible) and energy use minimized. The settlement (cross-boarder) vulnerability assessments and planning processes are required to identify safe areas for development and for understanding remaining future climate change threats to which the design should respond.

The project also aims to reduce tenure insecurity. A former housing upgrading project in Lagilagi, supported by PCN, has resulted in the community collectively leasing the land from the government. As part of the agreement, the families own their houses, but the land belongs collectively to the whole community, and if anyone wants to move out, they have to sell their house back to the community, which can then re-sell it to a new family. This project aims at achieving a similar result in target settlements. Similar arangements have been negotiated with customary landowner groups.

Table 8: Overview of economic, social and environmental benefits of AF intervention compared to no intervention (baseline).

Type of benefit	Baseline	With/after the project
Economic	Regular cyclones and floods increasingly lead to economic and household losses and loss of livelihood options. Long-term climate change impacts such as sea level rise, droughts and coral bleaching will lead to increased economic and household costs and loss of livelihood options Informal urban settlements are dense, lack (resilient) houses/infrastructure and have limited livelihood options.	Reduction in economic and household losses because institutions, communities and physical and natural assets, ecosystems and livelihoods are more resilient. New climate resilient infrastructure and services contributes to economic benefits. Reduction in economic and household losses of informal urban settlements because of above and enhanced livelihood options because of increased ecosystem resilience. Community participation in infrastructure projects will benefit the community through cash income as semi-skilled and skilled labour is to primarily be sourced from the community. Additionally resilient technologies will be imparted and may provide future livelihood opportunities. Other livelihood opportunities (e.g. in agriculture and fisheries and ecosystem management) are expected to improve household incomes.
Social	Regular cyclones and floods can increasingly be considered as co-drivers of poverty and lead to fatal accidents and compound social problems such as, disease, sanitation, food security issues, community safety issues etc. Long-term climate change impacts such as sea level rise, droughts and coral bleaching will lead to reduced social well-being and reduction in communities' adaptive capacity	Reduction in climate induced poverty, fatality rates, diseases and food security and safety issues because institutions, communities and physical and natural assets, ecosystems and livelihoods are more resilient. Capacity development and direct involvement in adaptation actions increases the resilience of the most disadvantaged in the city.

	The lack of (resilient) houses/ infrastructure, high poverty incidences and density in informal urban settlements lead to relatively high fatality rates, diseases and safety issues, especially for women, elderly, disabled people and youth	Reduction of climate induced poverty, fatality rates, diseases and food security and safety issues especially in informal urban settlements because of above. Safe and resilient houses and infrastructure will increase security of women and other vulnerable groups and will reduce health issues. New climate resilient infrastructure and services contributes to social well-being.
Environ-mental	Urban development increasingly leads to environmental degradation, land losses, increased waste production and energy use. Long-term climate change impacts such as sea level rise, droughts and coral bleaching increasingly leads to environmental degradation. Rapid growth of urban settlements increasingly leads to environmental degradation, land losses, increased flood and heat risks, increased waste production and energy use. Ecosystem degradation and increased waste production lead to reduction of livelihood options and health issues and flood risks because of waste, especially in informal urban settlements	Reduction in climate induced environmental degradation and losses and waste production because of environmental/ecosystem protection, community-based waste reduction and recycling schemes and energy efficient building construction techniques. Reduction of health and waste related issues in informal urban settlements because of above. Reduced human impact though changes to land plans and regulations/zoning, waste e.g. community-based waste reduction and recycling schemes and energy efficient building construction techniques. Promotion of ecosystem-based adaptation in the urban environment, leading to environmental benefits

C. Cost-effectiveness of the project

The design and implementation of the project focuses on maximizing the size of the 'hard' component; thus limiting the 'soft' components to only those activities required to supporting the appropriate implementation of the 'hard' component. Although the project aims at maximizing the impact/population coverage of strengthened and/or new community assets (i.e. infrastructure, mangroves, etc.), the selection of the type of infrastructure will depend on the outcomes of the vulnerability assessments and community priorities. However, construction/development costs will be minimized through large-scale procurement procedures (for multiple sub-projects, by using local and durable materials (if possible) and by in-kind community contributions.

Altogether, the project aims to be cost-effective by:

- ❑ Avoiding future costs of climate change impacts and ensuring sustainability of interventions
- ❑ Efficient project operations
- ❑ Community involvement/distributions
- ❑ Selecting technical options based on cost-, feasibility and resilience/sustainability criteria

Avoiding future costs of climate change impacts and ensuring sustainability of interventions

Taking no action (business as usual) will lead to incrementally increasing costs in time associated with damage and losses due to cyclones, floods and other disasters (for data see background section), low productivity/limited livelihood options and health related costs, especially in informal urban settlements. Proposed interventions under this project will reduce these future costs. Although sustainability related measures (including e.g. the establishment of a resilience officer and community involvement and resilient planning and design of physical assets can be considered as 'extra' costs, not bearing these costs will significantly reduce the impact on the long run of this project and the scale beyond the community (i.e. country-wide impact).

Efficient project operations

UN-Habitat traditionally shows high cost-effectiveness in project operations because technical assistance, capacity building and infrastructure designs are done mostly in-house, because UN-Habitat works directly with local government partners (thereby building their capacity as well as reducing costs) and because of strong community involvement, which helps reducing costs significantly. This is relevant to all components of the project.

Community involvement/distributions

The project will be implemented in close partnership with communities and local government institutions. This model of partnership will allow significant cost reduction as communities and local partners will provide support. For example, communities will provide in-kind contributions by participating in infrastructure development (e.g. house construction). Community mobilization in Fiji is traditionally very strong and thus, infrastructure development with community involvement is expected to be at least a 30 percent cheaper than government or contractor driven approaches. Besides that, it will benefit the community because of capacity development and through recruitment of semi-skilled and skilled workers.

Selecting technical options based on cost-, feasibility and resilience/sustainability criteria

Although non-resilient technical intervention may initially cost less to construct (between 30-50 per cent), resilient technical options are expected to last much longer, especially with every year recurring cyclones and floods. As for the costs per technical type, this will vary significantly depending on the location of such an intervention (i.e. remoteness, size, terrain, etc.).

Alternative technical adaptation/resilience options to achieve the same intended outcome under component 3 will be assessed during the project. Depending on the climate change vulnerabilities and disaster risks identified per town and informal

settlement, appropriate adaptation/resilience measures will be identified, prioritized (in town and community plans) and then implemented/constructed.

D. Project consistency with national or sub-national sustainable development strategies

This project is consistent with national and sub-national development strategies. While the Fiji National Development Plan (2015) serves as the overall implementation framework for this project, The Fiji's Intended National Determined Contributions (INDC) (2015) and the National Climate Change Policy (NCCP) (2012) have served to identify relevant project outputs and activities (see footnotes in the project components and financing matrix and relevant proposed adaptation actions from the INDC and NCCP highlighted in red in annex 2).

The project also aligns with sectoral policies, plans, programmes and strategies as listed below.

Table 9: Policies, plans and programmes for project relevant sectors (sectoral focus of the National Climate Change Policy).

Sector	Policies, plans and programmes
Urban development and housing	- Informal Settlements Upgrading Strategy, 2016 - The National Housing Policy, 2012 - Lami-Nausori Land Use TLTB Master Plan (2007) - Greater Suva Urban Growth Management Plan (2006)
Communications (and disaster management)	- Disaster Risk Reduction and Disaster Management: A Framework for Action 2005-2015 - National Disaster Management Plan 1995
Food security and sustainable agriculture	- Fiji 2020 Agriculture Development Agenda, 2014 - Disaster Risk Management Strategy for the Agriculture Sector, 2010
Human health and welfare	- The Ministry of Health is working with the World Health Organization to address climate change impacts on public health. - Fiji Food and Nutrition Policy, 2008
Marine and fisheries	- The Integrated coastal management plan (under development) may address the impacts of climate change on water catchments and coastal environments. - National Biodiversity Strategy and Action Plan Implementation Framework, 2010–2014. - Integrated Coastal Management Framework of the Republic of Fiji, 2011
Waste and waste infrastructure	- National Solid Waste Management Strategy 2011-2014, - A Green Growth Framework for Fiji 2014, - National Liquid Trade Waste Policy 2013 - National Liquid Waste Management Strategy 2006, - National Air Pollution Control Strategy 2007
Water resources and infrastructure	- National Resources and Sanitation Policy, 2011

E. Compliance with relevant national technical standards

All project activities are in compliance with existing rules, regulations, standards and procedures endorsed by the government, as shown in the table below. In addition, compliance with tools are discussed below.

Table 10: Project compliance with relevant rules, regulation, standards, procedures and tools to project activities

Expected Concrete Outputs	Relevant rules, regulations, standards and procedures	Compliance & procedure
1.1.1. City-wide (updated) risk and vulnerability assessment conducted for Lami, Sigatoka and Lautoka	Fiji's Climate Change Division Integrated Vulnerability Assessment Toolkit / Framework and UN-Habitat Planning for climate change toolkit	The project will engage the Fiji's Climate Chnage Division IVA framework to determine the vulnerabilities of the settlements and to identify possible adaptation oprtions to increase their resilience.
1.1.2. Hazard maps produced	Fiji Comprehensive Hazard Assessment and Risk Management (CHARM) tool	The project will produce hazard maps by using the CHARM tool (strategy 5 under the objective of Adaptation of the National Climate Change Policy)
1.1.3. City-wide climate change action plans developed for Lami, Sigatoka and Lautoka	Fiji's National Climate Change Policy and draft National Climate Change Adaptation Strategy	The project will develop action plans in compliance with the policy and draft strategy
1.1.4. Urban Planner / Resilience officer established.	Not relevant	

2.1.1.	Assessment and planning tool for community vulnerability assessment and action planning developed.	Not relevant	
2.1.2.	Community-based climate vulnerability and informal settlements assessments conducted in at least 6 informal settlements in Lami, Sigatoka and Lautoka	Fiji's Climate Change Division Integrated Vulnerability Assessment Toolkit / Framework and UN-Habitat Planning for climate change toolkit	The project will conduct vulnerability assessments in compliance with processes and procedures described in the toolkit, but then simplified to be used at community level. The project will also engage the Climate Change Division's IVA Framework to identify the most suitable adaptation options.
2.1.3.	Community-level resilience, recovery and upgrading plans developed in identified informal settlements.	National Disaster Management Act, National Disaster Mnagement Plan Act & National Climate Change Policy	The project will contribute towards the development and strengthening of community disaster management plans and also the incorporation of climate change and disaster risk reduction in their 5-years development plans
2.1.4.	Targeted population groups participating in adaptation and risk reduction awareness activities focused on (at least): ❑ Early warning systems needs ❑ Housing assessments and resilience training ❑ Environmental and eco-system management	Not relevant	
2.1.5.	Targeted household and community livelihood strategies strengthened in relation to climate change impacts, including variability, through: ❑ Training for resiliency skills (including for carpenters and other artisans) ❑ Training in coastal zone management Strategy development for food security and sustainable agriculture	National Employment Centre Decree, National Climate Change Policy, Integrated Coastal Management Framework, Fiji 2020 Agriculture Sector Policy Agenda	The activities set to achieve this output is aligned to the achievement of the objectives in the National Employment Centre Decree 2009, National Climate Change Policy, Integrated Coastal Management Framework 2011, Fiji 2020 Agriculture Sector Policy Agenda

3.1.1. Vulnerable physical, natural, and social assets and ecosystems developed or strengthened in response to climate change impacts, including variability based on identified and prioritized needs as articulated in the community resilience strategy with a consideration of:	Fiji Environment Impact Assessment (EIA) Regulations; Green Growth Framework for Fiji; National Climate Change Policy; Draft National Climate Change Strategy; National Housing Policy.	The project aligns with the rules, regulations, standards and procedures on the left;
❑ Urban development and the housing sector	Town and country planning act; National building code Building Back Better Strategy for reconstruction of homes Native Lands (Amendment) Act; Native Land Trust (Amendment) Act; Environment Management Act; National Housing Policy	The project will develop assets in compliance with the rules, regulations, standards and procedures on the left
And secondary sectors: ❑ Communications	National Disaster Mangement Act, National Climate Change Policy: early warning systems are vital, gaps exists such as observation & monitoring systems, data processing capabilities to generate early warning information; integration of warning information into decision making for enhanced preparedness & community awareness; and capabilities to understand and respond to early warning information	The project will enhance community early warning preparedness systems in compliance with the rules, regulations, standards and procedures on the left
❑ Food security and sustainable agriculture sector ❑ Human health and welfare ❑ Marine and fisheries	Fiji 2020 Agriculture Sector Policy Agenda Public Health Act Fisheries Act (Amendment) Decree, 1991	The project will build sustainable communities by ensuring food security alongside the primary economic goal of increasing income and employment opportunities
All adaptation options will seek mitigation co-benefits as well as up and downstream resilience, and generally environmental, social and economic co-benefits		

4.1.1. Lessons learned and best practices regarding resilient urban community development/ housing are generated, captured and distributed to other communities, civil society, and policy-makers in government appropriate mechanisms. 4.1.2. Regional Advocacy and replication	Not relevant	Not relevant

F. Other funding sources

One of the selection criteria of the target towns and informal settlements is that of avoided overlap with other projects. This information has been retrieved based on in-depth consultations with the national government and target towns.

Relevant project have been identified based on the same consultations with the national government and online research. Relevant projects and their complimentary potential (with information retrieved from consultation with UNDP and ADB and online research about GEF projects are listed below.

Table 11: Relevant projects and their complimentary potential

Relevant projects	Lessons learned and complimentary potential
AF: UNDP (US$5,7 million grant for Enhancing Resilience of Rural Communities to Flood and Drought-Related Climate Change and disaster Risks in the Ba Catchment Area of Fiji) – yet to commence	This project will use lessons learned regarding early warning systems needs assessment and roll-out, community-based adaptation, institutional strengthening and awareness raising.
GCF: ADB (US$31 million grant for Fiji Urban Water Supply and Wastewater Management Project that will benefit a third of the country's population of 860,000).[33]	If good practices regarding resilient water supply and waste water management arise from this project, this project will consider taking a similar approach in target areas.
GEF:13 national projects (biodiversity, renewable energy/climate change)[34] and 35 regional and global projects: (biodiversity, renewable energy/climate	Good practices regarding especially ecosystem management and human health from these projects will be analysed with the purpose of taking a similar approach in

[33] http://www.adb.org/news/adb-project-fiji-among-those-first-financed-green-climate-fund

[34] https://www.thegef.org/gef/project_list?keyword=&countryCode=FJ&focalAreaCode=all&agencyCode=all&projectType=all&fundingSource=all&approvalFYFrom=all&approvalFYTo=all&ltgt=lt&ltgtAmt=&op=Search&form_build_id=form-wOEwfIapUxAYjocbCsH_tTH5biIiREKKPIkrrgnkpRg&form_id=prjsearch_searchfrm

change, human health, international waters).	target areas.
World Bank: City-wide and town wide upgrading programme (since 2013) subdivision plans and sanitation, electricity and road infrastructure in selected settlements.	Limited/no focus on resilience. Limited geographical overlap.
The Category 5 Tropical Cyclone Winston Post Disaster Needs Assessment was finalized in May 2016. The government has allocated approximately USD 35,000,000 for recovery and the international community is expected to further contribute in line with the identified priorities in the PDNA. Households whose houses were completely destroyed are to receive assistance up to USD 3,500 if they are from the formal areas and USD 750 if they are from the informal areas. These amounts are to be used for building materials.	This project will coordinate with government its implementation and will assist in achieving the recovery targets in the PDNA
SPREP PEBACC project (ecosystem services in Fiji, Vanuatu and the Solomon Islands)	SPREP PEBACC is well known to UN-Habitat with existing coordination in Solomon Islands and Port Vila. The coordination in Fiji will focus on EBA and in particular coastal zone management / management of mangroves in coastal settlements. The project will consider replicating lessons learnt on strengthening and protecting the role of these natural ecosystem services to enhance resilience of these informal settlements and may further explore agricultural approaches that mitigate flooding and provide food security. This approach will strengthen climate change adaptation planning in seeking to harness the potential of healthy ecosystems and biodiversity to strengthen social and ecological resilience.

G. Capturing and disseminating lessons learned

A dedicated component (4) addresses Awareness raising, knowledge management and communication. Whilst this provides the cornerstone for capturing and disseminating lessons learned, other project components directly contribute to knowledge management mechanisms and dissemination of lessons learned from local to national

and to international levels (see table below).

At the local level, a participatory approach (involving communities and local authorities in planning and implementation activities) will lead to increased local knowledge on climate change adaptation. Project demonstration sites will contribute, from the start and in an ongoing way, to sharing lessons and training through local disseminators and tools and guidelines. The project will also use a participatory monitoring process, which will enable the beneficiary communities under component 2 to work directly with the project's M&E officer, to highlight issues in delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains.

At the national level, other vulnerable cities/towns in Fiji will be able to draw from lessons learned through this project, including replication and scale-up of good practices. Information will be consolidated in reports and the tools and guidelines will be developed for resilient (and vulnerable groups sensitive) urban community development/upgrading and housing construction. A direct linkage will be established, through the partnering departments of the various line ministries at the city/town level, with the ministries at the national level facilitating countrywide dissemination to other towns, informal settlements, policy-makers and civil society.

At the international level, other climate change related projects, especially related to urban development, informal settlements and resilient housing and community level infrastructure may benefit from this project. The Council of Regional Organizations (CROP) Agencies: the Secretariat of the Pacific Community (SPC), Secretariat of the Pacific Community Applied Geo- science and Technology Division (SOPAC) and the Secretariat of the Pacific Environmental Programme (SPREP) and Academic Institutes: University of the South Pacific, Fiji, provide knowledge management platforms for Climate Change and Human Settlements interventions. It is proposed to use this platform (as well as UN-Habitat websites) to disseminate the lessons learned from this project.

Table 12: Project outputs and related learning objectives & indicators and products

Expected Concrete Outputs	Learning objectives (lo) & indicators (i)	Knowledge products
1.1.1. City-wide (updated) risk and vulnerability assessment conducted for Lami, Sigatoka and Lautoka	(lo): improved understanding local vulnerabilities (i) no of participating government officials	3 city level vulnerability assessment reports
1.1.2. Hazard maps produced	(lo) improved awareness of georgraphy of hazard risks (i) maps shared and published	3 city level hazard maps
1.1.3. City-wide climate change action plans developed for Lami, Sigatoka and Lautoka	(lo): improved climate change sensitive planning (i) no of plans	3 climate change action plans
1.1.4. Urban Planner / Resilience officer established.		

2.1.1.	Assessment and planning tool for community vulnerability assessment and action planning developed.	(lo): autonomous replication in other communities possible (i) tool shared with other communities	Assessment and planning tool for community vulnerability assessment and action planning
2.1.2.	Community-based climate vulnerability and informal settlements assessments conducted in at least 6 informal settlements in Lami, Sigatoka and Lautoka	(lo): improved understanding community vulnerabilities (i) no of participating community members	At least 14 community-based climate vulnerability and informal settlements assessments
2.1.3.	Community-level resilience, recovery and upgrading plans developed in identified informal settlements.	(lo): improved climate change sensitive community planning (i) no of plans	At least 14 community-level resilience, recovery and upgrading plans
2.1.4.	Targeted population groups participating in adaptation and risk reduction awareness activities focused on (at least): ❑ Early warning systems needs ❑ Housing assessments and resilience training ❑ Environmental and eco-system management	(lo): improved climate change awareness of communies (i) no of participating community members	Training reports and training material
2.1.5.	Targeted household and community livelihood strategies strengthened in relation to climate change impacts, including variability, through: ❑ Training for resiliency skills (including for carpenters and other artisans) ❑ Training in coastal zone management ❑ Strategy development for food security and sustainable agriculture	(lo): improved awareness of community livelihood options (i) no of strategies developed	At least 14 strategy reports for food security and sustainable agriculture
3.1.1.	Vulnerable physical, natural, and social assets and ecosystems developed or strengthened in response to climate change impacts, including variability based on identified and prioritized needs as articulated in the community resilience strategy with a consideration of: ❑ Urban development and the housing sector	(lo): improved knowledge of resilient community and housing development (i) no of guidelines developed	1 Resilient houses development guidelines 1 Resilient communities development guidelines, including elements from other sectors if relevant Demonstration sites

And secondary sectors: ❑ Communications (and disaster risk reduction) ❑ Food security and sustainable agriculture sector ❑ Human health and welfare ❑ Marine and fisheries ❑ Waste and waste infrastructure ❑ Water resources and infrastructure All adaptation options will seek mitigation co-benefits as well as up and downstream resilience, and generally environmental, social and economic co-benefits		
4.1.1. Lessons learned and best practices regarding resilient urban community development/ housing are generated, captured and distributed to other communities, civil society, and policy-makers in government appropriate mechanisms. 4.1.2. Regional Advocacy and replication	(lo): sharing of lessons learned and best practices (i) no of platforms used for sharing	1 Report for general public. Advocacy material 1 Video Dissemination through regional organizations and websites

The integrated knowledge management approach as demonstrated in Table 12 will result in tools, guidelines, trained officials and demonstration sites. In particular, the close collaboration with key stakeholders at national and levels, the updated towns and planning act and building code and the production of guidelines and tools that can be used autonomously by other stakeholders will ensure the sustainability of the approach.

H. The Consultation process

The project idea is the direct result of three projects / processes that UN-Habitat with the Ministry of Local Government, Housing and Environment undertook since 2013. As part of these initiatives significant amounts of data were gathered, community, local and national consultations were held and recommendations for follow-up were provided. These initiatives are

1. Climate Change Vulnerability Assessment and community action planning in Lami (2014)
2. Informal Settlements Consultation (broader since 2015 and in depth in 2016) in partnership with PCN and MLGHE
3. PDNA consultations (UN-Habitat focusing on informal settlements), which let to this project idea

Specific consultations were undertaken by UN-Habitat for the development of this concept proposal in Fiji. An initial consultation (from 3 to 7 July) confirmed government priorities (from policies and plans) and agreeing on (and establishing wide support for) this proposal. Meetings were held with the National Designated Authority, the Climate Change Unit of the Ministry of Finance (now Ministry of Economy), the Executing Agency, the Ministry of Local Government, Housing and Environment as well as civil society, academia and the leadership of several local governments. The consultations detailed the thematic and geographic focus. Additional consultations were held from 18 to 23 July 2016, focusing on the pre-identified target communities (for details on the community consultation process and outcomes see Rapid vulnerability assessment of key settlements, p9). In the community consultations women, indigenous people, elderly, youth and people with disability have been part of the consultation process. Questions focused on climate change vulnerabilities and disaster risks and existing issues related to safeguard areas. The vulnerability assessments will further collect information about vulnerabilities and preferences of vulnerable groups. The table below provides an overview of stakeholders consulted, consultation objectives, outcomes and conclusions.

Table 13: Stakeholder consulted and outcomes

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
Climate Change Unit (Ministry of Economy - New Adaptation Fund Designated Authority): Ovini S. Ralulu, Director Manasa Katonivualiku Mesake T. Semainaliwa	Select priority locations, align with policy, synergize with other projects and avoid overlaps	Substantive and geographic priorities Project Components and Financing Project implementation Plan	Designated Authority to endorse project and to support project development and implementation
Ministry of Local Government [Permanent Secretary, Joshua Wycliffe, Director for Housing, Kolinio Bola, Shelter Cluster Coordinator, Vula Shaw]	Select priority locations, align with Ministry priorities, ensure synergies with ongoing and planned activities	Project Components and Financing Role of Executing Agency and MIE Implementation Mechanisms	Agreement on main executing agency.
Various Local Government leaders (including CEOs) of Lami, Sigatoka and Lautoka	Identification of local priorities and approach to resilience and informal settlements.	Long-list of local governments and informal settlements.	Selection of three municipalities for project implementation.
People's Community Network (National Umbrella NGO for informal settlements organizations) Semiti Qalowasas, Director Fr. Kevin Barr Savu Tawake, Deputy Director	Selection of priority communities. Strategy for community engagement. Role of PCN and communities in project implementation. PCN support for community consultations.	Brief community profiles Community priorities	Long-list of target communities.

Communities	Moving from long-list to short list of target communities and understanding local exposure, sensitivity and adaptive capacity	8 Communities consulted and community inputs on exposure, sensitivity and adaptive capacity obtained (see p9ff).	Further narrowing down of priority communities. Initial identification of priority actions. General agreement to approach (further vulnerability assessment, action planning, implementation by / with the communities, including significant in kind contribution)
UNDP (Akiko Fuji Deputy Resident Representative)	Synergize with other projects avoid overlaps and identify lessons learned	Ensuring synergies between AF projects	Agreement on frequent communication and close collaboration if project eventuates.

I. Justification of funding request

The proposed project components, outcomes and outputs fully align with national and local government/institutional priorities/gaps identified, with identified community and vulnerable groups needs and with all seven Adaptation Fund outcomes as stated in the Adaptation Fund results framework. This alignment has resulted in the design of a comprehensive approach in which the different components strengthen each other and in which outputs and activities are expected to fill identified gaps of Fiji's current climate change response. The project aims to maximizing the funding amount for the concrete adaptation component (component 3); funding allocation to the other (softer) components is required for complementarity/support for component 3 and sustainability and quality assurance of the project. The table below provides a justification for funding requested, focusing on the full cost of adaptation reasoning, by showing the impact of AF funding compared to no funding (baseline) related to expected project outcomes.

Table 14: Overview of impact of AF funding compared to no funding (baseline) related to expected project outcomes

Outcomes under components 1-4	Baseline (without AF)	Additional (with AF)	Comment/ Alternative adaptation scenario
1.1. Reduced vulnerability at the city-level to climate-related hazards and threats (AF Outcome 1)	Local authorities have limited understanding of local climate change vulnerabilities and disaster risks and have no plans to address these	Local authorities have used tools to identify climate change vulnerabilities and disaster risks and developed plans to address these	Without data/information on vulnerabilities and disaster risks, adaptation measures can be implemented but won't be effective and or appropriate
2.1. Strengthened awareness and ownership of adaptation and climate	Communities have limited understanding of local climate change vulnerabilities and	Communities have been fully involved in identify climate change vulnerabilities and	Without data/information on vulnerabilities and disaster risks and without community

risk reduction processes and capacity (AF Outcome 3)	disaster risks and have no strategies in place to address these	disaster risks and developing strategies to address these	engagement adaptation measures can be implemented but won't be effective and or appropriate
3.1 Increased adaptive capacity with relevant development and natural resource sectors (AF Outcome 4) and increased ecosystem resilience in response to climate change and variability-induced stress (AF Outcome 5)	Target communities have no option to adapt their communities, houses and other basic infrastructure to climate change and disaster, leaving them with future negative impacts (as described in the background section)	Target communities have increased the resilience of their communities, houses and other critical infrastructure, leading to overall reduced community climate change vulnerability and disaster risks. See component 3 and introduction section C for approach	Not community driven/appropriate, which would lead to adaptation benefits for fewer people with the same project cost; greater chance of negative social and environmental impacts.
4.2. Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication; M & E is in compliance with AF and UN-Habitat standards and procedures	Communities, local authorities, national governments and other Pacific national governments limited knowledge of resilient planning of towns and resilient construction of houses and other infrastructure	Communities, local authorities, national governments and other Pacific national governments have increased knowledge of resilient planning of towns and resilient construction of houses and other infrastructure	Communities, local authorities, national governments and other Pacific national governments need to develop their own knowledge products related to resilient urban development and housing.

J. Sustainability of the project

Institutional sustainability
The project will pave the way for the national government and local authorities to sustain and up-scale the project to other cities and informal settlements by using appropriate assessment and planning tools and by installing an urban planner/resilience officer.

Social sustainability
By fully engaging informal settlement households in project activities, including assessments, the development of plans/ strategies and monitoring, the project aims to achieve long-lasting awareness and capacities of these households. Besides that, the increased resilience of community level houses and infrastructure will reduce community vulnerabilities, also on the long-run. Moreover, community households will be trained to construct and maintain resilient houses (and other infrastructure) and to enhance their livelihood options in a sustainable and resilient way.

Economic sustainability
Investing in increasing the resilience of vulnerable physical, natural, and social assets and ecosystems is a sustainable economic approach. It will not only avoid future costs related to climate change and disaster impacts but it will also enhance livelihood

options. The city-level climate change plans and community level resilience, recovery and upgrading plans will include economic opportunities, as well as resilience building opportunities, including economic benefits of resilience, will be integrated in the town and country planning act and building code.

Environmental Sustainability
The city-level climate change plans, the community level resilience, recovery and upgrading plans will also be considerate of the environment, including for instance the protection of ecosystems or the reduction of waste production.

Financial sustainability
Ensuring land titles, exploring livelihood strategies, the government's generally active support to settlements upgrading and the continued support from PCN will further support the financial sustainability of the project.

Technical sustainability
Houses and infrastructure will be designed using resilience and building back better principles. This will enhance the durability/sustainability significantly. Besides that, resilient houses and infrastructure will be maintained in partnership with local governments, public utilities and communities/households. This will ensure that after the project, infrastructure systems are maintained.

K. Environmental and social risks and impacts

Table 15: Overview of the environmental and social impacts and risks identified

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	
Access and Equity		X
Marginalized and Vulnerable Groups		X
Human Rights	X	
Gender Equity and Women's Empowerment		X
Core Labour Rights	X	
Indigenous Peoples		X
Involuntary Resettlement		X
Protection of Natural Habitats		X
Conservation of Biological Diversity		X
Climate Change		X
Pollution Prevention and Resource Efficiency		X
Public Health		X
Physical and Cultural Heritage		X
Lands and Soil Conservation		X

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). Outlined below is a brief description of the initial analysis that has been carried out to evaluate environmental and social impacts of the project, and areas where further assessment is needed.

Activities under Component 1 (Institutional strengthening to enhance local climate response actions), component 2 (Local (community) resilience strengthening) and component 4 (Enhancing resilience of community level physical, natural and social assets and ecosystems) are all soft activities. According to the Adaptation Fund's Environmental and Social Policy, "Those projects/programmes with no adverse environmental or social impacts should be categorized as Category C [35] ." No environmental and social impacts, whether direct, indirect, transboundary or cumulative are envisaged to arrive as a result of any of the soft activities under Components 1, 2 and 4. Despite this, however, steps will be taken to ensure that no environmental or social impacts can occur.

The activities under Component 3 are 'hard' activities, and as such some activities have the potential, without and environmental and social safeguarding system, including mitigation measures, create negative environmental and social impacts. However, in our assessment, none of the activities proposed could be considered to be in Category A of the Adaptation Fund's impact classification, and as such, the activities in the Table below are likely to fit into Category B or C. This is because this project proposes hard activities that are numerous, but small scale and very localized, and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely.

The community and vulnerable groups consultation that took place between 18 and 22 July 2016 included question focused on identifying environmental and social risks of the project as per the safeguard areas in the table above. These safeguard areas will be identified and assessed again in detail during the climate change vulnerability and disaster risk assessments. As for component 3, which include sub-project development that potentially fall in category B, an environmental and social management plan has been developed (see annex 4).

[35] Adaptation Fund Environmental and Social Policy, paragraph 28, Page 8

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[36] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Makereta Konrote *Permanent Secretary* *Ministry of Economy*	Date*: August, 8 2016*

6. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

MINISTRY OF ECONOMY

P.O Box 2212, Government Buildings, Suva, Fiji; Tele: (679) 3307011, Fax: (679) 3308654
Website: www.economy.gov.fj Email: EconomyInformation@economy.gov.fj
Ro Lalabalavu House, 370 Victoria Parade, Suva

8 August, 2016

File Ref: NPO 26/01/27

The Adaptation Fund Board Secretariat
c/o Global Environment Facility Secretariat
1818H Street, NW, MSN P-4-400
Washington DC
United States of America

Tel: +1 2024730508
Fax: +1 2025223240/5
Email: secretariat@adaptation-fund.org

Dear Sir/ Madam,

Subject: Endorsement for: "Increasing the resilience of informal urban settlements in Fiji that are highly vulnerable to climate change and disaster risks" proposal

In my capacity as Designated Authority for the Adaptation Fund in Fiji, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce the adverse impacts and risks posed by climate change in Fiji.

Accordingly, I am pleased to endorse the above project proposal for support from the Adaptation Fund. If approved, the project will be implemented by the United Nations Human Settlements Programme (UN-Habitat) and executed by the Ministry of Local Government, Housing & Environment and the identified town councils. Various government and non-governmental organizations will also partner in the execution.

The project concept note builds on city-level and community level climate vulnerability and informal settlements analysis and strategies. As such the project is based on a large number of in-depths consultations. In close consultation with key national government entities, the proposal aims to support the implementation of specific commitments in the INDC. My Ministry is grateful for the direct support in this regards.

Further, the proposal builds on the long-standing collaboration between the Ministry of Local Government, Housing & Environment and UN-Habitat.

I sincerely hope that this proposal will be considered favorably by the Adaptation Fund.

Yours sincerely

Makereta Konrote
Permanent Secretary for Economy

B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (including the Fiji National Development Plan (2015), Fiji's National Determined Contributions (2015), the National Climate Change Policy (2012) and the National Housing Policy (2012) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Rafael Tuts, Coordinator, Urban Planning and Design Branch, UN-Habitat	
Date: *08/01/2016*	Tel. and email: +254-20-7623726 raf.tuts@unhabitat.org
Project Contact Person: Bernhard Barth	
Tel. And Email: +81 92 724 7121, Bernhard.Barth@unhabitat.org	

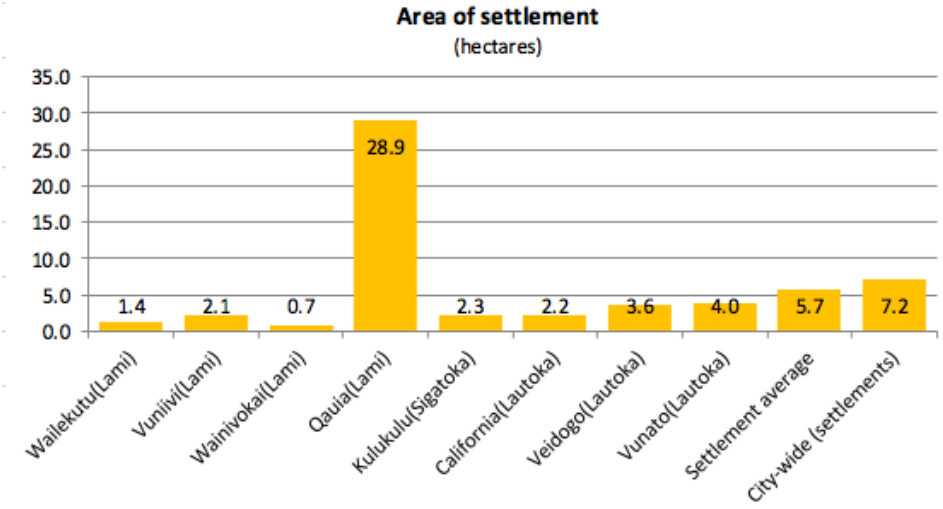
Annex 1: Climate vulnerability indices (Source: PCN rapid vulnerability assessment settlement survey (2016))

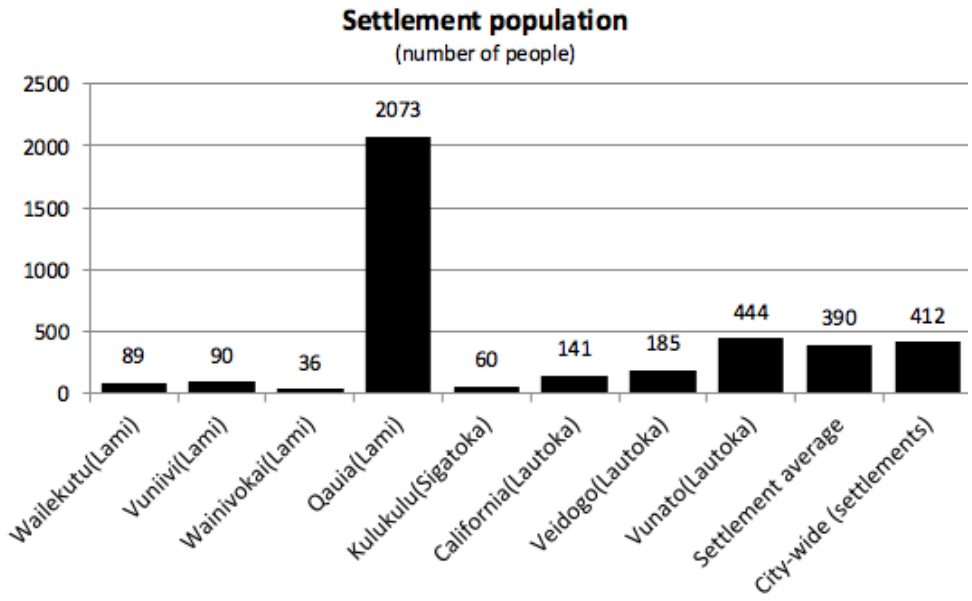
Theme: issue	Indicator	Lami				Sigatoka	Lautoka		
		Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato
EXPOSURE									
Worsening climate issues	Main Exposure Problem worsening in last two years (settlements in which over 50% of HHs identified the problem as much worse in last 2 years)	0	1	0	1	1	1	0	1
Heavy rain / floods	River or Surface Flood Exposed Settlements (settlements whose HHs prioritized surface/river flooding within their top 4 Issues) or reported in focus group	0	1	1	1	1	1	1	1
Sea level rise/ coastal flooding	Coastal Flood Exposed Settlements (settlements whose HHs prioritized coastal flooding within their top 4 Issues) or reported in focus group	1	1	1	0	1	1	1	1
Intense storms: cyclones	Tropical Cyclone Winston Affected Settlements (Settlements that faced over 20% damage as a result of TC Winston - PDNA revealed)	0	0	0	0	0	1	1	1
Related environmental hazards	Industrial waste issues reported in focus groups	1	1	1	1	1	0	1	1
EXPOSURE TOTAL		**2**	**4**	**3**	**3**	**4**	**4**	**4**	**5**
SENSITIVITY									
Vulnerable population groups: • female household head	Settlements with more than 10% of HHs headed by females	0	1	1	0	1	0	0	0

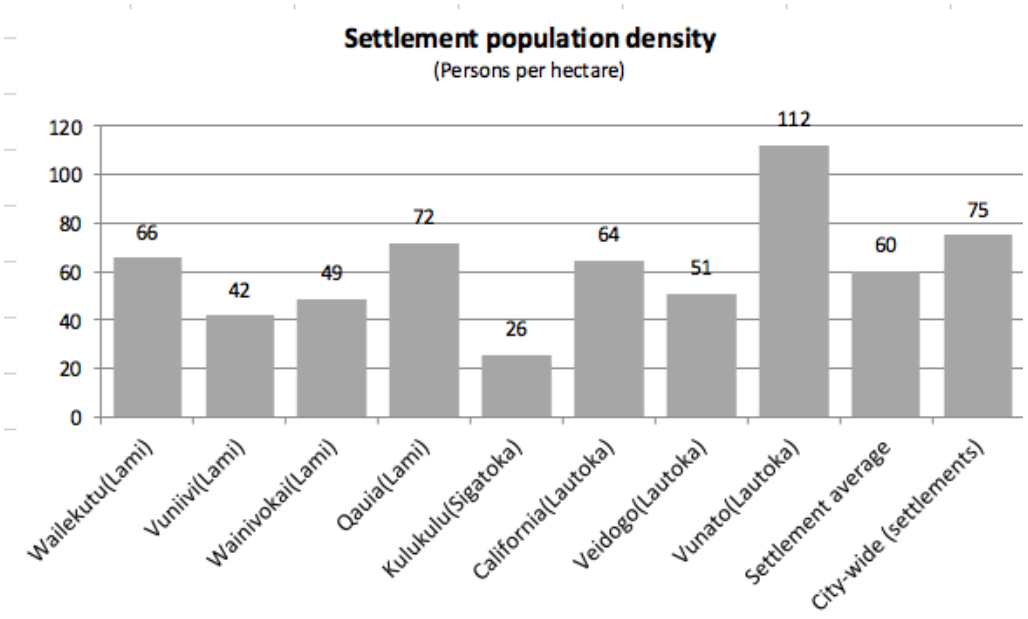
• minorities	Settlements with less than 20% of HHs as minority groups	0	0	1	0	1	0	1	0
• children	Settlements with more than 50% of HHs having children under 10 years	0	1	1	0	1	1	1	1
• elderly	Settlements with more than 10% of HHs having adults over 65 years	1	1	0	1	1	0	0	0
Housing: • overcrowding	Settlements with more than 40% of households with overcrowding	1	1	0	0	0	1	1	1
• poor quality dwelling construction	Inadequate housing (settlements with more than 50% of housing average or poor quality)	1	1	1	0	1	0	1	0
• inadequate water	Inadequate water connections (settlements with less than 40% formal water connection)	0	0	1	0	0	1	1	1
• inadequate sanitation	>40% Toilets discharging directly into local environment (unimproved pit toilet or straight pipe to sea/river/settlement drainage)	1	1	1	0	0	1	1	1
• tenure insecurity	Settlements lacking secure tenure	1	1	1	0	1	1	1	1
Welfare and human development: • Poverty	Settlements with residents average income levels under the poverty line (Based on the Urban Basic Needs Poverty Line BNPL estimate of $186 per week)	0	0	1	1	1	0	1	1
• Health	Settlements with more than 20% of HHs recording occupants contracting Dengue fever in last year	0	0	1	1	1	0	0	0
• Women main income earners	women reported to have the sole burden of responsibility for care of children, elderly and household affairs	0	0	0	0	1	0	1	0
• Vulnerable groups	Vulnerable groups reported as affected by climate issues.	2	1	2	0	0	2	0	1
Production and investment and land use: • climate affected occupations	Climate affected Occupations (settlements whose HH occupants involved in fishing reported a reduction in fish stock in that last 5 yrs)	1	1	1	1	1	0	0	0
• primary production	Reported climate impacts on fishing or farming	0	1	1	0	0	1	0	1

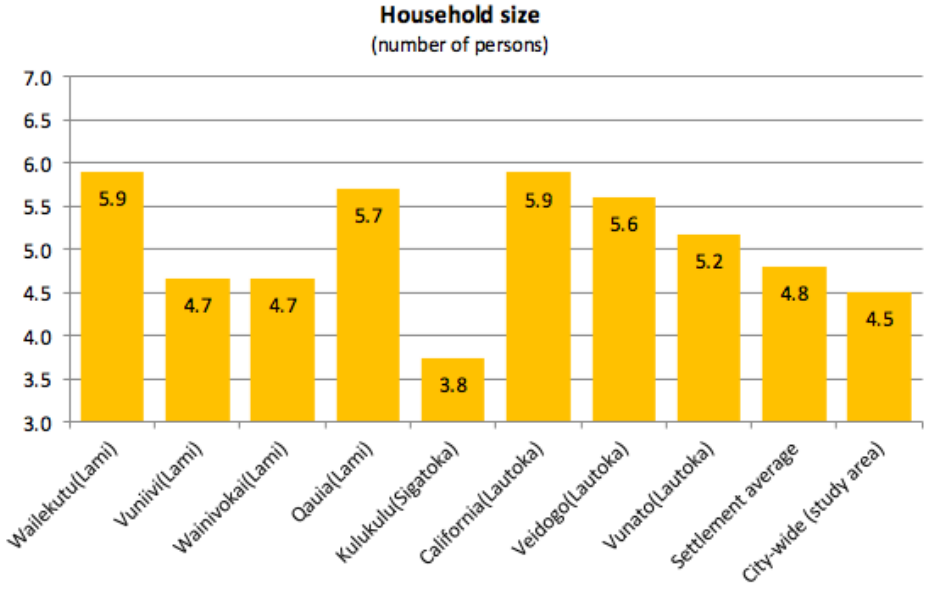
• Employment	Climate vulnerable occupations	0	1	1	0	1	0	1	1
• land use and environment	Poor drainage	1	1	1	1	1	1	1	1
• services: solid waste	Inadequate solid waste disposal (greater than 20% disposing waste in river, creek or sea)	1	1	1	1	0	0	0	1
SENSITIVITY TOTAL		**10**	**13**	**16**	**6**	**12**	**9**	**11**	**11**
ADAPTIVE CACPACITY									
Information	Awareness of/plans for adaptation measures	0	1	1	0	0	1	0	0
Organisational and social capital	History of projects and networks	0	0	0	1	0	0	0	0
Human resources and capacity	Mangrove or riverbank protection/utlisation.	1	1	1	0	0	0	0	0
ADAPTIVE CACPACITY TOTAL		**1**	**2**	**2**	**1**	**0**	**1**	**0**	**0**
VULNERABILITY TOTAL= (Exposure + Sensitivity) - Adaptive capacity		**11**	**15**	**17**	**8**	**16**	**12**	**15**	**16**

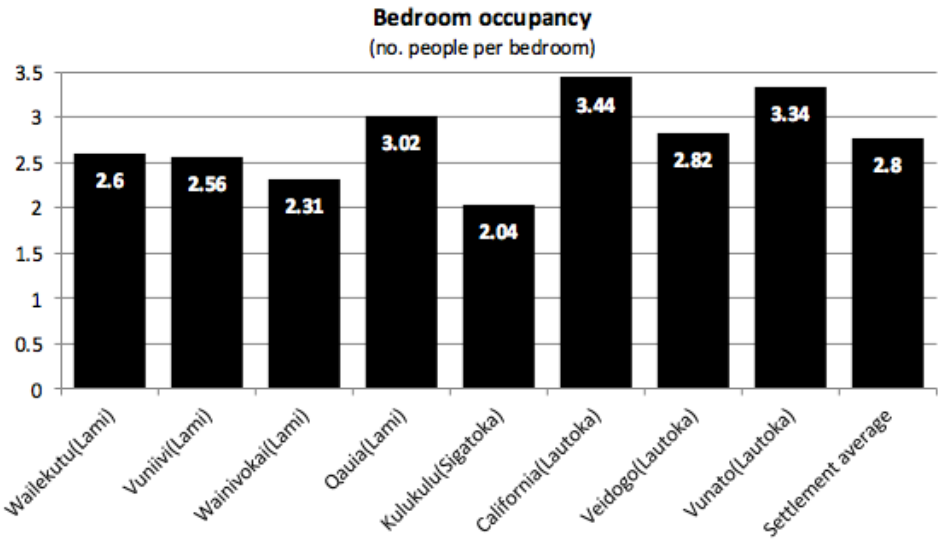
Annex 1B: overview of socio economic data collected during the rapid assessment that provides the background for the sensitivity Analysis.

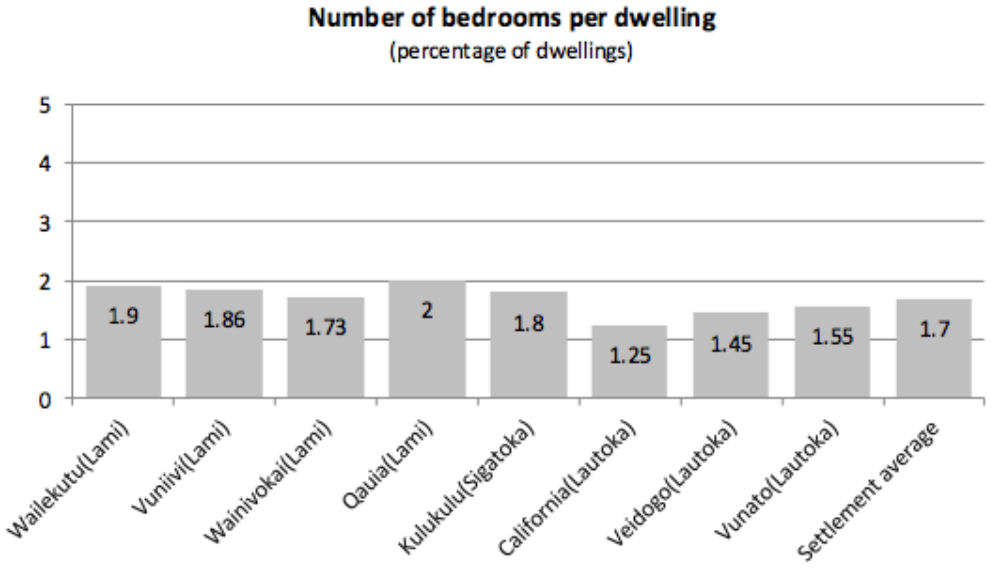




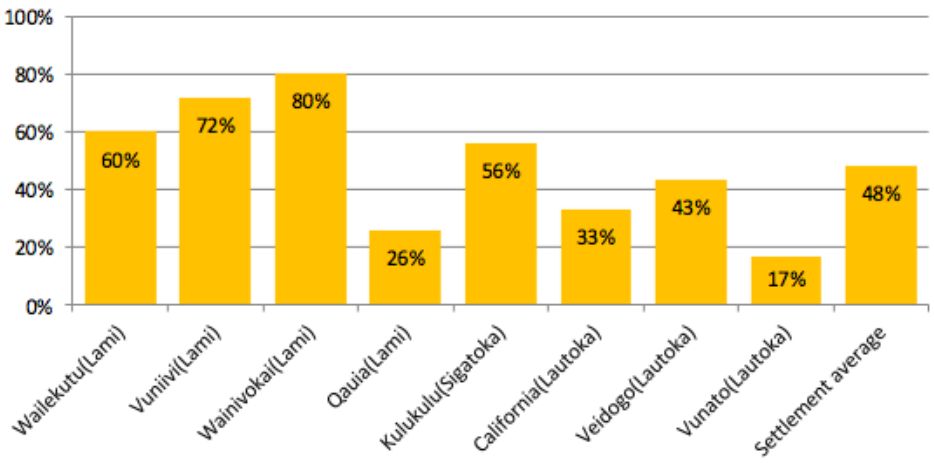

Settlement population density
(Persons per hectare)
120
100
80
60
40
20
0
66
42
49
72
26
64
51
112
60
75
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (settlements)


Household size
(number of persons)
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
5.9
4.7
4.7
5.7
3.8
5.9
5.6
5.2
4.8
4.5
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (study area)

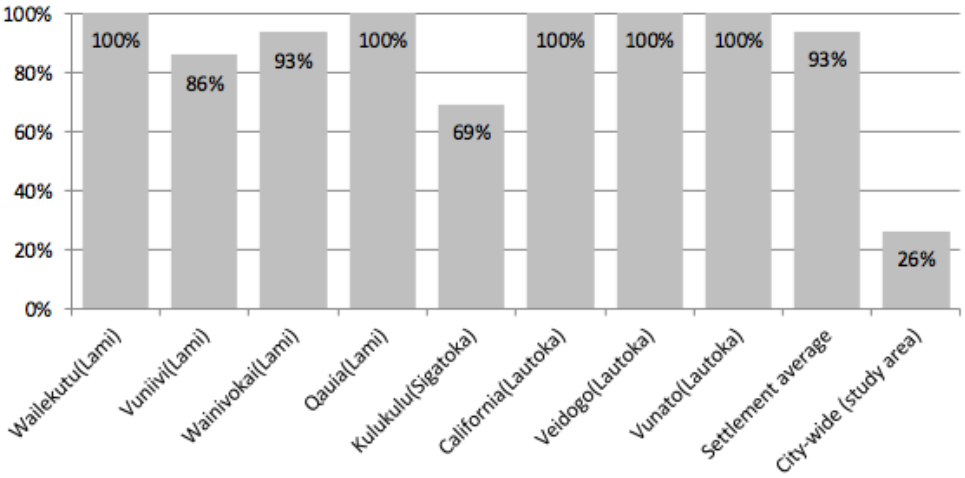

Bedroom occupancy
(no. people per bedroom)
3.5
3
2.5
2
1.5
1
0.5
0
2.6
2.56
2.31
3.02
2.04
3.44
2.82
3.34
2.8
Wailekutu(Lami)
Vunilivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average


Number of bedrooms per dwelling
(percentage of dwellings)
5
4
3
2
1
0
1.9
1.86
1.73
2
1.8
1.25
1.45
1.55
1.7
Wailekutu(Lami)
Vunilivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average

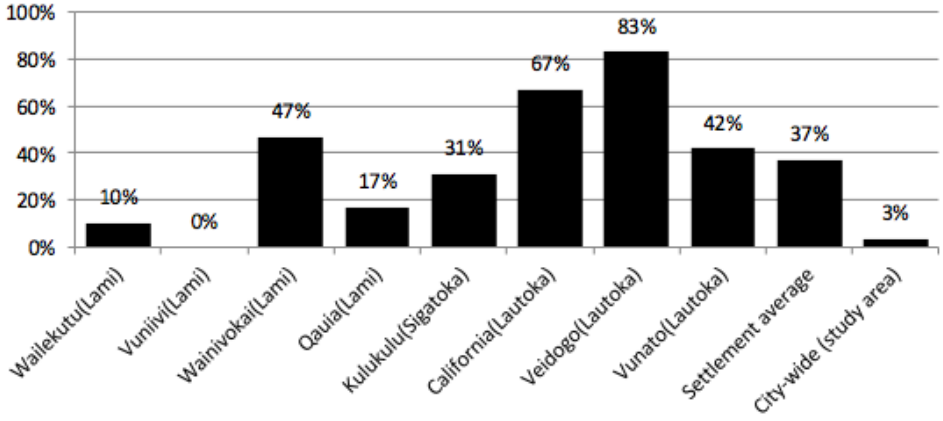
Dwelling walls: average or poor condition
(percentage of dwellings)



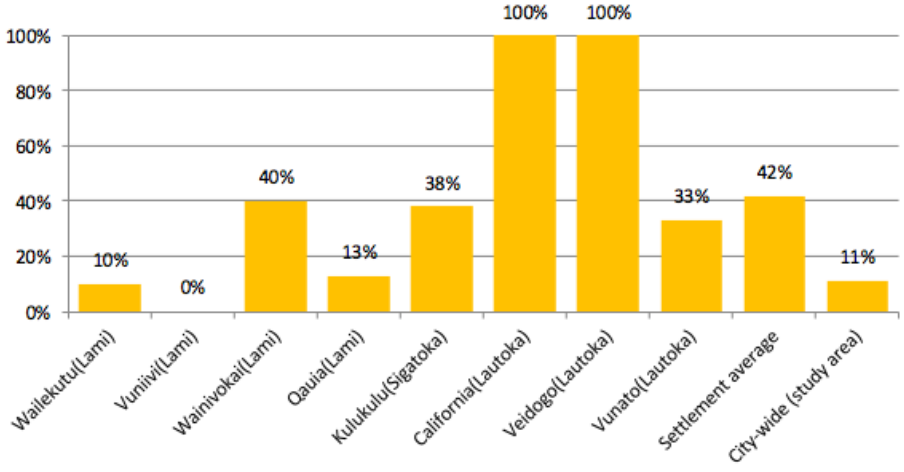
Dwelling walls: tin or iron
(percentage of dwellings)



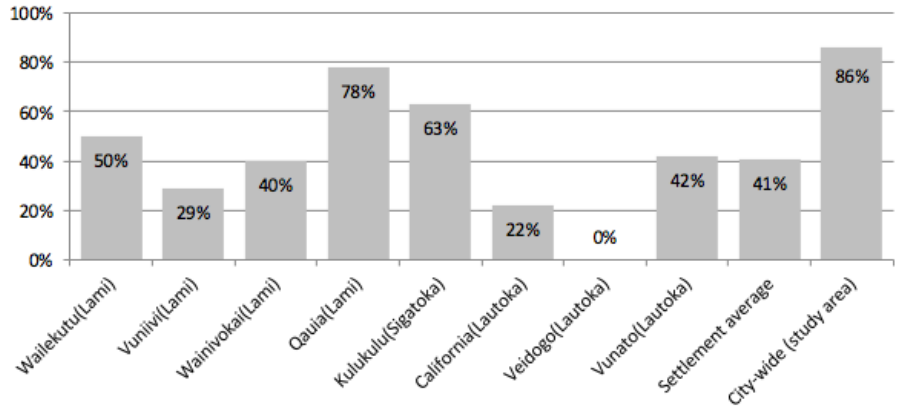
Dwelling with no formal water connection
(percentage of dwellings)



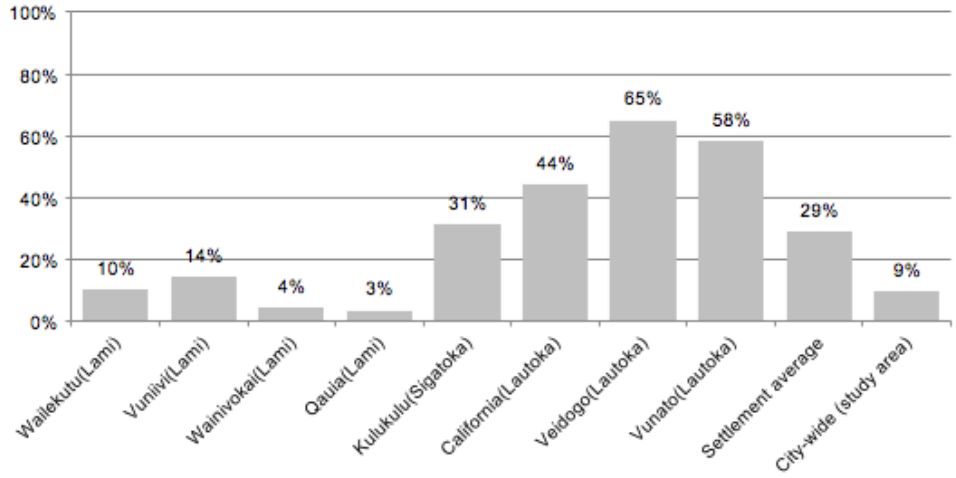
Dwelling with no formal electricity connection (percentage of dwellings)

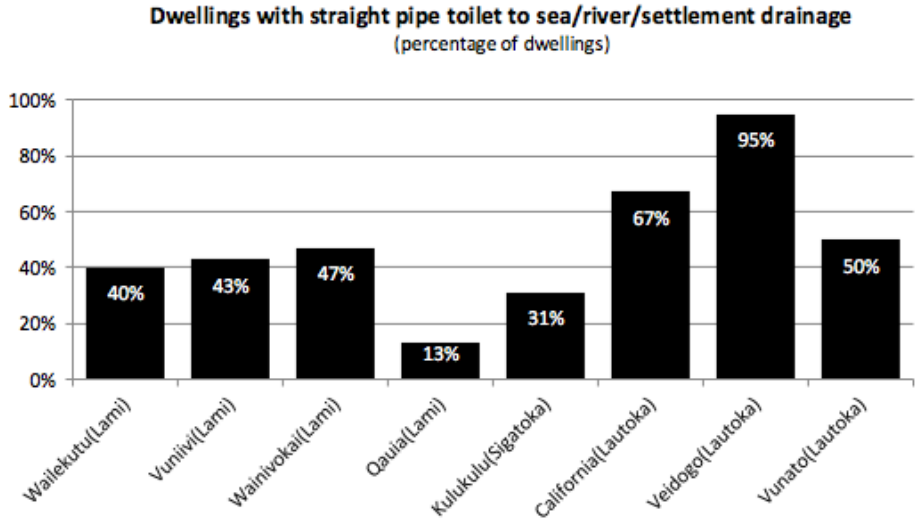


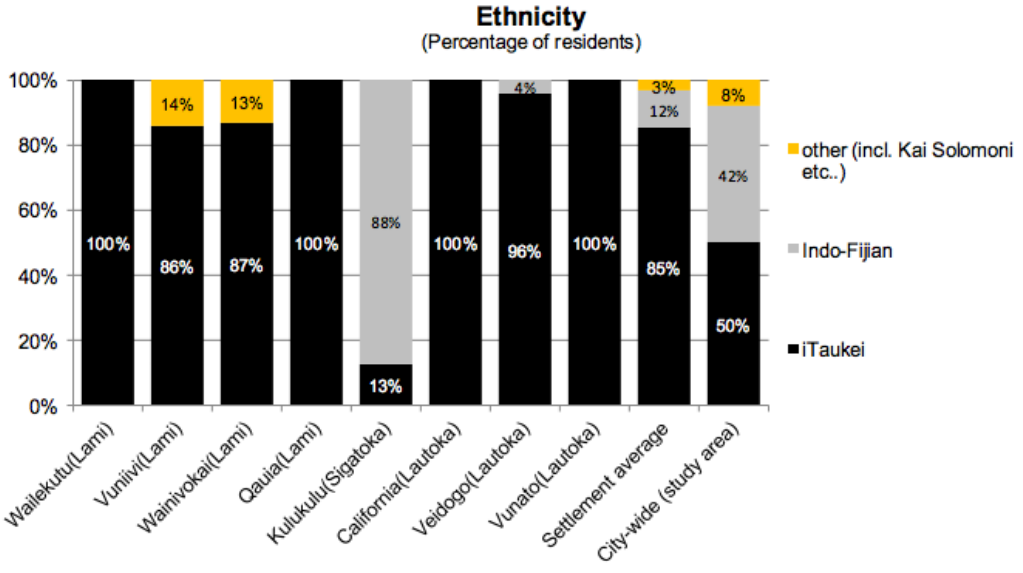
Dwellings with flush toilet for exclusive use (percentage of dwellings)

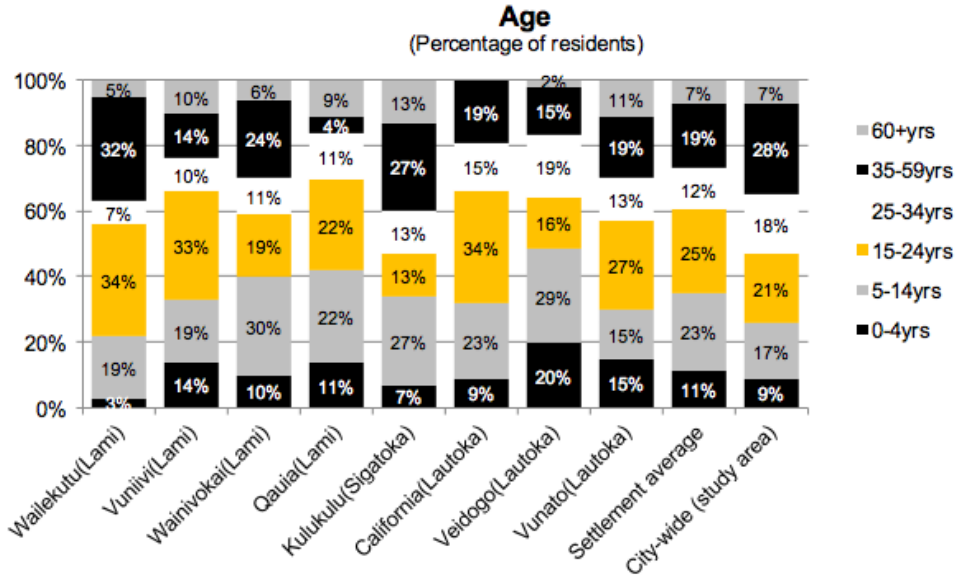


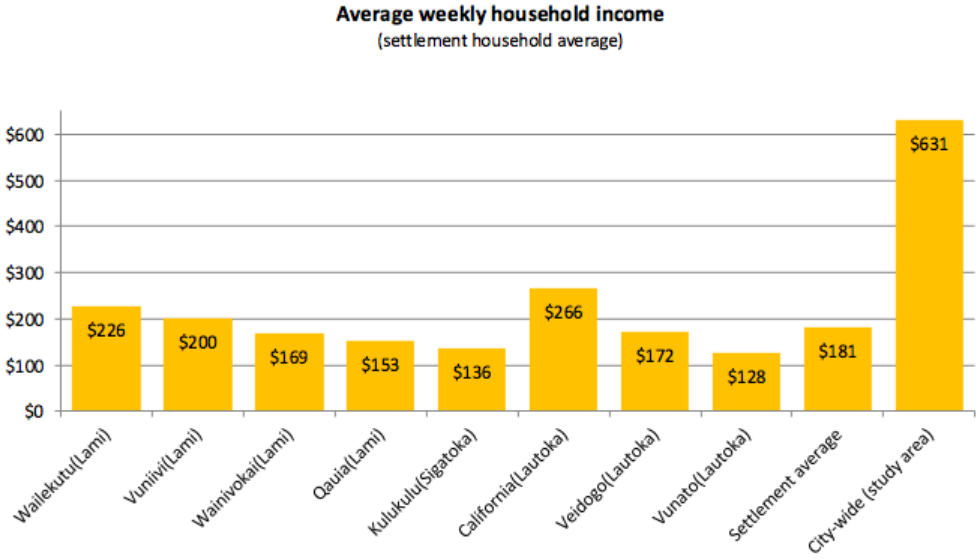
Pit or shared toilet
(percentage of dwellings)



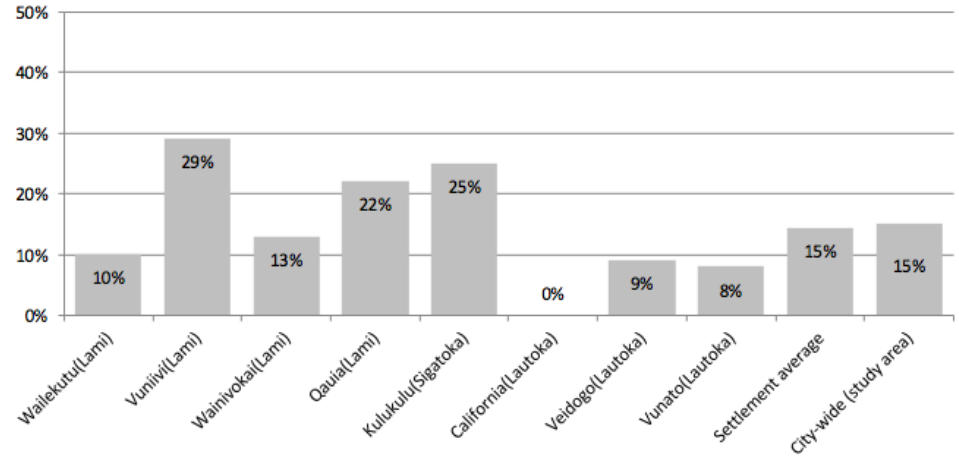

Dwellings with straight pipe toilet to sea/river/settlement drainage
(percentage of dwellings)
100%
80%
60%
40%
20%
0%
40%
43%
47%
13%
31%
67%
95%
50%
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)


Ethnicity
(Percentage of residents)
100%
80%
60%
40%
20%
0%
100%
14%
86%
13%
87%
100%
88%
13%
100%
4%
96%
100%
3%
12%
85%
8%
42%
50%
other (incl. Kai Solomoni etc..)
Indo-Fijian
iTaukei
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (study area)

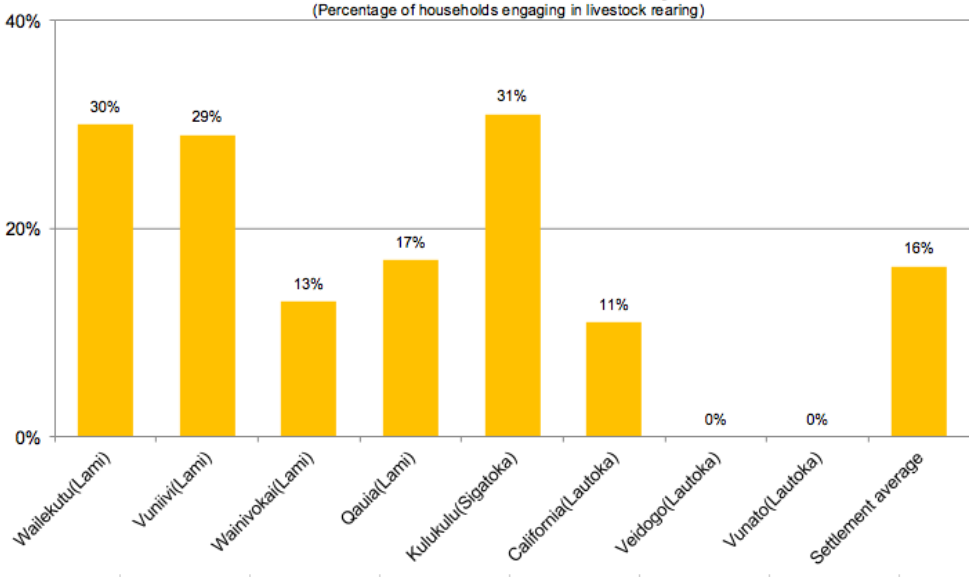

Age
(Percentage of residents)
100%
80%
60%
40%
20%
0%
60+yrs
35-59yrs
25-34yrs
15-24yrs
5-14yrs
0-4yrs
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (study area)


Average weekly household income
(settlement household average)
$600
$500
$400
$300
$200
$100
$0
$226
$200
$169
$153
$136
$266
$172
$128
$181
$631
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (study area)

Financial assistance from social welfare or relatives (percentage of households recieving)



Settlement based economic activity
(Percentage of households engaging in livestock rearing)



Female headed households - income

	(Lami) Wailekutu	(Lami) Vuniivi	(Lami) Wainivokai	(Lami) Qauia	(Sigatoka) Kulukulu	(Lautoka) California	(Lautoka) Veidogo	(Lautoka) Vunato	**Settle-ment average**
Female headed households	0%	14%	20%	9%	19%	0%	4%	0%	8%
Income of female headed households (Average)	no female headed HHs	$200	$50	Unem-ployed	$23	no female headed HHs	unemploy ed	no female headed HHs	
Total household income (Average)	$226	$200	$169	$153	$136	$266	$172	$128	$181

Annex 2: Relevant project outputs identified in Fiji's INDC (2015) and National climate change policy (2012).

Fiji's INDC (2015)

Key Challenges	Proposed Way Forward, Actions and Time bound Indicators
There is a need to develop an integrated approach and policy and operational level to effectively address climate change.	Short Term (up to 2 years) - Establish a National Platform for Climate Change and Disaster Risk Management by 2015. - Develop a National Strategic Plan for Climate Change and Disaster Resilience by 2015. - Review the Fiji National Disaster Management Arrangements to include Climate Change by 2016.
There is a need to ensure that buildings constructed in urban and rural areas are cyclone resistant.	Short Term (up to 2 years) - Review the National Building Code by end of 2016. Medium Term (3 to 5 years) - Provide incentives to support compliance with new building standards by 2017.
There is a need to strengthen the role of local governments in building resilience.	Short Term (up to 2 years) - Development of a Local Government Self-Assessment Tool for Climate Change Resilience by 2016. - Review the town plan regulations to facilitate the enforcement of zoning and buffer zones for coastal areas, rivers banks, high risk areas and mangrove areas. Review to be completed by 2016.
There is a need for greater understanding of the impacts of climate change in order to better plan for long term development.	Short Term (up to 2 years) - Develop a comprehensive assessment framework, including adoption of the damage and loss assessment methodology by 2015. Medium Term (3 to 5 years) - Institutionalise a mechanism to collect and analyse hazard, vulnerability and exposure data by 2017. - Mainstream cost-benefit analysis into decision-making process in mitigation and preparedness measures by 2017. - Encourage collaboration with development partners and tertiary institutions in conducting research on priority areas with climate change and disaster risk reduction by 2017. Long Term (over 5 years) - Develop hazard maps and models for all potential hazards (including sea level rise, storm surge, flood and tsunami) by 2020.
There is a need to ensure climate change mitigation and adaptation become a part of the national and sub national development planning and budgetary process.	Short Term (up to 2 years) - Integrate the climate change and disaster risk reduction into the National Development Plan by 2015. - Revise capital budget appraisal guidelines to incorporate comprehensive hazard and risk management (CHARM) and vulnerability and adaptation (VA) assessments by 2015.
There is a need to increase the resourcing of adaptation and mitigation measures	Short Term (up to 2 years) - Explore climate change financing modalities by 2015. Medium Term (3 to 5 years) - Improve access to global financing facilities such as the Global Green Fund.

There is a need to strengthen partnerships at all levels for building resilience for climate change.	Short Term (up to 2 years) - Partner with civil society in undertaking capacity building at divisional and community level on building resilience, including through incentivizing performers/performance. Medium Term (3 to 5 years) - Undertake vulnerability assessment for all communities by 2019. - Develop climate and disaster resilience plans for urban and rural communities (prioritizing squatter settlements and other vulnerable communities) by 2019. Long Term (over 5 years) - Capacity building provided to communities for which vulnerability assessments have indicated that relocation is the long-term adaptation strategy to minimize risks due to anticipated impacts of climate change.

National climate change policy (2012)

Sector specific climate change impacts – urban sector

- Extreme events such flooding and cyclones incur an economic cost to townships;
- Extreme events or natural disasters will affect lives of people in poorly built or poorly located houses — marginal communities are likely to be more severely affected;
- Added pressure on services and utilities to cope with demands brought about by extreme events such as heat-waves, water shortages and disease outbreaks;
- Land loss and reduction in arable land could lead to migration in urban centres, resulting in over-crowding:
- Floods, storm surges, cyclones and other extreme weather events can damage houses and residential buildings, and have the potential to put their occupants in danger during or after an extreme weather event.

Key areas for mitigation

- Increased energy efficiency and use of renewable energy in residential, commercial and industrial sectors šš Reduction of household waste burning

Key areas for adaptation

- Some traditional building practices provide resilience to extreme weather events

Objective 5: Adaptation Reduce the vulnerability and enhance the resilience of Fiji's communities to the impacts of climate change and disasters. Strategies:

1. Integrate related disaster risk reduction and climate change adaptation strategies and actions into national and sectoral planning to streamline responses.
2. Include vulnerability assessments and climate change impact projections into resource management planning, such as integrated coastal and watershed management plans.
3. Incorporate climate change impact projections into infrastructure and urban and rural planning.
4. Develop sustainable adaptation technologies and systems that take traditional knowledge into account and are culturally acceptable.
5. Support the ecosystem-based approach throughout Fiji, recognising that ecosystem services, such as food security, natural hazard mitigation and physical coastal buffer zones, increase resilience.
6. Develop and make accessible hazard maps of coastal, riverine, urban and inland areas in Fiji, using the comprehensive hazard assessment and risk management (CHARM) tool to guide all development planning.
7. Assess poverty, health and food security issues to determine their vulnerability to climate change, and consider these vulnerabilities in future policies and initiatives.
8. Improve disaster response capacity and access to public health facilities, emergency services, communication services and evacuation centres.

9. Build the capacity of the health and agriculture sectors to respond effectively to climate sensitive diseases, including the strengthening of disease surveillance and control systems, and early warning mechanisms for climate sensitive human and livestock diseases.
10. Use appropriate consultation mechanisms for the participation of all members of the community in the planning, management and implementation of adaptation measures.
11. Mobilise resources and all sectors to support the implementation of relevant national adaptation strategies and plans, such as the National Climate Change Adaptation Strategy, the planned joint national action plan for CCA and DRM and the National Disaster Risk Management Plan.
12. Strengthen early warning systems to ensure effective and timely communication to the public, with particular attention paid to isolated, hazard-prone and disadvantaged areas.
13. Implement best practice adaptation measures, based on sound scientific research, and lessons learnt from local, regional and international experiences.
14. Undertake national research to identify effective adaptation measures to support sector-specific adaptation and disaster risk reduction responses.
15. Establish a monitoring and evaluation system to determine the success of national, sectoral and local adaptation initiatives.

Annex 3: The Climate change vulnerability and disaster risk assessment: expected outcomes and methodology

Purpose and expected outcomes

In order to ensure that this project and related activities reduce the climate change vulnerability and disaster risks of communities/ethnic groups, we need to understand exactly what people and what areas are most vulnerable to its impacts and why. This information can be used to:

1. Identify low risk areas in which resilient infrastructure could be construction; and

2. Select and prioritize adaptation/resilient infrastructure options (in combination with community-based/ethic specific selection criteria for sub-projects.

Safeguards / AF ESP alignment

Conducting these assessments in this project also includes collecting information for (sub-) project compliance with safeguards / AF ESP (e.g. vulnerable people, natural habitats and land) and involving vulnerable and marginalized groups in the process.

The methodology

The climate change vulnerability and disaster risk assessment methodology used for this project provides a framework for UN-Habitat, the national government and local authorities to engage in a dialogue with local communities/ethnic groups. To do so, it provides a set of guiding questions for collecting and analyzing information at the community/ethnic group level.

The method is designed to feed into and strengthen planning processes on the community, settlement, district and provincial level, by providing the most important, context-specific information about the impacts of climate change and local, ethnic specific vulnerability and risks. Specifically, it will feed into local development plans (with a sectoral focus on land use and water use and infrastructure development) at the community, settlement, district, provincial and national level by ensuring that these plans contribute to building the resilience of settlements/ communities/ethnic groups.

The method is participatory/community based (i.e. part of the people's process[37]) in the way that it assists communities/ethnic groups to utilize UN-Habitat and governmental guidance and knowledge in their decision-making, rather than base interventions on it.

[37] Development driven by people/Support Paradigm: when people stays at the center of development planning process, the resource can be optimized with greater utility impacting larger number of people: http://sopheapfocus.com/wp-content/uploads/2010/06/Picture-31.png People's process of development can be witnessed through the evolvement of people's desire to improve their lives. Humans developed their settlement from living in caves, then building shelters, and now home. Along this settlement evolution, they had also established certain norms, standards, and a mutual understanding surrounding their community. That is called the people's process of development.

Instead, UN-Habitat and the government act as facilitators of group discussions that aim to analyze issues in the community/ethnic group jointly. The result is that communities/ethnic groups understand the nature of the problem and UN-Habitat and the Fiji government understand the level of knowledge in the communities/ethnic groups and how it can be used to achieve project outcomes, including conducting vulnerability and risk assessments at the provincial and district level. Whereas the method at the community level is focused on community processes (the people's process), the method used for conducting assessments at the provincial and district level focuses more on institutional processes.

Understanding vulnerability at a community level requires an approach that looks at both the physical (external hazard/risk) and social dimensions (internal susceptibility/coping of different groups) of vulnerability. Consequently, vulnerability is best understood as an aggregation of three components, exposure; sensitivity; and adaptive capacity (see key concepts below).

The approach for settlements/communities, districts & provincial and national assessments are different as shown in the table below.

Table 16: Informal settlements/communities, cities and national assessments approach.

Level of assessment	Focus	Method	Output	Expected outcome
Community/ settlement	Community processes/ people's process	Community -based; group discussion with questions (see below)[1]	Filled questionnaire; vulnerability and risk map; list of adaptation/ resilient infrastructure options and prioritized options	Understanding of communities'/ethnic groups' perceptions of climate change vulnerability and disaster risks in the present and in the future. Based on this information, activities (including infrastructure projects) to reduce vulnerabilities and risks can be identified and prioritized.
Cities	Institutional: Guiding local level processes and aligning assessment outcomes	UN-Habitat vulnerability assessmen t method[2]	City level vulnerability and risk assessment reports, including maps; list of adaptation/ resilient infrastructure options and prioritized options	Climate change vulnerability and disaster risks in the present and in the future mapped and analyzed, including ways to cope with climate related risks as well as identifying and strengthening the sustainability of resources that local communities continually use in coping and adapting to climate change impacts.
National	Institutional: Guiding local level processes and aligning assessment outcomes			Based on above information, barriers that stand in the way of increasing community level resilience to climate change can be identified and removed from national plans and policies

[1] Based on UNDP (2015) Implementing the vulnerability reduction assessment – practitioner's handbook.
[2] Based on UN-Habitat (2014) Planning for climate change: strategic values-based approach for urban planners.

Key concepts

- **Exposure** - nature and degree to which a system is exposed to significant climatic variations.
- **Sensitivity** - responsiveness of a system to climatic influences (shaped by both socio-economic and environmental conditions).
- **Adaptive capacity** - ability of communities to cope, reorganise and minimise loss from climate change impacts at different levels. The key determinant of adaptive capacity is access to resources/capital (natural, financial, social, human and physical).
- **Climate change:** A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable periods.
- **Vulnerability:** Refers to the degree to which people, places, institutions and sectors are susceptible to, and unable to cope with, climate change impacts and hazards.

Sources:

IPCC, 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Parry, M.L., Canziani, O.F., Palutikof, J.P., van der Linden, P.J., Hanson, C.E. (Eds.), Cambridge University Press: Cambridge, UK, 976 pp.

UN-Habitat planning for climate change guide, including vulnerability assessment methodology: http://unhabitat.org/books/planning-for-climate-change-a-strategic-values-based-approach-for-urban-planners-cities-and-climate-change-initiative/

Preparing for and planning the vulnerability and disaster risk assessment at the community level

When conducting the assessments, UN-Habitat will ensure that:

- There will be at least two trained facilitators per group (i.e. community/ethic group); one to ask the questions and the other to record the answers;
- Communities/ethic groups will be briefed about climate change at the start of the assessment;
- There will be a divers cross section of participants by considering a 1) divers geographic spread, 2) a good demographic spread (age, sex, status, income) and 3) good representation. Depending on the circumstances. Depending on the circumstances, assessment will be conducted with ‘whole’ groups, ‘focus’ groups or individuals.

Conducting the vulnerability and disaster risk assessment at the community level

1. **Ethical Briefing**

   Purpose:
   To ensure communities/ethnic groups understand expectations and the process

   Expected outcome:
   The communities/ethnic groups understand expectations and the process

   The process:
   The briefing will include at least an explanation of:
   - Purpose of the session and what kind of information we are looking for
   - What will the data collected be used for and who will see it
   - The process: collection, verification and confidence

2. **Trend analysis**

   Purpose:
   To understand community/ethnic group perception of climate change in the past and for communities to become aware of changes and how climate change differs from weather change.

   Expected outcome:
   Community members agreement upon:
   - A vulnerability/risk score for each time period:
     1. Not at all vulnerable
     2. Not very vulnerable
     3. Some vulnerability
     4. Vulnerable
     5. Very vulnerable
   - One or two climatic hazards, which have most impacted them
   - High vulnerable/risk areas in and around the community (on a map)

Climate Change Risks	Before 1990	1990 1995	1995 2000	2000 2005	2005 2010	2010 2015	Vulnerability/risk score + comments
Droughts frequency/risks							
Drought duration							
Damage cause by drought (crops)							
Flood frequency/risks							

Flood duration							
Damage cause by flood							
Landslide frequency/risks							
Damage cause by landslides							
Diseases frequency/risks							
Impact of diseases							
Rain level							
Rain predictability							

3. Questionnaire (incl. adaptation activities/resilient infrastructure selection)

To analyze current and future climate risks, barriers to adaptation and factors/resources facilitating the coping strategies used by community and way of improving their vulnerability.

1. The vulnerability of the community/ethnic group to existing climate change and or climate variability

- What problems do you face because of the one or two most problematic climatic hazards (see result trend analysis) and how do these affect men and women in your community?

2. The vulnerability of the community/ethnic group to developing climate change risks

- If the most problematic climatic hazards (see result trend analysis) would occur twice as often, what would be the effect on men and women in your community/ethnic group?

3. The magnitude of barriers (institutional, policy, technological, financial, etc.) to adaptation

- What stops your community from coping with current impacts of the most problematic climatic hazards (see result trend analysis)? These can be e.g. lack of skills, lack of irrigation, water supply, health, etc. related infrastructure, lack of natural resources like forests, water, etc.).

Climate Change Risks	Factors stopping your community from coping with current impacts	Ranking per climatic hazard
The most problematic climatic hazards (see result trend analysis)		
The most problematic climatic hazards (see result trend analysis)		

4. The priorities to be addressed in strengthening the adaptive capacity of the community

- What activities/infrastructure should be prioritized in order to improve your adaptive capacity to droughts, floods, landslides, heat/diseases? What is most important for the community?

Activities	Ranking

4. Community vulnerability and risk map

To understand where the vulnerable/risk areas are and where activities/infrastructure should be implemented/constructed in the community a community map should be developed showing at least:

- Location of houses and critical infrastructure
- Location of poorest people
- Elevation levels (if possible)
- Flood risk area

- Drought risk area
- Landslide risk area
- Dengue and malaria risk areas

The map can be drawn by hand.

Community map

5. Environmental and social problems and needs

The vulnerability and risk assessment can be used to get a better understanding of the environmental and social problems and needs in communities. This information can feed into the risk assessments of sub-projects. Community relevant Adaptation Fund safeguard areas are discussed below.

Human rights

- Have you ever been mistreated or are you worried you will be mistreated by the UN, the government, other communities, other ethnic groups or anyone else?

Gender Equity and Women's Empowerment

- Have you ever felt discriminated as a woman or are you worried you will be discriminated? Is it difficult as a woman to participate in decision-making processes? If so, why?

Protection for Indigenous people and Marginalized and Vulnerable groups

- Have you ever experienced or seen discrimination against indigenous peoples or elderly, disabled people or youth?

Access and Equity

- Are different groups (ethnic, women, elderly, disabled, youth) in the community treated differently? If so, how? Who is normally responsible for taking care of

elderly, disabled people and children? Who normally takes care of money, water and food in the household?

Promoting better labour and working conditions

- How much do you earn on average during a day? Do children also work/help in the community? If so, what do they do?

Enhancing community health, safety and security

- Have you ever experienced dangerous situations during work or in the community? Have people been injured? If so, what was the cause? What diseases do community members suffer from? Have unexploded ordinances been found? If yes, where? What are the main causes of death in the community? What do you do against malaria, dengue and diarrhea?

Safeguarding land, housing, resettlement and rights

- Have you ever been asked to resettle or sell your land? If so, by whom and why?

Conserving biodiversity, Protection of Natural Habitats and lands and soil conservation

- Are there conserved or protected areas in or around the community? What areas should be protected to secure clean water and food/agriculture/fish/cattle?

Annex 4: Environmental and Social Management Plan (ESMP)

Environmental and social risks management framework: explanation of method and process of dealing with potential environmental and social risks.

The method to identify, assess, manage and mitigate the environmental and social risks of Unidentified Sub Projects (USPs) and related activities is based on a combination of UN-Habitat's Handbook on Environmental and Social Safeguards [38] and the AF Environmental and Social Policy.

The method/framework deals with the 15 Adaptation Fund safeguards in combination with 4 cross cutting markers and the 7 safeguard areas of UN-Habitat. The matrix below demonstrates where these safeguards align and where they are considered separately.

Table 17: Linking adaptation fund safeguards to UN-Habitat safeguard areas.

UN-Habitat Safeguard Areas/cross cutting markers		Adaptation Fund Safeguard Areas
❑ Youth ❑ Human Rights ❑ Climate Change and Environment ❑ Gender		❑ Compliance with the Law ❑ Human Rights ❑ Climate Change ❑ Gender Equity and Women's Empowerment
1	Promoting better labour and working conditions	
2	Enhancing community health, safety and security	
3	Safeguarding land, housing, resettlement and rights	▪ Access and Equity
4	Reducing the climate and environmental footprint	
5	Conserving biodiversity	▪ Protection of Natural Habitats ▪ Lands and Soil Conservation
6	Protection for Indigenous people	▪ Marginalized and Vulnerable groups
7	Protecting and promoting cultural heritage	

During the project proposal phase, these safeguards have been used to screen risks of project activities under components 1, 2 and 4 of the project. During the project, these safeguard areas will be used to identify, assess, manage and mitigate social and environmental risks of USPs (which are site-specific, physical interventions).

Identified risks (if any) will be used as criteria (together with outcomes of climate change vulnerability and disaster risk assessments) to select, with communities, small-scale infrastructure sub-projects for construction. If selected/to be constructed sub-projects have remaining risks, they will be managed and mitigated. The flow chart below displays how to deal with risk on sub-project level. The flowchart below shows how environmental and social risks of USPs can be identified/assessed, managed and mitigated.

[38] Currently being tested before publication

Process of identifying/assessing, managing and mitigating environmental and social risks of (sub-) project

SAFEGUARD AREA

EXISTING LAWS AND PRINCIPLES TO WHICH FIJI, UN-HABITAT AND AF ARE CONTRACTUALLY OBLIGED AND ALREADY ESTABLISHED ACTIONS THAT ARE TO BE IMPLEMENTED.

What are relevant laws/principles for the sub-project?

Law / Principle # 1 — No / Yes

Law / Principle # 2 — No / Yes

Law / Principle # 3 — No / Yes

Law / Principle # 4 — No / Yes

POTENTIAL OF NON-COMPLIANCE TO SPECIFIED LAWS/ PRINCIPLES, OR ACTIONS TO BE TAKEN

Are there potential risks/ areas of non-compliance? — No / Yes

Assessment includes using the Environmental a
Social Safeguard non-compliance risk screening
checklist (after determining location, scale and r
based on outcomes Vulnerability Assessments.

MEASURES THAT MUST BE ACHIEVED TO ENSURE SAFEGUARD FULFILLMENT

How will you implement measures to safeguard against these risks?

Proposed measures to be achieve:

Through (sub-) project management plan.

SPECIFIC ACTIONS THAT NEED TO BE COMPLETED AT THE PROJECT LEVEL

What are the new recommendations?

- *Action # 1*
- *Action # 2*
- *Action # 3*

HAS THE ACTION BEEN COMPLETED?

Have the recommendations been successfully implemented? — No / Yes

Table 18: outcome of the initial environmental and social assessment

1. Safeguard Area		2. National Laws, UN Rules, principles and procedures to be upheld	3. Potential risks/areas of non-compliance	4. Impact & probability (1-5) and Significance (low, medium, large)		5. Measure to ensure safeguard fulfillment	6. Recommended action	Action completed?
UN-HABITAT PILLARS	Youth	▪ UN-Habitat Youth Advisory Board ▪ National Youth Policy	Failure to engage youth in decision-making and/ or of a lack of equity to project benefits.	I = 1 P= 2	Low	Ensure Youth have equal access to the benefits and outcomes of the project.	Involvement of youth within stakeholder participation meetings	☐
						Ensure equal participation of youth throughout project design and implementation	Channels to be available to report instances of discrimination in a safe and anonymous manner.	☐
	Human Rights	▪ Human Rights Based Approach (HRBA) ▪ Human Rights Commission Act 1999	Failure to understand situation of and lack of proactively addressing the rights of the rights holders and responsibility of the duty bearers. Rights abuses, including against indigenous people	I = 2 P= 2	Low	Ensure HRBA through use of the human rights marker and align with Human Rights Commission Act 1999	Details of human rights markers to be included in MoU and AoC with government and contracters	☐
							Refresher training to be available and completed by all UN-Habitat staff every 2 years.	☐
	Climate Change	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines	The project causes maladaptation either in the project sites or upstream or downstream	I = 3 P= 1	Low	Ensure VA is completed locally accepted/ endorsed and clear linkages to the project plan produced.	VA to be completed in close cooperation with communities prior to project implementation	☐
						Ensure project is conducted in accordance	Climate Change policies and guidelines to be read and	☐

		▪ National Climate Change Policy ▪ Draft National Climate Change Adaptation Strategy				with Fiji climate change policies and procedures	understood by Project Manager prior to implementation.	
	Gender Equity and Women's Empowerment	▪ UN Women Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) ▪ ILO Conventions No. 100, 111, 156 and 183 ▪ Fiji Women's Plan of Action 2010-2019 ▪ Fiji National Gender Policy	Failure to engage women in decision-making. Women not enjoying equal access to resulting service	I = 2 P= 1	Low	Ensure the continued adherence to the conventions, plans and policies on the left. Ensure gender equity throughout project design and implementation.	Quota system for female engagement Equitable benefits of project outcome for men and women Channels to be available to report instances of discrimination in a safe and anonymous manner.	☐ ☐ ☐
1	Promoting better labour and working conditions	▪ UN Secretariat Administrative Instruction ST/AI/2013/4 ▪ ILO Minimum Age Convention ▪ ILO Worst forms of Child Labour Convention ▪ Fiji National Employment Centre Decree ▪ Fiji Employment Relations Regulations	Contracts that are not implemented according to ILO and Fiji standards	I = 1 P= 1	Low	Ensure transparency and accountability throughout project cycle. Ensure the project is accordance with ILO Conventions and Fiji regulations Ensure that no underage staff or children are employed in the project.	All documents & minutes produced during the project cycle to be available online. Monitoring/safeguards officer to visit the project site and ensure ILO Conventions are being upheld. MoUs, AoC and contracts to include standard clauses requiring the compliance with ILO conventions and Fiji regulations	☐ ☐ ☐

		2008					
	Compliance with Domestic & International Law	• SDG technical standards for water supply and sanitation • Town and country planning act • National building code • Native Land Trust (Amendment) Act • Environment Management Act • Public health act • Fisheries Act • National Housing Policy • National Climate Change Policy • Fiji 2020 Agriculture Policy Agenda	Risk of non-compliance with standards	I = 2 P= 2	Low	Ensure clear communication between UN-Habitat project staff and the Fiji government.	Written details of the proposed project to be shared with the host country.	☐
						Ensure each person associated with the project is aware of domestic and international laws	Details of domestic and international laws to be included in contract for all project staff.	
							Provide training for all project staff.	☐
						Ensure project complies with the SDG and Fiji technical standards	Project Manager will have read and understood SDG and Fiji technical standards prior to project implementation	☐
2	Enhancing community health, safety and security	▪ International Civil Service Commission (ICSC) ▪ International Health and Safety Standards ▪ Public Health Act 2002 ▪ Slum & Housing upgrading strategy ▪ Building Back Better Principles Guideline for Shelter and Sanitation	Communities may use some machinery and/or not have protective equipment	I = 3 P= 1	Low	Ensure that ICSC international health and safety standards are clearly accessible and understood.	Clearly visible signs detailing health and safety standards to be located at projects sites.	☐
							Project will provide all necessary safety equipment.	☐
						Ensure adherence to relevant UN-Habitat policy and programmes	Follow/align with the informal Settlements Upgrading Strategy (2016)	☐
						Ensure Compliance with the build back better principles	Project to be implemented in accordance with build back better principles.	☐

		▪ Fiji Building Code				Ensure adherence to Fiji Building Code	Project Manager to have a clear working knowledge of Fiji Building Code ☐
		▪ SDG technical standards for water supply and sanitation				Ensure project complies with the SDG technical standards	Project Manager will have read and understood SDG technical standards prior to project implementation ☐
3	Safeguarding land, housing, resettlement and rights	▪ Right to Adequate Housing ▪ Free, Prior and Informed Consent (FPIC) ▪ See also Human Rights crosscutting area; HRBA and Compliance with the law: Fiji town and country planning act ▪ Fiji National Housing Policy ▪ Slum & Housing upgrading strategy	Project actions lead to unintended resettlement consequences	I = 4 P= 1	med	Ensure all project affected persons have free, prior and informed consent relating to project outcomes.	Accountability in administration with online access to reports. ☐ Principles of FPIC to be adopted throughout project cycle with channels to review project plan. ☐
						Ensure that no (sub-) projects are undertaken that involve forced eviction.	No (sub-) project will be approved where there is the possibility, however small, of forced eviction. ☐
						Ensure Participatory planning	Project to operate with people's approach ☐
						Ensure alignment with National housing policy and slum and housing upgrading strategy	Project Manager will have read and understood National housing policy and slum and housing upgrading strategy ☐
	Access and Equity	▪ UN-Habitat Project Template	Failure to engage vulnerable people in decision-making.	I = 3 P= 2	Low	Ensure continued use of UN-Habitat Project Template and equitable benefits of the project.	Project will be submitted to UN-Habitat's Programme Assurance Group (PAG) for quality assurance and review. PAG will offer guidance on ensuring equitable access. ☐

						Ensure project does not exacerbate existing inequalities.	Project Proposal will detail how project outcomes will produce equal benefits and Access and equity questions included as part of the VA	☐
4	Reducing the climate and environmental footprint	▪ Climate Change Marker ▪ Project Advisory Group (PAG) ▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ National Climate Change Policy ▪ Draft National Climate Change Adaptation Strategy	Mal-adaptation (as described above)	I = 2 P= 1	Low	Include impact monitoring through implementation of the project	Project Manager to have clear understanding of the Climate Change Marker.	☐
							Review and update the VA at the mid-point of the project	☐
						Ensure continued support of PAG throughout the project cycle.	Use UN-Habitat evaluation policy	☐
							Ensure key documents are available online	☐
5	Conserving biodiversity	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ Convention on Biological Diversity ▪ TEEB Guidance Manual ▪ Environment	Negative impacts of local, upstream and downstream biodiversity as a result of project activities	I = 1 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to be completed prior to project implementation.	☐
						Ensure adherence to the Convention on Biological Diversity.	Project Managers to have read and understood the Convention prior to project implementation.	☐
						Ensure all project outcomes respect the importance of ecosystems and	Ecosystem services included as part of the VA	☐
							Provide information on ecosystem services within	☐

		Management Act ▪ National Biodiversity Strategy and Action Plan 2007 ▪ National Biodiversity Strategy and Action Plan Implementation Framework 2010-2014 ▪ Fiji REDD+ Policy 2011				Ensure alignment with Fiji acts, plans and frameworks	Project Manager will have read and understood Fiji acts, plans and frameworks ☐
	Protection of Natural Habitats	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ Convention Concerning the Protection of World Cultural and Natural Heritage (1972) ▪ IUCN Red List Criteria ▪ Environment Management Act ▪ Endangered and Protected Species Act 2002 ▪ Endangered and	As above	I = 1 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to include local/community map of natural habitats. ☐	
						Ensure Compliance to Convention.	Provide clear information of Heritage sites to Project Managers. ☐
						Ensure alignment with Fiji acts, plans and frameworks	Project Manager will have read and understood Fiji acts, plans and frameworks ☐

ecosystem services. | training to project staff[39].

[39] In accordance with the TEEB Guidance Manual: http://www.teebweb.org/media/2013/10/TEEB_GuidanceManual_2013_1.0.pdf

		Protected Species Regulations 2003					
	Lands and Soil Conservation	▪ IUCN Environmental Policy and Law Paper No. 81 ▪ Native Lands Act 2002 ▪ Land Conservation and Improvement (revised edition 1985) ▪ Land Development Act (revised edition 1985) ▪ Rural Land Use Policy (2nd edition) 2006	As above	I = 1 P= 1	Low	Ensure conservation of natural habitats and species included within the IUCN Red List.	Provide Project Managers with links to IUCN Red List. ☐ Utilize resources produced by IUCN for applying the Red List to project level. ☐
						Ensure alignment with Fiji acts, plans and frameworks	Project Manager will have read and understood Fiji acts, plans and frameworks
6	Protection for Indigenous people	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ Article 27 of the International Covenant on Civil and Political Rights (1966) ▪ UNDRIP Declaration on the Rights of Indigenous People ▪ ILO Convention 169	Failure to engage indigenous people in decision-making. Indigenous people not enjoying equal access to resulting service (see access and equity)	I = 3 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to be completed prior to project implementation and to include vulnerabilities of indigenous people ☐
						Ensure that the details of International Covenant on Civil and Political Rights (1966) are respected and upheld.	Include measures to protect indigenous people in project plan. ☐ Background research to be completed prior to initial project design. ☐
						Ensure that the components of the UNDRIP Declaration and ILO Convention 169 on Indigenous tribes and people, are respected and upheld.	Project Managers to have read and understood UNDRIP Declaration and ILO Convention prior to project implementation. ☐ Provide summary of UNDRIP Declaration within ☐

		▪ Free, Prior and Informed Consent (FPIC)				ESS Handbook.	
					Ensure FPIC is granted to indigenous communities affected by project implementation.	Follow a pre-defined FPIC procedure	☐
						Allow 1 month for feedback to be gathered from consent letter.	☐
	Marginalized and Vulnerable groups	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ Free, Prior and Informed Consent ▪ National Climate Change Policy ▪ Integrated Vulnerability Assessment Framework	See access and equity	I = 3 P= 1	Low	Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA will focus on the particular needs of vulnerable and marginalized groups.	☐
						Ensure all project affected persons have free, prior and informed consent relating to project outcomes	Accountability in administration with online access to reports.	☐
							Principles of FPIC to be upheld throughout project cycle with clear channels to review project plan.	☐
7	Protecting and promoting cultural heritage	▪ Fiji Integrated Vulnerability Assessment Framework and UN-Habitat Planning for Climate Change Guidelines ▪ UNESCO World Heritage List	No damage to any heritage, including 'intangible heritage'	I = 1 P= 1	Low	Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA to include local/ community map of tangible and intangible heritage areas.	☐
						Ensure avoidance of project site location on or near a UNESCO World Heritage Site or other locally important heritage sites	Map resources of heritage sites to be included in UN-Habitat ESS Handbook.	☐

Further screening and assessment

A detailed environmental and social assessment will be conducted as part of the comprehensive climate change vulnerability and disaster risk assessments in the target cities and informal settlements. The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of vulnerable groups in all target settlements/communities, as could be done in the proposal development phase. Besides that, a detailed environmental and social assessment is only required for the activities under component 3 as the USPs potentially fall in the risk category B. How the environmental and social risks of these sub-projects will be identified/assessed, managed and mitigated will be discussed in the following section.

This approach is in line with the Adaptation Fund's Environmental and Social Policy: "in some Category B projects where the proposed activities requiring an environmental and social assessment, represent a minor part of the project, and when the assessment and/or management plan cannot be completed in time or where mitigation measures extend into project implementation, the Board can approve the project subject to assurances included in the agreement signed between the Board and the implementing entity that any environmental and social risks will be adequately and timely addressed through a management plan or changes in project design."[40]

The result of this approach (a detailed environmental and social assessment being part of the climate change vulnerability and disaster risk assessments) will be the production of detailed information on community level climate change vulnerabilities and disaster risks (including community maps) in combination with detailed information on:

- Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding houses and different infrastructure types/servies (e.g. water supply/collection, irrigation, sanitation)
- Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding health and hygiene (e.g. related to dengue, malaria, water and sanitation).
- Other information regarding safeguards at community level (e.g. mapping of biodiversity, natural habitats, Lands and Soil, cultural heritage and human rights situation for certain ethnic groups.

Based on this information (i.e. community and climate change adaptation criteria) and the assessment of environmental and social risks per USP (as discussed in the next section) communities will select the most appropriate sub-projects for construction.

[40] Adaptation Fund Environmental and Social Policy (March 2016), paragraph 9, Page 3

Risks assessment tool for Unidentified Sub-Projects: To identify, assess, manage and mitigate potential environmental and social risks of small-scale infrastructure investment projects and related activities.

The activities under Component 3 are 'hard' activities, and as such some activities have the potential, without an environmental and social safeguarding system, to create negative environmental and social impacts. At the project proposal phase, environmental and social risks under component 3 cannot be comprehensively identified because the project includes unidentified sub- projects (USPs). As a result, this section explains how to identify/assess, manage and mitigate environmental and social risks when an USP is identified.

Scope of sub-projects

UN-Habitat will ensure that potential social and environmental risks, impacts and opportunities of supported sub-projects are systematically identified and assessed in an integrated manner. The type and scale of assessment and the agreed management and mitigation measures will be proportionate to the level of social and environmental risk.

In order to avoid large environmental and social impacts, sub-projects must fall into the category of medium (B) - or low (C) risk projects.

A1: High risk:	Activities with potential significant adverse environmental and/or social risks and/or impacts that are diverse, irreversible, or unprecedented.
B2: Medium risk:	Activities with potential mild adverse environmental and/or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.
C3: Low risk:	Activities with minimal or no adverse environmental and/or social risks and/or impacts.

The sub-projects will fall into the category of medium (B) - or low (C) risk projects because component 3 will include sub-projects that are numerous, but small scale and very localized, and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely.

To ensure sub-projects fall into the category of medium (B) - or low (C) risk projects, the scope of sub-projects has been narrowed by:

- Type of measure/housing/infrastructure
- Location (low risk)
- Scale (square meters and funding ceiling)

The outcomes of climate change vulnerability and disaster risk assessments (conducted before sub-project identification) will provide valuable data regarding risks related to disaster and vulnerabilities and sensitivities of people, natural habitats, lands/locations, etc. The scale of sub-project will be limited so that they will not fall in Fiji defined risk categories for which Environmental and Social Impact Assessment are required according to Fiji standards.

Sub-project assessment and management principles

The UN-Habitat Project Manager will ensure that assessments adequately include and/or reflect the following:

- ✓ Address impacts on physical, biological, socioeconomic, and cultural resources, including direct, indirect, cumulative, and induced impacts in the sub-project's area of influence, including associated facilities. Utilize strategic, sectoral or regional environmental assessment where appropriate.
- ✓ Assess adequacy of the applicable legal and institutional framework, including obligations under Applicable Law and confirm that the sub-project would not be supported if it contravenes (inter) national obligations.
- ✓ Assess feasible investment, technical, and siting alternatives, including the "no action" alternative, as well as potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and the institutional, training and monitoring requirements associated with them.
- ✓ Enhance positive impacts and avoid, minimize, and/or mitigate adverse impacts through environmental and social planning and management. Develop a management plan per USP that includes the proposed measures for mitigation, monitoring, institutional capacity development and training (if required), an implementation schedule (including maintenance), and cost estimates.
- ✓ Ensure compliance with international standards and, where appropriate, use independent advisory panels during preparation and implementation of sub-projects that contain risks or that involve serious and multi-dimensional social and/or environmental concerns.
- ✓ Examine whether particular individuals and groups may be differentially or disproportionately affected by the sub-project potential adverse impacts because of their disadvantaged or marginalized status, due to such factors as race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. Where such individuals or groups are identified (through the vulnerability assessment), recommend targeted and differentiated measures to ensure that the adverse impacts do not fall disproportionately on them.

- ✓ All proposed sub-projects with environmental and social risks will be assessed and managed with the purpose to identify potential application of requirements of the Overarching Environmental and Social Policy (ESP) and Principles.

SUB-PROJECT ASSESSMENT SHEET

Steps:

1. Please fill out table 1 and provide the specific details for each sub project.
2. Complete the checklist (table 2), to assess the potential risk areas.
3. Identify risks mitigation measures by filling table 3
4. Classify the risk of the sub-project in table 4
5. Determine relevant safeguard areas for the sub-project in table 5
6. Sign of the project when above is completed

TABLE 1: SUB-PROJECT INFORMATION	
1. Project title	
2. Project number	
3. Project location (village, districts)	

TABLE 2: CHECKLIST OF POTENTIAL RISK AREAS OF NON-COMPLIANCE WITHIN THE ADAPTATION FUND'S ENVIRONMENTAL AND SOCIAL SAFEGUARDS	ANSWER (Y/N)
Adaptation Fund Safeguard Area 1: Compliance with the Law	
1. Is there a risk that the project will fail to comply with national laws in Fiji, UN rules, principles and procedures?	Yes
2. Could the proposed project lead to a failure of trust between UN-Habitat and the Fiji Government?	No
Adaptation Fund Safeguard Area 2: Human Rights	
1. Is there a risk that the proposed project will negatively impact the human rights of the affected population?	No
2. Could the implementation of the proposed project lead to conflict or violence within the affected community and surrounding regions?	No
3. Is there a risk that marginalized groups will be ignored and excluded from stakeholder engagement and community participation?	Yes
4. During initial engagement with the local population, were objections raised objections or concerns relating to human rights issues?	No
5. Is there a risk that community members and marginalized groups do not have a channel through which to raise an issue of grievance?	No
Adaptation Fund Safeguard Area 3: Climate Change	
1. Is there a risk that the proposed project will lead to increased GHG emissions?	No
2. Could the proposed project lead to maladaptation either in the in the project sites or upstream or downstream	Yes
3. Is there a risk that the outcomes of the proposed project will be highly susceptible to impacts of climate change into the future?	No
Adaptation Fund Safeguard Area 4: Gender Equity and Women's Empowerment	
1. Is there a risk that the proposed project will exacerbate any existing gender imbalance?	

2. Would the proposed project lead to an increase in discrimination towards women and girls especially during participatory processes of project design and implementation?	
3. Is there a risk that the proposed project will lead to decreased access to water related infrastructure?	
4. Is there a risk that the project will fail to engage women in decision making regarding project design?	
Adaptation Fund Safeguard Area 5: Promoting better labour and working conditions	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the project lead to a reduction in the working standards of the local community?	
3. Is there a risk that the project related staff for the proposed project will be unfairly remuneration for their work and contribution to project implementation?	
4. Is there a risk that community contracts will not be implemented according to ILO standards?	
5. Is there a risk that underage persons will be employed during the project cycle?	
6. Could the proposed project lead to a situation where a project worker is unable to report any instance of grievance?	
Adaptation Fund Safeguard Area 6: Enhancing community health, safety and security	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the local community be exposed to risk from unsafe machinery during the project cycle?	
3. Is there a risk that community members may use some machinery without sufficient training or knowledge and/or not have protective equipment?	
4. Would the outcomes of the project be likely to malfunction and cause injury to members of the community?	
Adaptation Fund Safeguard Area 7: Safeguarding land, housing, resettlement and rights	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the proposed project lead to unintended resettlement consequences?	
3. Is there a risk that during the (unlikely) instance of unintended resettlement that affected populations will not have the chance to raise objections or concern?	
4. Will communities affected by unintended resettlement be refused their right of free, prior and informed consent?	
4. Will the proposed project neglect to uphold the components of Participatory Land Use Planning, as detailed by the Adaptation Fund?	
Adaptation Fund Safeguard Area 8: Access and Equity	
1. Could the proposed project result in the unequal distribution of benefits between different groups in the affected community?	
2. Could the proposed project lead to a situation where there is not a channel available to report instances of grievance or unequal access to benefits?	
Adaptation Fund Safeguard Area 9: Reducing the climate and environmental footprint	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the proposed project lead to mal-adaptation?	
3. Is there a risk that the project will not adequately monitor its environmental footprint and impact throughout the project cycle?	
Adaptation Fund Safeguard Area 10: Conserving biodiversity	

1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the proposed project be constructed in a conservation or protected area?	
3. Is there a risk that the proposed project will negatively impact upstream or downstream biodiversity?	
Adaptation Fund Safeguard Area 11: Protection of Natural Habitats	
1. Is there a risk that the proposed project will fail to protect natural habitats?	
2. Could the proposed project lead to a detrimental alteration of surrounding natural habitats?	
Adaptation Fund Safeguard Area 12: Lands and Soil Conservation	
1. Could the proposed project lead to the depletion of soil nutrients in the affected area?	
2. Is there a risk that the proposed project will adversely impact the surrounding land area?	
Adaptation Fund Safeguard Area 13: Protection for Indigenous people	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a risk that the proposed project will lead to increased levels of discrimination against indigenous peoples?	
3. Is there a risk that the proposed project will fail to engage indigenous people in decision making.	
4. Could the proposed project lead to unequal outcomes where Indigenous people are not able to enjoy equal access to the resulting services?	
Adaptation Fund Safeguard Area 14: Marginalized and Vulnerable groups	
1. Is there a risk that the proposed project will cause detrimental impact to the lives of marginalized or vulnerable groups?	
2. Could the proposed project lead to increased discrimination against marginalized or vulnerable people?	
3. Will the proposed project limit the access to natural resources or project benefits for marginalized and vulnerable groups?	
Adaptation Fund Safeguard Area 15: Protecting and promoting cultural heritage	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a chance that the proposed project will cause damage to a cultural heritage UNESCO site?	
3. Could the proposed project be implemented without having completed a vulnerability assessment?	

Table 3: Identifying risks mitigation measures

Table partially filled out, to provide examples for project staff to complete the table fully. Please use the checklist (table 2) to identify risks

WHAT ARE THE POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS?				
Description of Risk	**Impact (I) and Probability (P). Score 1 - 5**	**Significance (low or medium)**	**Comments**	**Safeguard measures that have been incorporated to address potential risk**
Risk that the project will fail to comply with national laws in Fiji, UN rules, principles and procedures.	I = 1 P= 1	Low	UN-Habitat is a signatory of UN Conventions and the proposed project has been designed to adhere to national Fiji law.	Project Manager to work in cooperation with relevant Department …and written details of the proposed project will be shared with Fiji government
Risk that marginalized groups will be ignored and excluded from stakeholder engagement and community participation?	I = 3 P= 1	Low		
Risk that the proposed project will lead to maladaptation either upstream or downstream from the project site	I = 1 P= 1	Medium		

Classification of sub-projects

TABLE 4: PROJECT CATEGORIZATION		
Select risk level:		Comments
A1: Low Risk	☐	The proposed project has been classified as Medium Risk because…
B2: Medium Risk	☒	
C3: High Risk	☐	

TABLE 5: RELEVANT SAFEGUARD AREAS FOR PROJECT IMPLEMENTATION			
	Select all that apply		Comments
1	Compliance with the Law	☒	
2	Human Rights	☒	
3	Climate Change	☒	
4	Gender Equity and Women's Empowerment	☒	
5	Promoting better labour and working conditions	☒	
6	Enhancing community health, safety and security	☒	
7	Safeguarding land, housing, resettlement and rights	☐	The proposed project will not involve resettlement of any kind.
8	Access and Equity	☒	
9	Reducing the climate and environmental footprint	☒	
10	Conserving biodiversity	☒	
11	Protection of Natural Habitats	☒	
12	Lands and Soil Conservation	☒	
13	Protection for Indigenous people	☒	
14	Marginalized and Vulnerable groups	☒	
15	Protecting and promoting cultural heritage	☐	

TABLE 6: FINAL SIGN OFF		
Signature	Date	Description
Assessor of sub-project		
Project manager		
M & E officer		