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 Entities:	Ministry of Local Government, Housing & Environment and People's Community Network, Fiji, Live and Learn, Habitat for Humanity. Local Governments (Nadi, Lami, Lautoka, Sigatoka) Commonwealth Local Government Forum
Amount of Financing Requested:	US$4,235,995

Project background and context

Socio-economic context[1]

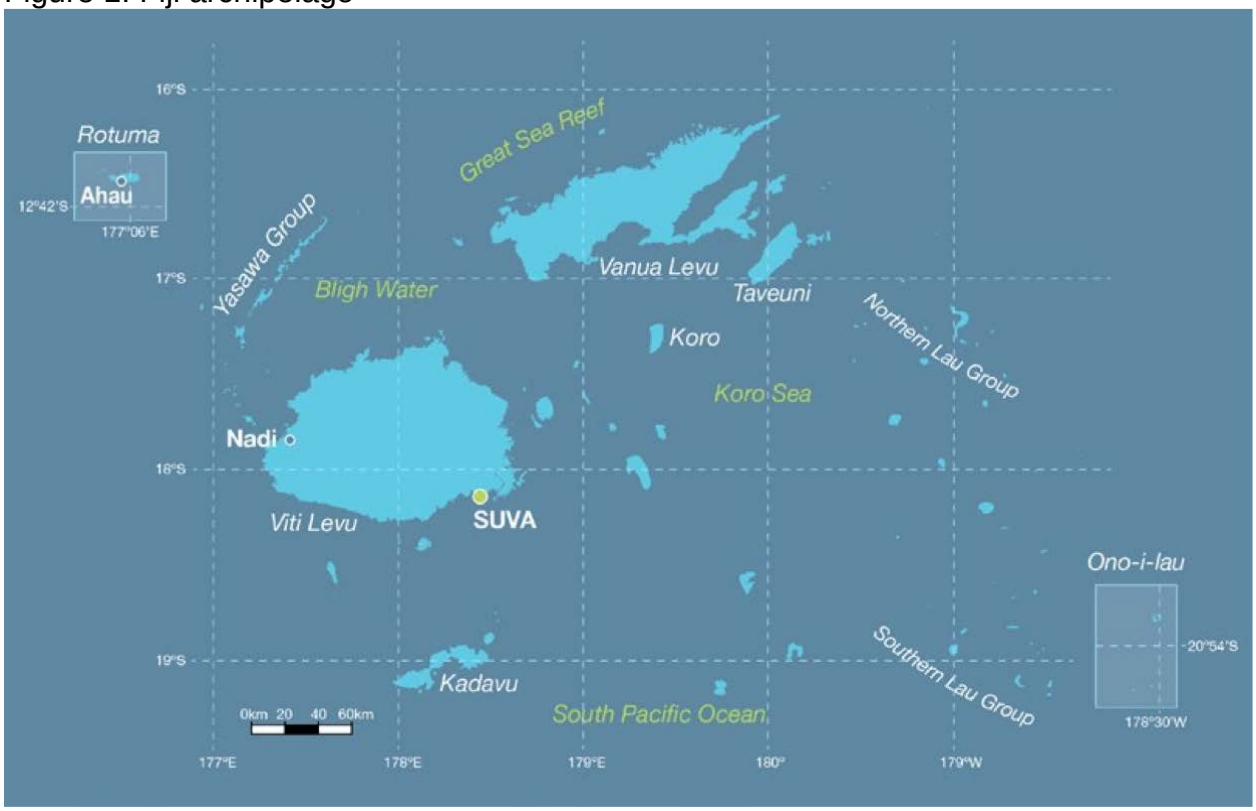
Fiji is an archipelago of 332 islands (of which approximately 110 are inhabited). The country's population of approximately 865,000 resides primarily on the two largest islands, Viti Levu and Vanua Levu.

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, this sector is estimated to employ approximately

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

40 per cent of the country's work force. This is especially the case in urban areas, where informal settlements house a large proportion of the population. More women work in 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. By 2011 this number had risen to over 100. For all of Fiji, UN-Habitat has mapped 171 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 / Fijians, constituting the slight majority) 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.

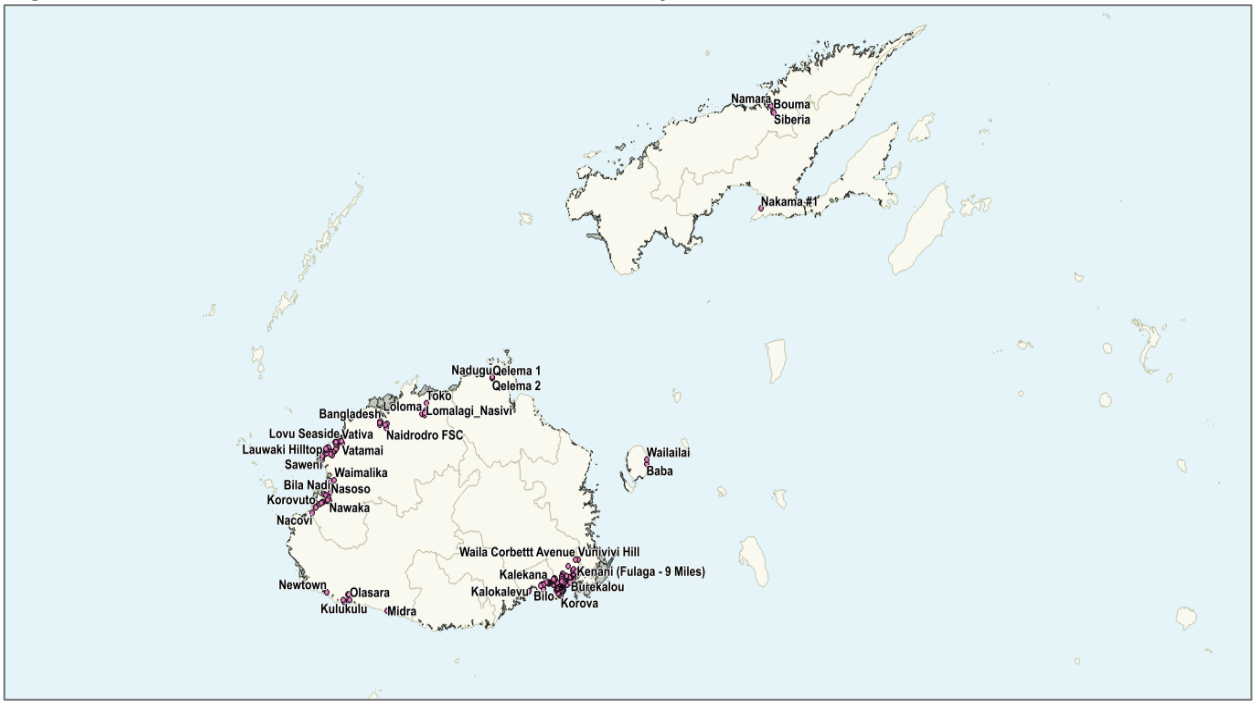
In the past few decades, Fiji has been affected by multiple devastating cyclones. In 2012 alone, Fiji experienced two major flooding events and one tropical cyclone (Evan). The effects of natural disasters in Fiji are far reaching, negatively impacting on, among other sectors, agriculture, housing, transport 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: Observed 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.

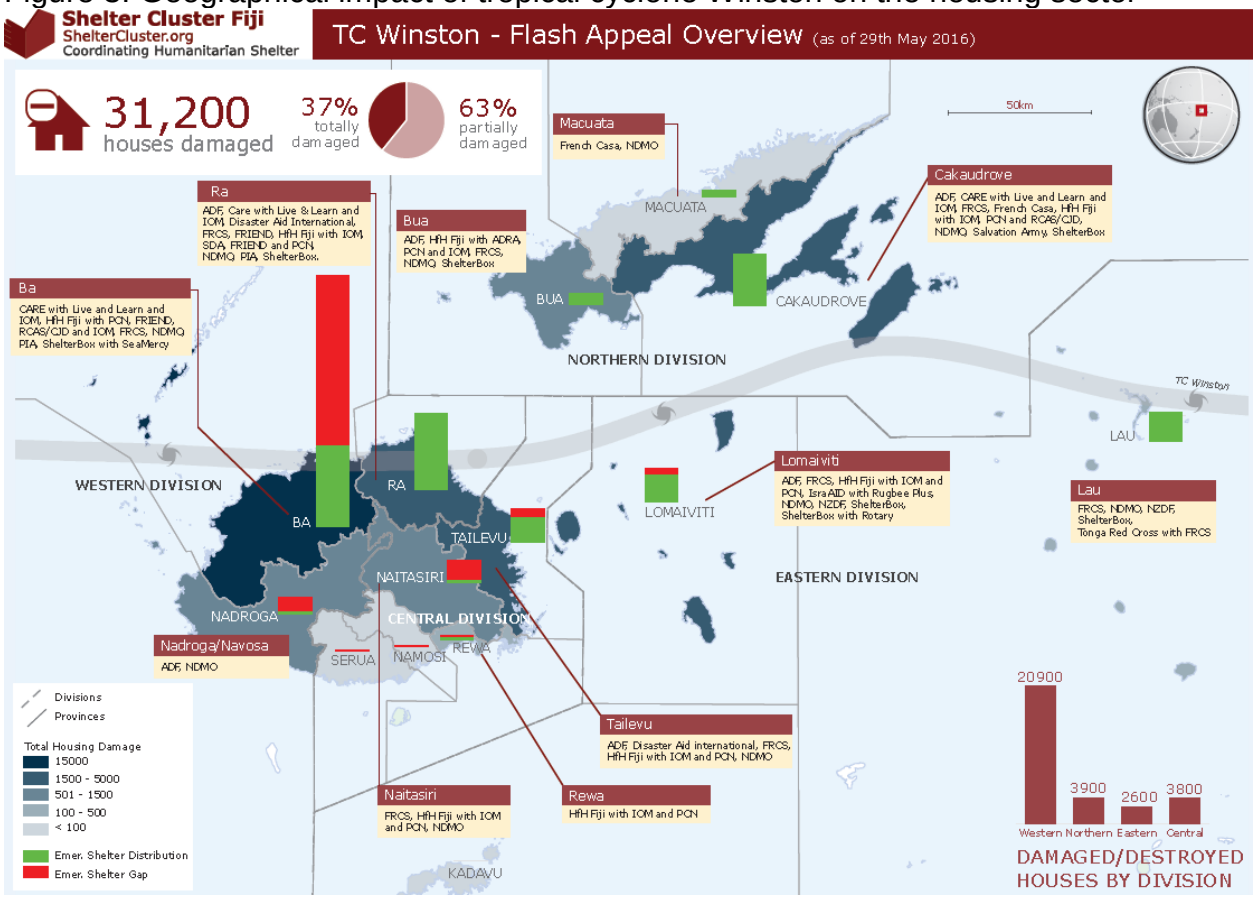
Example of an extreme event: tropical cyclone Winston

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]

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

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, most 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 settlements located on privately owned land.[10]

[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.

[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.

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]

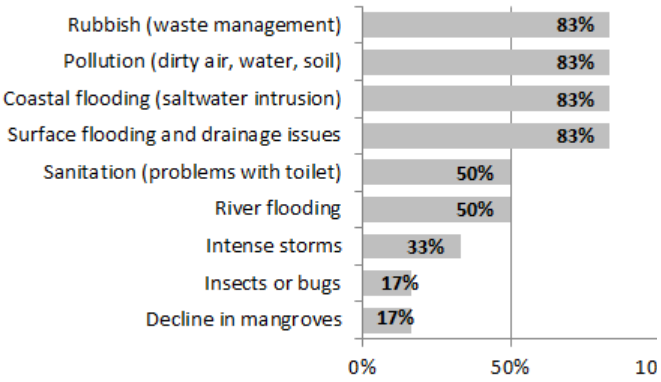
Rapid countrywide profiling of climate vulnerable informal settlements

This project will focus on informal settlements across four urban areas and towns in Fiji: Lautoka, Sigatoka, Nadi and Lami, which are located in the Greater Suva Urban Area. These cities and towns, and the included 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 16 target settlements being included in the project, which have an estimated 1,249 dwellings and a total population of 6,242. Eight of these have been included in rapid vulnerability assessments and consultations [12] that have informed the design of this project. Selection included participation by the People's Community Network, which has voiced the concerns and priorities of the communities that have emerged through the activities of their network (see section H for further detail).

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:Priority issues in settlements



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 exposed to (1) intense storms/cyclones and, (2) heat/drought, the selected settlements are also

[11] Republic of Fiji – National climate change policy (2012, p Vii)
[12] See also Part II Section H for engagement process for this project.

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 in eight settlements for this proposal, 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.

Table 4. Settlements included in this project*.

Town	Settlement	dwellings	pop.	Town	Settlement	dwellings	pop.
Lami	Wailekutu	15	89	Lautoka	California	24	141
	Vuniivi	15	90		Veidogo	33	185
	Wainivokai	16	75		Vunato	86	444
	Qauia	364	2073		Taiperia	22	99
	Kalekana	145	653		Navutu Stage 2	8	36
	Bilo Settlements	82	369		Naqiroso	16	72
Sigatoka	Kulukulu	16	60	Nadi	Nawajikuma	277	1247
	Vunikavika	50	250		Korociri	80	360
				Total		**1,249**	**6,242**

*See also note at Part II, A, Component #1

Sensitivity. Recent research on Fijian informal settlements undertaken as part of the UN-Habitat Participatory Slum Upgrading Programme [13] found that these communities have multiple sensitivities to climate change impacts. Based on UN Habitat's[14] 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.* 30% of dwellings in informal settlements are of poor quality (rated as 'average' or 'poor'), 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).

[13] 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.

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

- *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 (subsistence and income). 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 a 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:

- *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 market. Settlements in regional towns, such as Sigatoka, are likely to have lower incomes.

- *Information, human resources and capacity.* In Lami, UN-Habitat and UNEP previously supported a climate related project[15] and UN-Habitat and CDIA supported citywide projects which have had informal settlements as a key focus[16]. 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. UN-Habitat further supported the development of an urban profile in Nadi. Nadi received some support for its initial climate change resilience building in 2012-13.

- *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

[15] 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.

[16] 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).

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). As a sample of beneficiary communities this represents good coverage. Findings from the rapid vulnerability assessment in these communities are consistent with findings undertaken for the UN Habitat Participatory Slum Upgrading Strategy (PSUP) Settlement Situation Analysis[17] which included settlement level assessment including on climate change vulnerability. 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 and the scope of the project described, including examples of types of activities that are described in this proposal. This then provided the context for the discussions of what participants saw as their key issues, and what priorities the project should ultimately seek to address, and which have been incorporated into the project design. While undertaken in support of this proposal, these research and consultation activities are consistent with, and an extension of, the existing community networking and mobilization methods of the People's Community Network (PCN) and reflect their community driven development approach (see section II H for full description). In this context, settlement community members are agents who are actively and deliberatively inquiring into and defining their key issues, and identifying solutions with the support of PCN Community Facilitators (community development staff). UN Habitat consultants act as scribes to ensure issues and desires are documented consistently and translated into the project design. This process has thus constituted research as well as preliminary consultation on program design.

Sixteen settlements have been identified in the three towns (approximately 1,249 households with an approximate population of 6,242). 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 investments and communities included in this project). Despite this, the final selection of the target communities will take place in the first months of the project following a rapid assessment of tenure issues and seeking land owner

[17] People's Community Network (2016) Fiji Informal Settlement Situation Analysis, People's Community Network with United Nations Habitat (see link here)

consent (see Part II, A, Component 1). Table 5 illustrates the key exposures, sensitivities and adaptive capacity of this sub-set of settlements included in this rapid assessment ('the focus settlements').

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

Climate vulnerability parameters[18]	**Lami**				**Sigatoka**	**Lautoka**			**Citywide** (Fiji urban)
	Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato	
Exposure (climate and environmental hazards)	2	4	4	3	4	4	4	5	0
Sensitivity (vulnerable population groups, housing, welfare and human development, Land production and investment)	10	13	16	6	12	9	11	11	0
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	0

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

It is noted that this rapid vulnerability 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. 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.

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).

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

Exposure: As a representative sample, the eight focus settlements illustrate the likely exposures of the 16 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[19], and the elderly. There are also key ecosystem change impacts on both livelihoods and housing stock[20].

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)

- *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 the five informal 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). The Asian Development Bank's (ADB) Gender Thematic Group recently (October 2016) conducted a preliminary gender analysis as part of planning their Future Cities Program in the Greater Suva Area[21]. This includes a large informal settlement revitalization component. Key findings included:
    - Indo-Fijian women, particularly in settlements, often have less freedom, agency and mobility than indigenous Fijian women.
    - Many of the women settlers work outside the settlements, while others, particularly those with children and elder care responsibilities, run home-based canteens, sew clothes and take casual paid work.

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

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

[21] Asian Development Bank (2016) Aide Memoire – Fiji Review Mission TA 9025-REG: Establishing Future Cities Program in the Asia Pacific Region (FCP), Asian Development Bank.

- Female informal settlers face disproportionate risks of sexual assault due to poor crime prevention through environmental design features of informal settlements, including poorly lit pathways.
- Overall women face issues of inadequate income earning opportunities, water supply and sanitation, access to energy, education and child care and greater time poverty. The economic empowerment of women was the overarching concern, followed by child care and utilities.

The ADB study further identified key needs and opportunities for gender mainstreaming in informal settlement development activities; these include:

- Women-led neighbourhood improvements through the existing women's community savings groups, e.g. for safe public spaces and facilities, affordable and good quality child care to enable women to engage in wage work,
- Small business training coupled with mentoring and ongoing partnership support, business licensing for women traders and financial literacy training.
- The critical issue is exploring diverse income opportunities that are either in the settlements or close to it, to decrease competition amongst women, and enable them to continue child and elder care.

The detailed vulnerability assessments will further explore women's vulnerabilities specific to each settlement in the program. 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 behavioral dimensions.

o *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. PCN's informal settlements analysis, conducted under PSUP [22] has indicated that communities with higher proportions of Indo-Fijian residents can have different, and sometimes less established community governance structures. In settlements with a mixed ethnic profile, specific support for community committee building and participatory governance will be incorporated. As noted above, the particular constraints on Indo-Fijian women will be factored into both the planning phases and the design of sub-projects in gender and culturally sensitive ways.

o *Older people* reported being particularly vulnerable to flooding and mobility issues it creates, with associated reduction of independence and social participation and increased support needs. Older people reported particular needs for improved access, such as pathways, including those above flood levels to be included in the project design. Four of the eight

[22] People's Community Network (2016) *Fiji Informal Settlement Situation Analysis*, PCN & UN Habitat.

settlements had more than 10% of households with people over the age of 60years. Project resources will prioritise projects which enhance inclusion and participation of older people.

- *Children*. In three of the eight communities, children's health was observed to have been impacted by poor sanitation. Six of the eight settlements had more than 50% of households with children under the age of ten. Children were also engaged in collecting solid waste for recycling, which in many places was seen to be an unhygienic activity for children. There are hard and soft dimensions of the project which will target issues which negatively impact on children's health.

- *Young people*. A finding that continually emerges from PCN's community networking (see section H) is the importance of formally encouraging young people's leadership in community-level governance. Some respondents in the focus settlements noted that their concerns are sometimes not listened to in committee discussions. This project has a specific method and stages to ensure there are pathways for their concerns and issues to be heard as part of the planning and implementation process.

- *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). Five of the eight settlements had more than 40% of households experiencing severe overcrowding (three or more persons per bedroom). 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.

Key assets.

The project aims to build the resilience of a key human, physical, financial, social natural and knowledge assets in the included settlements. The full vulnerability assessment and action planning process will identify those specific assets and needs which are identified to be most vulnerable, which are community priorities, which are consistent with national and local government priorities, and which are covered by the Adaptation Fund core impact[23] and strategic results indicators[24]. This initial scoping has identified the following assets (human, physical, natural, financial, social, knowledge) whose resilience the project will target. See Part II, Components 2 and 3 for how these assets will be integrated into the project.

AF asset domain	Alignment with AF SRF* indicator	UNH AF proposal asset classes	UNH AF proposal asset indicators	Measures**
human	Core Indicator	Number of beneficiaries	Dwellings	1,249
			Population	6,242
			Women	3,059
			Young people (aged 15-24years)	139
knowledge/ human	Indicator 1.1	Early warning systems	No. settlements where rapid vulnerability assessments have been undertaken	8
			No. settlements where systematic vulnerability assessments have been undertaken	1 (Quaia)
knowledge/ social	Core Indicator 1.2		No. of settlements where some awareness raising has occurred on hazard risk reduction	6 (Lami)
			No. of settlements with a structured plan for hazard risk reduction	0
knowledge/ social	Indicator 2.1.1		No. of municipalities where staff have undertaken specialist training	2 (Nadi & Lami)
social/ knowledge	Indicator 2.1.2		No. of municipalities with systematic climate change	0

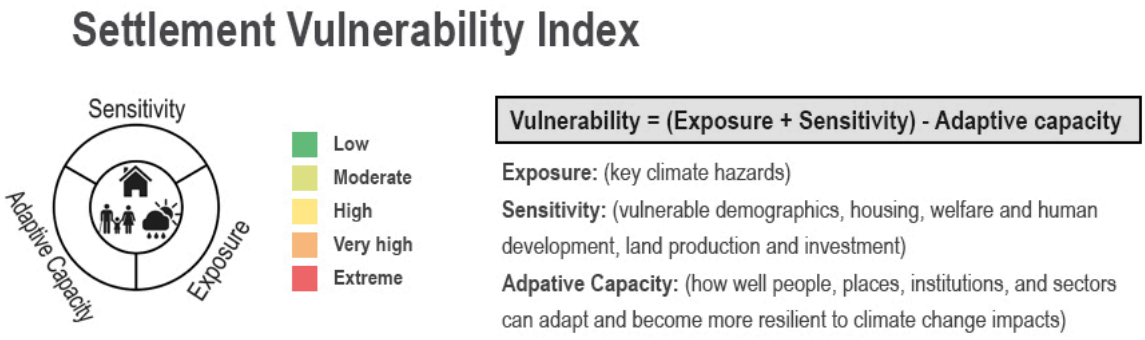
[23] Adaptation Fund (2014) *Methodologies for Reporting Adaptation Fund Core Impact Indicators*, Adaptation Fund, Washington.
[24] Adaptation Fund (2014), *Results Tracker Guidance Document*, Adaptation Fund, Washington.

AF asset domain	Alignment with AF SRF* indicator	UNH AF proposal asset classes	UNH AF proposal asset indicators	Measures**
			adaptation and resilience plans, including incorporated into planning schemes.	
human/ knowledge	Indicator 3.1.1		No. of settlement communities reporting awareness of at least one key hazard exposure	16
human/ social	Core Indicator 4.2	Social infrastructure / development sector services: Human health and welfare (e.g. mosquito exposure reduction)	No. of households reporting an occupant with diarrhea in last 3 months	175
human/ social			No. of households reporting an occupant with dengue in last year	187
human/ physical			No. of settlements with drainage issues giving rise to mosquito borne diseases that may be improved through the project	14
physical	Core Indicator 4.2	Urban development and housing (e.g. resilient housing)	No. of dwellings with 'average' or 'poor' quality walls (thus highly sensitive to strong winds)	373
social/ physical	Core Indicator 4.2		No. of dwellings with overcrowding	468
human/ physical			No. of settlements with training in enhancing dwelling resilience	0
physical	Core Indicator 4.2	Water resources and infrastructure (e.g. resilient water supply, sanitation, etc.)	No. of households with toilets discharging directly into local environment (unimproved pit toilet or straight pipe to sea/river/settlement drainage)	556
physical			No. of households with own (not shared) formal water connection with meter.	737
human/ physical	Core Indicator 4.2	Waste and waste infrastructure (e.g. 3R)	No. of settlements where waste is collected by council/private garbage collection	250
human/ physical			No. of households where waste is disposed in river, creek or sea	75
human/ physical			No. of households where waste is burnt or buried.	999
natural/ human	Core Indicator 5.1	Marine and fisheries (e.g. ecosystem management)	No. of settlements reporting issues with pollution/environmental degradation	14
natural/ human			No. of settlements reporting taking steps to improve/maintain/reduce impact on natural assets	4
financial/ natural	Indicator 6.2	Food security and sustainable agriculture sector (e.g. crop	No. of households that have farmed in the last week	375

AF asset domain	Alignment with AF SRF* indicator	UNH AF proposal asset classes	UNH AF proposal asset indicators	Measures**
		diversification)		
financial/ natural			No. of households with settlement-based livestock rearing	200
financial/ natural			No. of households who fish for food or sale	325
financial	Core Indicator 6.1.2	Income security and savings	Households below the urban basic needs poverty line ($93 USD per week)	793
financial			Community savings groups	16

* Strategic Results Framework[25]. **Figures for all settlements have been based on extrapolation from results of research and engagement in focus settlements.

Vulnerability mapping



[25] Adaptation Fund (2014), *Results Tracker Guidance Document,* Adaptation Fund, Washington.

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

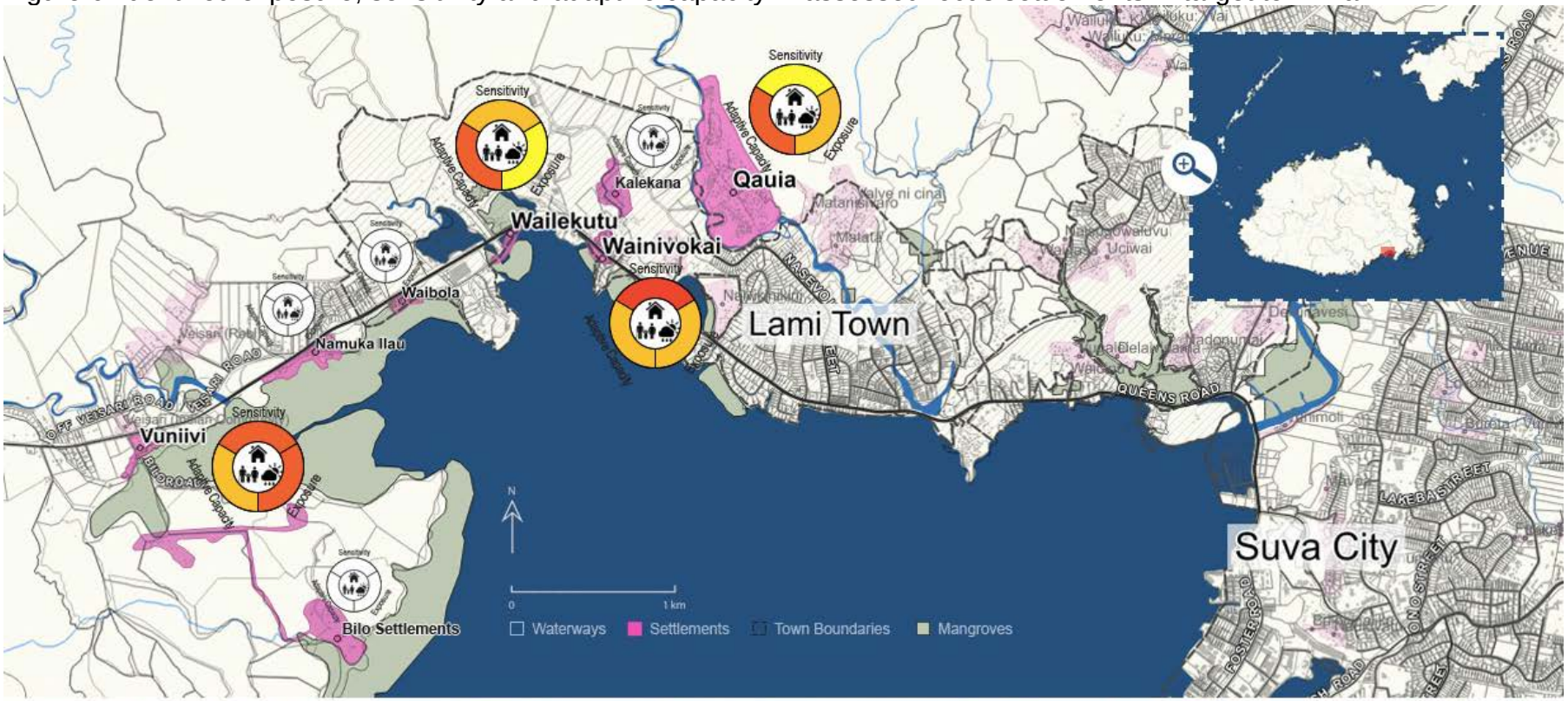


Fig. 1. Fig. 2. Fig. 3. Fig. 4. Fig. 5. Fig. 6. Fig. 7. Fig. 8.

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

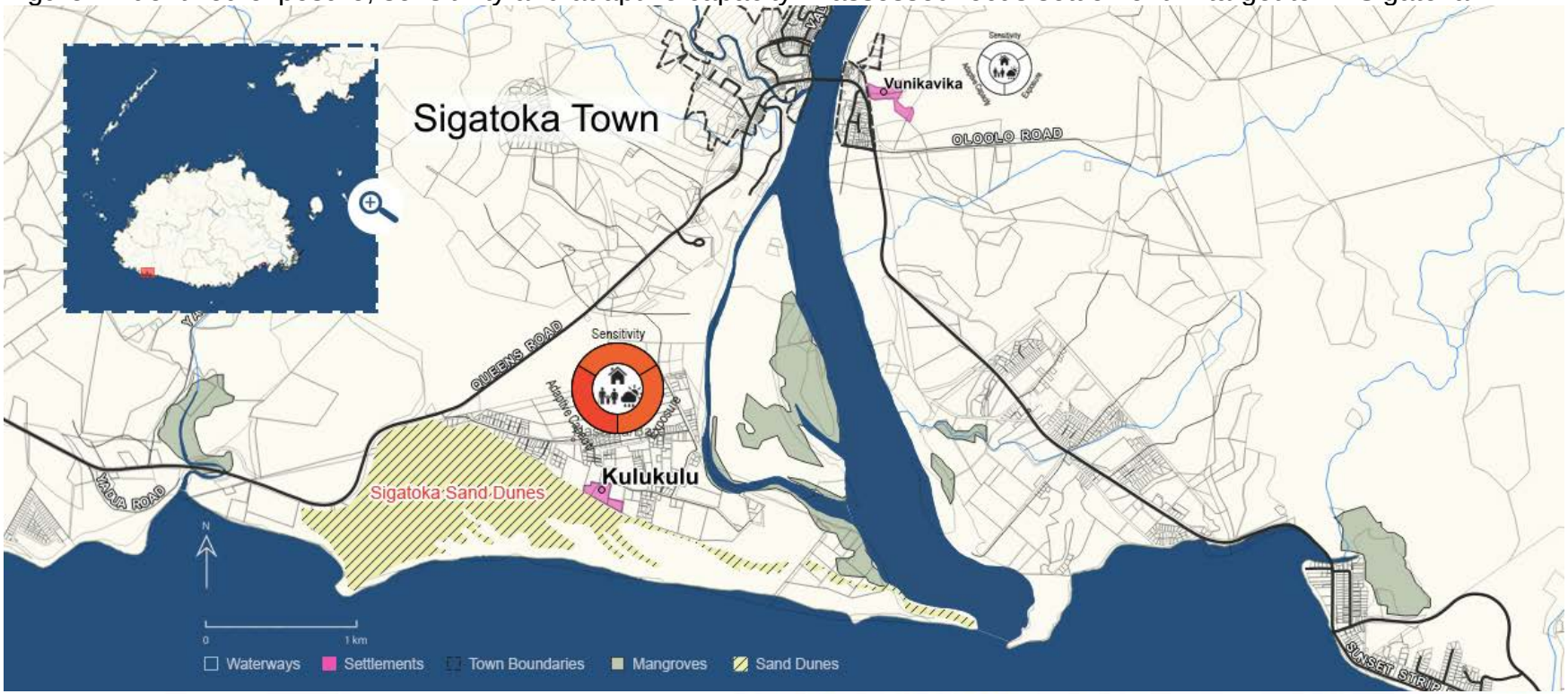


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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

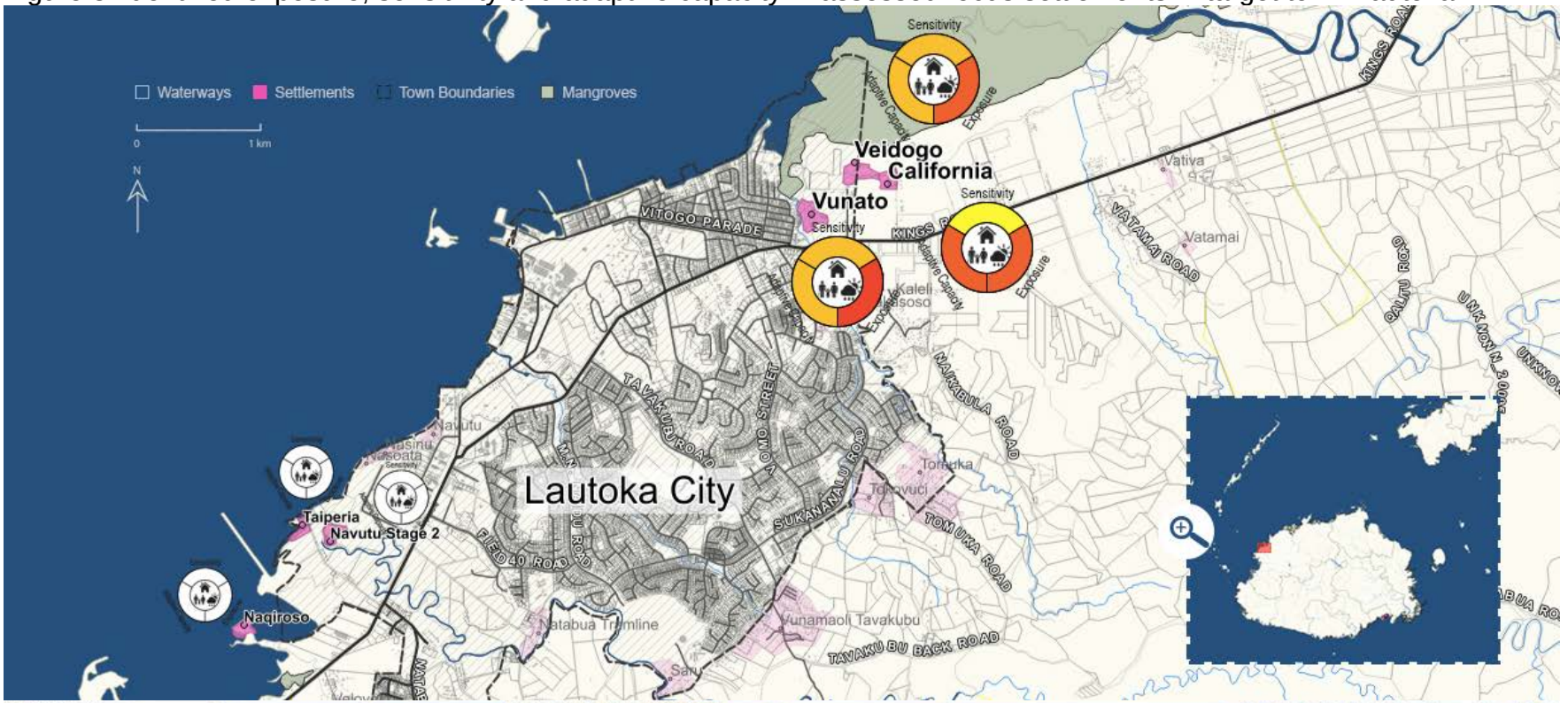



Fig. 1.


Fig. 2.

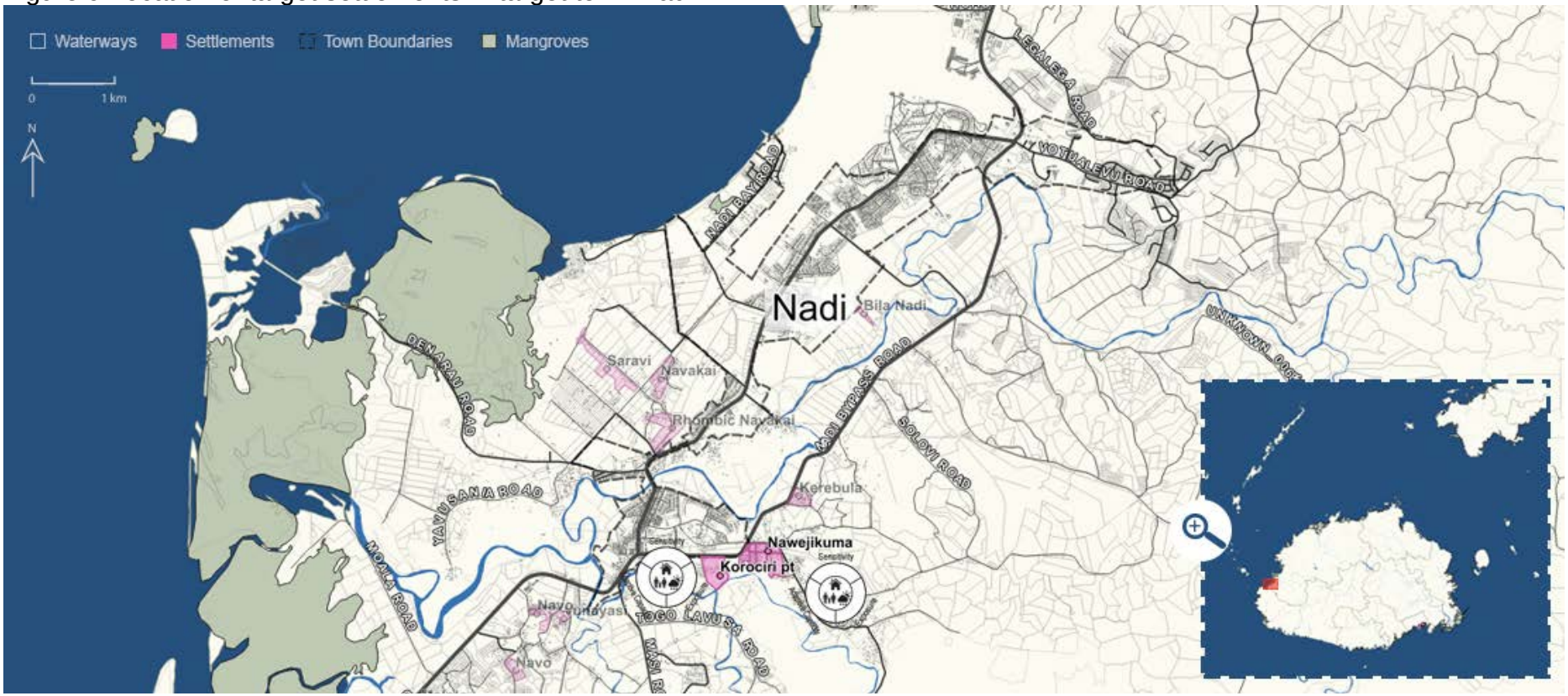

Fig. 3.


Fig. 4.


Fig. 5.


Fig. 6.

Figure 9 Location of target settlements in target town Nadi



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, Nadi and Lautoka.[26] 1.1.2. Hazard maps produced[27] 1.1.3. City-wide climate change action plans developed for Lami, Sigatoka, Nadi and Lautoka.[28] 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)	**295,143**
2. Local (community/informal settlements) resilience strengthening	2.1.1. Assessment and planning tool for community vulnerability assessment and action planning developed.[29] 2.1.2. Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in Lami, Sigatoka, Nadi and Lautoka.[30] 2.1.3. Community-level resilience, recovery and upgrading plans developed in identified informal settlements.[31] 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 ❑ Gender sensitive safety audits ❑ Housing assessments and resilience training ❑ Environmental and eco-system management ❑ Community based environmental monitoring 2.1.5. Targeted household and community livelihood strategies strengthened in relation to climate	2.1 Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity at the community level with particular emphasis on women, youth, older people and other people in vulnerable situations (AF Outcome 3)	**480,000**

[26] Consistent with Fiji INDC: Undertake vulnerability assessment for all communities by 2019
[27] Consistent with Fiji INDC: Develop hazard maps and models for all potential hazards (including sea level rise, storm surge, flood and tsunami) by 2020.
[28] Consistent with Fiji INDC: Develop climate and disaster resilience plans for urban and rural communities (prioritising squatter settlements and other vulnerable communities) by 2019.
[29] Consistent with Fiji INDC: Development of a Local Government Self-Assessment Tool for Climate Change Resilience by 2016
[30] Consistent with Fiji INDC: Undertake vulnerability assessment for all communities by 2019
[31] Consistent with Fiji INDC: Develop climate and disaster resilience plans for urban and rural communities (prioritising squatter settlements and other vulnerable communities) by 2019.

	change impacts, including variability, through: ❑ Training for resiliency skills (including for carpenters and other artisans) ❑ Training for women in business and financial management skills ❑ Investigation options for provision of affordable childcare ❑ Training in coastal zone/ecosystem management ❑ Strategy development for food security and sustainable agriculture		
3. Enhancing resilience of community level physical, natural and social assets and ecosystems	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 national government 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.[32] 4.1.2. Regional Advocacy and replication	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			**369,000**
6. Total Project/Programme Cost			**3,904,143**
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			**331,852**
Amount of Financing Requested			**4,235,995**

Projected Calendar

Table 7: project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	01-2018
Project/Programme Closing	12-2022
Terminal Evaluation	09-2022

[32] 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.

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[33] – 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.

This design of the project has been informed by the outcomes of previous UN Habitat projects in informal settlements in Fiji including:

- the PSUP Fiji Informal Settlements Situation Analysis,
- Tropical Cyclone Winston Post-Disaster Needs Assessment,
- Lami Climate Change Vulnerability Assessment.

These in-depth projects identified the specific needs for: institutional strengthening at a national and citywide level, resilience building at the community level, the need for

[33] 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.

a focus on urban development and housing with the inclusion of the secondary sectors noted in component 3, and to share and disseminate the lessons learned.

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

In line with AF outcomes 1 and Fiji priorities[34], this component will focus on reducing vulnerability to climate-related hazards and threats both at the city/town and community level by:

1.1.1 Conducting city-wide risk and vulnerability assessment
1.2.1 Producing hazard maps
1.3.1 Developing city-wide climate change action plans
1.4.1 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 further analyse vulnerabilities in detail in the selected informal settlements. Part of the vulnerability assessments will be a further in-depth assessment of environmental and social risks, e.g. risk of development-led eviction in the 16 settlements selected for inclusion in component 2 (see section K on social risks and impacts). E.g. this will assess in greater detail if there are land disputes, issues with formalizing agreements with traditional landowners, or other factors with the potential to undermine land tenure security. If present, the citywide VA will inform the selection of and subsequent engagement with other communities to include in the project such that at least 6,000 beneficiary households will be reached. This stage will also re-confirm through direct engagement with settlement communities themselves their willingness to be involved in the project overall and the sub-projects. 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 interventions that are resilient, sustainable and focused on the needs of vulnerable groups. Proposed interventions will be presented in the climate change action plans. An evaluation will be made of regulatory barriers and enablers for interventions, and options to apply locally-relevant regulation considered. 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.

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

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

In line with AF outcomes 3 and Fiji priorities[35], 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.
2.2.1 Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in Lami, Sigatoka, Nadi and Lautoka.
2.3.1 Developing community-level resilience, recovery and upgrading plans in identified informal settlements (community action plans (CAPs)) supported by a 'gender and inclusion assessment' of the resulting actions to take forward into component 3.
2.4.1 Involving targeted population groups in adaptation and risk reduction awareness activities focused on:
- ☐ Early warning systems
- ☐ Housing assessments and resilience training
- ☐ Land use suitability assessments and resilience training
- ☐ Gender sensitive safety audits
- ☐ Environmental and eco-system management
- ☐ Community-based environmental monitoring, pollution awareness and avoidance.
- ☐ WASH training.
- ☐ Training and support in setting up appropriate solid waste management systems.
- ☐ Support for enhanced community governance, e.g, community organising, gender and youth inclusive participation, consensus building and conflict resolution, building networks and influence with external actors, communication and negotiation skills, secretariat and planning skills, organising collective action and advocacy, managing money and resources.

2.5.1 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, e.g. cyclone resilient construction, via the Build Back Better guidelines)
- ☐ Training for women in business, microfinance access and financial management skills.
- ☐ Support for Community Based Sanitation Enterprises (CBSEs), e.g. procurement, project management, marketing, accounting, sub-contracting with commercial providers.
- ☐ Training in coastal zone/ecosystem management

The assessments under component 2 are providing a higher resolution compared to those under component 1 (1.1.1. – 1.1.3.) and focus on the community/settlement

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

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). Vulnerability assessments will ensure asset-specific criteria are linked directly with strategies for resilience building so sub-project design is closely integrated with the current status of these assets. For example, assessments of dwelling quality will be specific enough to directly inform the type, extent and costs of upgrading options to optimise the sub-project scope. Proposed interventions will be presented in the community-level resilience, recovery and upgrading plans. To ensure awareness and ownership over the project activities, vulnerable 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 appropriate (e.g. for flood, storm or diseases) early warning systems. See Annex 3 for detailed breakdown of how issues for vulnerable groups will be incorporated into the project planning and design. 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. This guide and the action planning process will include a gender and inclusion assessment of actions to ensure that the needs of women, and other vulnerable groups are clearly addressed through the actions, including 'hard' interventions to be taken forward. In addition, via the action planning process communities will be encouraged to ensure that major investments in infrastructure directly benefit the most vulnerable, including women, e.g. priority may be given to walkways were women with caring responsibilities, or single parent households are located. 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.[36] Livelihood practices of women and men will be investigated and livelihood strategies that either benefit women specifically or both sexes equally (based on historical practices) will be the subject of the gender and inclusion assessment. Lack of 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.

As a key asset included in the project is housing, the participatory vulnerability and action planning process will highlight options for resilience strengthening of housing. It may be possible, that in some instances, housing may be in extremely hazard prone areas, where an affected household could consider the option of relocation. Where this is the case, and where household are supported by the community, government and other stakeholders, the project option will be first subject to the ESMP plan process for Unidentified Sub-Projects, and subsequently with the

[36] Suggested adaptation measures in the agriculture sector in National climate change policy (2012, p 52).

measures to ensure safeguard fulfilment, and recommended actions in the ESMP. These reflect both UN-Habitat's Handbook on Environmental and Social Safeguards[37] and the AF Environmental and Social Policy. This assumes all project affected persons have free, prior and informed consent relating to project outcomes, including potential resettlement, this includes:

- ☐ Accountability in administration with online access to reports.
- ☐ Principles of FPIC to be adopted throughout project cycle with channels to review project plan.

No involuntary resettlement will be undertaken. If limited voluntary resettlement emerges as an option, due process will be observed so that displaced persons shall be informed of their rights, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation, and post-resettlement support.

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[38], 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:

3.1.1. Developing or strengthening currently vulnerable physical, natural, and social assets and ecosystems in response to climate change impacts, including variability, based on identified and prioritized needs as articulated in the community resilience strategy, with consideration of the following sectors and options (which are aligned with national priority 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.)

UN Habitat's preceding projects identified the specific issues relating to urban development and housing this project has as a primary focus, but also the climate vulnerabilities in the secondary sectors noted above. The focus on these sectors has been confirmed through the preliminary vulnerability assessments undertaken for this proposal which also identifies priority assets of which the resilience will be built.

[37] Currently being tested before publication

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

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.). Section 1 notes the range and number of assets whose resilience is estimated to be enhanced throughout the project. It is important to note that the status of such assets will be confirmed and elaborated through the comprehensive vulnerability assessment phase. Likewise decisions about sub-projects/assets to be made resilient will be taken during the project and based on priorities of participating communities and findings of the participatory vulnerability assessment. The sub-project design will closely integrate with, and respond to, the current (and desired future) status of the assets to ensure their scope and targeting is optimised. For example, catchment management training will be closely tailored to and build upon the existing community behaviours, levels of knowledge and integrated with activities of external support partners (where present).

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 and gender sensitive approach. This will ensure that the prioritized projects contribute to local climate change adaptation while being appropriate and equally accessible by vulnerable and minority groups in the target communities. 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 those listed below, which reflect i) key project types suggested by settlements themselves as part of national informal settlement profiles[39] ii) projects suggested by the National climate change policy[40] (which is in line with the Fiji INDC), and iii) community-based vulnerability assessments undertaken in the preparation of this proposal. It is noted that the design of this project also allows for further unidentified sub-projects prior to submission:

The urban development and housing sector:

[39] People's Community Network (2015) *Fiji Informal Settlement Situation Analysis*, UN Habitat Participatory Slum Upgrading Programme & Fiji Ministry of Housing, Local Government, and Environment (MLGHE)
[40] National climate change policy (2012,) Annex 3: sectoral implications of climate change

Primary project focus:

- ❑ Flood control through construction/improvement of on-site drainage to improve runoff and reduce impacts on access ways.
- ❑ Flood resilient sanitation to reduce effluent overspill in times of flood and reduce health impacts, particularly on children.[41].
- ❑ Pathways, access ways and roads, particularly to enable free movement for older people and people with a disability, particularly in times of flood.
- ❑ Construction of flood (and cyclone) resilient housing and housing improvements, e.g. stilted safe rooms, housing alternatives for highly vulnerable households and construction of buildings and structures away from foreshore areas, riverbanks and floodplains;
- ❑ Upgrade, replacement, and diversification of water supply sources and storage types with accompanying conservation education;
- ❑ Solid waste management and infrastructure.

Secondary project types

- ❑ Community facilities (e.g. community hall) that can double as an evacuation centre and potentially provide occasional child care if desired.
- ❑ Catchment management, including reforestation, land-use controls, protection of wetlands and soil conservation.
- ❑ Food security: development of improved land and marine management and agricultural and fisheries practices, supporting equipment and licenses,
- ❑ Alternative (resilient) incomes: Support for establishing gender inclusive family business ventures, e.g. handicrafts, tailoring, vending.

- ❑

Projects rationale:

Justification for key project types and linkage to key vulnerabilities is demonstrated below in table 8. The community-based vulnerability assessment in section pp 6–22 also highlight the key exposure, sensitivity in settlements which these projects are targeting. Table 10 also highlight the relative benefits and effectiveness of proposed measures relative to others. Table 17 (and Figure 4) in community and stakeholder consultations also illustrate the priority concerns of settlement communities who are living with the impacts of climate exposure on a daily basis. These demonstrate that many priority issues are climate vulnerability related and projects are either directly drawn from stated desires or respond to key reported issues. Given the complexities (resilience challenges, diverse concrete adaptation options, economic/financial, cultural and environmental consideration as well as integration in larger urban systems) additional assessments and planning is required.

[41] This includes universally accessible, relocatable composting toilets that can be used in waterlogged settings. These can be used as demonstration models to support a community based sanitation enterprises (CBSEs) which are active in many of the target settlements. The Western Pacific Sanitation Marketing Programme executed by Live and Learn Environmental Education has a strong presence in many of the settlements. Their programme is create functioning CBSEs who's model targets full funding by households themselves, but can also allow for subsidy or catalyst funding by agencies such as UN Habitat.

Component 4: Awareness raising, knowledge management and communications.

In line with AF guidelines Fiji priorities[42], 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.
4.2.1 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.

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

Table 8. Summary of key vulnerabilities, assets and anticipated resilience outcomes (to be verified by community action planning)

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
City areas	Direct: Municipal councils. Indirect: 140000 residents (of target cities), 70000 women, 28000 young people, 4900 older people, 4200 people with a disability,	a. Intense storms/ cyclones b. Heat and drought c. Heavy rain/ floods d. Coastal flooding/storm surge Impacts a. Housing destruction and damage with attendant economic, health and social impacts b. health impacts, and impacts on crops, fisheries and livestock. Water supply impacts. c. Destruction and damage to dwellings, roads, and public buildings, and commercial buildings, erosion of	• 2 towns (municipalities) have low general knowledge of climate change risks to be incorporated into planning at a local level • 4 towns have low specific risk knowledge of locational and sectoral vulnerabilities that are to be incorporated into urban planning and management. • All towns have either none or few urban planners. • 4 towns have low capacity to integrate risk awareness into prioritised strategic plans and planning schemes. • 4 towns (and Fiji-wide) have no explicit national policy guidance for integrating climate change into local level planning.	• 2 x towns (Lami and Nadi) have been involved in climate change risk assessment projects and where staff have undertaken specialist training. • Project output 1.2.1: Risk maps will be prepared in 4 towns. Risk maps will be developed to integrate existing and forecast meteorological and urban development patterns. They will be based on a peer-reviewed methodology (based on that in annex 3) covering the four key hazards. Risk maps will be used to build response capacity of town council and national planning staff. • Project output 1.1.1, citywide vulnerability assessments undertaken to identify hazard and sensitivity hotspots where the most vulnerable people are at highest risk.	*AF Indicator 1.2* : Number of EWS (risk maps) for multi-hazard urban climate change vulnerability. *Baseline*: No effective EWS for urban climate vulnerability are operational at present. *Target end of project*: 4 risk maps and vulnerability assessments established that benefit a total estimated population of 6,242 in in the most vulnerable informal settlement areas of the 4 target cities. Direct benefits to cities populations of 140,000 through improved information for risk planning.

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
		drainage lines and waterways. d. Erosion of land area for settlement, saltwater intrusion of crops		• 4 towns have existing town planning schemes and corporate strategic plans which cover environmental considerations such as flooding and construction methods. However, these do not systematically integrate projected climactic changes, explicitly avoid maladaptation, or identify areas for safe, low income housing as options for residents in hazard prone areas. • City-wide climate change action plans developed (project output 1.3.1) for 4 towns to provide a holistic approach to resilience planning. • Urban planner/resilience officer to anchor the project and support skills and capacity building and integrating risk awareness (via risk maps and vulnerability assessments) into response capability (via citywide action plans).	AF Outcome #2 *AF Indicator 2.1.1*: No. of staff trained to respond to, and mitigate impacts, of climate-related events. *AF indicator 2.1.2*. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased. *Baseline*: ~40 staff with basic familiarity with climate change concepts, ~20 staff with exposure to planning methods, 0 staff with knowledge, skills and experience in applying risk knowledge and climate vulnerability assessments in an urban planning context. *Target end of project*: ~national and local government staff fully trained in and active participants in developing and applying a citywide climate action plan which has both a city-wide and an informal settlement vulnerability focus. All participants will be supported throughout by an urban planner/resilience officer throughout to systematically integrate action plans into local planning schemes, strategic plans and procedures for applying regulation. All female staff from relevant sections will be included. • Municipal councils, ~40 staff (200 staff total). • Department of Town and Country Planning: approx. ~20 staff (50 staff total). • Department of Lands: approx. ~10 staff staff (200 staff total).

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
					• iTaukei Land Trust Board: approx. ~10 staff (200 staff total). • Department of Health/Rural Local Authorities 20.

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
Informal settlements and municipalities	Direct: 1249 dwellings, 6242 people, 3121 women, 1248 young people, 218 older people, 187 people with a disability, 1560 people receiving welfare. Indirect: 140,000 town and peri-urban area population	Hazards (as above a. Destruction and severe damage to dwellings, approximately 25% of informal settlement dwellings were destroyed in Tropical Cyclone Winston in 2015. b. Impact on water supply, resulting in significant water quality issues for well water. c. Local flooding and erosion of access ways. Effluent overspill from unimproved sanitation d. As at c, and erosion of dwelling foundations. Saltwater intrusion affecting crops.	• 30% of dwellings have 'poor' or 'average' quality walls, which makes them highly prone to cyclones. • Poverty means reconstruction efforts are significantly limited by household finance. • Only 37% have access to formal water connections and are thus vulnerable to drought. • Mixed level of community cohesion and/or leadership can be a barrier to collective action. • Settlers have only immediate awareness of existing hazards and low awareness of climate change impacts and low awareness of maladaptation avoidance • Low ability to communicate hazards effectively to responsible agencies. This results in low gain resources for resilience strengthening.	• Vulnerability assessments (VA) have been undertaken in 9 of the 16 settlements (1 x full assessment, 8 x rapid), however no systematic feedback of VAs to the communities to inform planning. • Some risk awareness training has occurred in 6 settlements on specific hazards and risk reduction. • Existing EWS's on specific hazards will be built on to create broad based EWSs.	*AF Indicator 3.1.1:* Number and type of risk reduction actions or strategies introduced at local level *Baseline:* (as at left) *Target end of project* • Full vulnerability assessments in undertaken in 16 settlements (Also meets AF Indicator 1.2 EWS: Risk knowledge) • Community-level resilience, recovery and upgrading plans in 16 informal settlements. (Also meets AF Indicator 1.2 EWS: response capacity) Direct beneficiaries: 6000 people, 3000 women, 1200 young people, 210 older people, 180 people with a disability, 1500 people receiving welfare. • 16 settlement-level vulnerability assessment reports will be provided to municipalities and key responsible planning agencies [Also meets AF Indicator 1.2 EWS: monitoring and warning service] Direct beneficiaries: as above. Indirect beneficiaries: 140,000 through improved knowledge of climate vulnerability planning at a city level which includes informal settlement issues.

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
	As above	• Impacts as above	• Settlers have limited awareness of environmental management approaches. • Mixed capacity in settlement governance to coordinate collective action in addressing land use and environmental issues, e.g. reserving areas for no development and environmental conservation. • Significant issues of solid waste management exacerbating flooding. • Significant issues with industrial pollution exacerbated by flooding and livelihoods. • Low level of consideration of women's safety issues in infrastructure and land use design. • Low level of awareness of cyclone resilient construction methods.	• No. of settlements reporting issues with pollution/environmental degradation: 14 • No. of settlements reporting taking steps to improve/maintain/reduce impact on natural assets: 4 • Some environmental management training has occurred in 6 settlements • One settlement has participated in eco-system based adaptation initiative • Women's participation in savings groups in approximately 8 settlements, which may be strengthened to cover other vulnerability areas. Resilience actions: Targeted population groups participating in adaptation and risk reduction assessment and awareness activities as per 2.4.1.	*AF Indicator 3.1.1. Number and type of risk reduction actions or strategies introduced at local level* *Baseline:* (as at left) *Target at end of project:* • Land use suitability assessments and resilience training in 16 settlements • Early warning system needs assessments conducted in 16 settlements. • Housing assessments and resilience training in 12 settlements • Gender sensitive safety audits in 6 settlements (where infrastructure design allows for interventions to address concerns). • Environmental and eco-system management training in 12 settlements Direct beneficiaries (depending on activity): ~1249-694 households, 6240-3120 people, 3120-1560 women, 1250-620 young people, 220-110 older people, 190-95 people with a disability, 1560-780 people receiving welfare.
		• As above	• No, low or skill or semi-skilled in construction, or awareness of cyclone	• No. of households that have farmed in the last week: 375 (30%)	*AF Indicator 3.1.1. Number and type of risk reduction actions or strategies introduced at local level*

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
			resilient construction techniques. • Few pathways for women to participate in business development. • Child rearing and elder care responsibilities mean opportunities for work and business are limited. • Significant proportion of climate vulnerable economic/food security activities. • No or only general knowledge of coastal zone management. • Households below the urban basic needs poverty line ($93 USD per week): 793 (63%).	• No. of households with settlement-based livestock rearing: 200 (16%) • No. of households who fish for food or sale: 325 (26%) • Community savings groups: 16 Resilience actions: Targeted household and community livelihood strategies strengthened 2.5.1 under.	*Baseline*: (as at left) *Target at end of project*: approximately • ~80 people trained (minimum 50% women, 10% young people) in cyclone resilient construction methods. • ~80 women trained in business skills and microfinance access, including for child care activities. • ~160 people (50% women, 10% young people) trained in coastal zone management. • Child care options developed for ~6 settlements. • Gender inclusive food security strategies developed in ~10 settlements. Benefitting: ~400 households.
All settlements	1249 dwellings, 6242 people, 3121 women, 1248 young people, 218 older people, 187 people with a disability, 1560 people receiving	Key hazards: Coastal and inland flooding. - 60% of settlements report major issues with inland and coastal flooding. - 20% of settlements reported older	Underlying sensitivity - 14 of 16 settlements are coastal flood exposed. - 14 of 16 settlements are river or surface flood exposed. - See annex 1 for further detail on sensitivity Barriers to adaptation - Poor and non existent drainage.	Approximately 30% of households within flood affected settlements are affected by flooding four or more times per year (severely flood affected) (240 households, 1080 people, 540 women, 216 young people, 38 older people, 32 people with a disability, 270 people receiving welfare).	*AF indicator 4.1.2*. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types). *Baseline*: (as at left)

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
	welfare.	people and people with a disability were stranded and had difficulty getting out of homes and/or settlements when flooding occurred. - 20% of settlements report issues with submerged or hazardous access ways during floods which prevent older people and people with a disability's (and other's) egress in flood periods.	-Poor infrastructure and knowledge how to improve -Lack of EWSs -Low awareness, and empowerment and to respond to risks.	Project Output 3.1.1 Urban development[43]. Based on previous community selected projects, examples of projects may include : a. Target assets: Improved drainage for severely flood affected households. [AF Sector: Urban development & DRR, Asset type: physical (produced/improved/ strengthened)] b. Elevated safe rooms[44] for dwellings of dwellings which are severely affected by very high floods [Sector: Urban development & DRR, Asset type: physical (produced)]	*Target at end of project.* a. Drainage improvements for approx. 50% of severely flood affected dwellings to withstand impacts of climate change (120 dwellings: 'moderately' or 'mostly improved' = 540 people, 270 women, 108 young people, 19 older people, 16 people with a disability,135 people receiving welfare). b. Target assets: Elevated safe rooms for approx.. 30% of severely flood affected dwellings to withstand impacts of climate change (72 dwellings) 'fully improved' (produced) = 324 people, 162 women, 64.8 young people, 11.34 older people, 9.72 people with a disability, 81 people receiving welfare). c. Target assets: Accessway improvements

[43] Note that only a selection of key project types have been

[44] (a vernacular adaptation response in many, particularly Indo-Fijian, informal settlements. These are refuge areas for people and belongings during flood periods)

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
				c. Improved access ways to enable egress for people with mobility impairments in the instance of flooding in 20% of settlements (flood affected and who report issues with egress for older people's and people with a disability) and benefiting 30% of settlement. [Sector: Urban development & DRR. Asset type: physical (produced/improved/ strengthened)]	for approximately 50% of severely flood affected dwellings to withstand impacts of climate change (120 dwellings/ households. 'Moderately' or 'mostly improved'. (360 people, 180 women, 72 young people, 13 older people, 11 people with a disability, 90 people receiving welfare).
All settlements	As above	a. Intense storms/ cyclones b. Flooding c. Coastal flooding d. Extreme heat/drought Impacts a. Housing destruction and damage with attendant economic, health and	• Informal settlement households have significantly lower incomes relative to the general population (F$212 per week vs. $613 for the general population) thus there financial capacity to make housing improvements. • Informal tenure acts as a partial disincentive to invest significantly in housing, due in part to the narrow housing sub-	• Housing. 30% of dwellings (n. 378) in informal settlements are of 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	*AF indicator 4.1.2*. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types). *Baseline*: (as at left) *Target at end of project. Approximately* • Dwellings improvements (technical support) in ~80% (~300 'mostly improved') most vulnerable dwellings. (1361 people, 681 women, 272 young people, 48 older people, 41 people with a disability, 340 people receiving welfare).

Area	Population / beneficiaries	Main climate change impacts / Hazards & Effects on communities	Underlying sensitivity and barriers to adaptation	Assets and resilience building interventions	Tentative Resilience outcome (by AF indicator)
		social impacts. b. Damage to dwellings and possessions, requiring repair. Health impacts of degraded housing. c. Erosion of foundations of houses. d. Heat stroke impacts on older people and children. Houses can become uninhabitable during daylight due to poor construction/ installation. Health impacts on children and young people which women have the burden of care on.	markets in informal settlements. • Most housing self-built, as such low skill levels result in poor construction. • Poverty and few housing options result in large households, overcrowding and can exacerbate impacts of heat stress.	experience overcrowding (more than 3 persons per bedroom). • 45% (556) of informal settlement dwellings have unimproved sanitation with 30% discharging untreated into the local environment. Project Output 3.1.1 Urban development, i.e. housing improvement & construction, sanitation improvements	• Sanitation fully enhanced in ~35% (200 dwellings/households with poorest sanitation n flood affected areas: 'fully improved. Beneficiaries: 905 people, 453 women, 181 young people, 32 older people, 27 people with a disability, 226 people receiving welfare. • Alternative housing options for ~50 of the most vulnerable households. (225 people, 113 women, 45 young people, 8 older people, 7 people with a disability, 56 people receiving welfare.)

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 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-border) 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.

While full regularisation may not be possible, or a priority, in many settlements, the process of planning, gaining permission from land owners and provision of housing, services and resilience building will provide an important degree of de facto tenure security.

Table 9: 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	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

	Informal urban settlements are dense, lack (resilient) houses/infrastructure and have limited livelihood options.	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 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 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 planning for, governance of and implementation of adaptation actions increases the resilience of the most disadvantaged in the city. 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 cheaper[45] 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 will be 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.

A cost effectiveness analysis has been undertaken on several potential hard interventions. These have been selected for this analysis because they:

- have been identified as desired options by communities in the previous activities and are thus more likely to emerge from community action planning,
- are among the most significant budget components,
- are able to target the most vulnerable and they key climate hazards most effectively.
- Are complemented by the potential 'soft interventions' under component 2.

[45] This figure is based on UN-Habitat's experience throughout the Asia Pacific region. Several interrelated components contribute to the reduction in costs: (i) contractors are generally avoided as construction is carried out by communities, (2) communities contribute directly (sweat equity) – however, given that the poorest members of the community are involved the projects pay unskilled workers at minimum rates and provide training and hence only certain tasks are directly contributed by the communities, (3) communities are directly involved in the monitoring of construction resulting in higher quality and shorter construction periods. The reduced costs will translate in a larger number of projects and as such will not influence the budget.

Table 10: options of asset improvements by climate hazard and cost effectiveness criteria

Climate hazard: flooding. Sensitivity: poor mobility for older people/people with a disability. Need for safe areas in times of flood.

Cost effectiveness criteria	Access ways (Preferred option)	Full road construction	Drainage	Relocation
Future costs of climate change.	✓ Provides basic level of service for hazard and sensitivity and can be targeted at most vulnerable and hazard prone households.	✓ More robust to climate change. X Does not reach most vulnerable dwellings as settlement density precludes roads to all parts of settlements.	X Does not address emergency egress by itself.	✓ Long term solution
Project efficiency	✓ Is able to be implemented easily, without major technical and capital inputs, and significant project management capacity.	X Requires full regularisation of settlement.	✓ Is able to be implemented easily, without major technical and capital inputs, and significant project management capacity.	X May involve involuntary resettlement, not allowed under the social safeguards plan.
Community involvement	✓ Based on technology that is familiar to communities as such community labour able to be utilised	~ Will use low levels of community labour as needs to be done by private contractor.	✓ Based on technology that is familiar to communities as such community labour able to be utilised	X Likely to involve significant upheaval, potential conflict and social impact on community.
Cost, feasibility,	✓ Low – moderate ($40 per metre)	X very high. X higher maintenance costs X Opportunity costs to other potential beneficiaries through high cost.	✓ Low – moderate	X very high. X Opportunity costs to other potential beneficiaries through high cost.

Climate hazard: flooding, storms. Sensitivity: Few rehousing options for many households. High levels of poverty mean that loss of household goods can be catastrophic on household finances with knock on effects to health, welfare and education.

Cost effectiveness criteria	Stilted, cyclone safe rooms (Preferred option)	Evacuation planning	Flood diversion	Relocation
Future costs of climate change.	✓ Provides refuge for flood affected dwellings. ✓ No regrets option, i.e. if future more significant projects are proposed, intervention can be integrated.	X Provides security for individuals yet economic impacts of losses to household items can be devastating to households living in poverty. ~ Depends on availability	✓ Long term solution. ~ Depends significantly on the hydrography of the settlement and watershed.	✓ Long term solution

		of evacuation centres.		
Project efficiency	✓ Is able to be implemented with achievable technical and capital inputs, and basic project management capacity.	✓ Is able to be implemented with achievable technical and capital inputs, and basic project management capacity	X Requires significant coordination with formal infrastructure development and environmental protection agencies.	X May involve involuntary resettlement, not provided for under the social safeguards plan.
Community involvement	✓ Based on models that are familiar to communities, as such community labour able to be utilised.		~Will use low levels of community labour as needs to be done by private contractor.	X Likely to involve significant upheaval, potential conflict and social impact on community.
Cost, feasibility,	✓ ~low-moderate ($3-5k per unit)	✓ Low	X High	X very high. X Opportunity costs to other potential beneficiaries through high cost.

Climate hazard: local flooding, storms. Sensitivity: Few rehousing options for many households. High levels of poverty mean that loss of household goods can be catastrophic on household finances with knock on effects to health, welfare and education.

Cost effectiveness criteria	Drainage (preferred option)	Land reclamation	Flood diversion	Relocation
Future costs of climate change.	✓ Provides basic level of service for hazard and sensitivity and can be targeted at most vulnerable and hazard prone households. ✓ Able to be incrementally enhanced. ✓ No regrets option, i.e. if future more significant projects are proposed, intervention can be integrated.	✓ Long term solution ~Depends significantly on the geology and hydrography of the settlement and watershed.	X Does not address onsite flooding.	✓ Long term solution.
Project efficiency	✓ Is able to be implemented with achievable technical and capital inputs, and basic project management capacity.	X Likely to be capital and machinery intensive and require substantially more technical coordination. X Requires significant	X Requires significant coordination with formal infrastructure development and environmental protection agencies.	XX May involve involuntary resettlement, not provided for under the social safeguards plan.

Cost effectiveness criteria	Drainage (preferred option)	Land reclamation	Flood diversion	Relocation
		coordination with formal infrastructure development and environmental protection agencies. X May involve temporary involuntary resettlement, not provided for under the social safeguards plan.		
Community involvement	✓ Based on models that are familiar to communities, as such community labour able to be utilised.	~May be able to use low levels of community labour, depending on approach.	~Will use low levels of community labour as needs to be done by private contractor.	X Likely to involve significant upheaval, potential conflict and social impact on community.
Cost, feasibility,	✓ Low-moderate ($20 per metre)	X High X Opportunity costs to other potential beneficiaries through high cost.	X High X Opportunity costs to other potential beneficiaries through high cost.	X very high. X Opportunity costs to other potential beneficiaries through high cost.

Climate hazard: Local flooding and and inundating sea flooding resulting in effluent overspill and increased disease. Sensitivity: Poverty. High health impacts, particularly on children. Low levels of social inclusion and adaptive capacity.

Cost effectiveness criteria	Improved sanitation (Preferred option)	WASH awareness training only	Relocation and new build
Future costs of climate change.	✓ Provides basic level of service for hazard and sensitivity and can be targeted at most vulnerable and hazard prone and sensitive households. ✓ Able to be incrementally enhanced in different parts of the settlement. ✓ No regrets option, i.e. if future more significant projects are proposed, intervention can be integrated or relocated (for certain models).	✓ Important complement to improved sanitation X Does not by itself address key disease vectors. X Does not address key interacting impacts of flooding and sanitation.	✓ Long term solution which allows new infrastructure to be built to a higher standard.
Project efficiency	✓ Is able to be implemented with achievable technical and capital inputs,	✓ Can be implemented easily X May not have sustainability and	XX May involve involuntary resettlement, not provided for under the social

Cost effectiveness criteria	Improved sanitation (Preferred option)	WASH awareness training only	Relocation and new build
	and basic project management capacity. ✓ Some models able to be implemented by Community Based Sanitation Enterprises (CBSEs) who have members living in the settlements who can facilitate project delivery.	need to be refreshed intermittently.	safeguards plan.
Community involvement	✓ As above re CBSE involvement	~ Is a sensitive topic that can require substantial engagement and awareness raising.	**XX** Likely to involve significant upheaval, potential conflict and social impact on community.
Cost, feasibility,	✓~ Moderate ($3k per unit) ✓✓ Can be used as a demonstration model only to market models for part funding by households ✓✓ Can generate local livelihoods through the delivery of the intervention and support building of scale in community-based enterprises.	✓ Low	**X** very high. **X** Opportunity costs to other potential beneficiaries through high cost.

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 11: 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	- Fiji Informal Settlements Upgrading Strategy, 2016 - The National Housing Policy, 2012 - TLTB Lami-Nausori Land Use Master Plan (2007) - Greater Suva Urban Growth Management Plan Review (2015) - Greater Suva Transportation Strategy (2015-2030) - Suva-Nausori Water Supply and Sanitation Master Plan
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 - A Green Growth Framework for Fiji 2014,
Human health and welfare	- Ministry of Health National Strategic Plan 2016-2020 - 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 - Draft Mangrove Management Plan for Fiji (nd)
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

Box 1.

People's Community Network Strategic Plan.
PCN's strategic plan has been based on the issues that have emerged through their regular forums which occur at a community-level, 'cluster' level (e.g. the Lami cluster) citywide and national level (see section H for structure of community level mobilisation). The strategic objectives, outcomes and projects that are both aligned with, and that this AF fund project aims to support are listed below. (underlines show key alignment to this project, including key safeguards and Clarification Requests)

Core values

- *Participation*: PCN has a strong commitment towards building partnership and active participation within communities and with local and national government and non-government agencies.
- *Unity in Diversity*: PCN believes that despite differences in culture, religion and ethnicity it is possible to respect one another and work together in unity and solidarity.

Key objectives

- To build solidarity among people living in informal settlements, in the Fiji Islands.
- To encourage peoples' participation in decision making and project management.
- To promote gender equality and active participation of women in all community activities.
- To facilitate people's ability to negotiate for e and the building of better houses.
- To encourage those who are interested to return to agriculture and become self-reliant in terms of food security and become productive members of Fiji's economy

Key outcomes (numbering from original plan)

- 1.) More people becoming empowered to overcome culture of silence and naïve consciousness and participate in managing their own development and raising their own issues.
- 2) Greater respect for women's participation and leadership in informal settlements.
- 3.) The provision of secure land tenure and decent and affordable housing for informal settlements with basic amenities, contributing to a strengthened sense of security and empowerment and prevent forced eviction and provide alternatives.
- 5) Provide opportunity for youths to participate in decision making as well as the provision of skills training leading to employment.
- 7.) Greater understanding and concern for climate change and its effect together with greater respect for the environment including issues of logging, mining and pollution.
- 8.) All households in the informal settlements to be members of a saving scheme for security of land tenure, decent and affordable housing and better education for the children and so increase the quality of life for these families.
- 9.) A more hygienic living environment in all informal communities and improved understanding and concern towards the elderly and people with disability.
- 10) More reliable information available through socio-economic surveys collected and analysed and participatory community mapping. Access to this information is available electronically.

E. Compliance with relevant national technical standards and complicance with the Adaptation Fund Environmental and Social Policy

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 and the additional 14 indicators of the Adaptation Fund ESP are discussed below.

Table 12: Project compliance with relevant rules, regulation, standards, procedures and tools to project activities

Expected Concrete Outputs	Relevant rules, regulations, standards and procedures	Compliance, procedure and authorizing offices
1.1.1. City-wide (updated) risk and vulnerability assessment conducted for Lami, Sigatoka, Nadi and Lautoka	Fiji's Climate Change Division Integrated Vulnerability Assessment Toolkit / Framework and UN-Habitat Planning for climate change toolkit and Fiji Comprehensive Hazard Assessment and Risk Management (CHARM) tool.	The project will ensure consistency with the Fiji's Climate Change Division IVA framework to determine the vulnerabilities of the settlements and to identify possible adaptation options to increase their resilience. Compliance: Verification with CCD and Ministry of Local Government Housing and Environment (MLGHE) on framework and methodology.
1.1.2. Hazard maps produced	Fiji Comprehensive Hazard Assessment and Risk Management (CHARM) tool and local and national government land use planning hazard information.	The project will produce hazard maps by using the CHARM tool (strategy 5 under the objective of Adaptation of the National Climate Change Policy). Compliance: Verification with CCD and partners, e.g. SOPAC on CHARM framework and methodology. Verification with local authorities and Department of Town and Country Planning (DTCP) on key land use hazards.
1.1.3. City-wide climate change action plans developed for Lami, Sigatoka, Nadi and Lautoka	Fiji's National Climate Change Policy and draft National Climate Change Adaptation Strategy, Urban Policy and Action Plan, local planning schemes and policies. Legislation and regulation covering development, which may include: Town and Country Planning Act. Crown Lands Act, Public Health Act, Local Government Act, Housing Act. Other potentially relevant instruments for consideration may include: Land Transfer Act, Subdivision of Land Act,	The project will develop action plans in compliance with the policy, draft strategy and development regulation. Compliance: Verification with CCD on framework and methodology. Verification with local authorities and DTCP on consistency with planning schemes and legislation that may apply.
1.1.4. Urban Planner /	Minimum education, skills and	Compliance: Verification with DTCP

	Resilience officer established.	experience requirements. For all activities of component 1 the screening against the additional 14 principles of the AF ESP has not triggered the invocation of major safeguards (that are not covered above). The design of assessments, studies, plans, consultations, workshops etc. needs to strongly take into consideration principles 2, 3, 4, 5, 7, 11 and 13.	on skills requirements. In line with the ESMP, detailed activity designs will be screened, mitigation measures will be developed and only approved by the Project Management Board if they fully comply with the AF ESP. Regular Monitoring to be applied.
2.1.1.	Assessment and planning tool for community vulnerability assessment and action planning developed.	Ensure consistency with local authorities' and national priority themes for informal settlement upgrading.	Compliance: Verification of assessment tool with local authorities, DTCP, Department of Housing (DH) and CCD to ensure alignment.
2.1.2.	Community-based climate vulnerability and informal settlements assessments conducted in at least 14 informal settlements in Lami, Nadi, Sigatoka and Lautoka	Fiji's Climate Change Division Integrated Vulnerability Assessment Toolkit / Framework, UN-Habitat Planning for climate change toolkit, and other relevant local and national priorities.	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. Compliance: Verification of assessments with CCD, DTCP and DH.
2.1.3.	Community-level resilience, recovery and upgrading plans developed in identified informal settlements.	National Disaster Management Act, National Disaster Management Plan Act & National Climate Change Policy. Development regulation (referred to above in 1.1.3)	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 Compliance: Verification of assessments with CCD, National Disaster Management Office (NDMO), DTCP and DH.
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	PCN's protocols around working with vulnerable groups and their objectives of empowerment of women and young people through the development process.	The project will include training and awareness building with target population groups on key risks and adaptation actions Compliance: Verification with PCN that the design of activities is consistent with their key values and principles.
2.1.5.	Targeted household and community livelihood strategies strengthened	National Employment Centre Decree, National Climate Change Policy, Integrated	The activities set to achieve this output is aligned to the achievement of the objectives in the National

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	Coastal Management Framework, Fiji 2020 Agriculture Sector Policy Agenda	Employment Centre Decree 2009, National Climate Change Policy, Integrated Coastal Management Framework 2011, Fiji 2020 Agriculture Sector Policy Agenda. Compliance: Verification with CCD, Ministry of Employment Productivity and Labour Relations, and Department of Environment.
	For all activities of component 2 the screening against the additional 14 principles of the AF ESP has not triggered the invocation of major safeguards (that are not covered above). The design of plans, consultations, trainings, workshops etc. needs to strongly take into consideration principles 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13 and 15.	In line with the ESMP, detailed activity designs will be screened, mitigation measures will be developed and only approved by the Project Management Board if they fully comply with the AF ESP. Regular Monitoring to be applied.
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. Compliance: Verification with CCD, DH and DTCP.
❑ 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; Crown Lands Act, Public Health Act, Local Government Act, Housing Act, National Housing Policy, Other potentially relevant instruments for consideration include: Land Transfer Act, Subdivision of Land Act,	The project will develop assets in compliance with the rules, regulations, standards and procedures on the left. Compliance: Approval by local authority / DTCP.
And secondary sectors: ❑ Communications	National Disaster Mangement Act, National Climate Change Policy: early warning systems are vital, gaps exists such as observation & monitoring	The project will enhance community early warning preparedness systems in compliance with the rules, regulations, standards and procedures on the left. Compliance:

	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	Verification with NDMO and CCD.
❑ Food security and sustainable agriculture sector	Fiji 2020 Agriculture Sector Policy Agenda. A Green Growth Framework for Fiji.	The project will build sustainable communities by ensuring food security alongside the primary economic goal of increasing income and employment opportunities. Compliance: Verification with Ministry of Agriculture and CCD that activities align with their strategic agenda.
❑ Human health and welfare	Public Health Act, Ministry of Health National Strategic Plan 2016-2020.	The project will contribute to building resilience to key risks. Compliance: Verification with Ministry of Health that activities are align with their strategic agenda.
❑ Marine and fisheries	Fisheries Act (Amendment) Decree, 1991. A Green Growth Framework for Fiji.	The project will contribute to enhancing the sustainability and productivity of fisheries. Compliance: Verification with Department of Fisheries and CCD that activities align with their activities.
All adaptation options will seek mitigation co-benefits as well as up and downstream resilience, and generally environmental, social and economic co-benefits	Activities of component 3 (Unidentified Sub Projects) will need to undergo detailed screening, the development of safeguard measures, and a stringent approval process. This process is described in Sections II.K, III.C and Annex 8.	In line with the ESMP, detailed activity designs will be screened and safeguard measures will be put in place. Experts, project management, communities, local steering committees and the Project Management Team will ensure compliance with the ESMP. Regular Monitoring to be applied.
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.	For all activities of component 4 the screening against 15 principles of the AF ESP has not triggered the invocation of safeguards. It is generally assumed that knowledge management and advocacy of a project that is compliant with environmental and social polcies, would not result in risks.	However, in line with the ESMP all activities will be designed and screened – for example major publications will be approved by the Project Management Board to ensure full compliance with the AF ESP (and the project ESMP). Regular Monitoring to be applied.

4.1.2. Regional Advocacy and replication		

Section II.K below further expands on the application of the 15 Principles of the AF ESP.

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

Table 13: Relevant projects and their complementary potential

Relevant projects	Lessons learned	Complementary 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.	This project will translate a rural focus for early warning systems into an urban approach
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).46 – yet to commence	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.	This project will focus on informal settlements not included in the ADB project.
ADB: Future Cities Program in the Greater Suva Area. ☐ Gender Analysis and Mainstreaming. ☐ Revitalising Informal Settlements and Environments (RISE) (Water Sensitive Cities Cooperative Research Centre – Monash University) ☐ Urban planner.	This project uses the preliminary gender analysis including key needs and opportunities for gender mainstreaming. .	This project will focus on informal settlements not included in this ADB project. If good practices regarding resilient water supply and management arise from this project, this project will consider taking a similar approach in target areas The ADB project will include an urban planner who this

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

Relevant projects	Lessons learned	Complementary potential
		project will ensure coordination with.
GEF:13 national projects (biodiversity, renewable energy/climate change)47 and 35 regional and global projects: (biodiversity, renewable energy/climate change, human health, international waters).	Good practices regarding especially ecosystem management and human health from these projects will be analysed with the purpose of taking a similar approach in target areas.	This project will focus on eco-system areas not included in the GEF projects
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. However, good practices from process will be used	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.	The needs assessment has informed this project proposal	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)	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	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.

[47] 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

Relevant projects	Lessons learned	Complementary potential
	seeking to harness the potential of healthy ecosystems and biodiversity to strengthen social and ecological resilience.	
Integrated Vulnerability Assessment (IVA) (USAID Funded and administered via SPC and the Ministry of Economy). This project aims to develop an integrated tool for climate vulnerability assessment in Fijian villages and provide data analysis and interpretation tools.	The framework used in the IVA will inform the development of the vulnerability assessment tools for this project.	There are opportunities to integrate methods and tools from the IVA into the approach for this project. Consultants engaged by UN Habitat are also working on the IVA project.
Institutional Strengthening in PICs to Adapt to Climate Change (ISACC) Project. This project aims to strengthen the national institutional capacity of PICs (including Fiji) to effectively plan, coordinate and respond to the adverse impacts of climate change.	Institutional mapping for this project will likely highlight additional complementary projects and resources which may be leveraged and activities harmonised.	Enhanced capacity in participating agencies for climate change planning and implementation. Gender mainstreaming as part of the ISAAC project will enhance effectiveness of gender inclusive activities as part of this project. Opportunities for this project to inform centralized coordination approaches as part of the ISAAC project. The ISAAC project may inform cross-sectoral approaches to citywide climate change action planning. This project will complement the ISAAC by providing a urban planning specific response to building climate 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 14: 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, Lautoka and Nadi	(lo): improved understanding local vulnerabilities (i) no of participating government officials	4 city level vulnerability assessment reports
1.1.2.	Hazard maps produced	(lo) improved awareness of georgraphy of hazard risks (i) maps shared and published	4 city level hazard maps
1.1.3.	City-wide climate change action plans developed for Lami, Sigatoka, Nadi and Lautoka	(lo): improved climate change sensitive planning (i) no of plans	4 climate change action plans
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.	(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, Lautoka and Nadi	(lo): improved understanding community vulnerabilities (i) no of participating community members	Up to 16 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	Up to 16 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 ❑ Gender sensitive safety audits ❑ 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 for women in business and financial management skills ❑ Investigate options for provision of affordable childcare. ❑ 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	Up to 16 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 And secondary sectors:	(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

❑ 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	(Io): 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 13 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

H1 Overview

The project idea is the direct result of four projects / processes that UN-Habitat has undertaken with the Ministry of Local Government, Housing and Environment, and with PCN, since 2012. Through partnering on these projects, a clear alignment has also emerged between UN Habitat's programs and the priorities of informal settlement communities. Community network's discussions (see Box 2. below) have formed the basis of PCN's strategic plan which this proposal is closely aligned with. As part of these initiatives significant amounts of data were gathered, including by PCN and communities themselves. Community, local and national consultations have been held, and recommendations for next steps and follow-up were provided. Most recently, PCN itself, with support from the participating communities, has prepared the Fiji Settlement Situation Analysis to ensure the conditions and priorities of communities are appropriately represented in national research, strategy and planning. 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 as part of the PSUP Phase II.
3. PDNA consultations (UN-Habitat focusing on informal settlements), which led to this project idea
4. PCN community network priorities and resulting Strategic Plan.

These projects have provided an informed basis for the broad project design, and have informed a project-specific consultation to inform the project design. These are separated into stakeholder consultation and community-level consultation.

H2 Stakeholder consultation

Specific consultations were undertaken by UN-Habitat and the People's Community Network for the development of this proposal in Fiji. Stakeholders included in this the consultations have been agreed upon with the designated authority, and the implementing entity and further have been informed by the stakeholder analyses undertaken as part of UN Habitat projects listed above and previous UN Habitat projects, PSUP Phase I Urban Sector Profiles and the National Housing Policy. These are large in-depth projects which have identified the full spectrum of stakeholders who are direct and supporting actors in informal settlement upgrading and climate change resilience building. These stakeholder analyses have identified several classes of stakeholders who have been critical to involve in the more in-depth consultations below. These include those listed below along with their rationale for involvement in the preparation of this proposal:

- *Target communities*: They will be most directly involved in designing and ultimate beneficiaries of the interventions.
- *PCN*: They are the coordinating body for informal settlement communities and manage protocols and engagement with communities. They facilitate inquiry into issues and help communities find solutions to the issues the project will address.
- *National agency for local authorities*: They have been involved to ensure the project's activities align with broader priorities for local government capacity building and statutory responsibilities.
- *National agencies for housing and planning*. They have been involved to ensure the project's activities align with housing policy priorities and statutory development requirements.

Based on the above described pre-project consultations, 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. The criteria applied at this stage included focus on identified informal settlements (179 country wide), geographic focus on Viti Levu island with an emphasis on towns affected by Tropical Cyclone Winston and the exposure to natural hazards. The detailed selection of communities for this project was done collaboratively with the People's Community Network, which has up-to-date knowledge of the activities, priorities and needs of individual communities

participating in their networks (as noted below in more detail). The consultation did have an emphasis on ensuring government participation and agreement, as community-level input into priority sites for upgrading has been ongoing through the activities of the network. Additional consultations were held from 18 to 23 July 2016, focusing on the pre-identified target communities. At this stage only communities that were not threatened by land disputes or that were not undergoing significant upgrading (including relocation) initiatives were prioritized. Based on this shortlist the identified communities were consulted (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 15: 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, 3-7 July 2016	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
Follow-up consultations in November / December 2016 and in January 2017 with focal point Manasa Katonivualiku.	Discussion on revisions to project focus (Section II of this document) and Project Implementation (Part III of this document)	Agreement implementation governance, logical framework and detailed budget.	Designated Authority to endorse project document. Designated Authority to take key position in project oversight.
Nilesh Prakash, Chief Economic Planning Officer, Ministry of Economy, 17 November 2016 (and thereafter)	Explore means of contracting and funding of activities by National Executing Agencies.	Two options have emerged: 1. Direct agreements with Executing Agencies; option 1 agreement with MLGHE which would subcontract (preferred by government but all parties acknowledge this is cumbersome), option 2, separate contracts with all executing agencies (more efficient and preferable from accountability perspective). 2. Setting up of a trust fund under National Executing	Setting up of trust fund account (as described in Part III A) with enough flexibility to explore other arrangements to enhance efficiency and transparency.

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
		Entity. More efficient for project implementation, more transparent for project stakeholders, more challenging for government ODA monitoring)	
Ministry of Local Government [Permanent Secretary, Joshua Wycliffe, Director for Housing, Kolinio Bola, Shelter Cluster Coordinator, Vula Shaw] 3-7 July 2016	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.
Deputy Minister Lorna Eden, Director of Housing, Kolino Bola (at the occasion of Habitat III) 19 October 2016, and subsequently in Fiji, also with Permanent Secretary Wycliffe (various dates in November 2016).	- Confirm political support and alignment with settlements upgrading priorities. - Discussion on sites / selection criteria and agreement on sites. - Discussion on role of Ministry in terms of project implementation (detailed discussion on key elements of Part III of this document)		
Director of Town and Country Planning. Losana Rokotuibau, 18 November 2016.	Discuss status of local planning schemes for Lami, Sigatoka, Lautoka and Nadi. Reconfirm need for vulnerability assessments and hazards maps	Local planning schemes are outdated, hazard maps do not exist. Local governments have no or limited GIS capacity	Supporting city-wide planning is critical for an integrated approach to build resilience in informal settlements
Director of Local Government, Azam Khan, 18 November 2016	As CEOs of local governments are appointed and directly report to Director of Local Government, confirmation of endorsement of this project document and full commitment vis-à-vis local implementation.	Project addresses key need of local governments. The Department of Local Government is keen to support the project and dissemination of processes and findings to other local governments.	Full support reconfirmed
Various Local Government leaders (including CEOs) of Lami, Sigatoka, Lautoka and Nadi	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 n.
People's Community Network (National Umbrella NGO for	Selection of priority communities. Strategy for community	Brief community profiles	Long-list of target communities.

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
informal settlements organizations) Semiti Qalowasas, Director Fr. Kevin Barr Savu Tawake, Deputy Director	engagement. Role of PCN and communities in project implementation. PCN support for community consultations.	Community priorities	
SREP Pacific Ecosystems-based Adaptation to Climate Change Project (PEBACC), Project Manager, Herman Timmermans, 17 November 2016	Explore synergies	Project sites in Fiji do not overlap. However, based on the joint work of UN-Habitat and SPREP in the past (Lami town) a renewed partnership can be explored. SPREP EBA tools may be of use for this AF project.	Importance of good communication to further explore partnership.
Communities (see also H3 below)	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) 3 July 2016 Osnat Lubrani, UN Resident Coordinator and Bakhodir Burkhanov, UNDP Country Director, 15 November 2016	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.
Fiji Ministry of Economy: Climate Change Unit. Nilesh Prakash - Director. 18 July 2017	Confirm project governance arrangements	Endorsement for project implementation and governance arrangements	Participation by CCU in project governance
Fiji Department of Lands Acting Divisional Manager, Apisai Vulawalu 8 July 2017	Discussion of project approach and clarification of approval processes for activities on government land.	Clarification of approval processes.	Inclusion of Dept. of Lands Divisional staff in the Technical and Statutory Working Group
iTaukei Lands Trust Board (iTLTB) Reijeli Taylor, Manager	Discussion of project approach and clarification of approval	Clarification of approval processes.	Invitation for iTLTB to be in the Technical and Statutory Working Group.

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
Strategic Planning, Research and Development. 19 June 2017	processes for de-reserved[48] native land on government land. Discussion of coordination with other settlement upgrading programs. Request for land information	Requests for land information.	Investigate appropriate coordination arrangements with other settlement upgrading activities, e.g. including RISE program (below).
Fiji Department of Health, Dip Chand Chief Health Inspector/National Advisor Environmental Health Manasa Rayasidamu, Principal Policy Officer Suva Rural Local Authority. 8 June 2017	Discussion of project approach and clarification of approval processes for activities covered by health legislation and within the Health Department's responsibility. Discussion of preferred project authorization and agency liaison arrangements.	Clarification of approval processes and involvement by Fiji Department of Health staff and oversight role of municipal health officers.	Invitation for iTLTB to be in the Technical and Statutory Working Group.
Fiji Department of Environment, Eleni Rova - Principal Environment Officer-Resource Management Unit Aminiasi Qareqare: Project Manager (Environmental Impact Assessment) 13th June 2017	Discussion of project approach and clarification of approval processes for activities covered by environmental legislation and within the Department of Environment's responsibility. Discussion of Department of Environment's programs and opportunities for integration into sub-projects design, e.g. environmental management, community environmental monitoring.	Clarification of key legislation and policies applying to the project, e.g. the Mangrove Management Plan. Agreement to share resources on Ministry of Environment programs and objectives.	Invitation for iTLTB to be in the Technical and Statutory Working Group.
Lami Town Council Selaima Maitoga – Health Inspector. 7 June 2017	Discussion of project approach and clarification of approval processes for activities covered by Lami Town Council's responsibility. Invitation to participate as a technical advisor.	Clarification of approval processes., Agreement to participate as a technical advisor.	Agreement for Lami Council to be part of a Technical and Statutory Working Group.

[48] This is a legal process (entirely separate to this project) of mobilizing customary land through a process of ensuring minimum reservations of land for customary only use

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
Live and Learn Environmental Education Doris Susau, Team Leader 15th June 2017 – present.	Discussion of Live and Learn's program of activities in Fiji, particularly the Western Pacific Sanitation Marketing Program. Discussion of involvement as an executing partner.	Agreement on roles and commissioning of pilot project (funded by SIDA). Successful delivery of vulnerability assessment and community action planning in one settlement.	Include Live and Learn in Agreements of Cooperation for project execution. Successful partnership in delivering project. Lessons learned for future projects.
Habitat for Humanity Masi Latianara – National Director 6th June 2017	Discussion of Habitat for Humanity's program of activities in Fiji. Discussion of involvement as an executing partner.	Agreement to partner as an executing partner.	Include Habitat for Humanity in Agreements of Cooperation for project execution.
Asian Development Bank Mere Naulumatua – Future Cities Program Consultant 6th June 2017	Discussion of project approach and of Asian Development Bank's program of activities under the Suva Future Cities Program (FCP).	Clarification of the FCP's scope, project complementarities and opportunities for harmonisation/ coordination of approaches.	Agreement to ongoing information sharing, coordination and partnership as appropriate.
Monash University Cooperative Research Centre (CRC) for Water Sensitive Cities Revitalisation of Informal Settlements and Environments (RISE) program • Matthew French – RISE Project Manager, • Kerrie Burge – International Engagement Manager. • Mere Naulumatua – Future Cities Program Consultant 24 July 2017	Discussion of UNH's project approach and that of the Revitalisation of Informal Settlements and Environments (RISE program)	Clarification of the RISE's scope, project complementarities and opportunities for harmonisation/ coordination of approaches.	Agreement to ongoing information sharing, coordination and partnership as appropriate.
World Bank Keiko Watanabe, Disaster Risk Management Specialist 18 June 2017	Discussion of World Bank Vulnerability Assessment Approach.	Clarification VA scope, project complementarities and opportunities for harmonisation/ coordination of approaches.	Agreement to ongoing information sharing and partnership as appropriate.
NAP Global Network Patrina Dumaru, NAP Global Network Pacific Technical Advisor.	Discussion of NAP Global Network's program of activities in Fiji.	Clarification NAP scope, project complementarities and opportunities	Agreement to ongoing information sharing and partnership as appropriate.

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
12th June 2017		for harmonisation/ coordination of approaches.	
ClimateReady (USAID Pacific Climate Change Adaptation Capacity Building Program), Noa Seru, Fiji/Regional Coordinator - USAID Climate Ready - Climate Ready Project 19th June 2017	Discussion of Climate Ready's program of activities in Fiji.	Clarification Climate Ready's scope, project complementarities and opportunities for harmonisation/ coordination of approaches.	Agreement to ongoing information sharing and partnership as appropriate.

H3 Community-level engagement

The project design has been based on the overarching priorities of informal settlements as has emerged through the A) settlement-specific engagement and B) mobilisation of informal settlement community networks.
This project has been designed with input from all affected communities by target settlement rapid vulnerability assessments (8 settlements) and/or ongoing participation in the People's Community Network (section H3B) below).

Ai) Overview of target settlement consultation

Consultation in target settlements was undertaken in the course of rapid vulnerability assessments. This consultation included the following:

1) Briefings on Adaptation Fund project scope and gaining free and informed consent to participate in the project from community representatives which included women.
2) Briefings on vulnerability assessment process and how the information would be used in the project design process.
3) Qualitative and quantitative research via focus groups and household surveys.
4) Group consultations on priority issues which the project should respond to. Stipulation on inclusion of women and young people in group discussions (which reflects PCN's approach to community driven development). There was an emphasis on group (women, young people) specific issues.

Inclusion of vulnerable groups. The consultation and rapid vulnerability assessments was specifically designed to include vulnerable groups. This was done through i) ensuring briefings emphasised the importance capturing the issues and desires of women and young people (and other vulnerable groups) ii) that consultations and focus groups had a representative cross-section of women and young people, and iii) discussion guides included specific questions relating to issues experienced by women and young people. In many settlements, there are also women's and young peoples groups, e.g. related to savings or faith-based youth groups, members of which were invited to be included in the consultations.

Table 16. Summary of consultation in target settlements

Settlement		Consultation date and type	Stakeholders involved
Lami • Wailekutu. • Vuniivi. • Wainivokai. • Qauia **Sigatoka** • Kulukulu	**Lautoka** • California • Veidogo (• Vunato **Nadi:** • Nawijikuma	• Consultation and rapid vulnerability assessment (26-29/07/16) (Nawijikuma-26/05/15). • Ongoing, as a member of PCN (see section H3B below).	• Consultation and focus group participants, including women, young people and older people. • PCN community delegates: e.g. savings group treasurers (who are typically women).
Lami • Kalekana • Bilo Settlements **Sigatoka** • Vunikavika	**Lautoka** • Taiperia • Navutu Stage 2 • Naqiroso **Nadi** Korociri	• Ongoing, as a member of PCN • Approximately every 6 weeks a 'cluster' meeting occurs where activities and priorities and are discussed and areas where support is needed discussed.	• PCN community delegates: e.g. savings group treasurers (who are typically women). • PCN representatives (community facilitators).

Aii) Consultation outcomes and linkage to project design

Section #5 of the consultation and vulnerability assessment asked communities (and vulnerable groups within them) about the priority climate change vulnerabilities they would like the project to focus on. The priority issues reported were outlined in Figure 4 above.

Consultations and vulnerability assessment with communities have directly informed the project design in three ways:

- Issues reported as priorities by communities have been synthesised (see Table 16 below) and example actions have and will been included as options for consideration by the community through the action planning processes.
- Emerging findings from the vulnerability assessment which is based on qualitative and quantitative research and engagement with the communities have also been included as options for the CAP.
- Specific responses that communities have put forward themselves (at this early stage) have been documented and will be included as options (see section below HP3Aiii).

Table 17: Summary of key issues and project response.

Issue type	Priority issues defined by communities through consultation	Project components that incorporate community priorities
Coastal flooding	– High tides swamp areas of settlements. – Foundations of houses are eroded and posts are rotted causing dwelling instability and vulnerability. – Heavy rains/floods combined	Output 2.4.1. ❑ Housing assessments and resilience training ❑ Land use suitability assessments and resilience training Output 3.1.1.

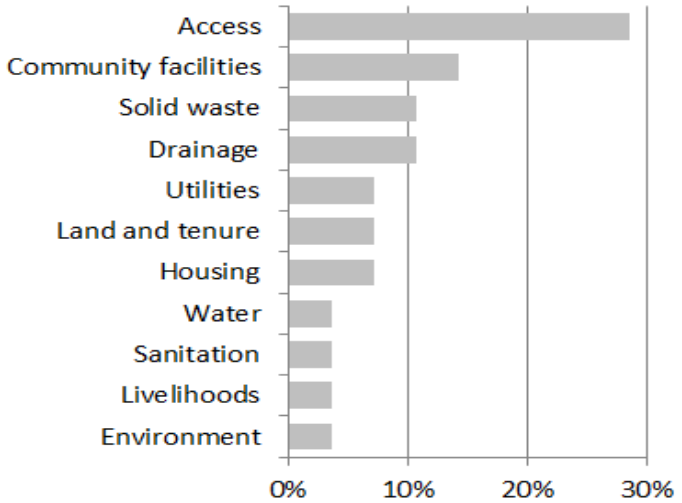
	with high tides specifically affect certain households. – Sewerage overspill from septic tanks result in unhygienic environments for children	❑ Flood control through construction/improvement of on-site drainage to improve runoff and reduce impacts on access ways. ❑ Flood resilient sanitation to reduce effluent overspill in times of flood ❑ Pathways, access ways and roads, particularly to enable free movement for older people and people with a disability, particularly in times of flood. ❑ Construction of flood (and cyclone) resilient housing and housing improvements, e.g. stilted safe rooms, housing alternatives for highly vulnerable households and construction of buildings and structures away from
• Local (surface) flooding and drainage • River flooding	– Flooding results in submerged access ways resulting in difficulties for older people – Flooding results in erosion and damage to accessways – Flooding results in septic tanks effluent overspill. Impacts on children's health. – Flooding results in increased impacts of industrial pollution	Output 3.1.1. ❑ Pathways, access ways and roads, particularly to enable free movement for older people and people with a disability, particularly in times of flood. Flood resilient sanitation to reduce effluent overspill in times of flood Output 2.4.1. ❑ WASH training. ❑ Community-based environmental monitoring
Pollution	– Poor waste and pollution control from industry e.g. gravel from quarries is dumped in rivers resulting in worsening flooding, – Liquid waste from industrial pollution resulting in reduced ecosystem health, food availability and health impacts. – Dust from factories resulting in health impacts on children, higher care responsibilities and reduced income generating opportunities for women.	Output 2.4.1. ❑ Community based environmental monitoring. Outputs: ❑ 1.1.1 Conducting city-wide risk and vulnerability assessment ❑ 1.2.1 Producing hazard maps ❑ 1.3.1 Developing city-wide climate change action plans
Solid and other waste management	– Solid waste is dumped in drainage lines and causes blockages on resulting in settlement flooding and erosion of pathways in immediate vicinity of blockages. Flooding results in knock on issues of: risk of	Output 2.4.1. ❑ Training and support in setting up appropriate solid waste management systems. Output 3.1.1. ❑ Solid waste management and

	injury, lack of egress, housing damage, impact on gardens and livestock.	infrastructure.
Intense storms	– Damage to houses and property during storms. – Damage to crops	Output 2.4.1 ❑ Training for resiliency skills (including for carpenters and other artisans, e.g. cyclone resilient construction, via the Build Back Better guidelines) ❑ Support for Community Based Sanitation Enterprises (CBSEs), e.g. procurement, project management, marketing, accounting, sub-contracting with commercial providers. Output 3.1.1. ❑ Food security: development of improved land and marine management and agricultural and fisheries practices, supporting equipment and licenses, ❑ Alternative incomes: Support for establishing gender inclusive family business ventures, e.g. handicrafts, tailoring, vending. ❑ .

Aiii) Priority projects and linkage to project design

Fiji's national profile of informal settlements has shown the key sub-project types that are most desired by communities in informal settlements (Figure 10). While not all settlements included in the national profile are part of this project, this breakdown highlights the sub-project types that are likely to be important to settlement communities, and have been included on the list for selection by communities at the full VA/CAP stage.

Figure 1 Priority projects nominated by informal settlement communities[49].



As such, consultations undertaken as part of the national profile corroborate the appropriateness of the sub-project types that were priorities for the target communities (in HP3Aii above). These priority sub-project types have directly

[49] People's Community Network (2016) Fiji Informal Settlement Situation Analysis, Fiji Ministry of Local Government Housing and Environment (MLGHE) & UN Habitat Participatory Slum Upgrading Programme.

informed the design of the project through including the following potential sub-projects as options for the vulnerability assessment.

- Access: see above in HP3Aii
- Community facilities: 3.1.1. *Community facilities (e.g. community hall) that can double as an evacuation centre and potentially provide occasional child care if desired.*
- Solid waste: see above in HP3Aii (Output 2.4.1 and 3.1.1.)
- Drainage: see above in HP3Aii (Output 3.1.1.)
- Livelihoods: Output 2.4.1.
- Land tenure: Output 2.4.1. *Support for enhanced community governance*

Inclusion of vulnerable groups. While many concerns of vulnerable groups were shared concerns, several specific issues have been included into the design of this project. These include those listed below: (Note that the gender component has also been supplemented with findings from research undertaken for another complementary project):

- *Women*: women-led public domain improvements to improve safety, training on business and financial management, child care planning to enable economic participation/ resilience, livelihood development around family business ventures, e.g. handicrafts, tailoring, gardening.
- *Children*: actions targeting both 'soft' behaviour change activities around hygiene and 'hard' infrastructure to improve sanitation and reduce health impacts on children.
- *Minorities*: additional support for community governance in mixed-ethnicity settlements to ensure culturally appropriate and gender inclusive processes will inform planning
- *Youth*. Specific steps to include, and promote leadership by young people in the planning process.
- *Older people and people with a disability*. Consideration of specific 'hard' infrastructure components, i.e. pathways above flood levels, to mitigate impacts of mobility restrictions.

B) Community mobilisation and networking

This project has also been based on priorities informal settlement community networks have identified through the course of their networking, mobilisation and strategic planning over several years. PCN facilitates community networks in 160 of Fiji's approximately 200 informal settlements according to the governance structure outlined in Box 2. PCN's strategic plan has been based on the concerns and issues raised by communities through this network approach and this project is closely aligned with that plan.

Box 2. PCN's community network Structure

- ***National Forum***: held once a year and Chaired by the National Director. Members are the three city representatives from each cities. This is where reporting is done and decisions on structural changes and policies and the strategic plan are made.

- ***Regional Forums*** (e.g. Greater Suva Area)***:*** meets 4 times a year. Members are made up of 5 representatives from each local committee. This forum discusses progress, share ideas and plan for future regional development.
- ***Local Forums*** (e.g. Lami cluster) are made up of 4 representatives from each community. Forum meets once a month and is chaired by community facilitators. This where the representatives approve the proposed city wide projects as well as monitors and evaluates the existing projects.
- ***Community Forum***: These are settlement specific forums discuss community issues and ways to improve the quality of life of their settlements. The forum also works on and decides on, project options which are put forward for funding assistance. The forum is made up of 4 representatives of each UNIT of 10 households. They meet twice a month.
- ***Unit Committee*** is a group of 10 households in a savings group, and where much of the activity happens. It is chaired by a unit coordinator. They meet once a week.

Women and young people are represented in each of these forums and they are encouraged to take leadership roles.

The consultative process to set up this structure is described below.

Communities / groups involved	Consultation objective	Outcome	Conclusion
(2008) Various squatter and poorer settlements in the Greater Suva Area, including Lami. (facilitated by a precursor NGO (ECREA) to PCN)	Workshops on social analysis to empower those communities to identify their own problems and identify solutions that they themselves could enact.	Decide on a plan of action to tackle their own problems.	Planning for individual community issues
(2009) 75 communities in the Greater Suva Area and most settlements in the Nadi-Lautoka-Ba corridor (2010) (Network facilitated by PCN)	To build a community network, a sense of solidarity, and share their activities and concerns.	PCN is formed amongst 75 communities in Suva. A constitution and democratic governance structure is established.	Formation of a network and a series of research, empowerment methods
(2010) 160 informal settlement communities in the network (Network meetings facilitated by PCN)	To set up micro-savings schemes (2010.	Most settlements in the network are participants in the scheme. Strong participation by women in managing the savings groups.	Community savings are banked with the prospect of settlement upgrading and resilience building.
(2012-13) Informal Settlement communities in Lami (UN-Habitat with MLGHE and Lami Town Council).	Development of Climate Change Vulnerability Assessment, Eco-system based adaptation study (with SPREP) Development of community level action plans with regards to EbA options with WWF	Climate Change Vulnerability Assessment and EbA options developed and adopted by town council. Micro projects by communities (reforestation)	In-depth community consultations establishing baseline of needs. Only some issues were addressed by project, some issues were addressed by town council.

		started.	
(2010-present) All informal settlements in the network. (Network facilitated by PCN) (ongoing – see Box 2 above).	Regular meetings to share experiences and build a citywide shared agenda for change. Build local 'clusters' of communities as smaller networks, e.g. the Lami, Nadi, Lautoka, Sigatoka clusters.	Solidarity, networking and shared learning. Community level governance structures are strengthened along inclusive principles of youth, women's engagement and decision making, and social justice and climate resilience concerns. PCN Strategic Plan* A shared set of priorities which will be taken forth by communities themselves in their own settlements and that they will help other settlements to enact.	PCN acts as a facilitator for linking communities to development partners. PCN reports outcomes of local, regional and national forums where communities concerns and priorities are expressed. **By membership of the network, all communities are both actively involved in seeking their own solutions, and looking for partnerships with others to do so.**
(2015) Community networks (comprising community leaders – both male and female) in Lautoka, Lami and Nadi as part of the UN Habitat PSUP. (2015) (liaison facilitated by PCN)	To assess willingness to be involved in UN Habitat projects, including AF.	All express willingness and interest in being involved in projects which support them to make improvements their communities in alignment with PCN's principles.	In principle willingness by communities to be involved in UN Habitat projects with PCN through their network.

*See Part II section D above for overview.

As a result of this approach, PCN has become an affiliate of the Asian Coalition for Housing Rights (ACHR), which, along with Slum Dwellers International, are the peak organisations for slum dwellers globally. Their model is one of community-driven development which strongly emphasises consciousness raising, forming networks, empowerment, facilitating communities to find their own solutions to problems and partnering with government, NGOs, the private sector and academic institutions[50]. Fiji has two existing informal settlement upgrading programs, the Citywide and Townwide Informal Settlement Upgrading Programs (T/CWISUPs), both of which have been set up with the ACHR as founding partners. Therefore, these programs' design aligns with the inclusive community-driven approach this global network requires. The ACHR's decentralised approach requires decision making to be devolved to communities and municipal governments to define project priorities, agree on actual projects, and design and implement them cooperatively with national

[50] Asian Coalition for Housing Rights (2014) Fifth Yearly Report of The Asian Coalition For Community Action Program. Asian Coalition for Housing Rights, Bangkok.

government funding. All of the municipalities and several of the communities in this project have been project sites for this program.

As such, communities in this project have experience in defining and articulating their concerns and working collaboratively to find and implement solutions both as participants in their networks and via the T/CWISUPs. Yet, as poor communities, they recognise their fundamental financial and often skills limitations. As such they have an in-principle readiness to partner with external organisations to collaboratively design and implement projects. There is substantial trust by the communities in PCN's (the organisation's) ability to assess the types of project that will be in their interest and to facilitate local level engagement to define local priorities.

As noted above, individual community committees (forums) have a high level of trust in PCN's to represent their concerns at a general level. In addition, given their existing level of mobilisation, they have the capacity to participate in research and engagement activities and represent their own concerns and priorities.

As part of the research and consultation activities undertaken for the preparation of this proposal, briefings were given on the scope of this project's proposed activities. Alongside socio-economic surveying, this utilised PCN's social analysis and community mapping workshop methods that enable participatory identification of community-level issues. These methods are highly participatory and inclusive, and understood to be part of a multi-stage process of PCN's community-driven upgrading approach. Participants were eager to ensure their concerns were conveyed to PCN staff accurately to ensure it has informed the project design. *Participants in in all settlements expressed a strong desire to continue involvement in the project as they will be active participants in defining and implementing activities and the direct beneficiaries.*

Indeed, as there has already been substantial engagement and mobilisation to date, in many cases there is a strong community desire to 'get on' and implement. PCN's and the ACHR's (e.g. including through the TCWISUP) approach is to enable people's concerns and desires to shape material action on real projects which require community members to work through issues, decide on trade-offs and build consensus to move forward. Where there are existing levels of community mobilisation (such as in the target communities), this approach has proved to be effective, both Fiji and elsewhere.

Inclusion of concerns of vulnerable groups As noted above in Part II section D (above), the activities of both PCN and the networks they facilitate adhere to the principles of participation of women and young people in governance, and inclusion of children, older people and people with a disability in planning. This continues to be a feature of the awareness and activities of the target settlement communities.

In summary, as the PCN strategic plan notes, "Most importantly, PCN's strategic plan *is based on the experiences of the members*. …These fundamental principles

[of inclusion of vulnerable groups] underlie the programmes and activities PCN undertakes."[51]

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 18: 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 risk reduction processes and capacity at the community level with particular emphasis on women, youth, older people and other people in vulnerable situations (AF Outcome 3)	Communities have limited understanding of local climate change vulnerabilities and disaster risks and have no strategies in place to address these	Communities have been fully involved in identify climate change vulnerabilities and disaster risks and developing strategies to address these	Without data/information on vulnerabilities and disaster risks and without community 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	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	Target communities have increased the resilience of their communities, houses and other critical infrastructure, leading to overall reduced community climate	Not community driven/appropriate, which would lead to adaptation benefits for fewer people with the same project cost; greater chance of negative social and

[51] PCN Strategic Plan (2014-2016), p4.

change and variability-induced stress (AF Outcome 5)	described in the background section)	change vulnerability and disaster risks. See component 3 and introduction section C for approach	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

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). Outlined below is a summary of the findings of the preliminary screening and assessment process that has been carried out to evaluate environmental and social impacts and risks of the entire project, a categorization of the project and a completed risks and impacts checklist, including mitigation measures. Besides that, the essence of the impact assessments, the environmental and social management plan and the risk monitoring system are described in part III section C and Annex 4 demonstrates in detail how this project will comply with the ESP, which is especially related to dealing with the unidentified sub-projects under component 2.

UN-Habitat conducted a preliminary project screening of environmental and social risks according to the 15 principles outlined in the AF's Environmental and Social Policy based on analyzing information available at project design stage. The potential risks identified and preventive or mitigation measures planned are presented in the 'checklist' below.

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) have been categorized as low risk (Category C). Despite this, steps will be taken to ensure that no environmental or social impacts can occur (see also Section II.E).

The activities under Component 3 are unidentified sub-projects, and as such, some activities have the potential, without an environmental and social safeguarding system, including mitigation measures, to create negative environmental and social impacts. As such, the activities under component 3 are to fit into medium risk (Category B) or low risk (Category C). This is because of the scope of the proposed interventions, that are numerous, small scale and very localized, and proposed 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.

Because of the nature of activities under components 3 the entire project is regarded as a medium risk (Category B) project.

The community and vulnerable groups consultation that took place between 18 and 22 July 2016 preliminarily identified potential sub-projects and included question focused on identifying environmental and social risks and impacts of the project as per the principles discussed in the table below. These principles will be identified and assessed again in detail during the in-depth climate change vulnerability and disaster risk assessments and the following community-based identification and design of adaptation activities (i.e. the unidentified sub-projects).

The project has been designed to generate positive economic, social and environmental impacts, using inputs from especially women and marginalized and vulnerable groups in target communities, local authorities and by incorporating best practices from other projects. The adaptation measures proposed have been selected together by the communities and local authorities, making sure they are culturally appropriate and local.

Table 19: Risks screening of the project at design stage using the 15 principles of the AF's ESP.

Checklist of environmental and social principles	Potential impacts and risks	Further assessment procedure and potential preventive and mitigation measures
Compliance with the Law	Insufficient alignment with laws and technical standards, especially related to implementation of concrete interventions under component 3 Principle that always applies	Relevant national and local authorities and engineers were consulted during the project design phase to ensure compliance with all relevant laws and technical standards, also for possible USPs. This will be done again after identification of sub-projects under component 3. It will be ensured that each person associated with the project is aware of domestic and international laws and compliance needs to SDG and Fiji technical standards requirements (see section E), especially for implementing unidentified sub-projects under component 3 USPs will be screened for this risk during the project
Access and Equity	Unequal distribution among target population / communities and households of project benefits. This principle has been triggered for the planning and implementation process of USPs under component 3	Consultations have and will continue to capture all needs of the target population / communities and households and unidentified sub-project interventions will be designed according to their 'access' needs. Access and equity risk 'triggers' will be included in the vulnerability assessment (by mapping all the groups and their needs) and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. This will avoid discrimination and favoritism. USPs will be screened for this risk during the project

Marginalised and Vulnerable Groups	Imposing any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS. This principle has been triggered for the planning and implementation process of USP under component 3	Consultations have and will continue to capture all issues and needs of marginalized and vulnerable groups and particular impacts on- and needs of marginalized and vulnerable groups will be assessed through the vulnerability assessments (by mapping all the groups and their needs), especially related to access to unidentified sub-project to be developed under component 3. 'Related risk triggers' will also be included in the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project
Human Rights	Failure to proactively protect the rights (i.e. international standards) of all stakeholders affected by the project Principle that always applies	Consultations have and will continue to capture issues related to human rights in target areas and 'triggers' to ensure compliance to UDHR standards will be included in the vulnerability assessments (i.e. specific questions) and the planning and management and monitoring process for implementing all components. It will be ensured that each person associated with the project is aware of international human rights standards through inclusion of details of human rights markers in MoUs and AoCs with government and contractors and through trainings of staff. The UN-Habitat Human rights officers and PAG will check compliance.
Gender Equity and Women's Empowerment	Women and men do not have equal opportunities to participate in the project and do not benefit equally from interventions, especially related to component 3. This can be caused by male-dominated leadership and unequal involvement of women and men. This principle has been triggered for the planning and implementation process of USP under component 3 but is also considered for the planning process (component 1 and 2)	The project will actively pursue equal participation in project activities and stakeholder consultation, e.g. through quota systems and /or organization of separate working groups during vulnerability assessments and planning and development processes. USPs will be screened for this risk during the project
Core Labour Rights	Executing entities for the project may not adhere to the ILO labour Standards and national labour laws.	The project will monitor that international and national labour laws and codes are respected, for any work that may be carried out in relation to the project. This includes the eight International Labour Organization Convention (ILO) core labour standards related to

	Communities may use machinery in an unsafe way and/or not have protective equipment Principle that always applies	fundamental principles and rights of workers, as well as ILO Convention No. 169, which concerns rights of indigenous and tribal peoples. Contracts will be reviewed periodically to ensure compliance with these laws. This will be done by ensuring transparency and accountability and by including standard clauses requiring the compliance with ILO conventions and country level standard in MoUs, AoC and contracts. Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by putting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying protective equipment. USPs will be screened for this risk during the project
Indigenous Peoples	Failure to engage indigenous people in planning and decision-making. Indigenous people not enjoying appropriate or equal access to resulting service This principle has been triggered for the planning and implementation process of USP under component 3	Consultations have and will continue to capture all issues and needs of all communities (iTaukei, as the indigenous people, make up the majority of the population nationwide and in the target areas) and particular impacts on- and needs of indigenous people and other communities will be assessed through the vulnerability assessments, especially related to access to unidentified sub-project to be developed under component 3. The project will be consistent with UNDRIP, and particularly with regard to Free, Prior, Informed Consent (FPIC) during project design, implementation and expected outcomes related to the impacts affecting the communities of indigenous peoples by including standard clauses requiring the compliance with above and Fiji standard in MoUs, AoC and contracts. USPs will be screened for this risk during the project
Involuntary Resettlement	Project actions lead to unintended resettlement consequences The initial screening and vulnerability assessment found that the risk of unintended resettlement consequences is moderate. Although land and tenure issues have been analyzed in depth before selecting target areas the nature of informal settlements is that they are located in precarious locations which may require resettlement (on site) to move people out of harm's way. Due process involving the entire community and other	No unidentified sub-project will be approved where there is the possibility, however small, of forced eviction. MoUs, AoC and contracts will include standard clauses stating that target communities will not be involuntary resettled, also after the project. Involuntary resettlement 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. Consideration of resettlement due to high risks related to climate change will involving the entire community and other relevant stakeholders. USPs will be screened for this risk during the project

	relevant stakeholders will be applied. This principle has been triggered for the planning and implementation process of USP under component 3	
Protection of Natural Habitats	Activities not sited or designed adequately might have negative environmental impacts on natural habitats The initial screening and vulnerability assessment found that the risk of negative environmental impacts on natural habitats is low because interventions under component 3 will focus on enhancing ecosystems and developing infrastructure and services in urban locations where no natural habitats are present However, this principle will still be screened for the planning and implementation process of USP under component 3	Natural habitat 'triggers' (i.e. location, characteristic and value) will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3 (also assessing up- and downstream impacts). The project will ensure compliance to international and national plans and laws and standards by including standard clauses requiring the compliance with international and national plans and laws and standards in MoUs, AoC and contracts. USPs will be screened for this risk during the project
Conservation of Biological Diversity	Activities lead to reduction or loss of biological diversity. The initial screening and vulnerability assessment found that the risk of reduction or loss of biological diversity is low because interventions under component 3 will focus on enhancing ecosystems and developing infrastructure and services in human settlements without major natural habitats However, this principle will still be screened for the planning and implementation process of USP under component 3	Biological diversity 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3 (also assessing up- and downstream impacts and consulting experts). Project Managers to have read and understood the Convention prior to project implementation. USPs will be screened for this risk during the project

Climate Change	Project activities cause maladaptation either in the project sites or upstream or downstream or increase greenhouse gases	Maladaptation and greenhouse gas 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. Climate Change policies and guidelines to be explained to and understood by executing entities and project personnel prior to implementation and monitored by project manager.
Pollution Prevention and Resource Efficiency	Project activities may cause pollution and may not use resources efficiently. The initial assessment found that there is a low risk of using resources for project activities in an inefficient way because sub-project will be small scale and local. However, this principle will still be screened for the planning and implementation process of USP under component 3	The project will use local materials for construction where possible USPs will be screened for this risk during the project
Public Health	Project activities will lead to negative impacts on public health The initial screening and vulnerability assessment found that the risk of negative impacts on public health is low because interventions under component 3 will focus on improving health and access to basic services However, this principle will still be screened for the planning and implementation process of USP under component 3	Health 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project
Physical and Cultural Heritage	Project activities might affect some unidentified cultural sites which exist in the targeted areas and are impacted by project activities The initial screening and vulnerability assessment did not identify cultural heritage sites	Ensure avoidance of project site location on or near a UNESCO World Heritage Site or other locally important heritage sites Cultural heritage 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project

Lands and Soil Conservation	Project activities leading to soil degradation or conversion of productive lands that provide valuable ecosystem services The initial screening and vulnerability assessment found that the risk of soil degradation or conversion of productive lands that provide valuable ecosystem services is low because interventions under component 3 will focus on reducing degradation and ecosystem enhancement However, this principle will still be screened for the planning and implementation process of USP under component 3	Lands and soil 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project

Potential USP intervention and AF principles potentially triggered. Possible preventive and mitigation measures are discussed in the table above.

Potential USP interventions.	AF principles potentially triggered for further screening / assessment and management during implementation component 3
Flood control through construction / improvement of on-site drainage to improve runoff and reduce impacts on access ways	1. Compliance with the law 4. Human rights 6. Core labour rights 8. Involuntary resettlement 12. Pollution prevention and resource
Flood resilient sanitation to reduce effluent overspill in times of flood and reduce health impacts, particularly on children.	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples
Pathways, access ways and roads, particularly to enable free movement for older people and people with a disability, particularly in times of flood.	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Construction of flood (and cyclone) resilient housing and housing improvements, e.g. stilted safe rooms, resilient sanitation, housing alternatives for highly vulnerable households and construction of buildings and structures	1. Compliance with the law 4. Human rights 6. Core labour rights

away from foreshore areas, riverbanks and floodplains;	2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Upgrade, replacement, and diversification of water supply sources and storage types with accompanying conservation education;	1. Compliance with tha law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Solid waste management and infrastructure.	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 12. Pollution prevention and resource
Community facilities (e.g. community hall) that can double as an evacuation centre and potentially provide occasional child care if desired.	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Catchment management, including reforestation, land-use controls, protection of wetlands and soil conservation	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 9. Protection of Natural habitats 10. Conservation of biological diversity 11. Climate change 12. Pollution prevention and resource 15. Lands and soil conservation
Food security: development of improved land and marine management and agricultural and fisheries practices, supporting equipment and licenses,	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 9. Protection of Natural habitats 10. Conservation of biological diversity 11. Climate change

	12. Pollution prevention and resource 15. Lands and soil conservation
Alternative (resilient) incomes: Support for establishing gender inclusive family business ventures, e.g. handicrafts, tailoring, vending.	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 12. Pollution prevention and resource

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project management

In close consultation with the key national government partners the Ministry of Economy (Climate Change Unit and Chief Economic Planning Officer, ODA Unit) representing the National Designated Authority, the Ministry of Local Government, Housing and Environment (key Executing Entity and representative of local authorities) and the People's Community Network (the key civil society partner and umbrella organization of Informal Settlements Communities of the informal settlements communities) the following mechanisms for project coordination and project implementation were agreed upon.

The Ministry of Local Government, Housing and Environment (MLGHE)

The Ministry is the key national Executing Entity. The three key departments of the Ministry cover many of the issues to be addressed by this project and as such the Ministry is well placed to coordinate stakeholder engagement.

The **Permanent Secretary** is the CEO of the Ministry. He will chair the Project Management Committee and is accountable for the management of the project trust fund (see below).

The **Department of Housing** (DoH), through the Director of Housing is the focal point within the Ministry. The Director of Housing represents the Ministry in the project team. The Department of Housing is mandated to support informal settlements upgrading and as such will play a key role in the implementation of project components 2 (in particular training and capacity development) and 3 (the implementation of community level adaptation actions).

The **Department of Town and Country Planning** (DTCP) is the custodian of physical planning in the country. This is includes the development of local planning schemes as well as the elaboration of hazard maps and vulnerability assessments. As such the Department will support the implementation of project component 1 (in particular outputs 1.1 to 1.3) and through project component 4 will support the dissemination of planning tools and processes. The DTCP will be a key agency in advising of likely resettlement risks for specific sites, i.e. if there are planned or potential developments (separate to this project) that may place investments in the selected settlements at risk.

The **Department of Environment** (DE), whilst not in charge of Climate Change plays a key role in ecosystem management and as such will support the implementation of project components 2 (in particular outputs 2.4 and 2.5) and 3 (the implementation of community level adaptation actions as they relate to ecosystem based adaptation). They are also a key referral agency for development activity in riparian and foreshore areas.

The **Department of Local Government** (DLG) is critical for the town/city-level activities under the project. Local governments are appointed in Fiji and the CEOs report directly to the Director of Local Government. Hence the engagement of towns/cities and the dissemination of tools and processes will be part of the role of the Department. The Department will in particular support the implementation of project component 1 and project component 4. The DLG will be a key agency in advising of likely resettlement risks for specific sites, i.e. if there are planned or potential developments (separate to this project) that may place investments in the selected settlements at risk.

Department of Lands (DL), are the land owners on a number of sites, and many projects will require land owners consent. The DL will be a key agency in advising of likely resettlement risks for specific sites, i.e. if there are planned or potential developments (separate to this project) that may place investments in the selected settlements at risk.

The **iTaukei Lands Trust Board** (iTLTB) are responsible for managing development on de-reserved customary land (land removed from customary use requirements, but still within ownership of customary owners) on a number of sites. The project will liaise with the iTLTB (and gain relevant approvals) in the process seeking land owners consent.

iTaukei Affairs Board (iTAB) are responsible for managing development on reserved customary land on relevant sites. The project will liaise with the iTAB (and gain relevant approvals) in the process seeking land owners consent.

Department of Health & Rural Local Authorities (DH and RLAs) are consent authorities for formal development approvals in non-municipal (peri-urban) areas. The DH also provides guidance to municipal health inspectors who are the primary assessors within local governments. As such, the DH will be an important actor in advising on construction and project design at a local level and advising on statutory requirements for approval.

The four local governments of Lami, Nadi Sigatoka and Lautoka (in addition to describing the role, this paragraph will also describe that local government are appointed and report to the Department of Local Government).

The **Ministry of Economy (MoE)** hosts the National Designated Authority (Permanent Secretary) and the Climate Change Unit. The Director, Climate Change Unit will represent the **Permanent Secretary** of the Ministry in the Project Management Committee. A Senior Official of the **Climate Change Unit** (CCU) represents the Ministry in the Project Team. In addition to the strategic project management and oversight role, the Ministry will support the project implementation. In particular project component 1 (output 1.3, city wide plans), project component 2 (output 2.1, community vulnerability assessment tool, output 2.2 community vulnerability assessments) and project component 4 (advocacy and knowledge management)

The Ministry is further accountable for ODA. The **Chief Economic Planning Officer** (ODA) monitors funding streams and supports transparent and effective financial implementation mechanisms such as the establishment of a trust fund (see below)

The **People's Community Network (PCN)** is an NGO and umbrella organization of informal settlements communities. The organization is experienced in a wide range of settlements upgrading approaches and has direct access to the communities. As such PCN will be critical for the implementation of the project (components 1-3 and to some extent 4) as and when direct community participation is critical.

Live and Learn Environmental Education is a NGO with a strong presence in informal settlements in Fiji (and elsewhere in the Pacific). They have a strong capability in sanitation, community education, capacity building for community-based enterprise and environmental management. A particular, strength they have is operating the Western Pacific Sanitation Marketing Program which equips informal settlement communities with technical skills sanitation technology and enterprise skills and support to run Community-Based Sanitation Marketing Enterprises (CBSEs). Live and Learn have successfully partnered with UN Habitat on vulnerability assessment and action planning on a pilot project with a very similar design as this Adaptation Funded project.

Habitat for Humanity is an International NGO which also has a strong presence in informal settlements in Fiji. They have a strong capability in emergency cyclone proof housing, participatory settlement planning, informal settlement sanitation and managing community-based sweat equity construction management. Habitat for Humanity have expressed keen interest in being involved in this project as an technical assistance executing partner.

UN-Habitat is the MIE it will provide project management support and oversight, will provide the secretariat to the Project Management Committee and will lead the Project Team.

Legal and Financial Arrangements

UN-Habitat, the Ministry of Local Government, Housing and Environment, the CEOs of the three local authorities, the Ministry of Economy and the People's Community Network will sign a joint **Memorandum of Understanding** to which this Project Document will be attached to ensure that all partners are fully committed to the project.

The Ministry of Local Government, Housing and Enviroment will set up a **Project Trust Fund** in accordance with the rules and regulations of the Republic of Fiji.

UN-Habitat and the Ministry of Local Government, Housing and Enviroment will sign an **Agreement of Cooperation**, UN-Habitat's financial partnership agreement. Based on the endorsement of the **Project Management Board** very detailed contractual agreements will be entered with the executing entities, including the Ministry's Departments and the Local Governments.

The Permanent Secretary, Ministry of Local Government and Enviroment authorizes financial installments against the contractual agreements upon the recommendation of the **Project Team** consitent of the UN-Habitat representative, the Director of Housing and the Director Climate Change Unit.

For ease of monitoring and to ensure smooth implementation it is proposed that the Peoples' Community Network, the NGO Live and Learn and Habitat for Humanity will directly enter into an Agreement of Cooperation with UN-Habitat.

Project Governance

At the national level, the Project will be supported by a **Project Management Committee** (PMC). The PMC will be formed to oversee and keep abreast of project progress and facilitate the implementation of the project, including overseeing and cooperating with the project team, the technical advisory group, the local streering committees and the project oversight group.

The PMC will be chaired by the Permanent Secretary, MLGHE. The Secretariat will be provided by UN-Habitat. The voting member from UN-Habitat will be the responsible officer at the Regional Office for Asia and the Pacific. Other voting members are the Director, Climate Change Unit, town/city CEOs of the benefitting local governments, the director of PCN and the Director NDMO.

The PMC will: (1) approve annual work plans and review key project periodical reports; (2) will review and approve the contractual agreements, including workplans, with a particular emphasis on environmental and social safeguards, budgets and payment schedules; (3) review any deviations and consider amendments to workplans and contracual arrangements.

The PMC will meet at least once every year and whenever needed in fulfillment of the above functions.

The Project Team (PT), will be comprised of the UN-Habitat Project Manager, the Director of Housing and the Director, Climate Change Unit. The Project Team which will have the responsibility of the management of project activities and ensures compliance with all commitments contained in this project document such as the ESMP. Upon the recommendation of all team members, the Permanent Secretary, MLGHE will release tranches to government executing partners. The will also take the lead in monitoring and evaluation and learning. The PT reports to the PMC.

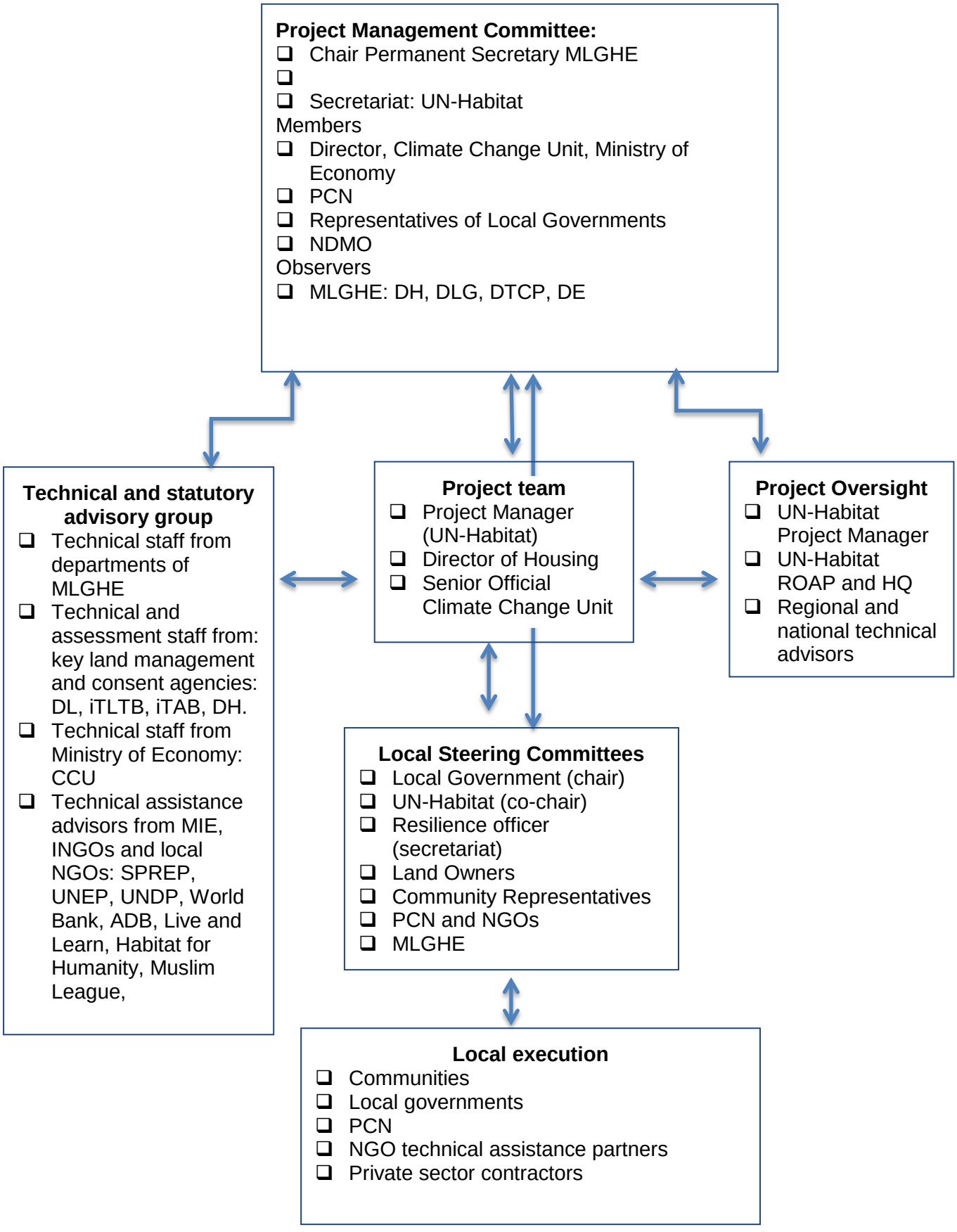
To assist the Project Team on technical questions, a **Technical and Statutory Advisory Group** (TSAG) will be formed to provide guidance and advice related to climate change/resilience, spatial/urban planning, settlements upgrading, service/infrastructure delivery and vulnerable and marginalised people. The main objective of the TSAG is to identify technical strengths and weaknesses of the projects, take stock of available and required technical know-how under different project components, and provide technical advice and quality control throughout the project period. It is likely that members will also be assessment staff from agencies with a formal approval role in development applications, as such the TSAG will provide a forum for technical and statutory issues to be discussed together. This will

also be an important forum for clarifying development processes, identifying entry points for strategic planning and reform, and identifying needs for capacity building. These can also form a platform for identifying aspects of urban development and decision making that can be decentralised. The TSAG will also include participants from international organizations and international NGOs (ADB, WB, UNDP, UNEP, Habitat for Humanity, IFRC) who can tecnical advice on emerging innovations from global good practice and

The **Project Oversight** group is led by the responsible officer in UN-Habitat's Regional Office for Asia and the Pacific (ROAP) under the guidance of the Regional Director and supported by Project Management Officers (financial management and administration) and UN-Habitat's Headquarters (HQ) Monitoring and Evaluation Unit, the Programme Division including the Climate Change Planning Unit, and the External Relations Division, in particular the Advocacy, Outreach and Communications will ensure project management compliance in accordance with UN-Habitat and AF standards and requirements

In support of local (town/city and community level) implementation, **Local Steering Committees** will be formed in the participating towns / cities. These will bring together Local Government representatives, Community Representatives, PCN, MLGHE (DoLG) and UN-Habitat. The Local Steering Committee will fine tune local work plans, review project activities and approve these in line with the environmental and social safeguards, review project outputs (related to the locality) and provide a coordination mechanism within the locality and with the PCM. The local steering committees will meet at least twice per year and as and when needed. The local CEO will chair the LSC, the project manager will co-chair and the local resilience officer will provide the secretariat. **Local Execution**, based on the above process and support mechanism emphasized the empowerment of communities will be led by the communities with direct support of PCN as executing entity. Local governments are to support initiatives through the provision of basic services (e.g. connecting local drainage to trunk infrastructure) and the integration into local plans and action.

Organigram of the project



B. Measures for financial and project risk management

The status of financial and project risks, including those measures required to avoid, minimize, or mitigate these risks, will be monitored throughout the project (as discussed in section D: arrangements for monitoring, reporting and evaluation)

Table 20: Financial and project management risks, significance of risks and measures to manage/mitigate risks.

	Category and risk	Rating: Impact/ probability 1: Low 5: High	Management/mitigation Measure
1.	Environmental/social: Current climate and seasonal variability and/or hazard events result in infrastructure construction delays or undermine confidence in adaptation measures by local communities	Impact: 3 Prob: 2	❑ Current climatic variability will be taken into account in the planning and execution of project activities and especially into project Component 3: infrastructure will be mainly constructed in the dry season/non cyclone season ❑ Criteria for the selection of infrastructure projects at the community level will provide incentives for communities to cooperate towards long-term resilience because they are based on the outcomes of the climate change vulnerability and disaster risk assessments which looks especially at long-term trends and impacts.
2.	Institutional: Loss of government support (at all levels) for the project (activities and outputs) may result in lack of prioritization of AF project activities.	Impact: 4 Prob: 1	❑ Establishment of a project management committee and the overall participatory and inclusive project design will improve national, municipal and beneficiary level ownership throughout and thus enhance government support for project implementation. ❑ UN-Habitat will establish agreements (MoUs and AoCs) to ensure implementing entities will deliver project activities and outputs. UN-Habitat will facilitate planning processes to deliver these outputs at the all levels of government and in communities. ❑ Government staff working on climate change, environment, disaster management, land use and housing will be strongly networked into the project (e.g. involvement assessments and plan development). ❑ A comprehensive assessment of tenure, ownership, development and government plan risks will be undertaken as part of component 2 on the included sites Where any risk exists, a subsequent selection process will occur ensure the full 6,000 households are included. ❑ National Elections will be held in 2018. Whilst the project has buy in at the political level, it is well anchored withi the bureaucracy. Furthermore AoCs and MoUs will be concluded for the entire project period
3.	Institutional: Capacity constraints of local institutions may limit the effective implementation of interventions	Impact: 2 Prob: 1	❑ The project has a strong capacity building and training component, designed to promote effectiveness and sustainability at the community and municipal and national government levels.

4.	Institutional/social Lack of commitment/buy-in from local communities may result in delay at intervention sites.	Impact: 2 Prob: 1	❑ Community stakeholders have been consulted during the full project development phase to ensure their buy-in into the AF project. ❑ A bottom-up approach integrating the community into the AF project's implementation phases – including community contracting - will be followed. ❑
5.	Institutional/social: Disagreement amongst stakeholders with regards to adaptation measures (infrastructure) and site selection.	Impact: 3 Prob: 2	❑ Adaptation measures and intervention sites will be selected using an agreed upon list of criteria to ensure the selection is transparent and equitable. ❑ There will be a participatory approach to the AF project, particularly with regards to climate change vulnerability and disaster risk assessments and related to this, the planning and selection of adaptation measures and site selection.
6.	Institutional: Communities may not adopt activities during or after the AF project, including infrastructure maintenance	Impact: 2 Prob: 2	❑ The interventions will be institutionalized within the ministries, local government bodies and communities to ensure sustainable delivery of (post-) project implementation, including formal agreements for infrastructure maintenance (at national and level) and infrastructure user fees (where feasible) at the community level. Given the commitment of the national government and the policy alignment of this project, and the direct reporting mechanisms of local government to national government, it can be assumed that such agreements will be honoured. ❑ PCN will support the participating communities beyond the project implementation ensuring community level governance support as well as support for maintenance. ❑ Capacity building and training of communities will be undertaken to improve their awareness and understanding of the benefits of the activities, including infrastructure maintenance. ❑ Communities will be involved in project implementation/decision making throughout the project. In depth community consultations will take place at the start of the project/during the Vulnerability assessments.
7.	Financial: Complexity of financial management and procurement. Certain administrative processes could delay the project execution or could lack integrity	Impact: 3 Prob: 2	❑ Financial management arrangements have been defined during project preparation. ❑ UN-Habitat's control framework, under the financial rules and regulations of the UN secretariat, will ensure documentation of clearly defined roles and responsibiities for management, internal auditors, the governing body, other personnel and demonstrates prove of payment / disbursement. ❑ A trust fund account (at MLGHE) will ensure that the bulk of the funds will be channeled through a mechanisms that ensures transparency and immediate accountability vis-a-vis the MIE and the designated authority as well as the implementing entities and beneficiaries. The mechanism is designed to avoid delays. ❑ Procurement will be done by the executing entities as agreed through AoCs. The project manager and the project team have a certifying role (for key procurements / expenditures). ❑

8.	Instututional: Delays in project implementation, and particularly in the development of infrastructure interventions	Impact: 1 Prob: 2	❑ The ownership by the Government has been high during the preparation phase which will reduce this risk. ❑ A pilot community project (based on the work done by UN-Habitat under its Participatory Settlements Upgrading Programme) will be implemented in the first year to ensure that any unforseen bottlenecks can be resolved prior to the roll out. ❑ Partnerships with key government agencies and infrastructure and community resilience project planning will start early on – in tandem with the community action planning. Institutional arrangements will be put in place well before the finalization of community action plans. ❑ Lessons learnt from the work done by PCN and MLGHE are incorporated in the project design.
9.	Institutional: A lack of coordination between and within national government Ministries and Departments.	Impact: 1, Prob:2	❑ The Project Management Committee under the leadership of MLGHE is to ensure coordination. Should UN-Habitat observe coordination problems, the agencey will try to resolve issues directly with concerned parties and or the PMC.
	Legal Delays or barriers in gaining approval for infrastructure and housing due to delays in the development process or due to land tenure issues.	Impact 4 Prob 1	❑ During the project preparation phase communities have been identified where tenure issues (at the level of the settlement) are not likely to impact project implementation. ❑ The PMC and the LSC are tasked to ensure that such a low risk is maintained and should land tenure become an issue, other projects / other sites may be selected. ❑ Close collaboration with land owners from the onset will ensure that tenure insecurity is averted.

C. Measures for the management of environmental and social risks

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). For that purpose, environmental and social risks and impacts of the project and related activities need to be identified and addressed (so that the project does not unnecessarily harm the environment, public health or vulnerable communities). As described in Sections II. E and II. K systematic screening and assessment has been done based in broad consultation with national and local government stakeholders, a wide range of other concerned stakeholders as well as the target communities. The project design has benefitted from this process.

To ensure that remaining risks are well managed the project management and governance (Section III.A), Monitoring and Evaluation (Section III.D) fully take the management of environmental and social risks into account. In addition an Environmental and Social Management System will be put in place to ensure full compliance with the Adaptation Fund's ESP.

The Environmental and Social Management Plan (ESMP), developed for this project, and detailed in Annex 4, identifies measures and actions that reduce potentially adverse environmental and social impacts to acceptable levels. The plan includes compensatory measures, if applicable. Specifically, the ESMP:

(i) identifies and summarizes all anticipated adverse environmental and social impacts in line with the Adaptation Fund's ESP principles;

(ii) describes mitigation measures, both from the perspective of mitigating risks at each activity and from the perspective of upholding all ESP principles.

(iii) describes a process which supports the screening and assessment of all project activities and the conditions under which screening and mitigation action it is required

(iv) clearly assigns responsibilities for screening, assessment, mitigation actions and, approval and monitoring;

(v) takes into account, and is consistent with, other mitigation plans required for the project in particular those that relate to national law

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 (hese assessments will themselves be approved for their compliance with the 15 ESP Principles). The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of vulnerable and marginalized groups, women, youth, elderly, etc., in all target settlements/communities, as could be done in the proposal development phase.

Based on this information (i.e. community and climate change adaptation criteria) and the assessment of environmental and social risks per USP, communities will select the most appropriate sub-projects. This is the essence of the execution of component 3, where the selection and design of sub-projects will be based on a comprehensive / detailed information and inputs derived from a planning approach where all relevant stakeholders will be involved, including communities and vulnerable and marginalized groups. In this way, all risk can be captured and the design will be appropriate for targets communities and groups and involvement will strenghten maintenance options and sustainability. For the activities under component 3, but also for all other activites, i.e. those under components 1,2 and 4, the ESP will be upheld by ensuring that:

(i) All MoUs and Agreements of Cooperation with Executing Entities will include detailed reference to the ESMP and in particular the 15 ESP Principles.

(ii) The ToR of Committees and Advisory Groups, project personnel and focal points will include will include detailed reference to the ESMP and in particular the 15 ESP Principles.

(iii) All key Executing Entity Partners will receive training / capacity development to understand the 15 Principles, the ESMP and in particular their responsibilities. This will include members of the Project Management Committee, the Local Steering Committees and the Communities.

(iv) A Monitoring and Evaluation Framework will be developed by the project management team and presented for approval to the Project Management Committee.

(v) All project activities will be screened against the 15 environmental and social risks. This will be done in spite of any previous screening that may have already been done during the project design phase. In addition to upholding the ESP of the Adaptation Fund and to familiarize all project stakeholders with the 15 ESP principles, this will also ensure that all stakeholders fully take ownership of the environmental and social safeguards procedures of the project and that any activity that may have been altered or not yet assessed in detail (such as USPs) are captured.

(vi) A grievance mechanism is also part of the plan. This will allow any affected stakeholder to raise concerns, anonymously if they wish, to the community leaders the local steering committee, the project team or the PMC. Modalities for raising grievances will include a postal address to which community members can write in any language and an email address on the project's website and a confidential telephone number. In addition to the grievance mechanism, local staff will be trained to have an 'open-door' policy with communities, so that communities can discuss any aspect of the project at any time. This less formal mechanism will also enable project staff to listen to communities' concerns or ideas and promote them in the implementation of the project. More formal consultations and workshops, held at local and national levels throughout the project implementation will also serve as a means for stakeholders to raise concerns or suggests with the project's implementation.

Annex 4 provides details on this process and the tools that will ensure participation, assign responsibilities for risk screening and assessment, mitigation measures and monitoring and grievance mechanisms.

D. Arrangements for monitoring, reporting and evaluation

The AF project will comply with formal guidelines, protocols and toolkits issued by the AF, UN-Habitat and the government of Fiji. The Monitoring and Evaluation (M & E) of progress in achieving project results will be based on targets and indicators established in the Project Results Framework (see below). Besides that, the status of identified environmental and social risks and the ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks, will be

monitored throughout the project (at the activity level and through annual project performance, mid-term and terminal reports). The same applies to financial and project management risks and mitigation measures.

Participatory monitoring mechanisms (involving different levels of government and communities) will be put in place for the collection and recording of data to support the M & E of indicators. The vulnerability assessments and action planning processes will generate data that will be collected and presented in a geo-tacked database. Whilst this process is to inform programming, it also provides a solid baseline for monitoring. Town/city data collection will further be entered into this database and as such strengthen monitoring. The communities will be involved in data collection and in community consultations in data analysis. This will allow beneficiary communities to work directly with the project's M & E mechanism, to highlight issues in project delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains. Data collected will include marginalized groups (e.g. women) aggregated (if possible). Project site visits will be jointly conducted based on an agreed schedule to assess project progress first hand.

The project team will develop an **M & E Plan** during the project's inception phase, which will be distributed and presented to all stakeholders during the initial workshop. The emphasis of the M & E Plan will be on (participatory) outcome/result monitoring, project risks (financial & project management and environmental & social) and learning and sustainability of the project. Periodic monitoring will be conducted through visits to the intervention sites.

UN-Habitat will ensure that the project team and the key national executing partners are fully briefed on the M&E requirements to ensure that baseline and progress data is fully collected and that a connection between the Knowledge Management component and M&E is established. The Agreements of Cooperation will reflect these too.

MLGHE will subsequently provide clear guidance to all executing partners, in particular the local governments on how to support M&E. The Agreements of Cooperation will reflect these roles too.

Annual Project Performance Review (PPR) will be prepared to monitor progress made since the project's start and in particular for the previous reporting period. The PPR includes, but is not limited to, reporting on the following:

- ❑ Progress on the project's objective and outcomes – each with indicators, baseline data and end- of-project targets (cumulative);
- ❑ Project outputs delivered per project outcome (annual);
- ❑ Lessons learned/good practice;
- ❑ Annual Work Plan and expenditure;
- ❑ Annual management;
- ❑ Environmental and social risks (i.e. status of implementation of ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a

description of any corrective actions that are deemed necessary.

- ❑ Project financial and management risks (same as per above)

An independent **Terminal Evaluation** will take place as last activity before the operational closure of the project in accordance with AF guidance and following UN-Habitat practices based on the OECD DAC framework. The terminal evaluation will focus on the delivery of the project's results, as initially planned and then reflected in the M&E framework, including the implementation environmental and social mitigation measures (and as corrected after the Mid-Term Evaluation, if any such correction took place). The terminal evaluation will assess the impact and sustainability of results, including their contribution to capacity development and the achievement of adaptation benefits.

The **reports** that will be prepared specifically in the context of the M & E plan are: (i) the M & E plan, (ii) the project inception report, (iii) Annual-, and terminal project performance reports and (iv) technical reports.

For the M & E budget and a breakdown of how implementing entity fees will be utilized in the supervision of the M&E function, please see the detailed budget (section G). For related data, targets and indicators, please see the project proposal results framework (section E).

E. Project proposal results framework

Table 21: Project results framework with indicators, their baseline, targets, risks & assumptions and verification means.

Expected Result	Indicators	Baseline data	Targets	Risks & assumptions	Data collection method	Frequency	Responsibility
Project objective: increase the resilience of informal urban settlements in Fiji that are highly vulnerable to climate change and disaster risks							
Project component 1: Institutional strengthening to enhance local climate response actions							
Outcome 1 Reduced vulnerability at the city-level to climate-related hazards and threats	Local capacity strengthened to build resilience based on relevant threat and hazard information generated and disseminated to stakeholders in a timely manner (AF indicator 1)	1 (Nadi)	4 Local authorities integrate resilience in local planning schemes	Local Planning scheme updated within project time frame	Review of LPS	Baseline, and end	UN-Habitat
Output 1.1. City-wide (updated) risk and vulnerability assessment conducted in target areas	No. and type of projects that conduct and update risk and vulnerability assessments (AF indicator 1.1.) – city-wide assessments The assessments will look at gender-differentiated vulnerabilities to climate risks	2 (Lami and Nadi)	2 city-wide assessments (new) 2 assessments updated	Difficult to measure quality of generated vulnerability and risk assessments.	Collect information from municipalities Information collected will be gender-disaggregated	Baseline, mid-term and end	UN-Habitat
Output 1.2. Hazard maps produced	Number of Hazard maps produced – city-wide	1	4 city-wide (included relevant types of hazards)	Ensure relevant types of hazards are included	Collect information from municipalities	Baseline, mid-term and end	UN-Habitat
Output 1.3. City-wide climate change action plans developed in	Number of city-wide climate change action plans developed	1	3	Required to compile and review all relevant plans and to identify mentioning of climate change priorities	Review of plans	Baseline, mid-term and end	UN-Habitat

target areas				and implications for infrastructure development			
Output 1.4. Urban Planner / Resilience officer established.	Urban planner / Resilience officer established.	0	3	Local governments integrate resilience officer into structure	Check contract	Baseline, mid-term and end	UN-Habitat
Activities 1.1.1 Conduct city-wide risk and vulnerability assessment for participating towns. 1.2.1 Produce hazard maps. 1.3.1 Develop city-wide climate change actin plans for participating towns. 1.4.1 Establish an urban planner/resilience officer.				Milestones ▪ Assessments conducted (month 15) ▪ Action plans developed (month 24) ▪ Urban planner / resilience officer established (month 15) ▪ Inception workshop report (month 6) ▪ Steering Committee (month 5, 17, 29, 41)			
Project Component 2: Local (community/informal settlements) resilience strengthening							
Outcome 2 Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity at the community level with particular emphasis on women, youth, older people and other people in vulnerable situations	Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses – disaggregated by gender and age (AF indicator 3.1.)	0	Mid term: 30 % End: 50 % At least 50% women	Community members actively engage in the programme	Active engagement in action planning – to be recorded in community consultations	Baseline, mid-term and end	Executing entities
Output 2.1: Assessment and planning tool for community vulnerability assessment and action planning developed	No. and type of risk reduction actions or strategies introduced at local level (AF indicator 3.1.1.) – number of assessment and planning tools developed	0	1	Tool is appropriate for use by community facilitators and will result in wide-ranging data helping to assess exposure, sensitivity and adaptive capacity in an age, gender disaggregated manner	Project data base and generated reports	Baseline, mid-term and end	Executing entities and UN-Habitat
Output 2.2: Community-based climate vulnerability and informal settlements assessments,	No. and type of risk reduction actions or strategies introduced at local level (AF indicator 3.1.1.) – number of	0	16	Community assessments are fully reflecting climate change impact and adaptive capacity and are of relevance to local	Review of community-based assessments Information collected will be gender-disaggregated	Baseline, mid-term and end	UN-Habitat

including hazard maps, conducted, in target informal settlements	assessments conducted The assessments will look at gender-differentiated vulnerabilities to climate risks			government and communities			
Output 2.3: Community-level resilience, recovery and upgrading plans developed in target informal settlements	No. and type of risk reduction actions or strategies introduced at local level (AF indicator 3.1.1.) – number of plans developed Roles and responsibilities of women are identified in the plans	0	16	Action plans are fully based on assessments and adequately reflect community priorities	Review of action plans	Baseline, mid-term and end	UN-Habitat
Output 2.4: 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 ❑ Gender sensitive safety audits ❑ Environmental and eco-system management	No. and type of risk reduction actions or strategies introduced at local level (AF indicator 3.1.1.) – number of target population people participating in assessments and awareness activities	0	16 At least 50% of women	Awareness programmes (including multiple themes) are conducted with all communities	Check assessment and training reports and photos of activities	Baseline, mid-term and end	UN-Habitat

Output 2.5: 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 for women in business and financial management skills ❑ Investigate options for provision of affordable childcare ❑ Training in coastal zone/ecosystem management ❑ Strategy development for food security and sustainable agriculture	No. and type of risk reduction actions or strategies introduced at local level (AF indicator 3.1.1.) – number of trainings provided and target group people attending them	0	16 At least 50% women	Training programmes (including multiple themes) are conducted with all communities	Check assessment and training reports and photos of activities Gender-disaggregated participant list will be produced.	Baseline, mid-term and end	UN-Habitat
Activities 2.1.1 Develop assessment and planning tool. 2.2.1 Conduct community-based climate vulnerability assessments in identified informal settlements 2.3.1 Develop community-level resilience, recovery and upgrading plans in identified informal settlements. 2.4.1 Organise adaptation and risk reduction assessment and awareness activities for targeted population groups. 2.5.1 Strengthen targeted household and community livelihood strategies in relation to climate change impacts.				Milestones ▪ Tools developed (month 6) ▪ Assessments conducted (month 15) ▪ Plans developed (month 21) ▪ Assessments conducted / awareness(month 24 (50%), 36 (100%)) ▪ Households and communities trained (month 24-10%, 36-50%, 48-100%)			
Project component 3: Enhancing resilience of community level physical, natural and social assets and ecosystems							

Outcome 3 Increased adaptive capacity with relevant development and natural resource sectors and increased ecosystem resilience in response to climate change and variability-induced stress	Physical infrastructure improved to withstand climate change and variability-induced stress (AF indicator 4.2.) and Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress (AF indicator 5) - number of settlements, people and women that have access to improved or newly constructed resilient infrastructure and/or ecosystem services and natural resources	0	6.000 people of which at least 50 percent women	Measurement per community (inhabitants per community) required	Count of settlements and people with access with improved or newly constructed physical infrastructure or ecosystem service and natural assets. Project data base and reports will demonstrate how many people (disaggregated by age and gender) have access and how resilience has improved	Baseline, mid-term and end	UN-Habitat
Output 3.1 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	No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type) (AF indicator 4.1.1.) No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types) (AF indicator 4.1.2.)	To be defined at base-line 0	Details to be defined during the project - after community prioritization and selection of interventions To be defined during the project - after community prioritization and selection of interventions and gender inclusion assessment (but can include	Documents and tools required assessing the level of improvement and adaptation of service. Documents and tools required to assess level of improvement and adaptation	Count mosquito infections per settlement by using survey Project database Count of improved or newly constructed infrastructure	Baseline, mid-term and end	UN-Habitat

	No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets) (AF indicator 5.1.)	0	housing, buildings, EWSs, (AF indicator 1.2), waste, water, sanitation infrastructure To be defined during the project - after community prioritization, selection of interventions and gender inclusion assessment (but can include crop diversification, ecosystem management, mangrove restoration and land, coastal and water conservation)	Documents and tools required to assess level of improvement and adaptation	Project database Count of intervention per type of natural asset		
Activities 3.1.1 Developing or strengthening currently vulnerable physical, natural, and social assets and ecosystems in response to climate change impacts, including variability, based on identified and prioritized needs, also specified for women, as articulated in the community resilience strategy				Milestones ▪ Infrastructure/natural assets constructed / developed (month 12 (1 demo project), 24 – 10%, 36-50%, 48-100%)			
Project component 4: Awareness raising, knowledge management and communication							
Outcome 4 Project implementation is fully transparent. All stakeholders	Project outcomes are of relevance to other stakeholders	0	To be defined	Processes and tools are used by other stakeholders Communications strategy is in place	Review of use of tools (downloads and use in training events)	Baseline, mid-term and end	UN-Habitat

are informed of products and results and have access to these for replication							
Output 4.1: 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	No of materials Gender-specific lessons included	0	Number to be defined	Government supports roll out	Online and in print	Regular	UN-Habitat
Output 4.2: Regional Advocacy and replication	No of materials and presentations	0	Number to be defined	Requires international channels to be utilized	Online, print and presentations	Regular	UN-Habitat
Activities 4.1.1 Establish mechanism to generate, capture and distribute lessons learned and best practices regarding resilient development. 4.2.1 Support regional advocacy and replication.				Milestones ▪ Website established (month 12) ▪ Advocacy material produced (months 12, 24, 36, 48) ▪ Regional advocacy (events, material) – month 48			

Table 22: Activities and milestones (x)

Activity	Year 1				Year 2				Year 3				Year 4			
1.1.1 Conduct City-wide risk and vulnerability assessment in target areas					x											
1.2.1 Produce hazard maps in target areas					x											
1.3.1 Develop City-wide climate change action plans in target areas								x								
1.4.1 Establish an urban planner / resilience officer						x										
2.1.1 Develop assessment and planning tool		x														
2.2.1 Community based vulnerability assessment						x										
2.3.1 Community Action Plans								x								
2.4.1 Community risk reduction assessment and awareness								x				x				

2.5.1 Community capacity development - resilient livelihoods								x				x				x
3.1.1 Implementation of sup-projects				x				x				x				x
4.1.1 Advocacy and Knowledge Management				x				x				x				x
4.1.2 Regional Advocacy																x

F. Project alignment with the Adaptation Fund results framework

Table 23: Project alignment with the Adaptation Fund results framework

Project Outcome	Project Outcome Indicator	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Outcome 1.1: Reduced vulnerability at the city-level to climate-related hazards and threats	Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis – number of assessments, maps and plans available online	**Outcome 1:** Reduced exposure at national level to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	**295,143**
Outcome 2.1: Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity at the community level with particular emphasis on women, youth, older people and other people in vulnerable situations	Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	**Outcome 3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	**480,000**
Outcome 3.1: Increased adaptive capacity with relevant development and natural resource sectors	Physical infrastructure improved to withstand climate change and variability-induced stress	**Outcome 4:** Increased adaptive capacity within relevant development and natural resource sectors	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	**2.610.000**
	Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	**Outcome 5**: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	
Project Output	**Project Output Indicator**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Output 1.1: City-wide (updated) risk and vulnerability assessment	No. and type of projects that conduct and update risk and vulnerability	***Output 1:*** Risk and vulnerability assessments conducted and updated at a	1.1. No. and type of projects that conduct and update risk and vulnerability	**295,143**

conducted	assessments – city-wide assessments	national level	assessments	
Output 2.1.1: Community-level resilience, recovery and upgrading plans developed	No. and type of risk reduction actions or strategies introduced at local level – number of tools and plans developed and number of assessments and trainings conducted	***Output 3***: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. and type of risk reduction actions or strategies introduced at local level	**480,000**
Output 3.1: 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	No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type)– reduction in mosquito transmitted diseases No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)	***Output 4:*** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type 4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)	**2.610.000**
	No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)	***Output 5:*** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)	

Table 24: Indicative Core Indicator Targets

Adaptation Fund Core Indicators	Indicative Targets	Comments
1 Number of Beneficiaries	6,000	This only measures beneficiaries of the direct adaptation actions (Component 3)
2. Early Warning Systems	5	This is an estimate, the vulnerability assessments and action planning may result in some settlements prioritizing EWS

3. Assets Produced, Developed, Improved, or Strengthened	32	At this stage it is conservatively estimated that two infrastructure systems / mayor asset per informal settlement will be implemented
4. Increased income, or avoided decrease in income	1,200	Beneficiary households participating in the project. Community infrastructure is expected to directly (contracting) contribute to income generation as well as indirectly through improved livelihood opportunities
5. Natural Assets Protected or Rehabilitated	4	It is estimated that four communities will prioritize the protection or rehabilitation of natural assets.

Methodology to apply: https://www.adaptation-fund.org/wp-content/uploads/2016/04/AF-Core-Indicator-Methodologies.pdf

G. Detailed budget

Table 25: Budget overview

Programme component	Outputs	Activity	Total budget	Year 1	Year 2	Year 3	Year 4
Institutional strengthening to enhance local climate response actions	1.1 City-wide (updated) risk and vulnerability assessment conducted for participating towns.	1.1.1 Conduct city-wide risk and vulnerability assessment for participating towns.	$67,143	$67,143			
	1.2 Hazard maps produced	1.2.1 Produce hazard maps.	$30,000	$30,000			
	1.3 City-wide climate change action plans developed for participating towns.	1.3.1 Develop city-wide climate change action plans for participating towns.	$60,000	$45,000	$15,000		
	1.4 Urban planner/resilience officer established in three towns.	1.4.1 Establish an urban planner/resilience officer.	$138,000	$23,000	$46,000	$46,000	$23,000
	Project component total		**$295,143**	**$165,143**	**$61,000**	**$46,000**	**$23,000**
Local (community/informal settlements) resilience strengthening	2.1 Assessment and planning tool for community vulnerability assessment and action planning developed.	2.1.1 Develop assessment and planning tool.	$30,000	$30,000			
	2.2 Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in participating towns.	2.2.1 Conduct community-based climate vulnerability assessments in identified informal settlements.	$50,000	$50,000			
	2.3. Community-level resilience, recovery and upgrading plans developed in identified informal settlements.	2.3.1 Develop community-level resilience, recovery and upgrading plans in identified informal settlements.	$50,000		$50,000		
	2.4 Awareness raising activities for targeted population groups participating in adaptation and risk reduction assessment and awareness activities focused on (at least) (1) early warning systems needs, (2) housing assessments and resilience, and (3) environmental and eco-system management.	2.4.1 Organise adaptation and risk reduction assessment and awareness activities for targeted population groups.	$150,000	$75,000	$50,000	$25,000	
	2.5 Training of targeted household and communities on livelihood strategies in relation to climate change impacts, including variability, through (1) training for resiliency skills (including for carpenters and other artisans), (2) training in coastal zone/ecosystem management, and (3) strategy development for food security and sustainable agriculture.	2.5.1 Strengthen targeted household and community livelihood strategies in relation to climate change impacts.	$200,000	$25,000	$50,000	$100,000	$25,000
	Project component total		**$480,000**	**$180,000**	**$150,000**	**$125,000**	**$25,000**

Enhancing resilience of community level physical, natural and social assets and ecosystems.	3.1 Physical, natural, and social assets and ecosystems developed or strengthened in response to climate change impacts, with a consideration of the following sectors and options: urban development and housing; communications and DRR; food security and sustainable agriculture sector; human health and welfare; marine and fisheries; waste and waste infrastructure; and water resources and infrastructure.	3.1.1 Developing or strengthening currently vulnerable physical, natural, and social assets and ecosystems in response to climate change impacts, including variability, based on identified and prioritized needs as articulated in the community resilience strategy	$2,610,000		$610,000	$1,500,000	$500,000
	Project component total		**$2,610,000**	**$0**	**$610,000**	**$1,500,000**	**$500,000**
Awareness raising, knowledge management and communication	4.1 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.	4.1.1 Establish mechanism to generate, capture and distribute lessons learned and best practices regarding resilient development.	$110,000	$30,000	$30,000	$20,000	$30,000
	4.2 Regional Advocacy and replication.	4.2.1 Support regional advocacy and replication.	$40,000			$20,000	$20,000
	Project component total		**$150,000**	**$30,000**	**$30,000**	**$40,000**	**$50,000**
Project Activities Total			**$3,535,143**	**$375,143**	**$851,000**	**$1,711,000**	**$598,000**
Programme execution		Project Manager	$240,000	$60,000	$60,000	$60,000	$60,000
		Office support staff	$40,000	$10,000	$10,000	$10,000	$10,000
		Office facilities	$40,000	$10,000	$10,000	$10,000	$10,000
		Travel related to execution	$24,000	$6,000	$6,000	$6,000	$6,000
		Evaluation	$25,000				$25,000
Programme execution total			**$369,000**	**$86,000**	**$86,000**	**$86,000**	**$111,000**
Total Programme Cost			**$3,904,143**	**$461,143**	**$937,000**	**$1,797,000**	**$709,000**
Programme cycle management		PSC 7 Percent (on total operational budget including components below) approx 7.1 percent	$277,121	$32,733	$66,509	$127,553	$50,326
		Evaluation support cost (HQ)	$10,000	$1,000	$3,000	$4,000	$2,000
		Project Support Costs (ROAP) - Project Management Committee Meetings - IE staff salary / supervision of reports etc - Project supervision missions	$44,731	$5,465	$10,136	$21,192	$7,939
Programme cycle management total			**$331,852**	**$39,197**	**$79,645**	**$152,745**	**$60,265**
Amount of Financing Requested			**$4,235,995**	**$500,340**	**$1,016,645**	**$1,949,745**	**$769,265**

Table 26: budget Notes

Project item	Budget description and related output	Description of expenditures
Outcome 1. Total: $295.143		
A	Contractual services, workshops, materials & goods and travel **City-wide (updated) risk and vulnerability assessment conducted for participating towns**	Main partners MLGHE (Dep. of Housing), People's Community Network (PCN), local governments Climate Change Assessment Expert (int): USD 30,000 Community Mobilizer, GIS support, enumerators USD 14,000 Training USD 3,000 Communication (data for tablets / GIS etc) USD 1,000 Laptops (2), printer USD 4,000 Transport (travel / per diem) USD 8,000 City consultations USD 2,143 Production of maps, printing of assessments etc. USD 5,000
B	Contractual services, materials & goods and travel **Hazard maps produced**	Main partner MLGHE (Dep. of Town & Country Planning Urban Planner / DRR expert (int): USD 18,000 Training USD 3,000 Planners (DoTCP) - overtime USD 5,000 Transport (travel / per diem) USD 4,000
C	Contractual services, workshops, materials & goods and travel **City-wide climate change action plans developed for participating towns**	Main partners MLGHE (Dep. of LG), People's Community Network (PCN), local governments Climate Change Planner: USD 20,000 Local Planners, GIS support, enumerators USD 14,000 Training USD 2,000 Transport (travel / per diem) USD 10,000 City consultations USD 6,000 Production of maps, printing of plans etc. USD 8,000
D	Contractual services **Urban planner/resilience officer established in three towns**	3 years urban planners/resilience officer hired USD 138,000
Outcome 2. Total: $480.000		
E	Contractual services, workshops, materials & goods **Assessment and planning tool for community vulnerability assessment and action planning developed**	Main partner (PCN), SPC, Climate Change Unit, MLGHE, RMIT, Live and Learn, Habitat for Humanity. Climate Change Planning / Assessment Expert: USD 15,000 Capacity Development Expert USD 8,000 Pilot training USD 5,000 Layout and printing USD 2,000
F	Contractual services, workshops, materials & goods and travel **Community-based climate vulnerability and informal settlements assessments, including hazard maps, conducted, in informal settlements in participating towns**	Main partner People's Community Network (PCN), Live and Learn, Habitat for Humanity. Climate Change Assessment Expert: USD 20,000 Community Mobilizer, GIS support, enumerators USD 10,000 Training USD 2,000 Rental of drone, tablets USD 3,000 Communication (data for tablets / GIS etc) USD 1,000 Transport (travel / per diem) USD 10,000 Production of maps and documents USD 4,000
G	Contractual services, workshops, materials & goods and travel **Community-level resilience, recovery and upgrading plans developed**	Main partners (PCN), local governments, Live and Learn, Habitat for Humanity. Climate Change Planner: USD 20,000 Local Planners, Community Mobilizers, Facilitators USD 12,000

	in identified informal settlements	Transport (travel / per diem) USD 10,000 Community consultations USD 5,000 Production of maps, printing of plans etc. USD 3,000
H	Contractual services, workshops, materials & goods and travel **Awareness raising activities for targeted population groups participating in adaptation and risk reduction assessment and awareness activities focused on (at least) (1) early warning systems needs, (2) housing assessments and resilience, and (3) environmental and eco-system management**	Main partners PCN, SPREP, DoE, DoH, Live and Learn, Habitat for Humanity. Training coordination USD 20,000 Review of training needs / TNA (including travel etc.) USD 5,000 Training material development USD 20,000 Resilience Training Course (housing and community assets) Training on early warning systems (pre-installment) Training on environment and eco-system mgt USD 105,000
I	Contractual services, trainings, materials & goods and travel **Training of targeted household and communities on livelihood strategies in relation to climate change impacts, including variability, through (1) training for resiliency skills (including for carpenters and other artisans), (2) training in coastal zone/ecosystem management, and (3) strategy development for food security and sustainable agriculture.**	Main partners PCN, DoH, Sustainable Housing and Livelihoods Programme Live and Learn, Training coordination USD 30,000 Training support for each city USD 30,000 Training material development USD 10,000 Training programmes in parallel with community asset development, with emphasis on resilience skills (artisans, early warning system installation and management, eco-system management, food security etc. USD 130,000
Outcome 3 Total: $2.610.000		
J	Contractual services for the design and construction of infrastructure **Physical, natural, and social assets and ecosystems developed or strengthened in response to climate change impacts, with a consideration of the following sectors and options: urban development and housing; communications and DRR; food security and sustainable agriculture sector; human health and welfare; marine and fisheries; waste and waste infrastructure; and water resources and infrastructure**	Main partners PCN, Habitat for Humanity, Live and Learn, MLG and other Ministries, NDMO, local councils Implementation of concrete climate action in direct response to community action plans USD2,610,000 Adaptation options and indicative costing are presented in detail in Table 10 Based on vulnerability, resilience impact, need (poverty and other socio-economic indicators) interventions at the community and household level will be selected – as based on decisions of the Project Management Committee and the Local Steering Committees.
Outcome 4 Total: $150.000		
K	Contractual services, materials & goods **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**	Main partners CCU, MLGHE Knowledge Management and Advocacy Expert USD 30,000 Project and Community Advocacy Material dev & printing USD 12,000 Community government dialogue mechanism USD 5,000 Settlements Summit USD 15,000 Videos, TV, radio USD 18,000 Facebook, Twitter, website USD 15,000 Computer / printer / communication USD 15,000

L	Contractual services, materials & goods **Regional Advocacy and replication**	Main partner CLGF Regional workshop (climate change component) Regional advocacy material for local governments	 USD 25,000 USD 15,000
Programme execution. Total: $369.000			
M	Project manager	Project manager (UN-Habitat)	USD 240,000
N	Office support staff	Office support staff (in support of financial mgt and admin)	USD 40,000
O	Office facilities	Office facilities (rental co-share and office appliances and supply)	USD 40,000
P	Travel related to execution	Travel related to execution (project manager)	USD 24,000
Q	Evaluation	Evaluation (external evaluation at end of project)	USD 25,000
Programme cycle management. Total: **$331.852**			
R	PSC 7 Percent (on total operational budget including components below) approx 7.1 percent	Project Support Cost[52]	USD 277,121
S	Evaluation support cost (HQ)	Evaluation support cost – Evaluation Unit (HQ) [53]	USD 10,000
T	Project Support Costs (ROAP)	Project Management Committee Meetings IE staff salary / supervision of reports etc Project supervision missions As this is extremely tight (not sufficient) a breakdown is avoided	 USD 44,731

[52] General Assembly Resolution 35/217 of 17 December 1980, the Memo of the UN Assistant Secretary-General, Controller of 8 June 2012, Cost recovery: Programme Support Costs and UN-Habitat's Cost Allocation and Recovery Policy 2012. Prorgramme Support Costs cover **Variable indirect costs** which are defined as all costs incurred by the organization as a function and in support of its activities, projects and programmes that cannot be traced unequivocally to specific activities, projects or programmes. These costs typically include services and administrative units, as well as their related system and operating costs. These costs include but are not limited to: (i) the central administration of human, financial, physical and ICT resources; (ii) staffing, facilities, equipment, activities and legal liabilities… UN-Habitat's policy stipulates: 10%: standard rate for country projects which are predominantly operational 7%: rate for projects under the umbrella of the United Nations Delivering as One, other United, Nations Joint Programmes as well as multi-donor trust funds and EC funded projects. The rate exceeds 7% (the absolute minimum rate, as UN-Habitat's accounting system will recognize other components of the project cycle management as operational costs and 7% will be applied. However total Programme Cycle Management Fee does not exceed 8.5%.

[53] UN-Habitat's Evaluation Policy of 17 February 2016 stipulates that in addition to the actual evaluation costs, each project above USD 1,000,000 is levied with an evaluation fee of USD 10,000 which provides for specific evaluation support from UN-Habitat's Evaluation Unit before, during and after the evaluation – whilst this cost will only be applied in the last year, it is spread over the entire project period.

Table 27: Summary of the M&E costs

Type of M & E activity	Responsible parties	Source and Budget USD	Time frame
Measurements of means of verification (baseline assessment and M & E plans)	Project Manager; Project team	From project execution: 20.000	First quarter of year 1
Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance and risk management	Project Manager; With inputs from Project team; Provincial and district-level government, community level monitoring	From project execution: 20.000	Half-yearly and annually. Building on provincial and district level assessments and community level monitoring.
Independent terminal evaluation)	Project Manager; Project team; Provincial and district-level government and community-level monitoring UN-Habitat M&E Section and external consultants (from project execution and project cycle management)	From project cycle management: 10.000 and project execution 20,000	At end of project implementation
Project management committee meetings	Project Manager; Project team Project management committee	From project execution: 5.000	Inception meeting within first 2 months and bi-annual PB meetings (and sub-committee meetings)
Travel	UN-Habitat ROAP;	From project cycle management: 10.000	Quarterly, half-yearly and annually and as needed
Total		From project execution: 75.000 From project cycle management: 20.000 Total: 85.000	

H. Disbursement schedule

Table 28: disbursement schedule

	Year 1	Year 2	Year 3	Year 4	Total
Milestone	1st disbursement – upon agreement signature ▪ Upon First annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by end of year) - Inception workshop report - 1 risk reduction action or strategy introduced at local level (assessment and planning tools developed) - 1 demo project for infrastructure/natural assets developed - Website established - Advocacy materials produced - Steering Committee	2nd disbursement – One Year after project start ▪ Upon Second annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by end of year) - 4 local authorities integrate resilience in local planning schemes - 2 (new) city-wide assessments conducted and 2 assessments updated - 4 city-wide hazard maps - City-wide climate change action plans for 3 participating towns. - 3 urban planners/resilience officers established. - Community-based climate vulnerability assessments in 16 informal settlements - Community-level resilience, recovery and	3rd disbursement - Two years after project start ▪ Upon Third annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by end of year) - Adaptation and risk reduction assessment and awareness activities for 16 targeted population groups. - 8 (50%) strengthened household and community livelihood strategies in relation to climate change impacts. - Advocacy materials produced - 50% of infrastructure/natural assets constructed / developed - Steering Committee	4th disbursement – Third Year after Project Start ▪ Upon Third annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by end of year) - Advocacy materials produced - Regional advocacy - 100% of infrastructure/natural assets constructed / developed - Steering Committee	

		upgrading plans in 16 informal settlements. - Adaptation and risk reduction assessments and awareness activities for 8 (50%) targeted population groups. -10% of household and community livelihood strategies strengthened in relation to climate change impacts (16 total). - 10% of infrastructure/ natural assets developed - Advocacy materials produced - Steering Committee			
Schedule date	January 2018	January 2019	January 2020	January 2021	
A. Project Funds (US$)	USD 500,000	USD 1,000,000	USD 1,685,143	USD 350,000	USD 3,535,143
B. Programme Execution	USD 52,190	USD 104,381	USD 175,896	USD 36,533	USD 369,000
C. Programme Cycle Mgt	USD 46,936	USD 93,872	USD 158,188	USD 32,855	USD 331,852
(B+C) MIE Fee (US$)	USD 99,126	USD 198,253	USD 334,084	USD 69,388	USD 700,852
Total	USD 599,126	USD 1,198,253	USD 2,019,227	USD 419,388	USD 4,235,995

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

A. Record of endorsement on behalf of the government[54] *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*: July 31, 2017*

[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) 330 7011, Fax: (679) 330 8654
Website: www.economy.gov.fj, Email: Economyinformation@economy.gov.fj
Ro Lalabalavu House, 370 Victoria Parade, Suva

31 July 2017

File Ref: 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

Dear Sir/Madam

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 is in accordance with the Fijian 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 the support from the Adaptation Fund. If approved the project will be implemented by the United Nations Human Settlements Program (UN-Habitat) and executed by the Ministry of Local Government, Housing and Environment and identified town councils. Various government and non-government organisations 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-depth consultations with Government and beneficiary communities. In particular, the project aims to build the resilience of and strengthen informal settlement communities, their housing, infrastructure, environments and livelihoods to disaster risks through participatory planning and implementation by keeping women, youth, people with disabilities and the aged at the centre of decision making. The project will build Government's capacity to respond to climate vulnerability at a city-level and build participatory informal settlement upgrading and resilience building into strategic planning and local planning schemes.

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

I sincerely hope that this proposal will be considered favourably 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 Nationally Determined Contributions, the National Climate Change Policy (2012), the National Housing Policy (2012), and the Fiji Islands National Informal Settlements Upgrading Strategy (2017), 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.
For Rafael Tuts *Rafael Tuts* Director, Programme Division UN-Habitat
Date: August 3, 2017 | Tel.: +254-20-762-3726 Email: raf.tuts@unhabitat.org
Project Contact Person: Bernhard Barth, Human Settlements Officer, Regional Office for Asia and the Pacific
Tel.: +81-92-724-7121 Email: bernhard.barth@unhabitat.org

PART V: ANNEXES

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

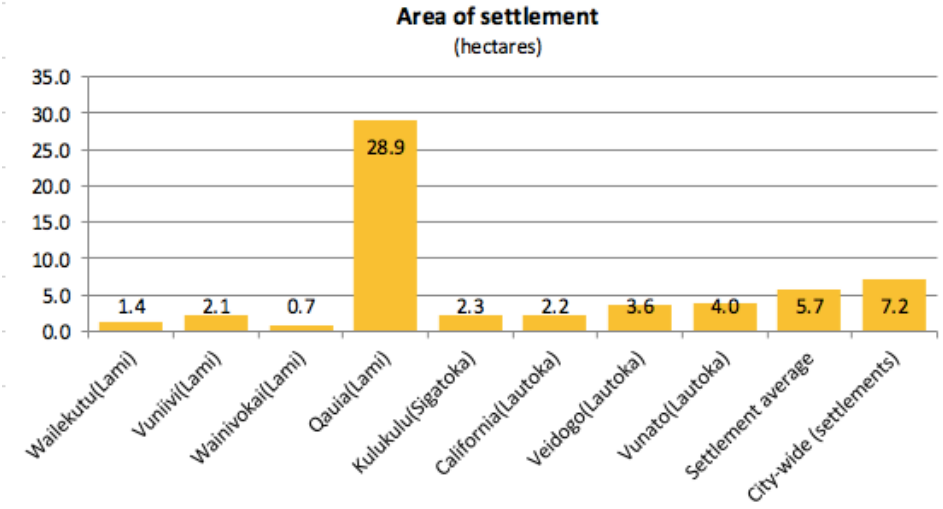
Theme: issue	Indicator	Lami				Sigatoka	Lautoka			Citywide (Fiji urban
		Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato	
EXPOSURE										
Worsening climate issues	Main Exposure Problem worsening in last two years (settlements in which over 50% of HHs identified the problem as much worse in last 2 years)	0	1	0	1	1	1	0	1	0
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	0
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	0
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	0
Related environmental hazards	Industrial waste issues reported in focus groups	1	1	1	1	1	0	1	1	0
EXPOSURE TOTAL		**2**	**4**	**3**	**3**	**4**	**4**	**4**	**5**	**0**
SENSITIVITY										

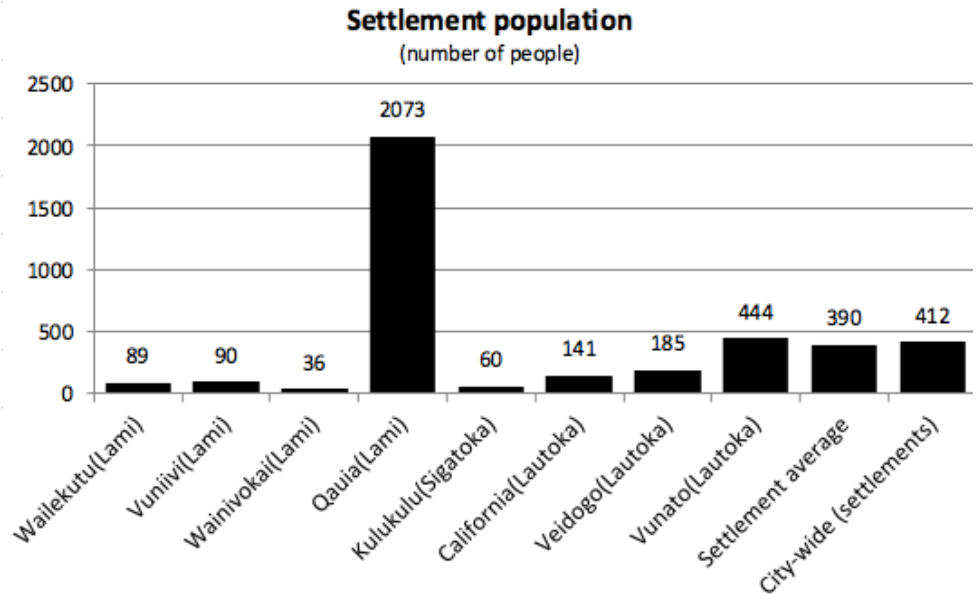
Theme: issue	Indicator	Lami				Sigatoka	Lautoka			Citywide (Fiji urban
		Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato	
Vulnerable population groups: • female household head	Settlements with more than 10% of HHs headed by females	0	1	1	0	1	0	0	0	0
• minorities	Settlements with less than 20% of HHs as minority groups	0	0	1	0	1	0	1	0	0
• children	Settlements with more than 50% of HHs having children under 10 years	0	1	1	0	1	1	1	1	0
• elderly	Settlements with more than 10% of HHs having adults over 65 years	1	1	0	1	1	0	0	0	0
Housing: • overcrowding	Settlements with more than 40% of households with overcrowding	1	1	0	0	0	1	1	1	0
• 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	0
• inadequate water	Inadequate water connections (settlements with less than 40% formal water connection)	0	0	1	0	0	1	1	1	0
• 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	0
• tenure insecurity	Settlements lacking secure tenure	1	1	1	0	1	1	1	1	0
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	0
• Health	Settlements with more than 20% of HHs recording occupants contracting Dengue fever in last year	0	0	1	1	1	0	0	0	0
• Women main income earners	women reported to have the sole burden of responsibility for care of children, elderly and	0	0	0	0	1	0	1	0	0

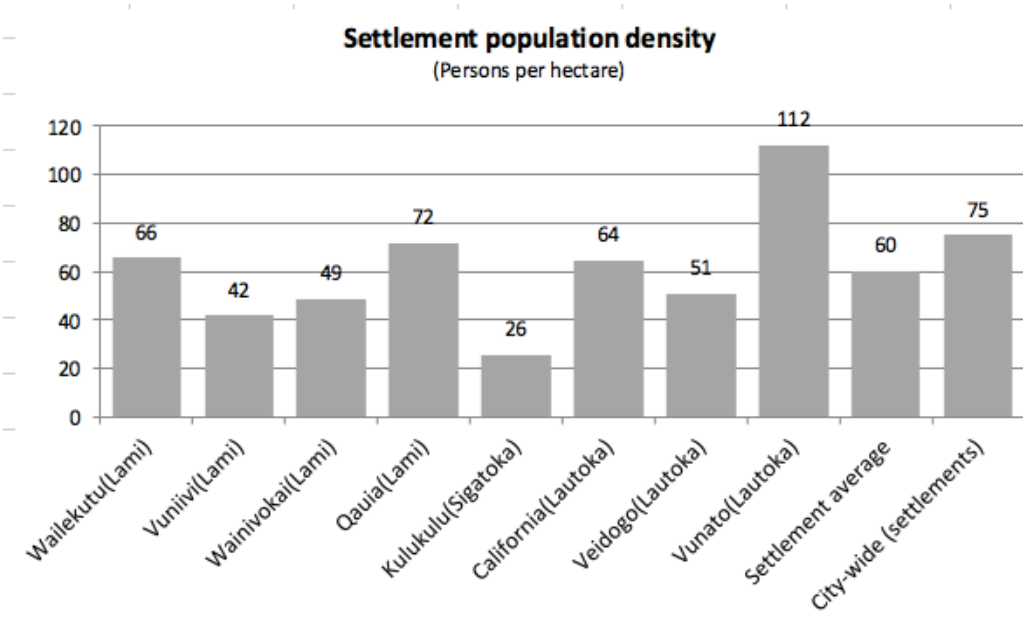
Theme: issue	Indicator	Lami				Sigatoka	Lautoka			Citywide (Fiji urban
		Wailekutu	Vuniivi	Wainivokai	Qauia	Kulukulu	California	Veidogo	Vunato	
	household affairs									
• Vulnerable groups	Vulnerable groups reported as affected by climate issues.	2	1	2	0	0	2	0	1	0
Production and investment and land 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	0
• primary production	Reported climate impacts on fishing or farming	0	1	1	0	0	1	0	1	0
• Employment	Climate vulnerable occupations	0	1	1	0	1	0	1	1	0
• land use and environment	Poor drainage	1	1	1	1	1	1	1	1	0
• 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	0
SENSITIVITY TOTAL		**10**	**13**	**16**	**6**	**12**	**9**	**11**	**11**	**0**
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**	**0**

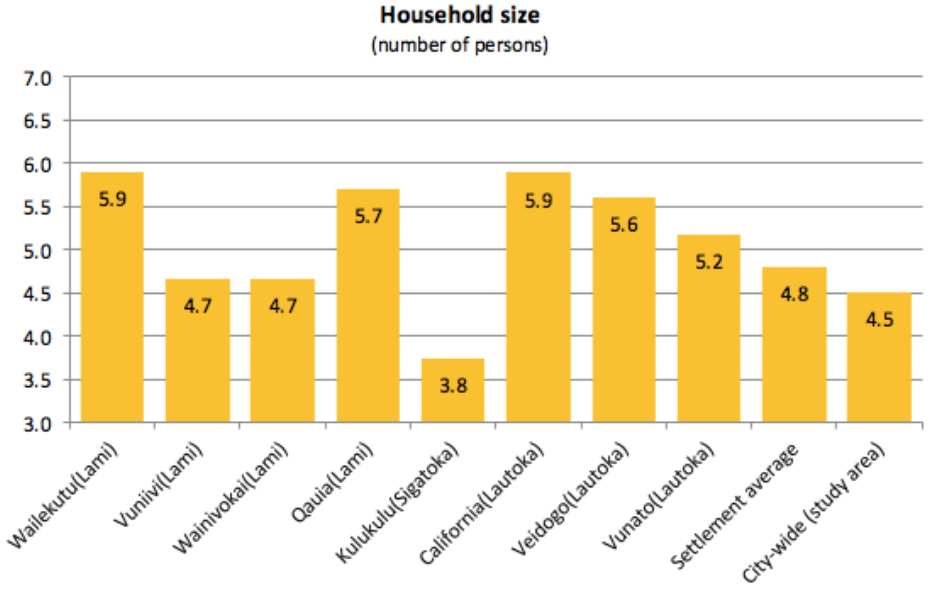
* No data.

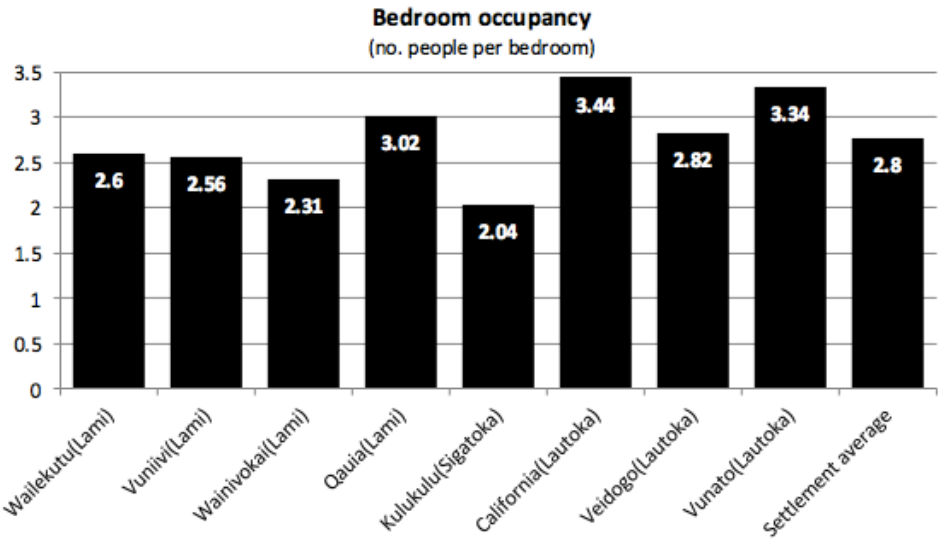
Annex 1B: overview of socio economic data collected during the rapid assessment that provides the background for the sensitivity Analysis.

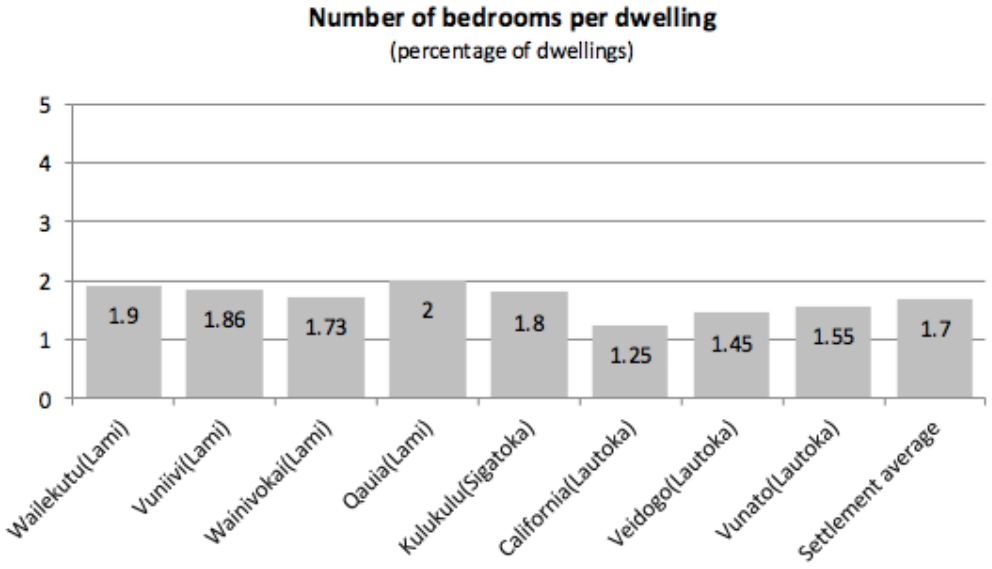




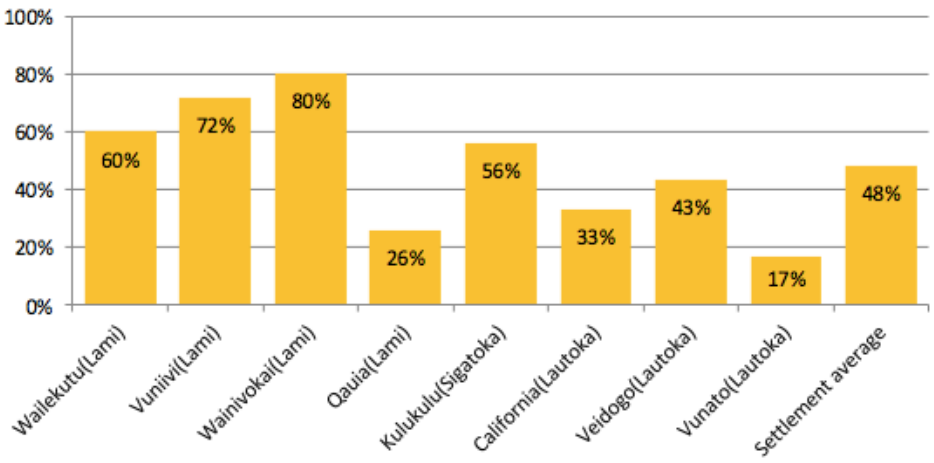

Settlement population density
(Persons per hectare)
120
100
80
60
40
20
0
66
42
49
72
26
64
51
112
60
75
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (settlements)


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)

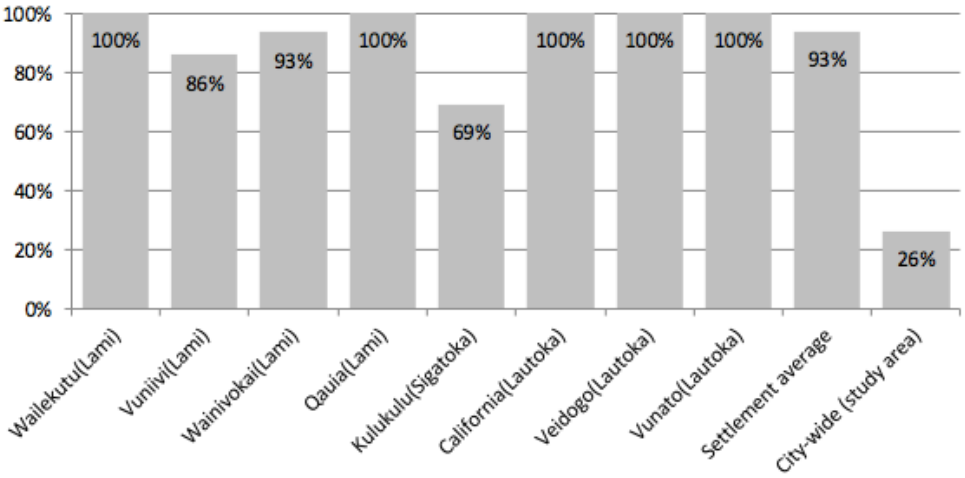

Bedroom occupancy
(no. people per bedroom)
3.5
3
2.5
2
1.5
1
0.5
0
2.6
2.56
2.31
3.02
2.04
3.44
2.82
3.34
2.8
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average


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)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average

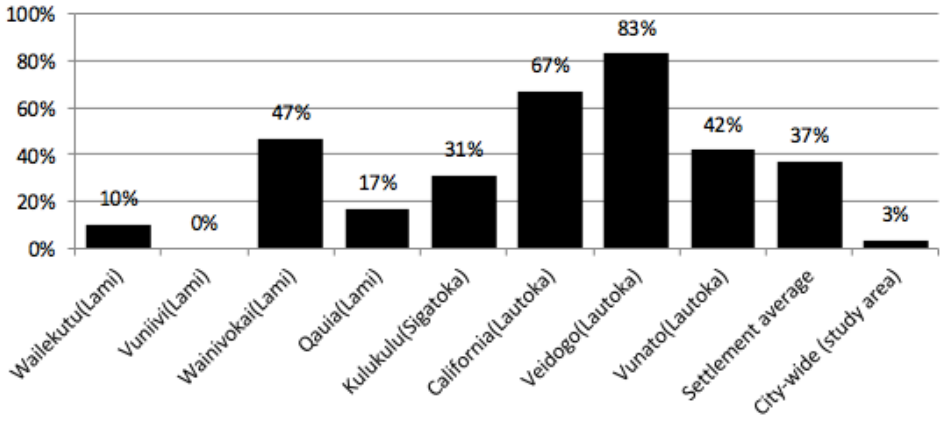
Dwelling walls: average or poor condition
(percentage of dwellings)



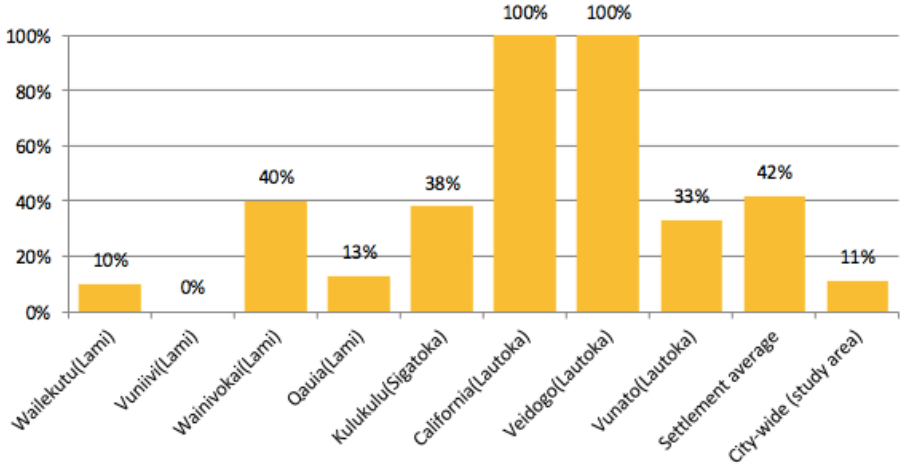
Dwelling walls: tin or iron
(percentage of dwellings)



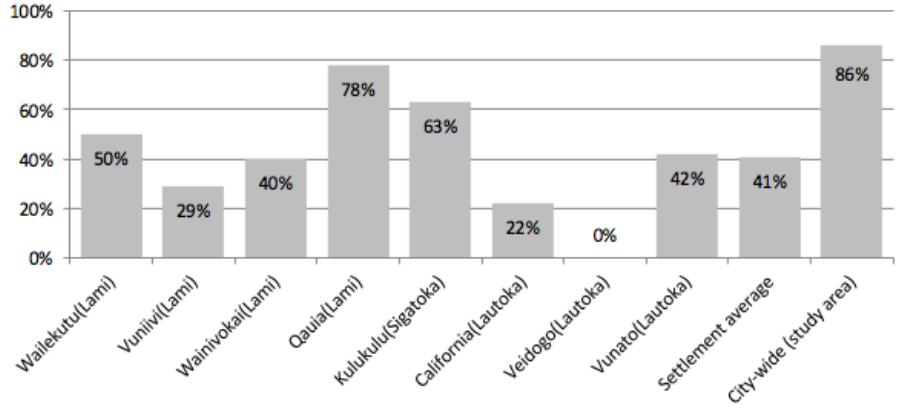
Dwelling with no formal water connection
(percentage of dwellings)



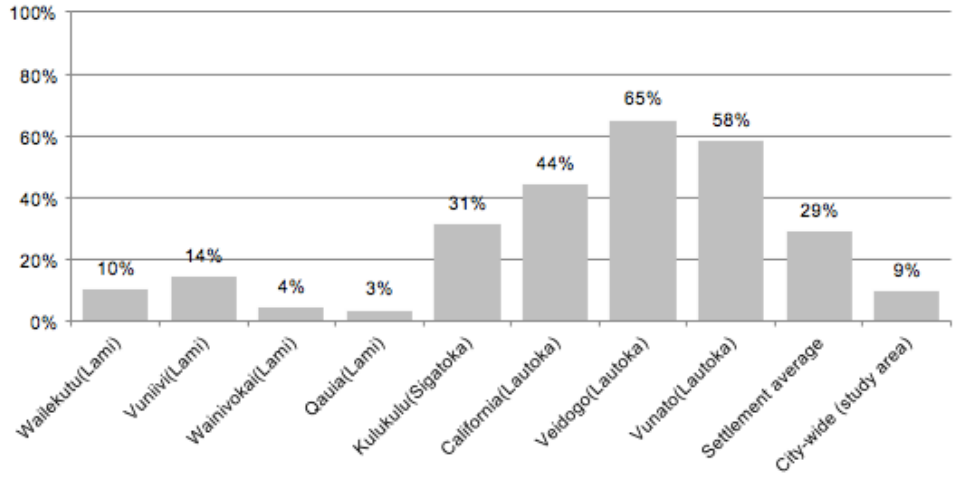
Dwelling with no formal electricity connection (percentage of dwellings)

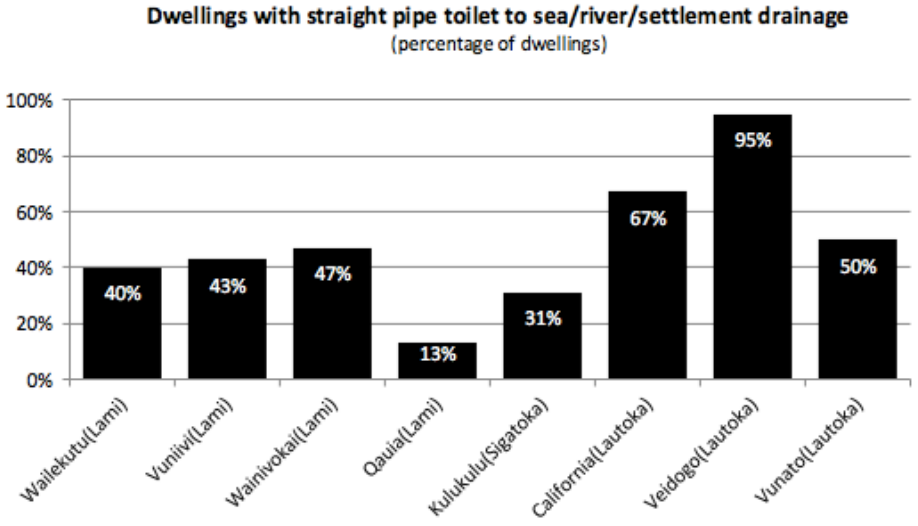


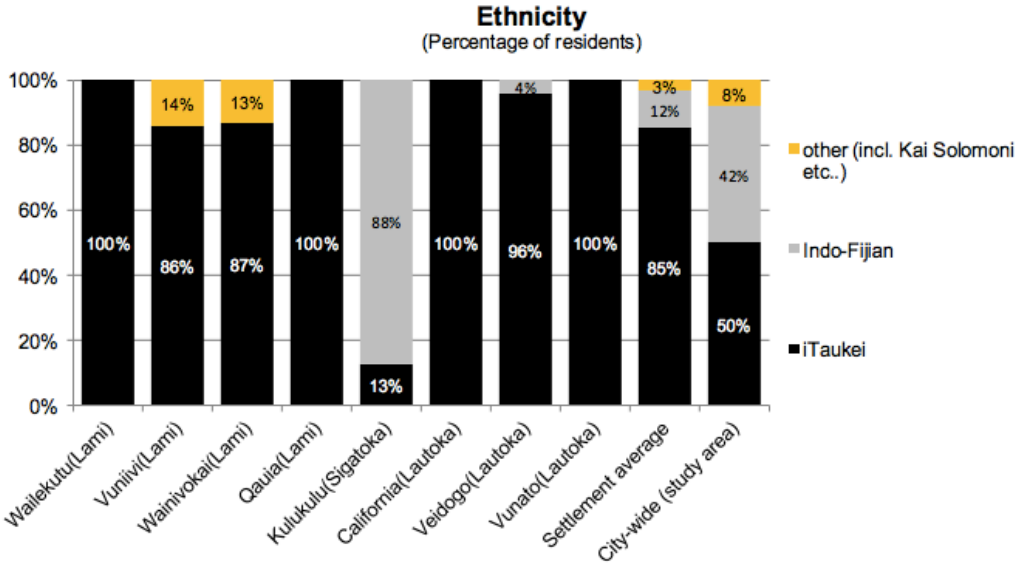
Dwellings with flush toilet for exclusive use (percentage of dwellings)

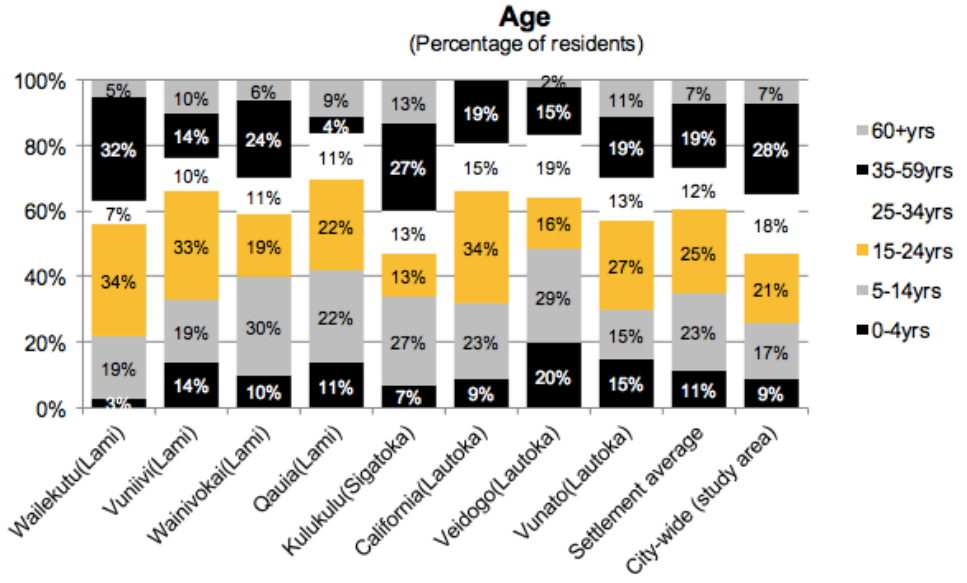


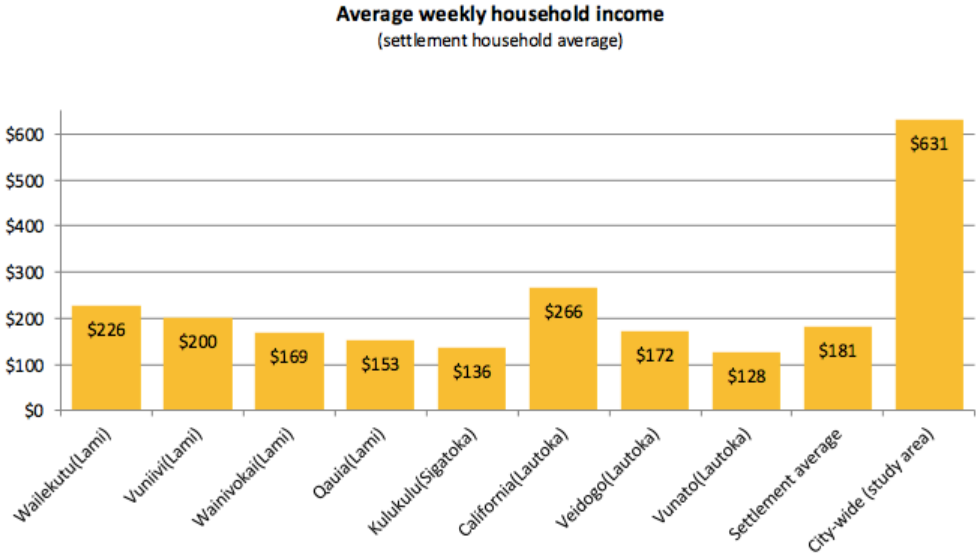
Pit or shared toilet
(percentage of dwellings)



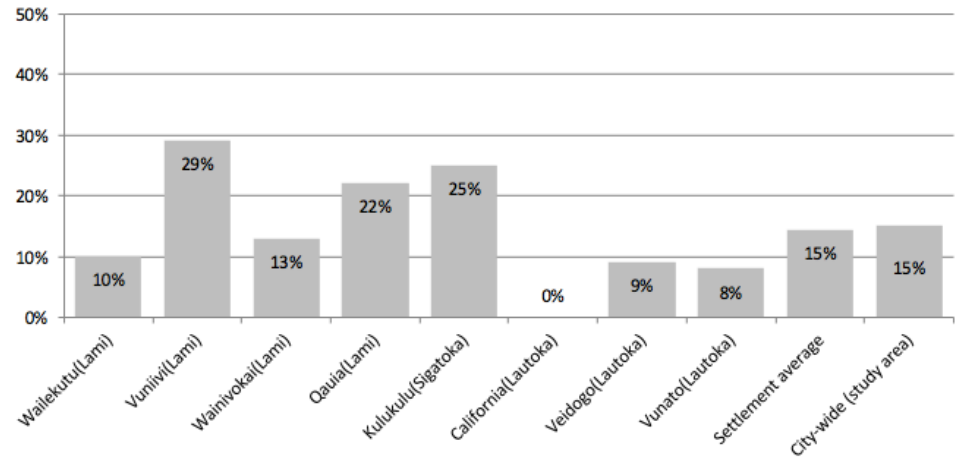

Dwellings with straight pipe toilet to sea/river/settlement drainage
(percentage of dwellings)
100%
80%
60%
40%
20%
0%
40%
43%
47%
13%
31%
67%
95%
50%
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)


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)

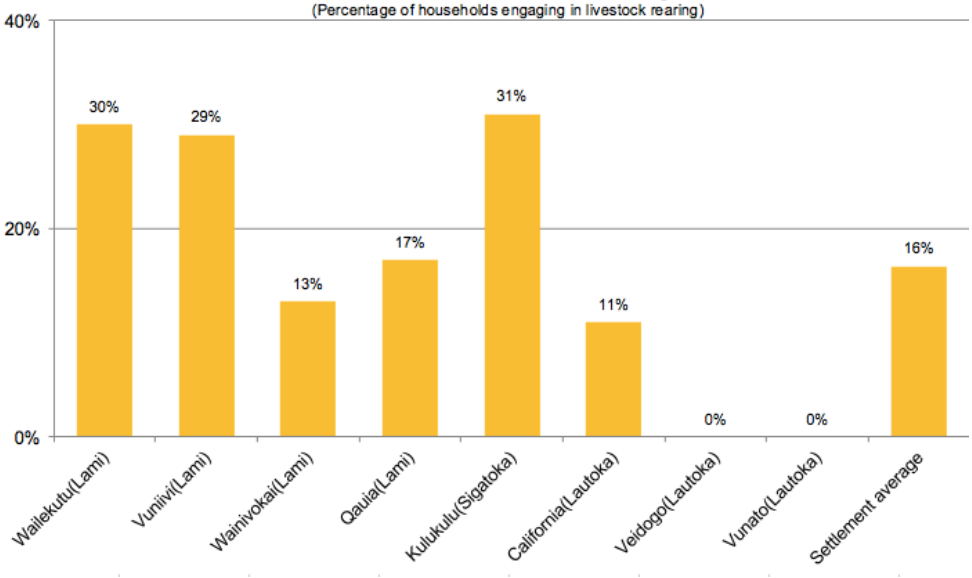

Age
(Percentage of residents)
100%
80%
60%
40%
20%
0%
60+yrs
35-59yrs
25-34yrs
15-24yrs
5-14yrs
0-4yrs
Wailekutu(Lami)
Vuniivi(Lami)
Wainivokai(Lami)
Qauia(Lami)
Kulukulu(Sigatoka)
California(Lautoka)
Veidogo(Lautoka)
Vunato(Lautoka)
Settlement average
City-wide (study area)


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 will build on the existing governance structures in the settlements, workshop methods used by project partner PCN (e.g. social analysis, financial literacy) and key UN Habitat vulnerability assessment frameworks. It will also incorporate methodologies promoted by the Asian Coalition for Community Action (ACCA) (e.g. community mapping). These methods have all been recently and successfully employed in recent partnership projects between the project partners (UN Habitat, PCN, and MLGHE). It will also provide a framework for PCN, 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 approaches and questions for mobilizing communities, and collecting and analyzing information at the community/ethnic group level.

These methods are 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. It will include a focus on supporting broader participation by vulnerable groups in the plan making process, and thus to strengthen community-level governance generally. This will include a combination of group-specific (young people, women, minority groups, people with a disability, older people) research and planning (including via existing committees) to sensitively identify key issues. This will be followed by measures to then encourage leadership and champions to bring these concerns into community-wide governance processes and decision making at the plan making phase. 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 UN Habitat's people's process[55] and PCN's and ACCA's community empowerment process 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. Instead, PCN (as the UN-Habitat and government's field implementing partner) 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 29: 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] Separate discussions for vulnerable	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.

[55] 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.

		groups, particularly women and young people.		
Cities	Institutional: Guiding local level processes and aligning assessment outcomes	UN-Habitat vulnerability assessment 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 atmosphereand 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, PCN (as UN-Habitat's field implementation partner) 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/ethnic groups will be briefed about climate change at the start of the assessment;

- There will be a diverse cross section of participants by considering a 1) diverse geographic spread, 2) a good demographic spread (age, sex, status, income) and 3) good representation. Depending on the circumstances, assessment will be conducted with 'whole' groups, 'focus' groups or individuals. There will be specific

- A second round of participatory enquiry will be facilitated with women, young people, ethnic minority groups, and older people/people with a disability (those with mobility constraints/health conditions). Issues specific to these groups will be sensitively discussed to identify group-specific concerns. These will both inform the broader vulnerability assessment process and feed back into the general community planning process, so these concerns (where appropriate) can be voiced to build general community awareness.

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
- Poorly lit and otherwise unsafe areas for women
- Areas where older people and those with mobility restrictions have particular access issues.
- Areas that pose particular health risks to children, e.g. with effluent overspill.
- Poor surface drainage, including resulting from poor solid waste management.
- Drought risk area
- Landslide risk area
- Dengue and malaria risk areas

The map will be drawn by hand on transparent paper to enable free symbolic representation of issues by place that are drawn to scale.

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: Summary of Compliance with the Adaptation Fund Environmental and Social Policy

Development of the project document

The proposed project will fully comply with international and national laws and the Adaptation Fund's Environmental and Social Policy. In line with UN-Habitats Environmental and Social Safeguards System and in line with the Adaptation Fund's Environmental and Social Policy, UN-Habitat completed an initial risk analysis, screening and assessing potential environmental and social impacts for the proposed project.

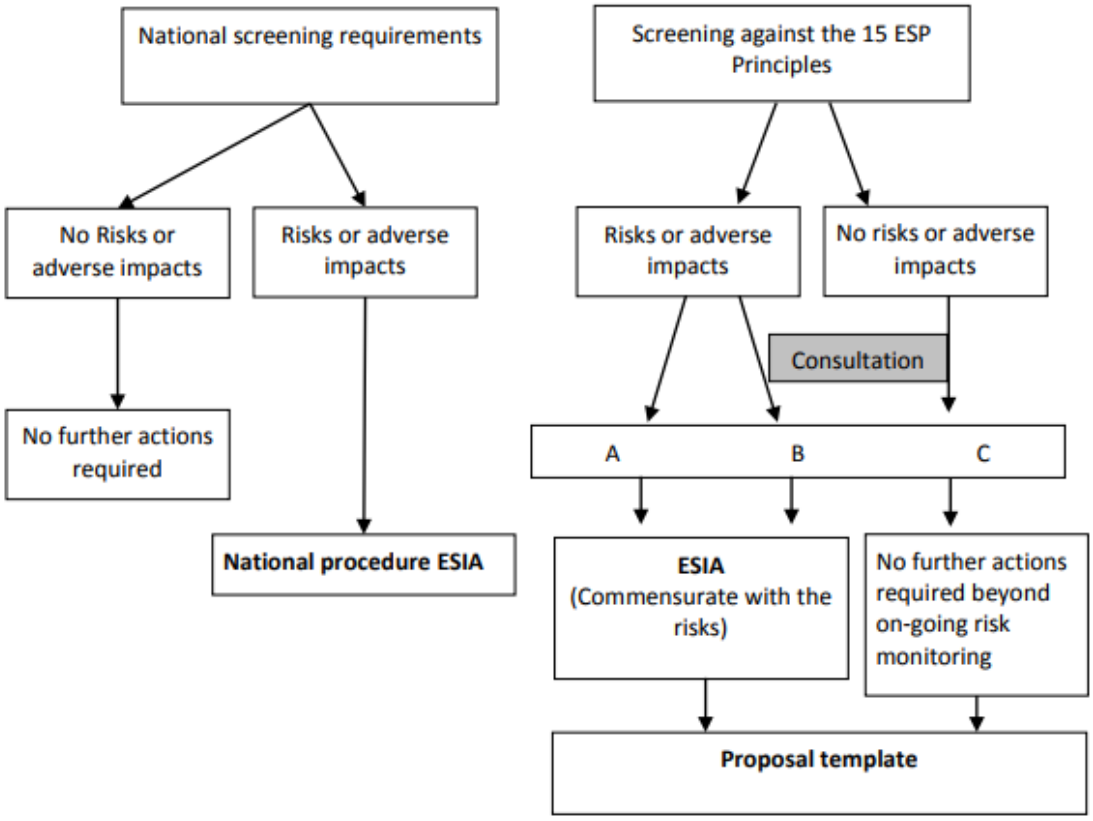


Fig A.4.1 Screening and Assessment Process (from AF ESP Guidance Document, p. 5)

In line with the Adaptation Fund's guidelines all activities were screened against international and national laws and policies as represented in the left flow chart in Fig A.4.1 above and documented (see table 12 in Section II.E). At this stage, significant risks were not identified and it is very unlikely that national ESIA procedures will be triggered. However, given that some of the Unidentified Sub Projects (USPs) may pose environmental and social risks that could potentially result in the need for national ESIA procedures, the ESMP for the project implementation is taking this into consideration in

terms of screening, assessment and responsibilities. At this stage all activities were also screened against the ESP principles.

Further, in line with the Adaptation Fund's ESP guidelines (flow chart on the right in Fig A.4.1) the entire project has been screened and assessed (and mitigation measures proposed) against the 15 environmental and social principles as presented in Table 19 in Section II.K. This reflects the knowledge and information available at the project design stage and does not exclude that other risks may arise once all sub-projects are identified. During project implementation, all project activities will be further screened for environmental and social risks applying the ESMP. Actions to mitigate such risks will also be planned through the ESMP, according to the procedures presented in this Annex.

In compliance with UN-Habitat's Environmental and Social Safeguards System a screening and assessment report was prepared based on the above screening and presented to UN-Habitat's Project Review Committee[56].
Based on the this screening exercise and following the Environmental and Social Policy of the Fund the overall risk ranking for this project is Category B. Project Components 1, 2 and 4 consist of studies, workshops, community consultations, training events, information sharing through print and web-based means. Thus, they are not expected to have environmental or social impacts. The only potential risk related to these activities is the unequal involvement of different groups in processes. This will be mitigated through quota systems, where possible, transparency of processes and thorough editorial review where applicable. Component 3 "Enhancing resilience of community level physical, natural and social assets and ecosystems" primarily comprises of concrete adaptation measures that will be further identified through community-based adaptation plans. The communities will be fully briefed on the ESMP, the project management will certify compliance, the local steering committees will approve the projects and the Project Management committee will provide oversight.

Potential social and environmental risks identified in Table 19 in Section K will be monitored from project outset. Further risk assessments will be conducted according to the procedure established in the latter part of this Annex (in line with the Environmental and Social Management Plan (ESMP). Risk management will be integrated in the project management structure and in all assessment, planning and implementation elements of the project.

Whilst all 15 principles are critical for the ESMP, the initial screening highlighted the importance of tenure security and the potential risk of involuntary resettlement. As such a short analysis is provided here: Residents in selected settlements do not have a formal legal title, however in practice there are several forms of de facto or de jure forms of tenure, and in many places a strong perception of tenure security. Residents on native land have customary arrangements.

[56] According to UN-Habitat's guidelines this report is not approved for public disclosure but a copy is made available to the Adaptation Fund Board / and Adaptation Fund Board Secretariat.

As noted above in Part 1, the informal settlements included in this project have been selected in consultation with the People's Community Network (as representatives of included communities), Ministry of Local Government, Housing and Environment and the Climate Change Unit of the Ministry of Economy (the Designated Authority of the Adaptation Fund) – one key selection criterion being the relatively high degree of tenure security / the lack of any land disputes / opportunities to formalize agreements with traditional land owners. As such, evictions and displacement for these settlements are highly unlikely. Formal permission will also be obtained from the government agency on whose land the settlement is located. In practice, Fijian informal settlers enjoy protections under the constitution s*39(1) Every person has the right to freedom from arbitrary evictions from his or her home or to have his or her home demolished, without an order of a court made after considering all the relevant circumstances.* When limited resettlement is unavoidable, due process will be observed so that displaced persons shall be informed of their rights, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation. In accordance with PCN's, key outcomes no involuntary resettlement will occur. This process is also detailed in Environmental and Social Management Plan (ESMP)**.**

Risks to investments in the selected settlements as a result of government or native land owners changing plans will be assessed at the outset as part of Component 1 citywide vulnerability assessment. If even a low risk of resettlement is identified, e.g. landowners withholding consent, then another settlement with high vulnerability within the PCN network (and thus mobilised for upgrading) will be approached and engaged regarding the potential for involvement in the project. Likewise potential risks of non-involvement by communities in the overall project or sub-projects will also be assessed at this stage and inform confirmation of final selected communities.

Environmental and Social Management Plan (ESMP)

i. Introduction

The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

(i) identifies and summarizes all anticipated adverse environmental and social impacts;

(ii) describes mitigation measures, both from the perspective of mitigating risks at each activity and from the perspective of upholding all ESP principles.

(iii) describes a process which supports the screening and assessment of all project activities and the conditions under which screening and mitigation action it is required

(iv) clearly assigns responsibilities for screening, assessment, mitigation actions and, approval and monitoring;

(v) takes into account, and is consistent with, other mitigation plans required for the project in particular those that relate to national law

Table 30 below provides an overview of the 15 principles, the initially screened and assessed risks, potential for further assessments throughout the project, potential mitigation measures, indicators for the monitoring framework and responsibilities.

Table 30 Examples of Potential Mitigation Measures and Respective Monitoring Arrangements

Principle	Potential impacts and risks	Further assessment procedure and potential mitigation measures	Potential relevant indicators and monitoring arrangements
Compliance with the Law	Insufficient alignment with laws and technical standards, especially related to implementation of concrete interventions under component 3 Principle that always applies	Relevant national and local authorities and engineers were consulted during the project design phase to ensure compliance with all relevant laws and technical standards, also for possible USPs. This will be done again after identification of sub-projects under component 3. It will be ensured that each person associated with the project is aware of domestic and international laws and compliance needs to SDG and Fiji technical standards requirements (see section E), especially for implementing unidentified sub-projects under component 3 USPs will be screened for this risk during the project	Number of MoUs and AoCs that fully incorporate the 15 ESP principles Number of project partners trained in ESP (principles, assessment methodologies) Number of risk assessments carried out Number of risk assessments approved by the Local Steering Committees and the Project Management Committee Responsibility for risk management in the terms of reference of project management, Project Management Committee and local steering committees. Responsibilities: Project Management to establish monitoring framework and capacity development, supports screening. Additional assessments done by competent authorities. Approval by PMC and local SCs. (note: applicable for all

			15 principles, below only additional indicators and responsibilities listed)
Access and Equity	Unequal distribution among target population / communities and households of project benefits. This principle has been triggered for the planning and implementation process of USPs under component 3	Consultations have and will continue to capture all needs of the target population / communities and households and unidentified sub-project interventions will be designed according to their 'access' needs. Access and equity risk 'triggers' will be included in the vulnerability assessment (by mapping all the groups and their needs) and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. This will avoid discrimination and favoritism. USPs will be screened for this risk during the project	Percentage of women, men, youth, elderly, people with disabilities, varying ethnic groups participating in vulnerability assessment and planning activities. Number of participatory workshops held in each community. Number of target population benefiting from provided services, infrastructure and ecosystems (under component 3), disaggregated by gender and groups Responsibility: in addition to above, EIs and communities to ensure compliance.
Marginalised and Vulnerable Groups	Imposing any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS. This principle has been triggered for the planning and implementation process of USP under	Consultations have and will continue to capture all issues and needs of marginalized and vulnerable groups and particular impacts on- and needs of marginalized and vulnerable groups will be assessed through the vulnerability assessments (by mapping all the groups and their needs), especially related to access to unidentified sub-project to be developed under component 3.	Number of vulnerability assessments that incorporate risk assessments vis-à-vis the 15 principles. Number of target population benefiting from provided services, infrastructure and ecosystems (under component 3), disaggregated by gender and groups Responsibilities as above

	component 3	'Related risk triggers' will also be included in the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project	
Human Rights	Failure to proactively protect the rights (i.e. international standards) of all stakeholders affected by the project Principle that always applies	Consultations have and will continue to capture issues related to human rights in target areas and 'triggers' to ensure compliance to UDHR standards will be included in the vulnerability assessments (i.e. specific questions) and the planning and management and monitoring process for implementing all components. It will be ensured that each person associated with the project is aware of international human rights standards through inclusion of details of human rights markers in MoUs and AoCs with government and contractors and through trainings of staff. The UN-Habitat Human rights officers and PAG will check compliance.	Number of vulnerability assessments and action plans that highlight key human rights principles (including, but not limited to the right to adequate shelter, water and sanitation) with an emphasis on the most vulnerable rights holders. Responsibilities as above
Gender Equity and Women's Empowerment	Women and men do not have equal opportunities to participate in the project and do not benefit equally from interventions, especially related to component 3.	The project will actively pursue equal participation in project activities and stakeholder consultation, e.g. through quota systems and /or organization of	Number of gender assessments incorporated in vulnerability assessments and number of specific gender components in the action plans.

	This can be caused by male-dominated leadership and unequal involvement of women and men. This principle has been triggered for the planning and implementation process of USP under component 3 but is also considered for the planning process (component 1 and 2)	separate working groups during vulnerability assessments and planning and development processes. USPs will be screened for this risk during the project	Number of community action plans and community infrastructures that focus on resilience of women / have a gender specific entry point Number of trainings / workshops / consultations with a particular dimension Number of target population benefiting from provided services, infrastructure and ecosystems (under component 3), disaggregated by gender and groups
Core Labour Rights	Executing entities for the project may not adhere to the ILO labour Standards and national labour laws. Communities may use machinery in an unsafe way and/or not have protective equipment Principle that always applies	The project will monitor that international and national labour laws and codes are respected, for any work that may be carried out in relation to the project. This includes the eight International Labour Organization Convention (ILO) core labour standards related to fundamental principles and rights of workers, as well as ILO Convention No. 169, which concerns rights of indigenous and tribal peoples. Contracts will be reviewed periodically to ensure compliance with these laws. This will be done by ensuring transparency and accountability and by including standard clauses requiring the compliance with ILO conventions and country level standard in MoUs, AoC and contracts.	Percentage of contracts adhering to core ILO labour standards and national legislation.

		Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by putting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying protective equipment. USPs will be screened for this risk during the project	
Indigenous Peoples	Failure to engage indigenous people in planning and decision-making. Indigenous people not enjoying appropriate or equal access to resulting service This principle has been triggered for the planning and implementation process of USP under component 3	Consultations have and will continue to capture all issues and needs of all communities (iTaukei, as the indigenous people, make up the majority of the population nationwide and in the target areas) and particular impacts on- and needs of indigenous people and other communities will be assessed through the vulnerability assessments, especially related to access to unidentified sub-project to be developed under component 3. The project will be consistent with UNDRIP, and particularly with regard to Free, Prior, Informed Consent (FPIC) during project design, implementation and expected outcomes related to the impacts affecting the communities of indigenous peoples by including standard clauses requiring the compliance with above and Fiji standard in MoUs, AoC and contracts.	Number of consultations that address concerns of indigenous communities directly into considerations. Number of vulnerability Assessments and Action Plans and Project Designs that consider the concerns of indigenous peoples. Number of target population benefiting from provided services, infrastructure and ecosystems (under component 3), disaggregated by gender and groups Responsibility: as above with particular emphasis on iTaukei Land Trust Board.

		USPs will be screened for this risk during the project	
Involuntary Resettlement	Project actions lead to unintended resettlement consequences The initial screening and vulnerability assessment found that the risk of unintended resettlement consequences is moderate. Although land and tenure issues have been analyzed in depth before selecting target areas the nature of informal settlements is that they are located in precarious locations which may require resettlement (on site) to move people out of harm's way. Due process involving the entire community and other relevant stakeholders will be applied. This principle has been triggered for the planning and implementation process of USP under component 3	No unidentified sub-project will be approved where there is the possibility, however small, of forced eviction. MoUs, AoC and contracts will include standard clauses stating that target communities will not be involuntary resettled, also after the project. Involuntary resettlement 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. Consideration of resettlement due to high risks related to climate change will involving the entire community and other relevant stakeholders. USPs will be screened for this risk during the project	Number of MoUs / AoCs with particular clauses ruling out involuntary resettlement In depth monitoring of all action plans, project designs and project implementation. In case of proposed resettlement, set up of community, local government and national committees to manage voluntary, fair and equitable resettlement. Responsibility: as above with particular emphasis on Department of Housing.
Protection of Natural Habitats	Activities not sited or designed adequately might have negative environmental impacts on natural habitats The initial screening and vulnerability assessment found that the risk of negative environmental impacts on natural habitats is	Natural habitat 'triggers' (i.e. location, characteristic and value) will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3	Vulnerability assessments, action plans and project designs that consider ecosystems, eco-systems management and eco-systems based adaptation. Responsibility: as above in partnership with Department of Environment and

	low because interventions under component 3 will focus on enhancing ecosystems and developing infrastructure and services in urban locations where no natural habitats are present However, this principle will still be screened for the planning and implementation process of USP under component 3	(also assessing up- and downstream impacts). The project will ensure compliance to international and national plans and laws and standards by including standard clauses requiring the compliance with international and national plans and laws and standards in MoUs, AoC and contracts. USPs will be screened for this risk during the project	SPREP
Conservation of Biological Diversity	Activities lead to reduction or loss of biological diversity. The initial screening and vulnerability assessment found that the risk of reduction or loss of biological diversity is low because interventions under component 3 will focus on enhancing ecosystems and developing infrastructure and services in human settlements without major natural habitats However, this principle will still be screened for the planning and implementation process of USP under component 3	Biological diversity 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3 (also assessing up- and downstream impacts and consulting experts). Project Managers to have read and understood the Convention prior to project implementation. USPs will be screened for this risk during the project	As above
Climate Change	Project activities cause maladaptation either in the project sites or upstream or downstream or increase greenhouse gases	Maladaptation and greenhouse gas 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but	Number of trainings / workshops on climate change vulnerability and action planning methodologies. Number of vulnerability assessments and action plans that contribute to national climate change

		especially the unidentified sub-projects under component 3. Climate Change policies and guidelines to be explained to and understood by executing entities and project personnel prior to implementation and monitored by project manager.	policies and programmes. Project reporting that contributes to the NDC reporting. Number of project that specifically consider the climate change (mitigation and adaptation) co-benefits. Responsibilities: As above with particular emphasis on Project Management, Climate Change Office
Pollution Prevention and Resource Efficiency	Project activities may cause pollution and may not use resources efficiently. The initial assessment found that there is a low risk of using resources for project activities in an inefficient way because sub-project will be small scale and local. However, this principle will still be screened for the planning and implementation process of USP under component 3	The project will use local materials for construction where possible USPs will be screened for this risk during the project	Number of trainings that address pollution prevention and resource efficiency and stress the use of indigenous technologies and local building materials. Responsibilities: as above
Public Health	Project activities will lead to negative impacts on public health The initial screening and vulnerability assessment found that the risk of negative impacts on public health is low because interventions under component 3 will focus on improving health and access to basic services However, this principle will still be screened for	Health 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project	Number of vulnerabilities, action plans and project designs that consider public health concerns. Responsibilities: as above

	the planning and implementation process of USP under component 3		
Physical and Cultural Heritage	Project activities might affect some unidentified cultural sites which exist in the targeted areas and are impacted by project activities The initial screening and vulnerability assessment did not identify cultural heritage sites	Ensure avoidance of project site location on or near a UNESCO World Heritage Site or other locally important heritage sites Cultural heritage 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project	Screened and assessed in tandem with the principle on indigenous peoples. Percentage of workshops that involve representative numbers of all ethnic / cultural groups. Responsibilities: as above with representations of all communities and in partnership with local planning offices.
Lands and Soil Conservation	Project activities leading to soil degradation or conversion of productive lands that provide valuable ecosystem services The initial screening and vulnerability assessment found that the risk of soil degradation or conversion of productive lands that provide valuable ecosystem services is low because interventions under component 3 will focus on reducing degradation and ecosystem enhancement However, this principle will still be screened for the planning and implementation process of USP under	Lands and soil 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3. USPs will be screened for this risk during the project	Number of vulnerability assessments, action plans and projects that consider land and soil conservation (in the context of urban agriculture, flood prevention, land slides etc.). Number of training events that incorporate soil conservation, prevention of land slips etc. Responsibility as above

	component 3		

ii. Foundation of Risk Mitigation

ii.1 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 (These assessments will themselves be approved for their compliance the the 15 ESP Principles). The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of vulnerable and marginalized groups, women, youth, elderly, etc., in all target settlements/communities, as could be done in the proposal development phase.

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."[57]

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 communities will select the most appropriate sub-projects.

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

ii.2 All MoUs and Agreements of Cooperation with Executing Entities will include detailed reference to the ESMP and in particular the 15 ESP Principles. Table 30 above will serve as a reference.

ii.3 The ToR of Committees and Advisory Groups, project personnel and focal points will include will include detailed reference to the ESMP and in particular the 15 ESP Principles.

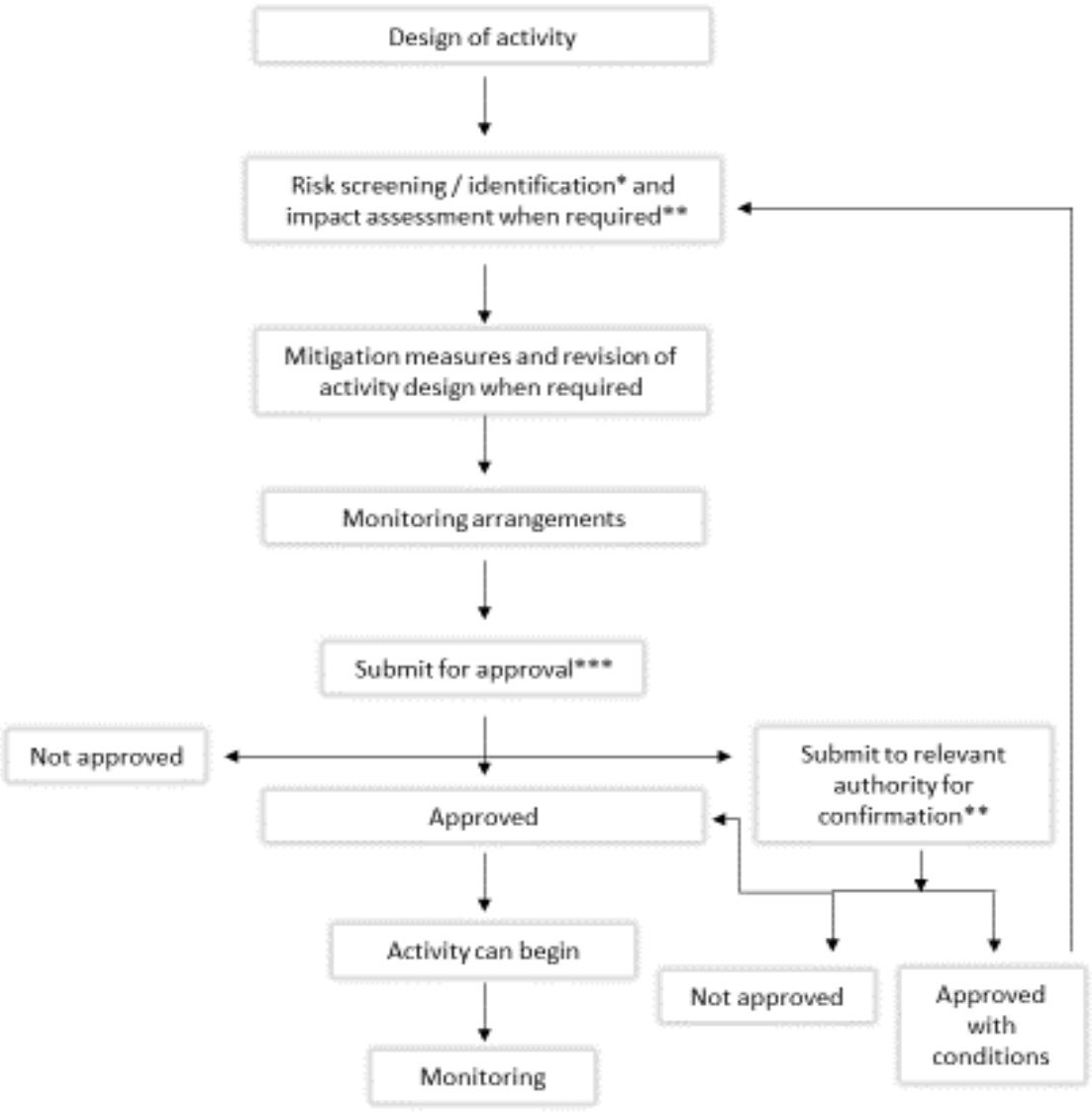
ii.4 All key Executing Entity Partners will receive training / capacity development to understand the 15 Principles, the ESMP and in particular their responsibilities. This will include members of the Project Management Committee, the Local Steering Committees and the Communities.

ii.5 A Monitoring and Evaluation Framework will be developed by the project management team and presented for approval to the Project Management Committee.

iii. Risk Screening and Management Procedure

All project activities will be screened against the 15 environmental and social risks. This will be done in spite of any previous screening that may have already been done during the project design phase. In addition to upholding the ESP of the Adaptation Fund and to familiarize all project stakeholders with the 15 ESP principles, this will also ensure that all stakeholders fully take ownership of the environmental and social safeguards procedures of the project and that any activity that may have been altered or not yet assessed in detail (such as USPs) are captured.

The following flow chart (Fig A.4.2) represents the risk management and safeguarding process during the project.



* For all activities against the 15 ESP principles.
Use of Sub-Project Risk Assessment Sheet where necessary

** In consultation with Technical Advisory Board

*** (1) All USPs to be approved by local steering committee and Project Management Board
(2) All after activities to be approved by Project Management Board

Fig A.4.2 Activity / Sub-Project approval in the context of environmental and social risk management

Step 1: Activity / Sub-Project design at the project management level or through EIs or in close consultation with Communities is to take all 15 ESP principles into consideration.

Step 2: Project screening will be conducted by the respective activity / sub-project leader (Tables 1-3 below). Assessment of risks will be conducted if and when needed (Table 4 below).

Step 3: In consultation with environmental authorities and affected population, those responsible for the project design, the national project manager, in close coordination with the project Technical Committee will identify and plan for mitigation measures.

Step 4: If and when needed additional monitoring mechanisms will be developed (Table 4 below). Ongoing project monitoring will always be implemented.

Step 5: The project manager will clear the screening and assessment report and will submit it to the Local Steering Committees in the case of USPs or directly to the Project Management Committee, in the case of all other activities. After clearance by the Local Steering Committees, USPs have to be further cleared by the Project Management Committee.

Step 6: Activities may be rejected and thus a new project design will be required. Project may be approved with conditions, requiring either assessments in line with national procedures (the Technical Advisory Board is expected to facilitate this), minor design changes, additional mitigation measures or further monitoring. Such changes will have to be resubmitted for approval. Only approved activities can proceed to implementation and will be monitored. Where activity specific monitoring arrangements are needed (e.g. for USPs) risk mitigation measures for all identified risks will include:

- A baseline and risk indicators
- A monitoring plan, developed in a participatory manner (in the case of community projects) which emphasizes the role of communities as front-line monitoring agents.
- Minutes will be compiled from all meetings with communities and reviewed by the Technical Committee.
- Ongoing monitoring exercises and an end of year review will be carried out and included in the annual progress reports.

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

- ✓ The 15 ESP Principles
- ✓ 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 activities / 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.

Risks assessment tool for all activities, in particular Unidentified Sub-Projects:

SUB-PROJECT RISK ASSESSMENT SHEET

Steps:

1. Please fill out table 1 and 2 to provide the specific details for each activity / sub project.
2. Complete the checklist (table 3), to assess the potential risk areas.
3. Identify risks mitigation measures for the questions answered ‘yes’ by filling table 4
4. Sign off the project for submission to approving authority (table 5)

TABLE 1: GENERAL INFORMATION	
1. Sub-Project / activity title	
2. Project number (if relevant)	
3. Project location (village, districts, geographical coordination)	
4. Person who filled the form	

5. Date of screening	
6. Signature	

TABLE 2: ACTIVITY / SUB-PROJECT DETAILS	
TECHNICAL INFORMATION	
7. Activity description	Mention relevant details.
8. Materials to be used	Type and quantity needed for construction and / or enhancement of ecosystems (where applicable)
9. Other technical specifications	Add any relevant information from an environmental point of view, e.g. what type of terrain (where applicable)
ASSETS	
10. What activities are planned?	
11. Start date of activity / works	
12. End date of activity / works	
USE OF ASSETS (APPLICABLE FOR UNIDENTIFIED SUB-PROJECTS ONLY)	
13. How will the asset be sued	What kind of use is planned for the asset, what benefits are expected, how will they will be distributed and who will use it (women, men, young people, minorities, etc.)?
14. Interventions required for appropriate of the asset	List any other activity planned to ensure the asset is used as it should be. E.g.: training and capacity building, sensitization, accompanying measures like soil erosion management, drainage, etc.
15. Management and maintenance	What kind of maintenance will be needed? Who will be responsible and who will do it? How will the asset be managed? And by whom?
CONSULTATIONS	
16. Was the community consulted	Yes or no and comment / outcome
17. Have relevant local authorities been consulted	Yes or no and comment / outcome
ENVIRONMENTAL AND SOCIAL CONTEXT	
18. Description of the environmental context and the main environmental issues on the site / in the area	Give a short description of the environmental situation on the site and in the area and mention the main environmental issues (e.g.: deforestation, soil fertility loss, water scarcity, lack of groundwater, water quality degradation, waste issues, etc.). The description should contain essential information on which the risks identification is based.

19. Description of the social context and the main social issues on the site / in the area	Example: land tenure conflicts, land ownership and use, high incidence of malaria or other diseases, recurrent conflicts between inhabitants, etc. The description should contain essential information on which the risks identification is based

TABLE 3: CHECKLIST OF POTENTIAL RISK AREAS OF NON-COMPLIANCE WITHIN THE ADAPTATION FUND'S ENVIRONMENTAL AND SOCIAL PRINCIPLES	ANSWER (Y/N)
Adaptation Fund principle 1: Compliance with the Law	
20 Is there a risk that the activity does not comply with an applicable domestic or international law?	
Adaptation Fund principle 2: Access and equity	
21. Is there a risk that the activity would exclude any potentially affected stakeholders from fully participating in decisions that may affect them?	
22. Is there a risk that the activity would impede access of any group to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, or land rights?	
23. Is there a risk that the activity does not provide fair and equitable access to benefits from the project to all affected stakeholders?	
24. Is there a risk that the activity exacerbates existing inequities, particularly with respect to marginalized or vulnerable groups?	
Adaptation Fund principle 3: Vulnerable and marginalized groups	
25. Are there any marginalized or vulnerable groups present among project beneficiaries?	
26. Is there a likelihood that the activity would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	
27. Could the activity potentially restrict availability, quality of and access to resources or basic services to marginalized individuals or groups?	
Adaptation Fund principle 4: Human rights	
28. Could the activity lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population?	
29. Would the activity possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	
Adaptation Fund principle 5: Gender equality and women's empowerment	
30. Is there a likelihood that the proposed activity would have adverse impacts on gender equality and/or the situation of women and girls?	
31. Would the activity potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	
32. Would the activity potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	
Adaptation Fund principle 6: Core labour rights	
33. Does the activity involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO	

fundamental conventions)?	
Adaptation Fund principle 7: Indigenous people	
34. Are indigenous peoples present in the project area?	
35. Would the proposed activity potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	
36. Would the activity adversely affect the development priorities of indigenous peoples as defined by them?	
37. Has there been an absence of culturally appropriate consultations on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	
Adaptation Fund principle 8: Involuntary resettlement	
38. Would the activity potentially involve temporary or permanent and full or partial physical displacement?	
39. Is there a risk that the activity would lead to forced evictions?	
40. Will the activity lead to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood)?	
Adaptation Fund principle 9: Protection of natural habitats	
41. Is the activity within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	
42. Would the activity potentially cause adverse impacts to habitats (e.g. natural, modified, and critical habitats) and/or ecosystems and ecosystem services?	
43. Does the activity involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?	
Adaptation Fund principle 10: Conserving biodiversity	
44. Could the activity lead to the reduction or loss of biological diversity?	
45. Would the activity pose a risk of introducing invasive and/or non-native species?	
46. Is monoculture foreseen?	
47. Would the activity pose risks to endangered species?	
Adaptation Fund principle 11: Climate change	
48. Will the activity result in significant greenhouse gas emissions or may it exacerbate climate change?	
Adaptation Fund principle 12: Pollution and resource efficiency	
49. Does the activity require significant consumption of raw materials, energy, and/or water?	
50. Would the activity potentially result in the generation of waste (both hazardous and non-hazardous)?	
51. Would the activity potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	
52. Will the activity involve the application of pesticides?	
Adaptation Fund principle 13: Public health	
53. Would the activity result in potential increased health risks (e.g. from waterborne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	
54. Would the activity pose potential risks to community health and safety due to the	

transport, storage, and use and/or disposal of hazardous or dangerous materials?	
55. Would elements of activity construction, operation, or decommissioning pose potential safety risks to local communities?	
Adaptation Fund principle 14: Physical and cultural heritage	
56. Will the proposed activity result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?	
Adaptation Fund principle 15: Land and soil erosion	
57. Will the activity lead to the conversion of wetlands, waterways, or woodlots?	
58. Will the activity cause the clearing of natural vegetation and/or forest?	
59. Is there a risk that the activity leads to soil degradation?	
60. Is there a risk that the activity is designed without proper soil analysis and/or does not match soil capability?	

Table 4: Identifying probability, impact, significance and risks mitigation measures

Table partially filled out, to provide examples for project staff to complete the table fully. Please use the checklist (table 3) to identify risks

WHAT ARE THE POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS?						
AF principle number and description of risks	**Probability (P) and Impact (I) Score 1 - 5**	**Significance (= impact x probability) Low: 1-7 Med: 8-14 High: 15-25**	**Comments**	**Mitigation measures proposed**	**Monitoring indicators**	**Frequency and responsibility for monitoring**
AF Principle nr 1: Risk that the project will fail to comply with national laws, UN rules, principles and procedures.	P= 1 I = 1	Low (1)	UN-Habitat is a signatory of UN Conventions and the proposed project has been designed to adhere to national law	Project Manager to work in cooperation with relevant Department …and written details of the proposed project will be shared with government		
AF Principle nr 3: Risk that marginalized groups will be ignored and excluded from stakeholder engagement and community participation?	P= 1 I = 3	Low (3)				

TABLE 5: SIGN OFF FOR SUBMISSION FOR APPROVAL		
Signature	Date	Description
Assessor of activity sub-project		
Project leader		
UN-Habitat Project Manager		

Project Grievance mechanism

UN-Habitat will implement a grievance mechanism in the target areas, which will allow an accessible, transparent, fair and effective means of communicating if there are any concerns regarding project design and implementation. Employees, and people affected by the project will be made aware of the grievance mechanism for any criticism or complaint of an activity.

These mechanisms consider the special needs of different indigenous groups as well as gender considerations. A hotline and mailbox (per community) offer an immediate way for employees and people affected by the project to express their concerns. The hotline will offer services in local languages and offer the opportunity for and people affected by the project to complain or provide suggestions on how to improve project design and implementation. The hotline will be available 24 hours every day.

Project staff will be trained in procedures for receiving calls and on the reporting of any grievances. Community leaders also will be briefed how to obtaining feedback from community members on a regular basis. In addition, monitoring activities allow project participants to voice their opinions or complaints as they may see fit. A questionnaire will be used to understand participants' perceptions of the project and capture suggestions to improve project design and implementation.

The address and e-mail address of the Adaptation Fund will also be made public (i.e. project website, facebook and mailbox) for anyone to raise concerns regarding the project:

Adaptation Fund Board secretariat
Mail stop: MSN P-4-400
1818 H Street NW
Washington DC
20433 USA
Tel: 001-202-478-7347
afbsec@adaptation-fund.org