ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Regular
Country/ies:	Solomon Islands
Title of Project/Programme:	Enhancing urban resilience to climate change impacts and natural disasters: Honiara
Type of Implementing Entity:	Multilateral
Implementing Entity:	United Nations Human Settlements Programme (UN-Habitat)
Executing Entity/ies:	- Honiara City Council (HCC) - Ministry of Lands, Housing and Survey (MLHS) - Ministry of the Environment, Climate Change and Disaster Management (MECDM); In collaboration with: - UN-Habitat With scientific and training support from: - RMIT University, Melbourne, Australia
Amount of Financing Requested:	US$ 4.4 million

Project / Programme Background and Context:

International climate scientists have identified Small Island Developing States (SIDS) in the Pacific, such as the Solomon Islands, as being amongst the most vulnerable countries to the risks of future climate change. However, it is also important to recognize that the islands of Melanesia have historically been highly exposed to an array of extreme climate events driven by natural variability, as well as other natural hazards such as earthquakes and tsunamis. In the case of the Honiara - the capital city of the Solomon Islands - there is acute sensitivity to external shocks and stresses due to existing 'adaptation deficits' in urban infrastructure, housing and service provision. These deficits result from a range of development drivers; including rapid and unplanned urbanization, the associated growth of informal settlements, a lack of adequate infrastructure and basic services in many areas, issues related to land tenure in peri-urban areas, and weak institutional structures governing the urban environment. The intention of this project is therefore to work with vulnerable urban communities in Honiara to implement climate adaptation actions and to undertake capacity strengthening initiatives across multiple urban scales – community, ward and city-wide (including issues that cross the city-province boundary) – in order to strengthen the climate resilience of the city.

Due to the immensity of the climate-related challenges facing Pacific SIDS, extensive climate vulnerability and adaptation work has been conducted across the region, including in the Solomon Islands. However, to date this activity has been predominantly conducted in rural / remote areas with emphasis on island ecosystems and traditional, subsistence-based livelihood options, with limited focus on the urban setting. This is despite the national Solomon Islands Government (SIG), funding / donor organizations and many civil society organizations, being based in these major cities; a proximity that provides significant opportunities for transferring knowledge and building the adaptive capacity of vulnerable urban communities. By concentrating on Honiara, as the country's capital and primary city with continuing rapid growth projected into the future, the proposed activity is not only complementary to rurally-focused projects but also urgently needed. Furthermore, this also supports the Solomon Islands NAPA (2008) which identified human settlements and human health as one of the top priorities for the country under the objective of enhancing resilience to climate change. Other important priorities pertinent to the urban environment included waste management, coastal protection and infrastructure development.

An urban focus is considered particularly important given the rapid urbanization processes that are occurring in the in a number of primate Pacific cities as rural people migrate to have access to better education, health, and other urban services that are often lacking in more remote locations. This, in turn, is leading to the unfettered growth of informal settlements. Indeed, as noted at the Pacific Urban Forum in 2015 (UN-Habitat/CLGF, 2015) urban growth rates in the Pacific are most pronounced in Melanesia, and it is here that the most dramatic growth rates will continue into the future. The Solomon Islands, in particular, is considered to be one of the world's fastest urbanizing countries, with the majority of these migrants heading to Honiara. This large movement of people is overwhelming the urban development and planning capacity of the City Council, and other Government entities. As a consequence while urbanization has the potential to act as a key process in adapting to climate change, it is instead currently exacerbating current and future climate challenges, and adversely affecting the ability of urban communities to respond.

The activity proposed for this project also addresses some of the key limitations that were highlighted in the SIG INDC such as the 'very limited capacity at the community level to undertake local level vulnerability mapping, adaptation planning, and the implementation of priority adaptation actions', and directly addresses a key objective which is to strengthen capacities at the community level for vulnerability mapping and adaptation planning and support the implementation of priority resilience measures through direct access to financing for such measures.

The proposed project focus on strengthening the resilience of Honiara to external shocks and stresses will build on the strong knowledge platform that has already been established by a climate vulnerability assessment for the city (UN-Habitat, 2014)[1] and the subsequent Honiara Urban Resilience and Climate Adaptation Plan (HURCAP). This will be launched by UN-Habitat and local and national government stakeholders in

[1] http://unhabitat.org/books/honiara-solomon-islands-climate-change-vulnerability-assessment/

late 2016. The HURCAP process involved close working with local communities (particularly those identified as the most vulnerable in the original assessment), NGOs, local and national government agencies and other stakeholder groups. This highly participatory approach has identified key local problems and then translated the community objectives into priority resilience actions. It is the intention of this AF proposal to access the funds necessary to support the implementation of the resilience actions that have been identified by local stakeholders in Honiara.

Socio-economic context

The Solomon Islands:

As noted by the Solomon Islands Government (SIG) in their INDC response to the UNFCCC, the Solomon Islands comprises of a scattered archipelago of 994 islands combining mountainous islands as well as low lying coral atolls within a tuna-rich and potentially mineral-rich maritime Economic Exclusive Zone (EEZ) of 1.34 million square kilometres. The land area of 28,000 square kilometres with 4,023 kilometres of coastline is the second largest in the Pacific after Papua New Guinea. There are six main islands, Choiseul, New Georgia, Santa Isabel, Malaita, Guadalcanal and Makira, which are characterized by a rugged and mountainous landscape of volcanic origin. Between and beyond the bigger islands are hundreds of smaller volcanic islands and low lying coral atolls. All of the mountainous islands of volcanic origin are forested with many coastal areas surrounded by fringing reefs and lagoons[2].

The Solomon Islands has a population of 598,860 (September 2015 estimate), with around 80% of the national population living on low lying coastal areas. Most people in Solomon Islands are ethnically Melanesian (94.5%). Other large ethnic groups include Polynesian (3%) and Micronesian (1.2%), with a few thousand ethnic Chinese in the country. There are 70 living languages in Solomon Islands with Melanesian languages spoken mostly on the main islands. While English is the official language, only 69% of the population speaks English (SINSO, 2011)[3]. The Solomon Island's Human Development Index (HDI) was 0.510 in 2011, and is one of the lowest in the Pacific, ranking 142 out of 187 countries (UNDP, 2011).

Honiara:

From a population of less than 20,000 at the country's Independence in 1978 the city has grown rapidly to an estimated 87,000 residents in 2015, despite civil unrest disrupting rural-urban migration in the early 2000s (SINSO, 2011)[4]. Although there are a number of urban-classified townships and settlements on other islands across the archipelago (such as Gizo, Noro, Munda and Auki), as well as peri-urban wards on the city fringe within Guadalcanal Province (Tandai and Malango), Honiara is the primary city. There are no other cities with a population of more than 10,000 in the country. Honiara is the only major centre of economic activity and as such attracts increasing numbers of youth and adults from other islands seeking employment and income.

[2] Solomon Islands government (2015, p3) INDC
[3] http://www.mof.gov.sb/Libraries/Statistics/2011_06_-_Report_on_2009_Population_Housing_Census.sflb.ashx
[4] SINSO (2011) http://www.statistics.gov.sb/component/advlisting/?view=download&format=raw&fileId=413

Urban migration is estimated at 4% and with the current rate of growth the national population is expected to double by 2020.
With the city located along a thin coastal strip (containing critical national infrastructure) on the northern edge of Guadalcanal Island and extending southward into topographically limiting and hazardous terrain, current and future climate impacts will continue to exacerbate and interact with priority development issues, damaging road infrastructure, sensitive and exposed housing, and causing health issues in the local communities (32% of which fall below the Basic Needs Poverty Line). With one quarter of the urban population lacking access to potable water, 64% lacking rubbish collection facilities, and less than half of the city with sealed sanitation facilities, these development issues also compound climate risks by blocking rivers, spreading disease, and polluting critical ecosystem services.

Honiara City Council has jurisdiction over the municipal area, as shown in the following figure, encompassing approximately 23 square kilometres of rugged hills and valleys rising up from the northern coastline of Guadalcanal Island. The Honiara municipal area is divided into 12 wards, each of which is represented by a single elected councillor. The remaining council positions are comprised of four members appointed by the Minister for Home Affairs, the three members of parliament that represent the Honiara city area, and the premier of Guadalcanal Province (CLGF, 2012). It is surrounded on all sides by land and ocean that falls within Guadalcanal Province's jurisdiction, within which land and near-shore marine tenure is primarily controlled by customary law.

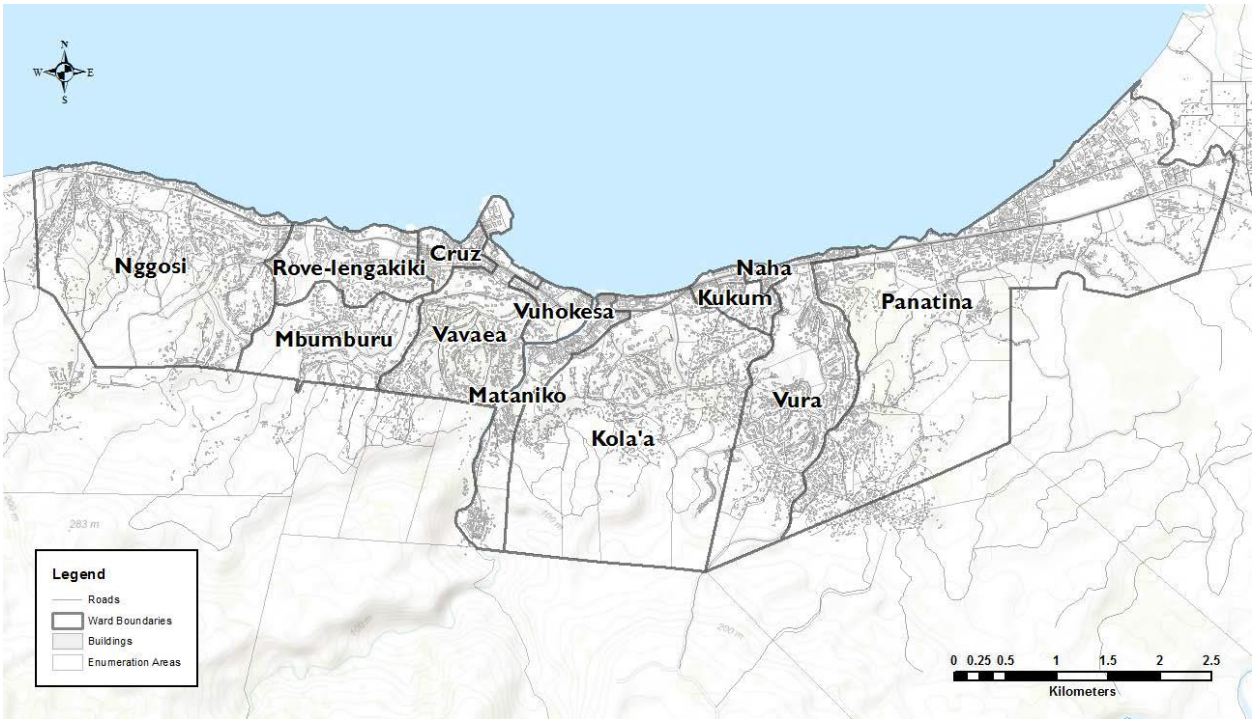

Figure 1: Honiara administrative wards

While the growth rate of the municipal population has slowed over time, peri-urban areas around the city have continued to grow rapidly, including the Guadalcanal wards of Tandai and Malango, bordering Honiara, which grew at an annual rate of 16.4% over the decade prior to 2009. Notably, the disrupted process of urbanization in the Solomon Islands following the 1999 census limits the capacity to project future trends. Fieldwork conducted as part of the HURCAP process suggests that rural-urban migration has accelerated, and may continue at significantly higher rates than those projected in the official 'Constant Migration' scenario.

Although a sizeable area of land within the municipal boundary could yet be developed, particularly in the southern sections of the Kola'a and Panatina wards, growth in these areas has been limited by a lack of road access, utilities and government land releases. As a consequence, the share of the city's population living in informal settlements – in untenured, temporary or makeshift housing – has grown rapidly to roughly one third of the municipality's total population. It is estimated that this figure will reach 50% by 2020 if not addressed through relocation and formalization of tenure.

As shown in Figure 2, spatial analysis of the growth patterns across the city over the decade preceding the 2009 census shows that Honiara's urban footprint continues to expand, with the population in the more established areas of central and eastern Honiara largely stable (Trundle & McEvoy, 2015). A breakdown by wards highlights this distinct spatial distribution, with population growth over the 10 years following the 1999 census focused within Nggosi (5.7% p.a.), Mbumburu (5.0% p.a.) and Panatina (4.7% p.a.), while Cruz and Naha shrunk significantly (at rates of -6.3 and -6.0 p.a. respectively) (*ibid*). In contrast the peri-urban provincial area of Tandai grew by 25.75% annually to reach a total population of 10,083 by 2009.

The pull factors of jobs, education and access to the global economy has attracted a large number of young people from the provinces to Honiara; in all, 58% of the city's population is less than 25 years old, while a third are less than 15 years of age. While the number of young people aged 15-25 is distributed relatively evenly across wards (with the exception of Cruz, which has only a third of its population within the youth age bracket), the distribution of children is more distinct. As shown in Figure 3, young families are concentrated in the same growth areas evident in Figure 2; Nggosi and Panatina. This 'youth bulge' represents both a challenge and an opportunity for the city. Although the limited number of jobs available has led to high levels of youth unemployment (with associated issues such as heightened occurrences of anti-social behaviour), the concentration of education institutions, youth groups and strong social networks provides a strong capacity for engagement with an active and creative section of the community. Training programs such as the Rapid Employment Project (REP) provide pilot examples of how these sectors of the community can be involved productively in the development of Honiara's urban infrastructure, while at the same time providing jobs and training opportunities (World Bank, 2015)[5].

[5] World Bank (2015) Solomon Islands Rapid Employment Project Implementation Status and Results Report: Sequence 7.

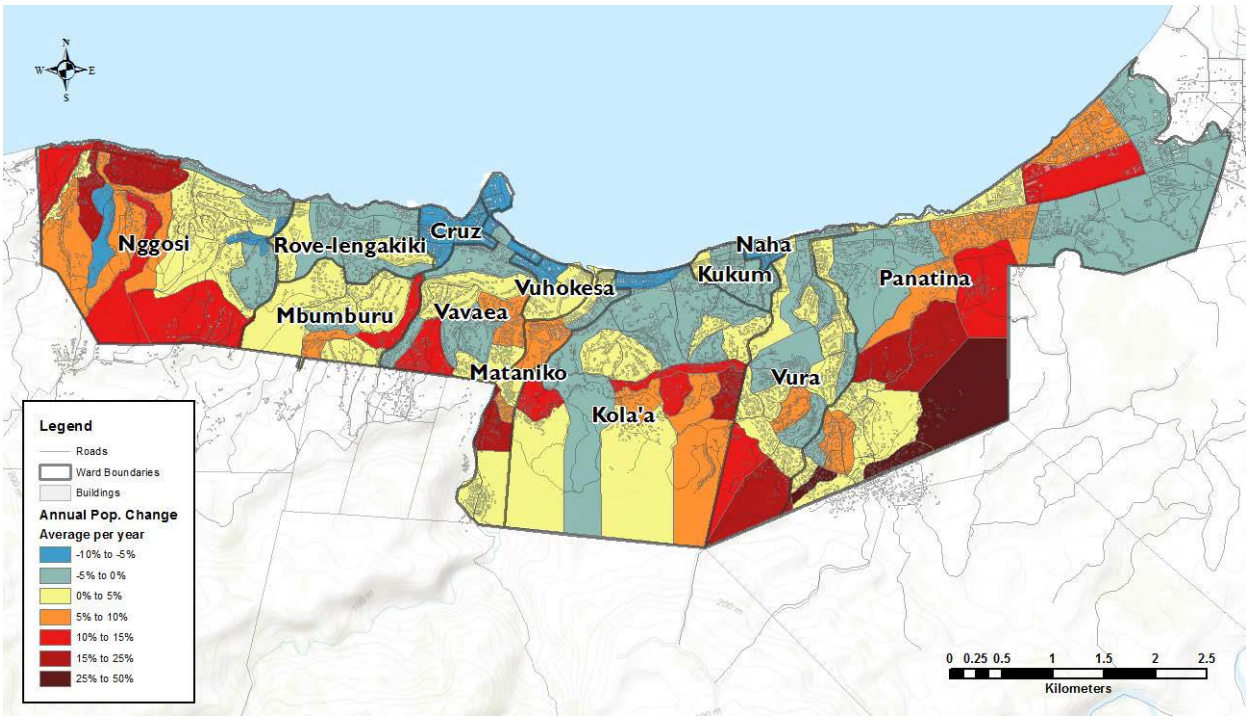

Figure 2: Honiara population growth estimates 1999-2009 by 1999 Enumeration Area (Trundle & McEvoy for UN-Habitat and HCC 2015)

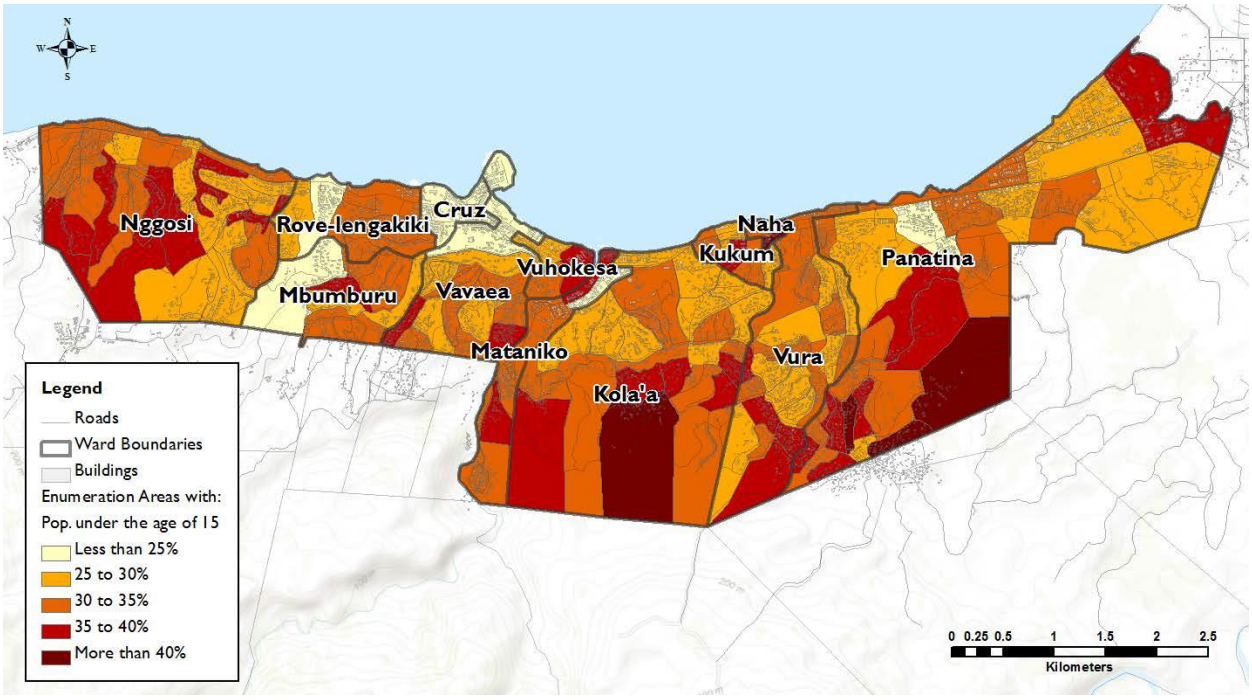

Figure 3: Percentage of total enumeration area population less than 15 years old, 2009 (Trundle & McEvoy for UN-Habitat and HCC, 2015)

Useful data on unemployment, including in urban areas, is extremely limited in Solomon Islands. All anecdotal evidence, however, suggests that the proportion of the working age population engaged in formal sector waged or salaried employment is relatively low. It also suggests that a single income earner within Honiara is often supporting many others, including extended family members (this includes family members in Honiara but also often family in rural areas). In addition, youth unemployment is estimated to be very high. In 2005/06, for example, the unemployment rates for 15–19 year olds was estimated at 75%, and 49% for 20–24 year olds.

Given the lack of formal sector jobs, the informal economy is critically important in Honiara. Research by Union Aid Abroad, for example, revealed a hugely diverse range of informal livelihood activities undertaken by individuals and households across the city. These ranged from selling produced goods such as vegetables, baked goods, and handicrafts, to trading tobacco and betel nut. Overall, the research showed almost all informal sector livelihood activities had a higher return than casual or low paid employment. Recent poverty profiles developed from the 2012/13 Household Income and Expenditure Survey (HIES) are illuminating for Solomon Islands, and Honiara. This work calculated Solomon Islands specific poverty lines (determining the minimum expenditure required to obtain basic food and nonfood goods) that varied across the country. Honiara, for example, had the highest Basic Needs Poverty Line – as meeting basic needs in Honiara costs around twice as much as in the provinces, particularly due to the very high cost of housing in the city. The report also noted that this effect appeared to spill over into Guadalcanal Province, which had the second highest poverty line in the country (UN-Habitat 2016, Informal Settlements Analysis - draft).

Climate variability

The city of Honiara is heavily influenced by a number of significant regional weather and climate systems, including the South Pacific Convergence Zone, the El Nino Southern Oscillation Index and the West Pacific Monsoon. As a result, its two-season tropical climate is characterized by highly variable inter-annual rainfall, and is exposed to major extreme events such as tropical cyclones, drought, extreme rainfall events and associated flash flooding/landslides, as well as extreme nocturnal/diurnal heat. This variability is expected to be exacerbated under most climate scenarios, with annual warm days already showing a significant increasing trend, sea level increasing above the global average, while oceanic aragonite saturation levels are projected to reach critical levels for coral bleaching recovery under RCPs 4.5 and 8.5 in the next 20-30 years, threatening local livelihoods, cash-economy resource flows (both marine and tourism-based), as well as subsistence food stocks.

***Current climate conditions*:**

Honiara is located 9°25’59” south of the equator at a longitude of 159°56’59” East, and has a two-season tropical monsoon climate. Annual temperatures show little variation month to month, with minimum and maximum daily temperatures ranging on average from 22.0°C to 23.5°C and 30.1°C to 30.7°C respectively (SIMS, BoM & CSIRO, 2013)[6].

[6] SIMS, BoM & CSIRO (2013) http://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/13_PCCSP_Solomon_Islands_8pp.pdf

In contrast, rainfall varies distinctly on an annual basis, with 70% of average annual rainfall falling within the November-April wet season (known as Komburu), while rainfall during the dry season (or Ara) averages only 110mm per month (see figure 4 below).

Despite these long-term averages showing distinct rainfall patterns and temperature stability, the location of the Solomon Islands at the juncture of the South Pacific Convergence Zone, the Inter-tropical Convergence Zone, and the West Pacific Monsoon leads to significant inter-annual variability, particularly in terms of total annual rainfall. This variation is attributed to shifts in these regional systems, such as to the movement of hot and cold water across the Pacific associated with the El Niño-Southern Oscillation. The extent of this inter-annual variation is significant, with total annual rainfall in 1969 recorded as roughly three times that of the following year (3300mm, followed by 1110mm in 1970).

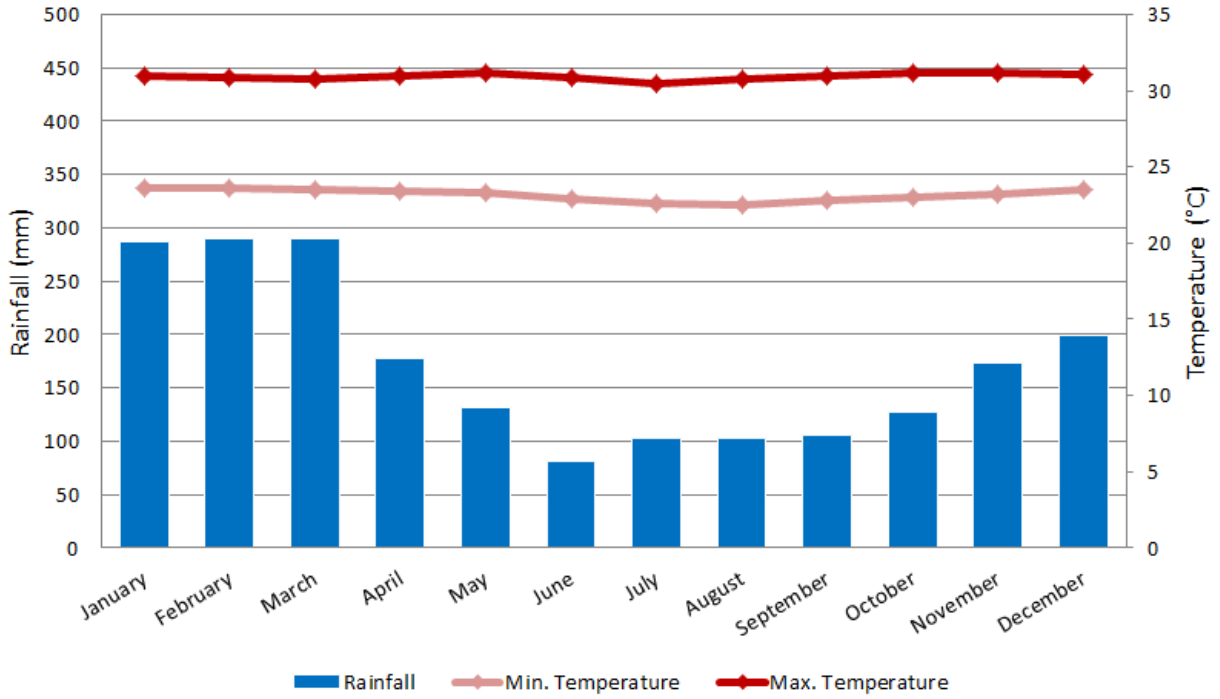

Figure 4: Honiara Monthly Average Rainfall and Temperature (Trundle & McEvoy for UN-Habitat and HCC, 2015)

Extreme weather events:

As a product of the city's tropical climate and the converging regional climate systems, Honiara faces a range of extreme weather phenomena that impact in different ways across the city.

Extreme rainfall events can lead to both localized flash flooding and severe riverine flooding as a product of the large catchment areas that lie upstream of the city, coupled with limited drainage infrastructure and debris-filled waterways. The most extreme such event on record was the April 2014 Floods, caused by peak daily rainfall of 318mm (3rd of April 2014). Although long-term daily rainfall records are not available for the area,

modelling-based analysis suggests that this equates to more rainfall than expected in a 1-in-100 year event (Lal & Thurairajah, 2011)[7]. Rainfall has also been associated with the risk of landslips in the more rugged areas of the city, as well as riverbank erosion and the spread of vector-borne diseases. Riverine flood risk areas for the April 2014 floods are known, however spatial information on flash flooding hotspots and riverine flood risk areas for more frequent return periods is not available. Areas of landslip risk also require further analysis, particularly in relation to the Honiara Local Planning Scheme, which has placed regulatory restrictions and requirements on building sites located on gradients steeper than 45 degrees (MLHS & HCC, 2015)[8].

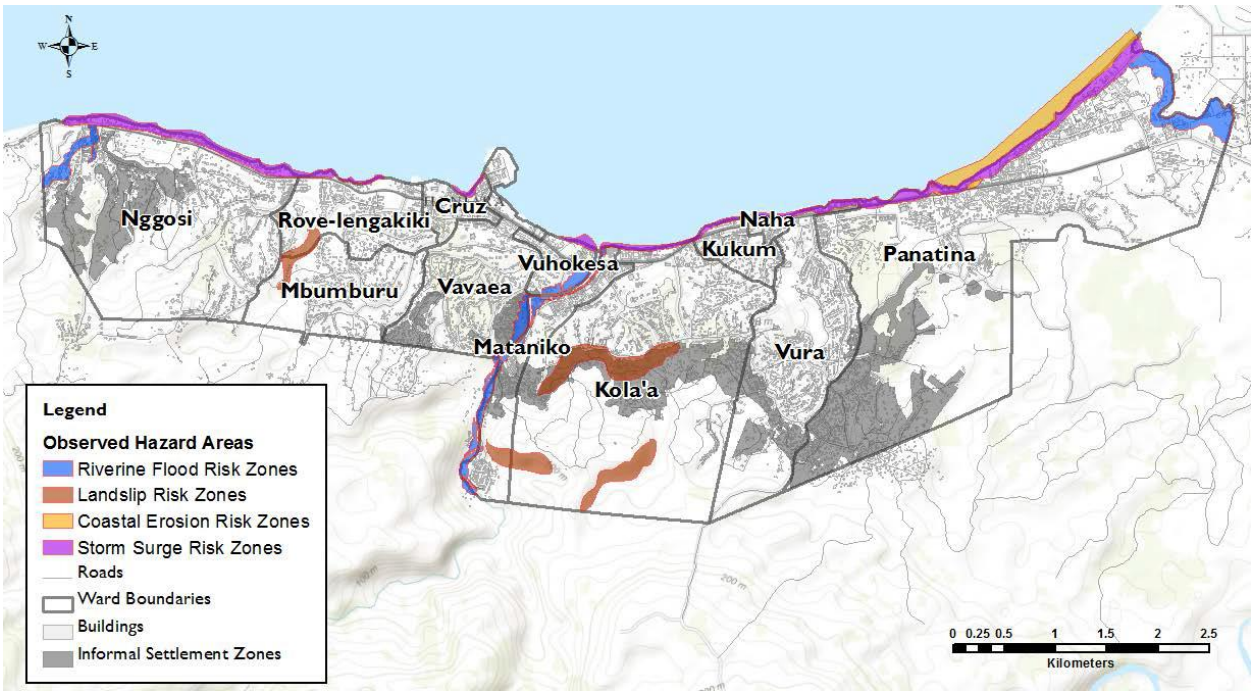

Figure 5: Identified Climate-related Hazard Areas (Trundle & McEvoy for UN-Habitat and HCC, 2015 - data sourced from MLHS, UN-Habitat and MECDM)

Most coastal areas along the northern edge of the city lack natural or artificial defenses from storm surges and tropical cyclones, with those areas of the city likely to be impacted by a 5 metre storm surge height shown in Figure 5. Tropical cyclones are seasonally most likely to occur between November and April, with on average one cyclone passing within 400km of Honiara each year. Tropical Cyclone occurrence varies significantly year-to-year however, ranging from five in 1971/72 to none in various other

[7] Lal, P. N., & Thurairajah, V. (2011). Making informed adaptation choices: A case study of climate proofing road infrastructure in the Solomon Islands. Retrieved from https://www.environment.gov.au/system/files/resources/67fb2472-ae17-4b88-adb6-62a0c0859940/files/iucn-infrastructure-solomon-islands-case-study.pdf

[8] Ministry of Lands Housing & Survey (MLHS), & Honiara City Council (HCC). (2015). Honiara Local Planning Scheme 2015. Honiara, Solomon Islands. Retrieved from http://www.honiaracitycouncil.com/wp-content/uploads/2014/09/Honiara-Local-Planning-Scheme-2015.pdf

years (PACCSAP, 2014)[9]. Cyclones are twice as likely to pass in close proximity to Honiara during El Niño conditions as they are during a La Niña event. Exposure to other impacts resulting from tropical cyclone events such as extreme winds are also likely to impact the coastal areas of the city, as well as the ridgeline and north-facing housing in the city's interior. Housing located on southerly-facing slopes below the ridgeline is least likely to be impacted.

Extreme heat events – particularly in the form of hot night-time temperatures – have been noted to be having increasing impact on particular communities, an observation supported by SIMS data showing a strong increase in the number of very hot day-time and night-time temperatures over the last two decades. These extreme heat conditions are worsened in high-density areas, where a lack of through-flow prevents cooling through sea breezes and natural air circulation.

Drought and coral bleaching events have historically had a secondary impact on the city by reducing the availability of food, livelihood products, and water, while also driving rural-to-urban migration. However, exposure to these events is not spatially specific to the Honiara municipal area.

Climate trends and projections:
Trends in annual rainfall and average temperatures in Honiara are shown in Figures 6 and 7. The overall trend in annual rainfall is not statistically significant; however a clear warming trend is evident across mean, maximum and minimum air temperatures. Sea surface temperatures show a similar warming trend, increasing at a rate of 0.12°C per decade since the 1970s (PACCSAP, 2014).

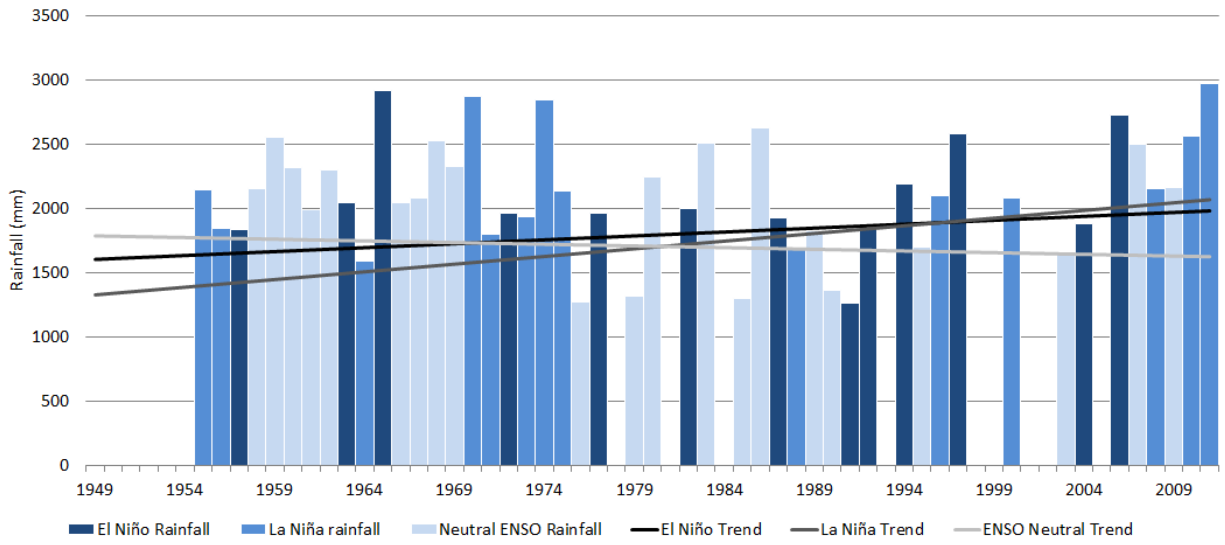

Figure 6: Long-term rainfall trends in Honiara by ENSO status (Trundle & McEvoy for UN-Habitat and HCC, 2015 - sourced from PACCSAP, 2014)

[9] http://www.pacificclimatechangescience.org/wp-content/uploads/2014/07/PACCSAP_CountryReports2014_WEB_140710.pdf

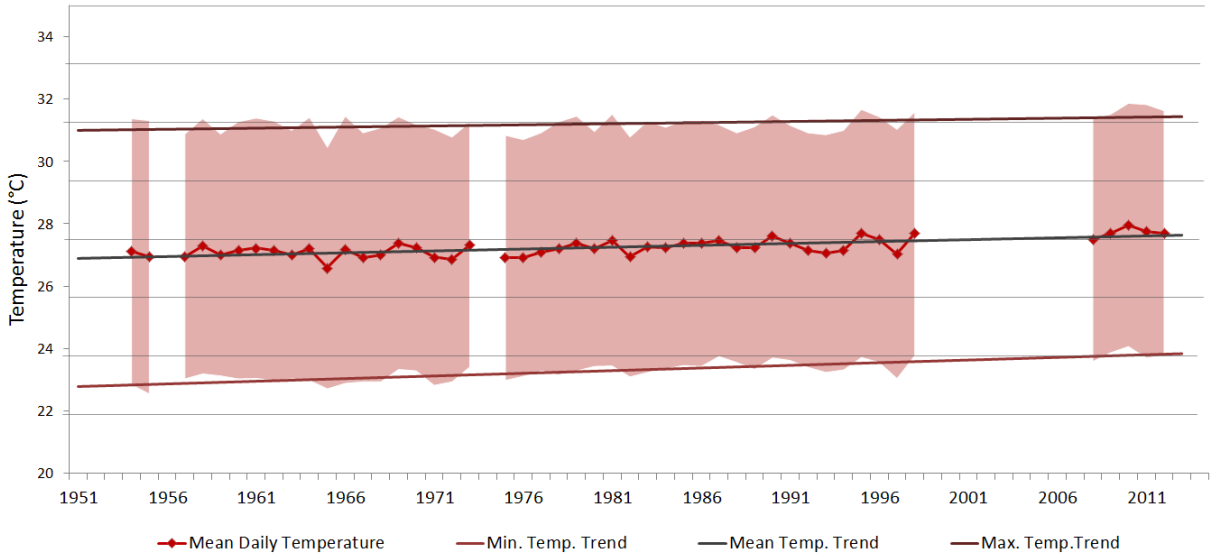

Figure 7: Long-term mean, maximum and minimum temperature trends, Honiara (Trundle & McEvoy for UN-Habitat and HCC, 2015 - sourced from PACCSAP, 2014)

Seasonal and daily rainfall trends are not clear, although the number of rainy days experienced in Honiara has decreased slightly (3.75 less rainy days per decade). As noted, extreme temperatures have shifted significantly, with nighttime extremes showing a strong increase in unusually hot minimum temperatures, and a similar decrease in extremely cool nighttime minimums.

Satellite observations of near-shore sea level rise around Guadalcanal shows an increase of more than double the global average, rising at an average rate of 8mm per year since 1993 (PACCSAP, 2014).

Analysis of trends in tropical cyclone occurrence and intensity is not recommended at the country level in the Pacific region.

Future climate projections are based on Representative Concentration Pathways (RCPs), which reflect different warming scenarios dependent on the level of global emissions over time. The agreement between Global Climate Models (GCM's) – as well as their consistency with the underlying science and observations – is reflected in the 'confidence' levels that are applied; as determined by the Pacific-Australian Climate Change Science and Adaptation Planning Program (comprising climate science experts from the Australian Bureau of Meteorology and the Commonwealth Science and Industry Research Organisation).

There is very high confidence that both sea surface and air temperatures will continue to increase across the Solomon Islands. However, the range of this change varies increasingly with the longer-range projections, particularly for higher emissions scenarios. By 2030 annual temperatures are projected to increase by approximately

0.7°C irrespective of the emissions trajectory over the next decade and a half, while by 2090 a 'business as usual' high emissions scenario could result in as much as a 4.0°C annual temperature increase (PACCSAP, 2014).

Extreme temperatures are projected to increase by a similar amount, while the frequency of extreme heat days is also projected to increase, although there is low confidence in both the magnitude of the intensification and the frequency with which such days will occur.

Projected changes to annual rainfall are largely within the existing range of rainfall variability, with only low confidence that annual rainfall in the Solomon Islands will increase, due to the uncertainty around changes to regional climate systems in the area and a wide variation between model outputs. Extreme rainfall events, however, are expected to increase in frequency and intensity, with a current 1-in-20 year daily rainfall event increasing by 9mm by 2030. This increases to and additional 43mm by 2090, under a worst-case, very high emissions scenario (RCP 8.5). The frequency of a current-day 1-in-20 year rainfall event – the equivalent of approximately 220mm of rainfall within a day – would increase to once every 4 years by 2090 under the same scenario (PACCSAP, 2014).

There is very high confidence that ocean acidification will continue to increase, with moderate confidence that under low to very high emissions scenarios, aragonite saturation will fall below 3.4Ωa around 2040 (a critical threshold for coral health, below which reefs struggle to grow or rebuild). However, under a very low emissions scenario (RCP2.6) viable health reef conditions are likely to continue. These effects will be coupled with an increasing risk of coral bleaching events, a product of increased sea-surface temperatures. Such events are projected to increase in frequency (bleaching events that occur more than once every 5 years in the same location can lead to a reef area dying permanently).

Projected sea level rise in the longer-term ranges significantly due to uncertainty regarding the contribution and speed of melting of the Antarctic ice sheet (PACCSAP, 2014: p275). Inter-annual variability has historically ranged 31cm around the long-term average, and is projected to maintain a similar range as the overall average sea level increases.

There is low confidence in the projected change to the frequency, duration and severity of droughts that the Solomon Islands will face under climate change, although the proportion of time spent in drought is expected to remain the same or decrease slightly, as is the frequency of drought events.

Climate models are not yet effective at modelling regional changes to tropical cyclones, due to their relatively small size and short lifespan within the global climate system. At a global scale, by 2100 tropical cyclones are projected to decrease in frequency (between -6 and -35%), but increase in maximum wind intensity (+2 to +11%), with an estimated increase in rainfall by an average of 20% within 100km of the cyclone's eye (PACCSAP,

2014: p.272). Within the South-West Pacific region, the change in the frequency of cyclone is similar to the global average, however with greater model disagreement.

Sensitivity of people and critical infrastructure:
Socio-economic measurements can be used as proxies for the likely sensitivity of different households and urban areas to certain climate impacts; with tenure, housing type, infrastructure access, health and demographics resulting in different levels of impact from climate-related hazards. For example, although the same areas may be impacted by a tropical cyclone, areas with better housing quality might be less damaged by extreme winds. Similarly, communities which are dependent on fishing for livelihoods or income will be most sensitive to coral bleaching events that result in a depletion of fish stocks.

The initial analysis of climate sensitivity is contained in the Honiara Climate Change Vulnerability Assessment (UN-Habitat, 2014) but has been complemented by HURCAP analysis and mapping of the 2009 National Census data at a sub-ward level across the city. Additionally, transect walks and community workshops in key hotspot locations provided further local information on climate sensitivity at the household level.

Informal Settlement Zones (ISZs) comprise almost 15% of the city's total land area, and contain an estimated 28% of the city's population. In addition to these zones, informal housing structures can be found throughout the city on road reserves and other accessible un-populated areas, such as the national cemetery and the botanical gardens (UN-Habitat, 2016). Two examples of these untenured structures are shown in Figure 8. Both are limited in terms of their structural integrity as well as being located in areas that were exposed to flooding in 2014. Other examples of housing exposed to flood and landslide risk are shown in Figure 9.

Figure 8: Informal housing structures outside of on road reservations and embankments in Mataniko Ward

Figure 9: Housing exposed to climate-related risks in Honiara

Almost half of Panatina Ward's total population (48.6%) is contained within ISZs, while Kola'a Ward comprises a similarly large ISZ population (39.9% of its total ward consistency). 20-30% of Nggosi, Vavaea, Mataniko and Vura's populations also reside within these zones. ISZs have a significantly higher population density than the rest of the city (52.7 residents per hectare compared with 26.8 city-wide), which increases sensitivity to extreme heat, and worsens health-related issues such as vector- and water-borne disease. Other urban areas with notably high population density are Ontong Java settlement (also known as Lord Howe Settlement) in Mataniko Ward (218 residents per hectare), and Fishing Village in Panatina Ward (112 residents per hectare), as shown in Figure 10. In both of these areas, the unplanned built form was noted to be preventing on-shore breezes from penetrating the settlements, worsening issues associated with extreme heat days that were being observed by community members.

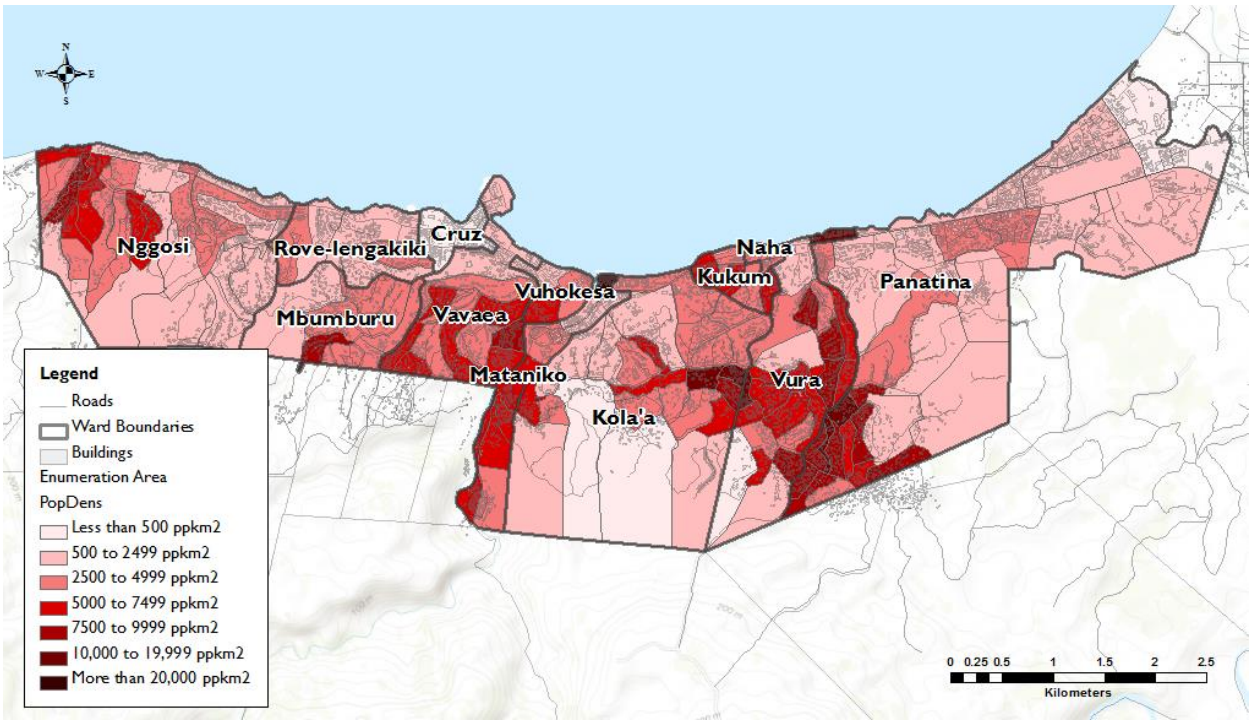

Figure 10: Population Density by Enumeration Area, 2009 (Trundle & McEvoy for UN-Habitat and HCC, 2015)

A second aspect of sensitivity that cuts across multiple climate hazards is access to, and quality of, sanitation. This has the potential to compound the immediate impacts of flooding with the spread of disease, and can lead to underlying health conditions that also heighten sensitivity to extreme heat events. Furthermore, seepage into groundwater has the potential to put the city's water supply at risk, as well as affecting local water sources. Over a third of households in Vuhokesa and a similar percentage of Naha ward residents (31.5%) have either unsealed or no toilet facilities. Hotspot areas in larger wards are offset by more established, connected locations, which generally correspond to formal land tenure. City-wide, roughly 17% of households lack access to these basic sanitation services. Approximately 30% of the city is connected to the Solomon Water sewerage network (UN-Habitat, 2014: p.16).

One quarter of households across the city lack formal metered access to potable drinking water, although unauthorised secondary water connections are commonplace particularly within ISZs. Panatina and Rover-Lengakiki Wards have the lowest levels of potable water access (63.6% and 68.9% respectively). The city's official water supply is sourced from a combination of groundwater sources and freshwater springs, located within or adjacent to the city boundary, with the city's main water supply located upstream of Nggosi ward within the White River catchment (Kongulai Spring).

Access to the SIEA electricity grid follows a similar pattern across the city, with the exception of significantly lower access rates in Nggosi Ward (53.6%). Vuhokesa ward recorded the lowest rate of SIEA connections per household (48.0%), while Kola'a, Panatina and Vavaea all fell within the 55-65% electricity access range. It was noted

during site analysis that housing constructed with traditional materials were not permitted to be connected to the grid, limiting access to some customary sites along the Mataniko River, as well as a number of informal settlements. In total roughly two thirds of households in Honiara have electricity access, although a number of off-grid houses were observed to be using small solar panels to generate power for devices such as mobile phones.

The city's power supply is heavily dependent on imported diesel, which, combined with transport fuel, accounts for roughly 30% of the country's goods imports by cost, and 80% of SIEA's expenditure (MMERE, 2014). Based on 2013 figures Honiara's power supply consumes an estimated 16.2 million litres of diesel annually. Port access and diesel storage in Cruz, as well as the continuing operation of the city's two power stations, is therefore critical following an extreme weather event.

As noted in the Honiara Vulnerability Assessment, previous tropical cyclone events have brought down power lines, resulting in power outages. A one-megawatt photovoltaic rooftop array supplements the diesel generators, with back-up generators located at most government ministries and other key infrastructure facilities. A number of small-scale hydro stations are also currently being refurbished, and are due to return to operation in 2016.

Makeshift and improvised roofing increases the sensitivity of housing to tropical cyclone, extreme wind and flood events, with poorly constructed housing structures along the Mataniko River collapsing during the 2014 floods; resulting in large debris that damaged downstream infrastructure. Poor quality roofing can also lead to heightened risk in extreme heat, reducing shading of walls and insulation of inside spaces. These houses are concentrated in ISZs, where a lack of formal tenure was noted to prevent investment in stronger housing designs and materials.

Vulnerability hotspots

4 hotspot communities were initially identified as being particularly vulnerable by the UN-Habitat vulnerability assessment in 2014 (a finding that was borne out during the Mataniko River flood event that killed over 20 people, and caused widespread damage to infrastructure and buildings, shortly after the assessment was published).

Although the damage suffered by one of the communities was so severe that it no longer exists as before, therefore 'Planning for Climate Change' engagement took place with the other three (Ontong Java/Lord Howe, Kukum Fishing Village, and Aekafo Planning Area in the Kola'a ward) as part of the development of the HURCAP. These were:

1. Ontong Java Settlement, also referred to as Lord Howe Settlement, remains one of the highest priority hotspot areas, being located at the mouth of the Mataniko River and 0.5 metres below the current high-water mark. The community faces additional hazards such as heavily polluted internal drainage systems,

overpopulated high density housing, and a lack of basic sanitation and proximity to sewerage outfalls from the National Referral Hospital (which has limited waste treatment capabilities). Saline water-logging was preventing planting of gardens within the community, as well as the digging of pit-latrines. Extreme night-time temperatures were also identified as being an issue, with sea-breezes prevented from penetrating into the settlement due to overcrowding.

2. Kukum Fishing Village, is located in Vura Ward adjacent to the Kukum highway along a thin strip of coastline that has been heavily eroded in past cyclone events. The dependence on fisheries for livelihoods further heightens the community's vulnerability to the marine impacts of climate change, while the community experiences similar issues to Ontong Java Settlement with a neighbouring sewerage outfall polluting the local environment. Health risks associated with water pollution and poor rubbish collection services were also noted by community members, which were worsened by the high population density and overcrowding in the area.
3. The Aekafo Planning Area in Kola'a Ward includes the two informal settlements of Matariu and Jericho; hotspots highlighted in the Honiara Vulnerability Assessment. This area has limited road access and no formal connection to utilities and services, resulting in severe pollution along the riverine valley and significant risk from disease due to a lack of basic sanitation. A large portion of the area is also potentially at risk of landslip, with houses built without formal approval or under Temporary Occupation Licences, resulting in variable structural quality and little to no government regulation.

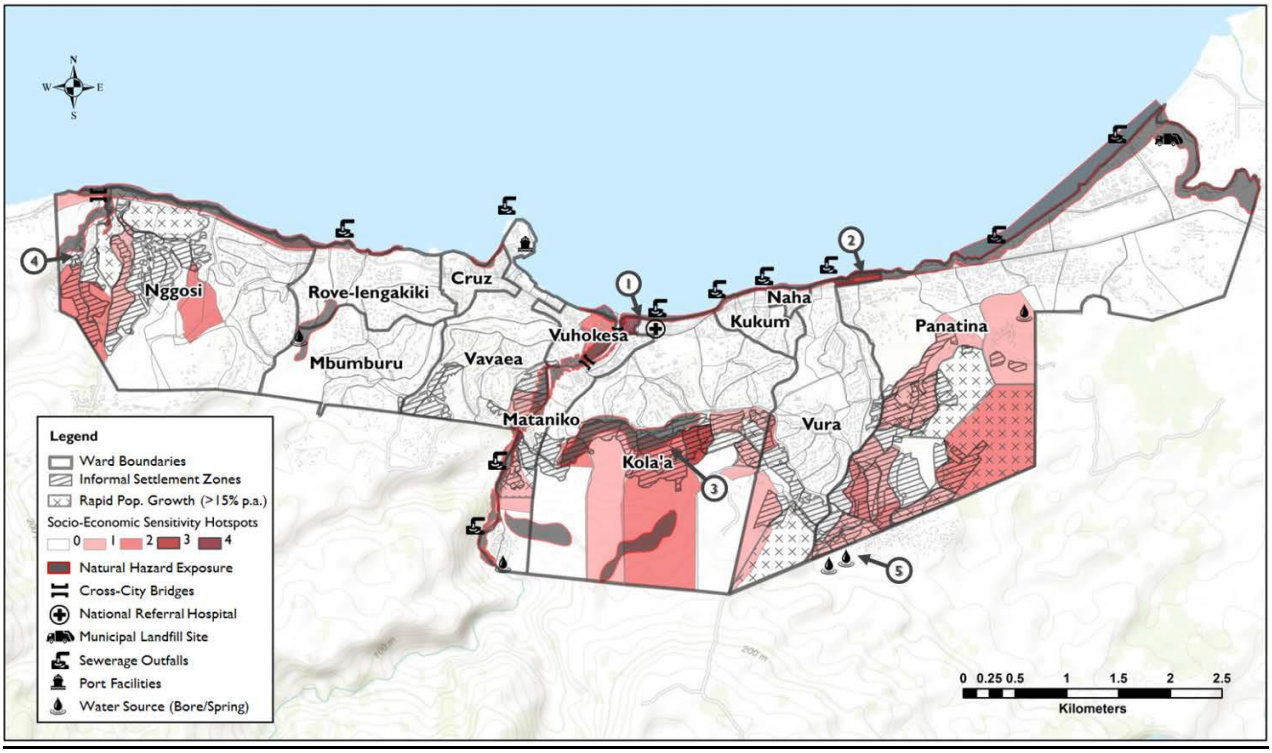

Figure 11: Hotspots based on climate impact assessment – exposure and sensitivity overlays (Trundle & McEvoy for UN-Habitat and HCC 2016)

Ontong Java community-level actions:
The Ontong Java community is located on the coast at the mouth of the Mataniko River. The majority of issues that were raised relate to either being on the coast, flooding and need for improved drainage, or alternatively to general development deficits which are worsened by their location. As a consequence, availability of alternative land for resettlement was considered a primary action across multiple issues / objectives.

Priority actions identified: 1) improved flood risk management and drainage; 2) reduce water logging; 3) access to additional land; 4) manage coastal erosion and sea/river protection measures; 5) preparedness for coral bleaching; 6) reduction in water pollution; 7) waste management; 8) manage exposure to extreme heat; 9) reduce environmental health issues.

Aekafo Planning Zone, Kola'a, community-level actions:
Kola'a is situated in steep, hilly terrain upstream from Ontong Java and as a consequence many of the issues that were identified by local community members were linked to flood and landslide risks, accessibility, infrastructure deficits, as well as limited rubbish disposal and poor sanitation (the overwhelming majority of actions were linked to water, sanitation and waste).

Priority actions identified: 1) risk zoning and housing development restrictions (flood and landslide); 2) improved housing quality; 3) households to have land title; 4) improved road infrastructure; 5) improved sanitation and drainage; 6) waste management; 7) clean drinking water; 8) public health; 9) education on environmental risks; 10) zero violence community.

Kukum Fishing Village community-level actions:
Fishing Village is again most concerned about coastal issues, though due to location there is less focus on riverine issues than is the case with Ontong Java (though relocation was also cited as an option). There is also more noticeable attention paid to disaster risk reduction. Again, as with the other two hotspots, many of the critical issues relate to deficits in development.

Priority actions identified: 1) relocation / additional land; 2) dealing with over-population; 3) flood risk management; 4) being safe from cyclones; 5) improved sanitation; 6) access to drinking water; 7) protection from SLR and coastal erosion; 8) reduced risk from tsunami and cyclone; 9) reduced coastal pollution; 10) reduced risk of fire.

It is evident that the issues and actions that were identified during the 'Planning for Climate Change' engagement process were not just related to climate change but also involved disaster risk reduction and more general urban development / planning issues (see figure 12). Responses to critical community problems can therefore be considered either climate-driven, climate-influenced or non-climate in nature. However, it is important to recognize that current day development deficits are severe in many parts of Honiara and amplify the 'sensitivity' of local communities to the impacts of climate change. Addressing these current-day development issues is therefore a critical initial stage of enhancing community resilience to climate change and natural disasters.

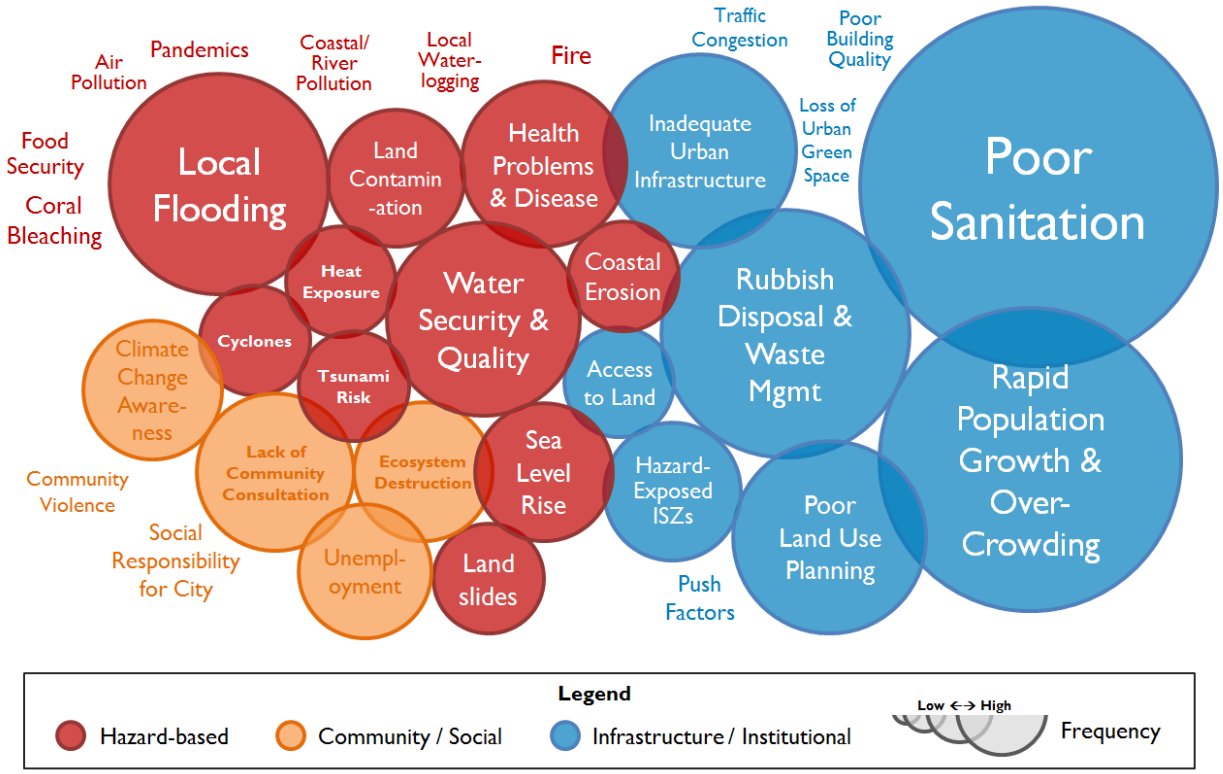

Figure 12: Community Level Priority Issues (Trundle & McEvoy for UN-Habitat and HCC 2015)

The initial assessment of hotspot locations was further developed in the HURCAP process using a range of exposure, sensitivity and adaptive capacity overlays to provide an updated spatial representation of areas that could be considered the most vulnerability to the impacts of climate change and natural hazards (as shown in Figure 13 below).

This second phase assessment identified additional areas that can be considered vulnerability hotspots (see following figure). Two additional communities (White River, Nggosi ward, and Tuvaruhu, Panatina ward) will therefore be added to the community-level action plan and will be subject to similar activity aimed at identifying key local issues and translating these into objectives and actions. The intended vulnerability hotspots to act as case studies for actions are therefore:

- Kukum Fishing Village (coastal)
- Ontong Java (coastal and downstream in the Mataniko River catchment);
- Aekafo planning zone (hilly, steep ravines, further upstream in Mataniko River catchment);
- Tuvaruhu, Panatina (furthest inland, Mataniko River catchment, settlement expansion, subject to cross boundary);
- White River, Nggosi (settlement expansion, subject to cross boundary issues).

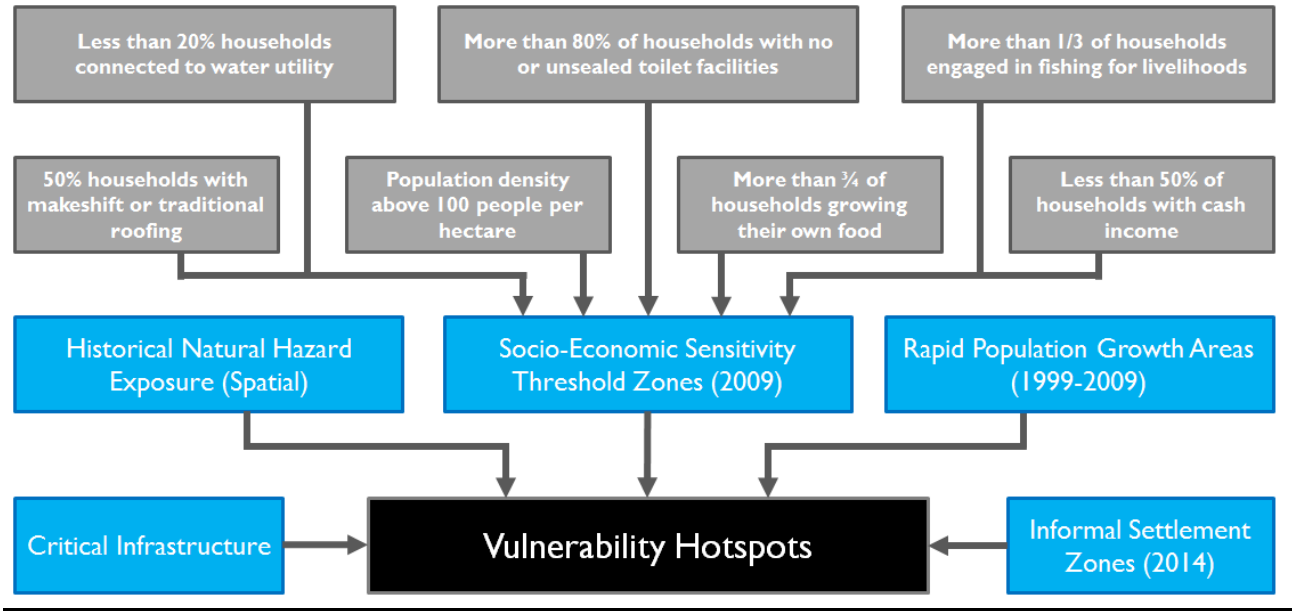

Figure 13: Data overlays used to highlight vulnerability hotspots (Trundle & McEvoy for UN-Habitat and HCC, 2015)

Project / Programme Objectives:

Goal:

In line with and in support of the Honiara Urban Resilience and Climate Change Action Planning, the overarching goal of this project is to enhance the resilience of Honiara and its inhabitants to current and future climate impacts and natural disasters, with a particular focus on pro-poor adaptation actions that involve and benefit the most vulnerable communities in the city.

Objectives:

Community-level

1) To support the implementation of prioritized resilience actions in vulnerability hotspot communities.
2) To strengthen the capacity of local communities to respond to climate change and natural hazards through awareness raising and capacity development training.

Ward-level

3) To support the implementation of resilience actions that target women, youth, urban agriculture and food security, and disaster risk reduction.
4) To strengthen the capacity of ward officials / councils to lead climate change adaptation and DRR planning activity, in support of increased urban resilience.

City-wide

5) To support the implementation of resilience actions to achieve sustainable water supply for the city, in recognition of the threats of climate change and a rapidly growing population have on ensuring continued access to clean drinking water.
6) To strengthen institutional arrangements at the city-level to respond to climate change and natural disasters through mainstreaming, improved partnership working, and monitoring of progress.

Project Components and Financing:

Table 1: project components and financing

Program components	Expected outputs	Outcomes	Amount (US$)
1. Community level actions	1.1. In addition to existing community action plans developed as part of the HURCAP process, complete community climate action plans for White River and Tuvaruhu informal settlements 1.2. In-depth community profiling for the hotspot case studies[10] 1.3. Scoping and feasibility studies of prioritized local actions for each hotspot community 1.4. Implementation of screened / agreed resilience actions in each hotspot community[11]	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3) Reduced vulnerability to climate-related hazards and threats (AF Outcome 1) Increased adaptive capacity within relevant development and natural resource sectors (AF Outcome 4)	**$910,000**
2. Community level capacity strengthening	2.1. Training on conducting community profile self-assessment 2.2. Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health) 2.3. Community level climate change action monitoring	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3)	**$210,000**
3. Ward level actions	3.1. To develop a women-focused climate risk communications program 3.2. To integrate climate change into educational programs for youth and children 3.3. Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented[12] 3.4. Climate resilient community spaces including productive open spaces and community evacuation centres	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3) Increased ecosystem resilience in response to climate change and variability-induced stress (AF Outcome 5). Increased adaptive capacity within relevant development and natural resource sectors (AF Outcome 4)	**$910,000**
4. Ward level capacity strengthening	4.1. Provide 'Planning for Climate Change' training for nominated 'resilience officers' in each of Honiara's wards, and integrate training with DRR knowledge (what to do and where to go)[13]	Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses (AF Outcome 2)	**$280,000**

[10] Synergies to be sought with UN-Habitat's Participatory Slum Upgrade Programme.
[11] Possible synergies with Mataniko River clean-up program or SPREP Ecosystem Services project etc.
[12] Links to SPREP Ecosystem Services and UN-Women Markets for Change projects.
[13] Links to ICLEI / UNISDR DRR self-assessment and action plan for HCC.

	4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate action planning 4.3. Assess locally appropriate land administration options for peri-urban locations		
5. City-wide actions	5.1. Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC 5.2. Develop and run capacity development workshops for planners and other urban and related professionals in support of urban resilience: planning, land administration and GIS risk mapping. To be held at RMIT in Melbourne 5.3. Assess current and future water supply and demand, and contribute to a sustainable water catchment plan 5.4. Identify and implement key actions in support of the sustainable water catchment plan	Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses (AF Outcome 2) Reduced vulnerability to climate-related hazards and threats (AF Outcome 1) Increased adaptive capacity within relevant development and natural resource sectors (AF Outcome 4)	**$910,000**
6. City-wide governance and capacity strengthening	6.1. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 6.2. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 6.3. Policy and stakeholder mapping, and a whole-of-govt. review to identify areas for mainstreaming of climate change considerations across urban policy (including land use plans and building codes)	Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses (AF Outcome 2) Improved policies and regulations that promote and enforce resilience measures (AF Outcome 7)	**$250,000**
7. Knowledge Management and Advocacy	7.1. Climate change training and knowledge exchange 7.2. City-level climate change action monitoring 7.3. Advocacy materials 7.4. Knowledge sharing platform 7.5. Project learning mechanism	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	**$150,000**

7. Project/Programme Execution cost	351.500
8. Total Project/Programme Cost	4.051.500
9. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)	344.377
Amount of Financing Requested	4.395.877

Table 2: Relevant Adaptation Fund outcomes

Outcome 1: Reduced exposure at national level to climate-related hazards and threats

Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses
Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level
Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors
Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress
Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas
Outcome 7: Improved policies and regulations that promote and enforce resilience measures

Projected Calendar:

Table 3: Project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	03-2017
Mid-term Review (if planned)	03-2019
Project/Programme Closing	09-2022
Terminal Evaluation	05-2021

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. The project components

Program design:

The proposed activity is informed by the actions that have been identified and prioritized by local stakeholders, and will involve a mixture of capacity building initiatives and the implementation of local actions that contribute to resilience strengthening in Honiara, particularly in informal settlements and 'hotspot' communities that have been identified as being in greatest need (according to a combination of exposure, sensitivity and adaptive capacity criteria).

The proposed project will engage across all spatial scales with resilience actions and capacity building at **city-wide**, **ward** and local **community** levels. However, the primary focus of the proposal is to support the implementation of climate adaptation 'outcomes' at the community level, in the form of resilience actions in the areas identified as vulnerability hotspots. It is intended that findings will also be transferable to other urban communities.

The project of resilience building activity will be coordinated and managed by UN-Habitat, with oversight provided by an in-country manager who will be based at the offices of Honiara City Council (this arrangement being agreed at a Government stakeholder meeting in Honiara in June 2016). A project steering committee will include representation from the City Council, Guadalcanal Provincial Council, the Ministry of Lands, Housing and Survey, and the Ministry of Ministry of Environment, Climate Change, Disaster Management and Meteorology. This arrangement provides strong institutional support for the program not only between different levels of Government but also in terms of addressing environmental issues and land administration across the city/provincial boundary. Other key stakeholders will also be involved depending on the activity involved.

Scientific expertise, training, and capacity development support will be provided by multi-disciplinary academic resources at RMIT University, Melbourne, Australia. RMIT University researchers, Professor Darryn McEvoy and Alexei Trundle, have been responsible for the development of the Honiara Urban Resilience and Climate Adaptation Plan (HURCAP). Their extensive connections and track record in this context ensure that planned actions will maximize synergies with other ongoing country environmental initiatives and involve the relevant stakeholders. Their leadership of the project will be strongly supported by RMIT staff (from various disciplines) who have also conducted research and have extensive networks in the Solomon Islands and the wider Pacific region.

The importance of building on community strengths:

Adaptive capacity is a measure of the resources, institutional and community structures, and knowledge networks and skills that are able to be used or activated in response to a shock or long-term stress. Adaptive capacity counteracts the heightened vulnerability resulting from exposure and sensitivity, and can be similarly considered in terms of spatial variation within the city, as well as across the city as a whole.

A rapid assessment of city-wide adaptive capacity was conducted by a series of stakeholder groups in 2015, including the Honiara City Council, Solomon Water, the National Disaster Management Office, as well as youth and NGO representatives, and hotspot communities. The outcomes of this are shown in Figure 14, and supplement the outcomes of the 2012 city consultation workshop, which provided the baseline for assessing adaptive capacity in the Honiara vulnerability assessment (UN-Habitat, 2014: p.15).

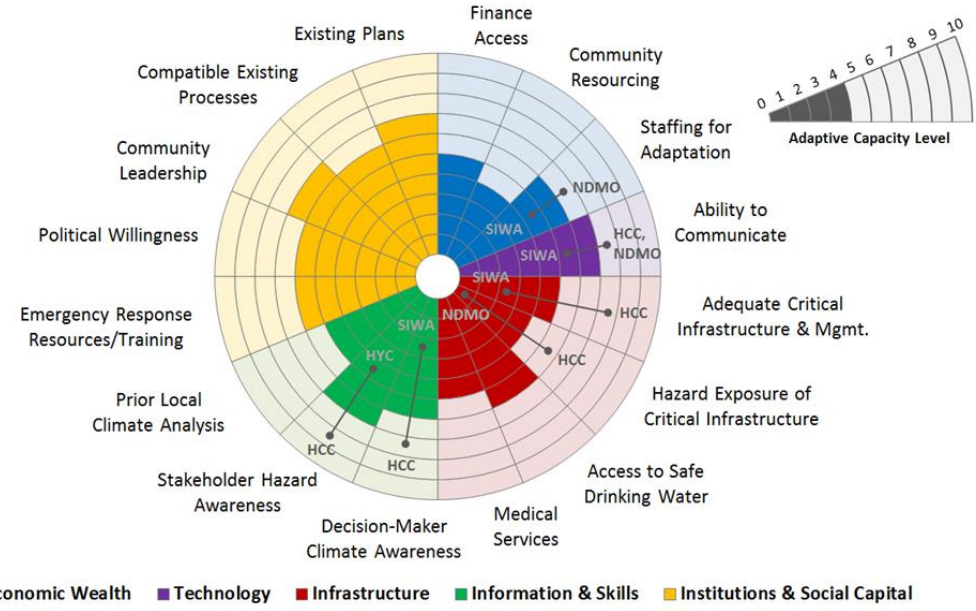

Figure 14: Adaptive Capacity (Trundle & McEvoy for UN-Habitat and HCC 2015)

Access to finance is an issue at both community and household levels, as well as across national government agencies. As noted in the PCRAFI Disaster Risk Financing and Insurance Country Note, disaster relief through the National Disaster Council has a limited national budgetary allocation (US$305,250 in 2013), which has a 77 percent chance of being exceeded in a given year. This results in heavy dependency on international recovery funds and limits preparatory and preventative actions (World Bank, 2015b)[14]. At a household level, 32% of the population falls below the Basic Needs Poverty Line (UN-Habitat, 2014: p.15). These results are consistent with the 2012 workshop findings that access to finance is both a critical limitation to city wide adaptive

[14] World Bank (2015) – Disaster Risk Financing and Insurance - Country Note, Solomon Islands

capacity, as well as resourcing community and household-level resilience building measures.

Similarly, the vulnerability of critical infrastructure to climate-related events – such as cross-city bridges, the National Referral Hospital, and Honiara International Airport – was viewed as seriously limiting institutional responses following a natural disaster event such as a tropical cyclone. The lack of effective back-up electricity generators for mobile phone communications was also identified as an area of critical response infrastructure that would have a knock-on effect in reducing collective adaptive capacity.

An important component of city-wide adaptive capacity related to the ability to communicate (both in terms of formal institutional communication procedures, and collective social response measures), and stakeholder and community awareness of climate-related natural hazards. Existing community leadership structures, particularly through kastom networks and ward-level committees, were identified as being effective following historical disaster events, with a number of the residents displaced due to the April 2014 floods being quickly re-housed through kinship networks, families and church groups.

Although the number of existing strategies and plans was seen as being a city-wide strength, the implementation, effectiveness, and awareness of these documents in both key government agencies and the community as a whole was noted to be limiting. Other areas, such as the awareness of decision-makers of climate change and the adequacy of critical infrastructure, were inconsistently assessed by different stakeholder groups, suggesting that improved communications between agencies could directly enhance Honiara's institutional adaptive capacity across levels of government, stakeholders and non-government actors.

As with sensitivity and exposure, adaptive capacity varies significantly across the city. Informal settlements lack many of the institutional support structures available to households with tenure; however have strong community networks that contribute to collective adaptive capacity strength. Other factors, such as communications access, similarly correspond to access to utilities and other institutions. For instance mobile phone access correlates closely to informal neighbourhoods and other sensitive locations.

In contrast, measures of access to luxury services, such as wired internet access, can demonstrate sections of the community with a high level of adaptive capacity, both directly in terms of the ability to autonomously respond and self-finance, and indirectly through access to institutional response mechanisms such as government websites and international networks. Although internet connectivity across the city was generally very low at the last census, localities with concentrations of higher income households, with the south-eastern hillside areas of Nggosi, central Kola'a above Chinatown, and Cruz exhibiting these characteristics.

Project components

1. Community level actions

- Identification of key issues and prioritisation of actions for two additional hotspot case studies (Nggosi and Panatina wards).[15]

  This action expands on the original HURCAP and will develop community action plans based on local experience and knowledge using the same participatory methodology - 'Planning for Climate Change'. This will increase the number of case study communities for pilot actions to a total of five, the other three communities being Aekafo, Ongtong Java and Fishing Village.

- In-depth profiling of all hotspot communities.[16]
  Many of the informal settlements are fast growing, and affected by complex land tenure issues, and this activity will ensure that an up-to-date baseline of local data is available to inform resilience planning and future action. Local survey teams will be responsible for this activity, coordinated by the UN-Habitat program manager based in Honiara.

- Scoping and feasibility study.

  Each of the actions that have been identified by the local communities will need to be assessed to indicate the cost, feasibility and partnerships that will be needed to implement the actions. Each of the proposed actions will be screened to see if SIA and EIAs are required

- Implementation of screened / agreed pilot studies in each hotspot community, with technical support from UN-Habitat / RMIT as required.[17]

[15] Consistent with:
- National Climate Change Policy outcome: vulnerability and adaptation and disaster risk reduction.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 7: understand and strengthen the community's capacity for resilience.
- SIG INDC: strengthen capacities at community level for vulnerability mapping and adaptation planning.

[16] Consistent with:
- HCC 5-year Strategic Plan: point 6 - upgrading of informal settlements.
- National Development Strategy (2016-2035): objective 2: poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food security improved, benefits of development more equitably distributed.

[17] Consistent with:
- HCC 5-year Strategic Plan: point 3 – environmental planning and waste management, point 6 - upgrading of informal settlements, point 8 – infrastructure development.
- National Development Strategy (2016-2035): objective 2: poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food security improved, benefits of development more equitably distributed; objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- National Climate Change Policy outcome: vulnerability and adaptation and disaster risk reduction.

Overarching themes that were identified by the HURCAP assessment include: protection from hazards, housing design, resilient infrastructure, waste management and environmental clean-up activity, drainage improvements, and environmental risk awareness programs.

2. Community level capacity strengthening

- Awareness and capacity building activity relating to key community issues[18]:

  Key community needs have been identified as climate risks and adaptation (including ways to integrate science and local knowledge), disaster risk reduction, issues of land tenure, and issues of sanitation and health (accounting for increasing risks due to the impacts of climate change).

- Training on conducting community profile self-assessment[19]

  Given the fast pace of urbanization, it is vital that up-to-date information informs the resilience strengthening agenda for Honiara. Providing local training on surveys, data recording, and data management will build capacity for self-assessment.

- Community monitoring of resilience progress.[20]

- SI NAPA (2008): enhancing resilience to climate change – human settlements and human health signaled as a top priority. Other priorities include waste management, coastal protection and infrastructure development.
- SIG INDC: implementation of priority resilience measures through direct access to financing.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 4: pursue resilient urban development and design.

[18] Consistent with:
- National Climate Change Policy outcome: vulnerability and adaptation and disaster risk reduction; education, awareness and capacity building.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 1: organise for disaster resilience; essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.
- SIG INDC: strengthen capacities at community level for vulnerability mapping and adaptation planning.

[19] Consistent with:
- National Climate Change Policy outcome: monitoring and evaluation.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 1: organise for disaster resilience; essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.

[20] Consistent with:
- National Climate Change Policy outcome: monitoring and evaluation.

Training and empowerment of individuals to monitor their community's progress in implementing adaptation action and resilience building measures.

3. Ward level actions

Although the major intended focus of the proposal is supporting actions at the community level, there will also be important activity that is aimed at strengthening institutional structures and processes at the ward level in support of adaptation outcomes (acting as an important bridge between national and city Government and local communities). Strengthening adaptive capacity is considered important in the Honiara context, and particular attention will be paid to communication, awareness and education activity that targets women, youth, urban agriculture and food security, and the promotion of climate resilient community spaces. Enhancing adaptive capacity can be achieved through the improvement of community access to – and awareness of – already available climate risk information and adaptation techniques, which are not easily accessible in the context of the isolated, low-literacy and informal communities of Honiara's urban poor. The HURCAP highlights the following objectives with particular relevance to climate change and natural disasters: education on environmental risks; promotion of non-written climate communications to reach all members of the community; improved community understanding and awareness of local climate change impacts, particularly for the most vulnerable groups such as women and youth; and disaster risk reduction, response and management programs.

- To develop a women-focused climate risk communications program, through a variety of mediums such as theatre, radio and community newsletters.[21]

  Engage with the civil society sector e.g. Vois Blong Mere to develop women-focused drama and multi-media through training and facilitation. This will include the development of non-written performances that highlight gender-biased climate vulnerability and associated adaptation options, supporting the empowerment of women in responding to climate impacts and natural disasters. Staff at RMIT, with experience of gender, social change and translating climate information into adaptation actions, will work with women in Honiara to determine the most effective means of communicating with this cohort about climate risk strategies.

- Education of youth on climate change and environmental risks.[22]

[21] Consistent with:
- HCC 5-year Strategic Plan: point 2 – empowerment of youth and women.
- National Climate Change Policy outcome: education, awareness and capacity building.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 1: organise for disaster resilience; essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.
- SIG INDC: strengthen capacities at community level for vulnerability mapping and adaptation planning. Also, a need to translate climate science and predicted impacts into messages that support action by Solomon Islanders

Engage with the Solomon Islands Development Trust to translate their Climate Change Child-Centred Adaptation approach to schools and youth programs in Honiara (a previously successful initiative in rural areas). This will involve the development of teaching modules relevant to the urban context, conducting lessons in schools and youth community settings, and contributing to the development of environmental curricula for schools.

- Ecosystem-based adaptation in the urban environment.[23]

  Engage with NGO organisations such as Gurafesu Biodiversity, Conservation, and Climate Change Community Development Association to promote ecosystem-based adaptation by conducting training and piloting of closed-loop organic waste and urban food production activities, and reducing climate vulnerability through ecosystem services (enhancing food security, reducing storm water run-off, and reduced sensitivity to climate extremes due to reduced waste and rubbish accumulation in the local area). This will contribute to increased awareness of the value of ecosystem services and their value to the climate adaptation agenda and will involve training workshops, pilot actions that showcase best practice in urban agriculture, and education on eco-system based adaptation and improved food security.

- Climate resilient community spaces.[24]

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[22] Consistent with:
- HCC 5-year Strategic Plan: point 2 – empowerment of youth and women.
- National Climate Change Policy outcome: education, awareness and capacity building.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 1: organise for disaster resilience; essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.
- SIG INDC: strengthen capacities at community level for vulnerability mapping and adaptation planning. Also, a need to translate climate science and predicted impacts into messages that support action by Solomon Islanders

[23] Consistent with:
- HCC 5-year Strategic Plan: point 2 – empowerment of youth and women; point 3 –environmental planning and waste management.
- National Climate Change Policy outcome: education, awareness and capacity building.
- National Development Strategy (2016-2035): objective 2: poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food security improved, benefits of development more equitably distributed.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 5: safeguard natural buffers to enhance the protective functions offered by natural systems.

[24] Consistent with:
- HCC 5-year Strategic Plan: point 3 – environmental planning and waste management.
- National Development Strategy (2016-2035): objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 4: pursue resilient urban development and design.

Engage with Honiara City Council to identify and promote climate resilient public space e.g. using floodplains as sports areas, tree shading in community spaces to reduce heat stress, and possibly the rehabilitation of community centres for use as safe places for evacuation centre, etc.

4. Ward level capacity strengthening:

- Provide training for nominated 'resilience officers' in each of Honiara's wards in urban resilience and climate adaptation planning, and integrate this with DRR objectives (what to do and where to go during extreme events).[25]

  The ward level is a strategically important level for capacity building. The project will undertake training of resilience officers in both climate change adaptation and disaster risk reduction, and provide a platform for whole of city regular meetings and capacity building.

- Pilot best practice participatory approaches for city government, NGO, and community collaboration in climate action planning and enhance the understanding of adaptation pathways.[26]

  The HURCAP assessment process, which was tailored for application in the Pacific region from the UN-Habitat Planning for Climate Change framework, will form the basis for increasing capacity in climate action planning and to promote participatory approaches.

- Assess locally appropriate land administration options for peri-urban settlements, and households, around Ngossi and Panatina wards.[27]

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[25] Consistent with:
- HCC 5-year Strategic Plan: point 1 – governance.
- National Development Strategy (2016-2035): objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- National Climate Change Policy outcome: education, awareness and capacity building.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.

[26] Consistent with:
- National Climate Change Policy outcome: vulnerability and adaptation and disaster risk reduction; education, awareness and capacity building.
- SIG INDC: strengthen capacities at community level for vulnerability mapping and adaptation planning. Also, a need to translate climate science and predicted impacts into messages that support action by Solomon Islanders

[27] Consistent with:
- HCC 5-year Strategic Plan: point 1 – governance, and point 6 – upgrading of informal settlements.
- National Development Strategy (2016-2035): objective 2: poverty alleviated across the whole of the Solomon Islands, basic needs addressed and food security improved, benefits of development more equitably distributed.

Given land pressures, a rapidly growing city, and the increasing number of informal settlers in peri-urban areas, this activity will work closely with HCC and Guadalcanal Provincial Council to assess appropriate land administration system options that seeks to account for both Western and Customary laws when dealing with urban growth, secure and safeguard legitimate tenure rights, and inform decisions on resettlement. This assessment will draw on data gained from the in-depth profiling of all hotspot communities on perceptions of tenure security and areas of potential land conflict, and will be informed by the FIG Christchurch Declaration (2016): Responding to Climate Change and Tenure Insecurity in Small Island Developing States: The Role of Land Professionals.

City-wide level actions and capacity building

At the city-level the primary focus will be on governance and partnerships, and improvements to institutional arrangements in support of improved urban resilience. A high-profile 'flagship' project, and related resilience actions, on promoting a sustainable water catchment and potable water supply will also be undertaken.

A major part of the capacity building component would be to initiate new MoU's between Government departments, Solomon Islands National University (SINU), and RMIT University / UN-Habitat to provide training at capacity development workshops, and to establish new avenues for teaching and learning opportunities. In the first instance, this would involve a training needs assessment visit to Honiara by key disciplinary staff at RMIT University (planning, GIS risk mapping, land administration, engineering, data management, climate change adaptation, media and communications) and subsequent tailoring of professional short courses to be held at the University in Melbourne. These learning linkages would be maintained in the longer term by funding opportunities such as the Australian Endeavour awards. A new relationship between RMIT and SINU would also support undergraduate and post-graduate studies in both Honiara and Melbourne. Funded activity requested to the Adaptation Fund includes:

- Capacity development needs assessment in Honiara by key lecturing staff.
- Development of tailored capacity building workshops for professional staff to build knowledge and required skill sets (HCC and focal Ministries) at RMIT University; sustained in the longer term through initiatives such as the Australian Endeavour scheme. Opportunities include: environmental and civil engineering (e.g. for Solomon Islands Water Authority, Ministry of Infrastructure Development), urban planning, land administration, and risk mapping (MLHS, MECDM and HCC), data management (all departments), media and communications (all departments and NGOs).

With an appropriate MoU between RMIT and SINU in place, the following long-term collaboration would involve:

- National Climate Change Policy outcome: partnership and cooperation.

- Taught modules by RMIT staff for students at the SINU campus as part of existing courses (e.g. engineering, construction, planning, media and communication), as well as RMIT acting as the host university for postgraduate students in support of long-term and sustainable urban resilience action.

5. City-wide level actions

- Capacity development needs assessment.[28]

  This will involve a team of disciplinary lecturers visiting Honiara to meet with key officials and to carry out site visits in order to be able to tailor capacity development workshops at RMIT that meet the contemporary needs of policymakers and practitioners in Honiara.

- Capacity development workshops for HCC and SI Ministry staff.[29]

  Short courses at RMIT will be tailored for Honiara needs after a scoping visit by lead lecturers. Opportunities include: environmental and civil engineering, urban planning and risk mapping, data management, and media and communications. Given an already identified need the first of these, and costed for funding in this application, will be a 2-week course of workshops designed to cater for planning, land administration, and GIS risk mapping.

[28] Consistent with:
- National Climate Change Policy outcome: vulnerability and adaptation and disaster risk reduction; education, awareness and capacity building.
- HCC 5-year Strategic Plan: point 3 – environmental planning and waste management, point 6 - upgrading of informal settlements, point 8 – infrastructure development.
- National Development Strategy (2016-2035): objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- SI NAPA (2008): enhancing resilience to climate change – human settlements and human health signaled as a top priority.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 4: pursue resilient urban development and design.

[29] Consistent with:
- National Climate Change Policy outcomes: vulnerability and adaptation and disaster risk reduction; education, awareness and capacity building.
- HCC 5-year Strategic Plan: point 3 – environmental planning and waste management, point 6 - upgrading of informal settlements, point 8 – infrastructure development.
- National Development Strategy (2016-2035): objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- SI NAPA (2008): enhancing resilience to climate change – human settlements and human health signaled as a top priority.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 4: pursue resilient urban development and design.

- Undertake a 'flagship' research project to support sustainable water supply for Honiara, and to identify and implement key resilience actions.[30]

  Ensuring a sustainable water supply is a major challenge for all Pacific cities. Not only will climate change result in sea level rise and increasing risks of salinization to the water supply, rapid population growth will also increase abstraction rates and is already leading to physical encroachment on key bore holes (with implications for water quality). This research, to be undertaken in collaboration with Solomon Islands Water Authority (SIWA), will establish a base line for water supply for the city, then factor in climate change and development scenarios to better understand the stresses on the water supply system. This knowledge will be used to identify suitable supply and demand interventions – including the potential use of recycled water - in support the development of a sustainable water catchment plan.

6. <u>City-wide level capacity building:</u>

- Employ a Climate Adaptation and Resilience Officer (CARO) for Honiara City Council, and constitute a multi-stakeholder steering group for implementation of the project.

  The resilience officer will be based in Honiara for the duration of the 4-year project and will be housed at the offices of HCC. The steering group will include core members from HCC, MLHS, MECDM and Guadalcanal Province, as well as implementing partners and other key stakeholders (e.g. SIWA).

- Develop a formal mechanism for managing cross-boundary urban resilience issues between Guadalcanal Province and HCC, particularly taking into account cross-boundary flows of resources, people and the long-term urban expansion of the city.

  Regular meetings will be supported between HCC and Guadalcanal Province, and will have particular relevance to the two vulnerability hotspot areas in Nggosi and Panatina wards, as well as the activity examining land administration.

[30] Consistent with:
- HCC 5-year Strategic Plan: point 3 – environmental planning and waste management, point 8 – infrastructure development.
- SIG National Infrastructure Investment Plan (2013): climate resiliency options for water supply and sanitation.
- SI NAPA (2008): enhancing resilience to climate change – human settlements and human health signaled as a top priority. Other priorities include waste management, coastal protection and infrastructure development.

- Actor and policy mapping, and opportunities for mainstreaming of climate change considerations[31]

  Map and assess linkages between relevant stakeholders and initiatives for improved governance and institutional response to climate change impacts and natural disasters. Conduct a whole-of-govt. policy review to identify areas for mainstreaming of climate change considerations across urban policy (including a review of land use plans and the introduction of possible building codes).

7. <u>Knowledge management and advocacy:</u>

- Climate change training and knowledge exchange.[32]

  Develop climate change adaptation training and knowledge exchange programs between HCC staff and ward councillors.

- City-level monitoring of climate resilience actions and capacity development

  A monitoring regime for the project will be implemented and overseen by the CARO.

- Transfer of results and lessons learnt to other communities across Honiara

  This will involve the development and maintenance of a knowledge sharing mechanism at the city-wide scale, in close collaboration with HCC and the two key Ministries. This will inform other communities about activity and transferable findings from the hotspot pilot actions.

- Project learning mechanism and evaluation

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[31] Consistent with:
- National Development Strategy 2016: p44 – "Build capacity of development planners at all levels to routinely integrate risk management (e.g. DRR and CCA) into development plans and policies), and also p45 - "Establish a framework for integrating climate change considerations into national development planning and relevant sectoral policies"

[32] Consistent with:
- HCC 5-year Strategic Plan: point 1 – governance, point 3 – environmental planning.
- National Development Strategy (2016-2035): objective 4: resilient and environmentally sustainable development with effective risk management, response and recovery.
- National Climate Change Policy outcomes: enabling environment and institutional arrangements; mainstreaming of climate change; vulnerability and adaptation and disaster risk reduction; education, awareness and capacity building; partnership and cooperation; monitoring and evaluation.
- UNISDR/ICLEI (draft, forthcoming) Honiara City Council DRR self-assessment, essential 1: organise for disaster resilience; essential 7: understand and strengthen the community's capacity for resilience; essential 9: ensure effective preparedness and disaster response.
- SI NAPA (2008): enhancing resilience to climate change – human settlements and human health signaled as a top priority.

An annual review of activity, and project findings, will be conducted and recorded.

B. Economic, social and environmental benefits

By implementing a combination of institutional, community and assets risk and vulnerability reduction measures, especially in community-level vulnerability hotspots, 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

Table 4: Overview of economic, social and environmental benefits of AF intervention compared to no intervention (baseline).

Type of benefit	Baseline	With/after the project
Economic	Extreme events such as storms, floods, droughts and landslides increasingly lead to economic losses and loss of community infrastructure and livelihood options. Longer-term stresses such as sea level rise, coral bleaching and droughts impact on the economic well-being of local communities and reduce the ability to cope. Informal urban settlements are fast-growing, high density, lack basic and resilient infrastructure and inhabitants have limited livelihood options.	Reduction in economic and community infrastructure losses because institutions, communities and physical and natural assets, ecosystems and livelihoods are more resilient. Improved preparation for extreme events lessens the social and economic impact. Reduction in climate induced poverty Improved food security and promotion of urban agriculture, changes to resource management, and identification of alternative livelihoods. Capacity development of urban poor / youth / women to gain new skills and employment opportunities. Reduction in household losses of urban poor communities because of resilience building activity. New climate resilient infrastructure and services contributes to economic benefits.
Social	Extreme events such as storms, floods, and landslides can increasingly be considered as co-drivers of poverty and compound social problems such as, disease, sanitation, food security issues, community safety issues etc. Longer-term stresses such as sea level rise, coral bleaching and droughts impact	Further strengthening strong social networks to protect against disasters, fatality rates, diseases and food security and safety issues because of increased resilience of city and ward governments, communities and physical and natural assets, ecosystems and livelihoods. Improved adaptive capacity through a greater awareness of climate risks and adaptation

	on the social well-being and cohesion of local communities and reduce the ability to cope. The lack of (resilient) 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	options at the community level. Capacity development and direct involvement in adaptation actions increases the resilience of the most disadvantaged in the city. New climate resilient infrastructure and services contributes to social well-being.
Environ-mental	Extreme events such as storms, floods, droughts and landslides increasingly lead to environmental losses, in particular important ecosystem services and loss of livelihood options, flood protection etc. Longer-term stresses such as sea level rise, coral bleaching and droughts impact on local environmental conditions. Rapid urban development 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 poor urban communities	Reduction in climate-induced environmental degradation and losses and improved planning and preparation for disasters. Improved resource management practice ensures the environment is protected, and livelihoods account for a changing climate. Promotion of ecosystem-based adaptation in the urban environment, leading to environmental benefits. Reduced human impact though changes to land zoning, waste e.g. community-based waste reduction and recycling schemes and energy efficient building construction techniques. Environmental benefits due to resilience actions in the informal settlements, clean-up campaigns and awareness raising. Improvement of community resilience in urban poor communities because of above.

C. Cost-effectiveness of the project

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 storms/typhoons, floods, droughts and landslides (for more info, see background section), low productivity/limited livelihood options and health related costs, especially in urban informal settlements. Proposed interventions under this project will reduce these future costs. Although sustainability

related measures, especially those related to the AF outcomes 1-3, can be considered as ‘extra’ costs, not bearing these costs will significantly reduce the impact of this project on the long run 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. Moreover, with the establishment of HURCAP and the Honiara vulnerability assessment, UN-Habitat has already paved the way for this project, including avoiding costs for assessments already conducted.

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.

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

Although non-resilient technical intervention may initially cost less to construct (between 30-50 per cent), resilient technical options are expected to last much longer, especially with every year recurring storms and typhoons. 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 components 1, 3 and 5 will be assessed during the project. Depending on vulnerability assessment data and community workshops, appropriate adaptation/resilience measures will be identified, prioritized and constructed.

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

This project is consistent with national and sub-national development strategies. While the National Development Strategy (2016-2036) serves as the overall implementation framework for this project, The Solomon islands Intended National Determined Contributions (INDC) (2015), the Climate Change Policy (2012-2017), the NAPA (2008), the Initial National Communication (2004) and especially the Honiara Urban Resilience & Climate Adaptation Plan (2016), the Honiara Climate Change Vulnerability Assessment (2014), the Honiara City Council (HCC) 5-year strategic plan (2014-2018)

and HCC disaster operating procedures (2013); to be updated by HCC Disaster Risk Reduction self assessment (UNISDR / ICLEI, forthcoming) have served to identify relevant project outputs and activities (see also footnotes in the section a).

The HURCAP action plan provides a solid foundation for the program of activity as laid out in this proposal. The first phase vulnerability assessment was formally endorsed by the Honiara City Council and the two Solomon Islands Government (SIG) focal ministries (Ministry of Lands, Housing and Survey & Ministry of Ministry of Environment, Climate Change, Disaster Management and Meteorology) in August 2015, with the Lord Mayor and the respective SIG Ministers committing to work across scales of government in the development and implementation of a Honiara Urban Resilience and Climate Adaptation Plan.

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

- ❑ UN-Habitat Participatory Slum Upgrade Programme
- ❑ Honiara Local Planning Scheme – Shaping Honiara's Future (2015)
- ❑ Solomon Islands National Infrastructure Investment Plan (2013)
- ❑ National Water Policy (2007)
- ❑ National Health Strategic Plan (2011)

E. Compliance with relevant national technical standards

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

Table 5: Project compliance with relevant rules, regulation, standards, procedures and tools to project activities

Expected Concrete Outputs	Relevant rules, regulations, standards and procedures	Compliance & procedure
1.1. In addition to existing community action plans, complete community climate action plans for White River and Tuvaruhu informal settlements	UN-Habitat Planning for climate change toolkit	The project will use the tool on the left to complete community climate change action plans
1.2. In-depth community profiling for the hotspot case studies	Not relevant	
1.3. Scoping and feasibility studies of prioritized local actions for each hotspot community	Solomon Islands Environmental and Social Impact Assessments	In accordance with Solomon Islands procedures the project will screen to see if proposed actions require Environmental and Social Impact Assessments. If so, assessments will be conducted following Solomon Islands procedures
1.4. Implementation of screened / agreed resilience actions in each hotspot community	Relevant SI and international rules, regulations, standards and procedures regarding housing	The project will adhere to SI and international standards (SDG) regarding construction and use

	design, waste management, water supply, sanitation, drainage, etc.	building back better principles
2.1. Training on conducting community profile self-assessment	Not relevant	
2.2. Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)	Not relevant	
2.3. Community level climate change action monitoring	Not relevant	
3.1. To develop a women-focused climate risk communications program	No standard	The project will engage with the civil society sector and women in Honiara to develop a women-focused climate risk communications program.
3.2. To integrate climate change into educational programs for youth and children	Climate Change Child-Centred Adaptation approach of Solomon Islands Development trust	The project will engage with the Solomon Islands Development Trust to translate their Climate Change Child-Centred Adaptation approach to schools and youth programs in Honiara
3.3. Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented	No clear rules, regulations, standards and procedures	The project will Engage with NGO organisations to promote ecosystem-based adaptation
3.4. Climate resilient community spaces including productive open spaces and community evacuation centres	Solomon Island local planning schemes and draft building codes	The project will follow the scheme and draft building code to develop infrastructure
4.1. Provide 'Planning for Climate Change' training for nominated 'resilience officers' in each of Honiara's wards, and integrate training with DRR knowledge (what to do and where to go)	Not relevant	
4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate action planning	The HURCAP assessment process	The project will follow the HURCAP assessment process to increasing capacity in climate action planning and to promote participatory approaches.
4.3. Assess locally appropriate land administration for peri-urban locations	Not relevant	
5.1. Training and teaching & learning needs assessment	Not relevant	
5.2. Develop and run professional training programs for planners and other urban and related professionals in support of urban resilience: planning, engineering and communication.	Not relevant	
5.3. Assess and develop a sustainable water catchment plan.	No clear rules, regulations, standards and procedures	The project will work in close collaboration with the Solomon Islands Water Authority (SIWA) to develop and implement a sustainable water catchment pan
5.4. Support to Implementation of water catchment plan (hard/direct resilience action)	No clear rules, regulations, standards and procedures	
6.1. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings	Not relevant	
6.2. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation		

6.3. Policy and stakeholder mapping, and a whole-of-govt. review to identify areas for mainstreaming of climate change considerations across urban policy (including land use plans and building codes).	SI government, AF and UN-Habitat standards	The project will adhere to SI government, AF and UN-Habitat standards
7.1. Climate change training and knowledge exchange 7.2. Advocacy materials etc 7.3. Knowledge sharing platform 7.4. Project learning mechanism	Not relevant SI government, AF and UN-Habitat standards	 The project will adhere to SI government, AF and UN-Habitat standards

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 Honiaria authorities.

Relevant project have been identified based on the same consultations with the government and online research.

Table 6: Relevant projects are and their complimentary potential

Relevant projects	Complimentary potential
UN-Habitat Honiara vulnerability assessment, 2014	Activities in this project are informed by the vulnerability assessment
Honiara Urban Resilience and Climate Adaptation Plan, 2016	Activities in this project are identified based on the urban resilience and climate adaptation actions
UN-Habitat Participatory Slum Upgrading Programme (PSUP)	Align with the programme
SPREP PEBACC project (ecosystem services in Fiji, Vanuatu and the Solomon Islands)	Honiara will be one of the case studies for this Pacific project and there are opportunities to complement their activity with a focus on informal settlements.
World Bank commissioned consultancy on flood risk management in the Mataniko River Catchment (likely to commence in late 2016)	Top-down flood risk data can be used to further inform resilience actions for communities in this important river catchment.
AF: UNDP (US$5,5 million): targeted rural communities in the Solomon Islands, in particular enhancing the resilience of the agricultural sector and ensuring food security.	Use lessons learned regarding food security. Provides an urban contrast to the rural focus of the UNDP project, and may have lessons in relation to rural – urban migration.

G. Capturing and disseminating lessons learned

A dedicated component (7) addresses Knowledge Management and Advocacy. Whilst this provides the cornerstone for capturing and disseminating lessons learned, other project components/activities 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 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 city level, transfer of results and lessons learnt to other communities across Honiara will be promoted. This will involve the development and maintenance of a knowledge sharing mechanism at the city-wide scale, in close collaboration with HCC and the two key Ministries. This will also inform other communities about activity and transferable findings from the hotspot pilot actions.

At the national level, other vulnerable towns in the Solomon Islands 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. A direct linkage will be established, through the partnering departments of the various line ministries 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 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), provide knowledge management platform 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 7: Project outputs and related learning objectives & indicators and products

Expected Concrete Outputs	Learning objectives (lo) & indicators (i)	Knowledge products
1.1. In addition to existing community action plans, complete community climate action plans for White River and Tuvaruhu informal settlements	(lo): improved climate change sensitive planning at community level (i) no of plans	2 Community action plans

1.2. In-depth community profiling for the hotspot case studies	(lo): increased information for resilience planning (i) availability of baseline	An up-to-date baseline of local data will be available to inform resilience planning and future action
1.3. Scoping and feasibility study of prioritised local actions for each hotspot community	(lo): understand costs, feasibility and risks of actions (i) no of plans	Report
1.4. Implementation of screened / agreed resilience actions in each hotspot community	(lo): Understand how to develop infrastructure in a resilient way (i) Number of reports	Photos, reports
2.1. Training on conducting community profile self-assessment	(lo): How to self-assess (i) availability of tool	Self-assessment tool
2.2. Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)	(lo): Integrate local knowledge (i) Number of reports	Report
2.3. Community level climate change action monitoring	(lo): Community awareness of project (i) Monitoring reports	Monitoring reports
3.1. To develop a women-focused climate risk communications program	(lo): Understand gender-biased climate vulnerability and associated adaptation options (i) Report	Report, photo's
3.2. To integrate climate change into educational programs for youth and children	(lo): understand how to promote a youth specific approach (i) Teaching module	Teaching modules
3.3. Ecosystem-based adaptation options, in particular for flood mgt. implemented	(lo): awareness of ecosystem value and adaptation options (i) project sites	Project site examples
3.4. Climate resilient community spaces including productive open spaces and community evacuation centres	(lo): Understand adaptation options (i) project sites	Project site examples
4.1. Provide 'Planning for Climate Change' training for nominated 'resilience officers' in each of Honiara's wards, and integrate training with DRR knowledge (what to do and where to go)	(lo): capacity to implement adaptation options (i) Availability platform	Platform for whole of city regular meetings and capacity building.
4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate action planning	(lo): Increased awareness of planning processes (i) No of wards councillors engaged	Pilot study write up
4.3. Assess locally appropriate land administration for peri-urban locations	(lo): Understand appropriate land administration system options (i) Availability of appropriate system	Assessment report
5.1. Training and teaching & learning needs assessment	(lo): Tailor capacity building workshops (i) Report	Report
5.2. Develop and run professional training programs for planners and other urban and related professionals in support of urban	(lo): Increase capacity (i) Report	Report

resilience: planning, engineering and communication. 5.3. Assess and develop a sustainable water catchment plan. 5.4. Support to Implementation of water catchment plan	 (lo): Establish base line for water supply for the city (i) Report lo): Understand resilient water measures (i) project sites	 Report Project site examples
6.1. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 6.2. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 6.3. Policy and stakeholder mapping, and a whole-of-govt. review to identify areas for mainstreaming of climate change considerations across urban policy (including land use plans and building codes).	lo): Ensure resilience knowledge is available throughout the project (i) No of climate change actions mainstreamed lo): Ensure cross-boundary learning (i) Availability formal mechanism lo): *Improved governance and institutional response* (i) Report	 Formal mechanism for managing cross-boundary urban resilience issues Report
7.1. Climate change training and knowledge exchange 7.2. Advocacy materials etc 7.3. Knowledge sharing platform 7.4. Project learning mechanism	lo): Increased awareness and capacity (i) Report lo): Increased awareness and knowledge (i) Availability materials, platform and mechanism	Report Materials, platform and mechanism

H. The consultation process

A considerable amount of work has been conducted to first assess the vulnerability of Honiara and then, based on these findings, to develop a Honiara Urban Resilience and Climate Adaptation Plan (HURCAP) under the auspices of the UN-Habitat Cities and Climate Change Initiative. Given current day development needs in the city, as well as having to plan for inevitable urban growth in the future, actions to adapt to climate change need to be embedded within this broader urban development context. As a result of the many challenges facing the city, HURCAP was deliberately widened in scope to address urban resilience beyond just adaptation to climate change. This aligns with the new strategy for resilient development in the Pacific region, which seeks to *"strengthen the resilience of Pacific Island communities to the impacts of slow and sudden onset natural hazards by developing more effective and integrated ways to address climate and disaster risks, within the context of sustainable development"* (SPC and SPREP 2015, p2)[33].

This forthcoming action plan provides a solid foundation for the program of activity as laid out in this proposal. The first phase vulnerability assessment was formally endorsed

33 SPC and SPREP (2015) Strategy for Climate and Disaster Resilient Development in the Pacific. SPC, Fiji. Available at: http://www.pacificdisaster.net/dox/SRDP_Executive_summary.pdf (accessed 20th July 2016).

by the Honiara City Council and the two Solomon Islands Government (SIG) focal ministries (Ministry of Lands, Housing and Survey & Ministry of Ministry of Environment, Climate Change, Disaster Management and Meteorology) in August 2015, with the Lord Mayor and the respective SIG Ministers committing to work across scales of government in the development and implementation of a Honiara Urban Resilience and Climate Adaptation Plan.

The proposal seeks the necessary funding in support of the implementation of urban resilience actions that were identified and prioritized by local communities, NGOs, and local and national levels of Government. Engagement activity to identify these key actions took place in 2014 and 2015 and involved over 280 individuals representing informal settlements, government, youth, donor organizations, NGOs, utilities and business groups. These activities culminated in a two-day forum, attended by 93 community members who provided high-level input to the plan through open forums and project presentations.

This initiative is also particularly timely given the hosting of the first national urban conference in the Solomon Islands in June 2016, aimed at planning a more sustainable future for the city (recognizing the many complex challenges that the city faces).

Table 8: Stakeholder consulted and outcomes

Stakeholder (incl. role/function)	Consultation objective	Outcome	Conclusion
Ontong Java Informal Settlement	- Assess Climate Change Vulnerability (2014) - Develop Community Climate Change Action Plan (2015-2016) - Determine settlements climate action in the context of a city-wide adaptation plan (city-wide consultation),	- Hotspot Analysis - Key issues and objectives identified - Community-led resilience action plan	- Resilience actions prioritised for hotspot community (high exposure, high socio-economic sensitivity, limited adaptive capacity).
Aekafo Informal Settlement Area	- Assess Climate Change Vulnerability (2014) - Develop Community Climate Change Action Plan (2015-2016) - Determine settlements climate action in the context of a city-wide adaptation plan (city-wide consultation),	- Hotspot Analysis - Key issues and objectives identified - Community-led resilience action plan	- Resilience actions prioritised for hotspot community (high exposure, high socio-economic sensitivity, limited adaptive capacity).
Kukum Fishing Village	- Assess Climate Change Vulnerability (2014) - Develop Community Climate Change Action Plan (2015-2016) - Determine settlements climate action in the context of a city-wide adaptation plan (city-wide consultation),	- Hotspot Analysis - Key issues and objectives identified - Community-led resilience action plan	- Resilience actions prioritised for hotspot community (high exposure, high socio-economic sensitivity, limited adaptive capacity).
Ministry of Land Housing and Survey (Minister,	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate	- City-wide analysis and resilience action plan	- City-wide resilience action plan agreed

Permanent Secretary, Undersecretary/ Technical, Director, Planning, SPC consultant	Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - Workshop on Adaptation Fund Proposal development, prioritization and endorsement	- Endorsement of Vulnerability Assessment and support for HURCAP (2015)	
Ministry of Environment, Climate Change, Disaster Management and Meteorology 1. Designated Authority (Permanent Secretary, Undersecretary and Director of Climate Change)	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - Workshop on Adaptation Fund Proposal development, prioritization and endorsement	- City-wide analysis and resilience action plan - Formal Endorsement of Vulnerability Assessment (2015) and support for HURCAP (2015-2016)	- City-wide resilience action plan agreed
2. NDMO (Director NDMO and entire team)	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - Workshop on Adaptation Fund Proposal development, prioritization and endorsement	- City-wide analysis and resilience action plan - Endorsement of Vulnerability Assessment and support for HURCAP (2015-2016)	- City-wide resilience action plan agreed
Honiara City Council (Mayor, Deputy Mayor, Town Clark, Deputy Town Clark, councillors)	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - Workshop on Adaptation Fund Proposal development, prioritization and endorsement	- City-wide analysis and resilience action plan - Endorsement of Vulnerability Assessment and support for HURCAP (2015)	- City-wide resilience action plan agreed
Solomon Water (CEO)	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for sectoral alignment	- Sectoral vulnerability and adaptation actions	- Contribution to city-wide resilience action plan
City-wide stakeholder Consultation	- Focus Group discussions during Vulnerability Assessment and HURCAP development (multiple, 2015) - 2 day consultation with all key stakeholders (August 2015) - Climate Change presentation and discussions during Solomon Islands National Urban	- Validated Vulnerability Assessment. - Agreed upon Resilience and Climate Change Action Plan	- Mandate to go ahead with resource mobilization for plan and plan implementation

	Conference (June 2016) - Stakeholder consultations (1 day workshop) in preparation for AF proposal (June 2016)		

I. Justification of the project

The proposed project objectives align government/institutional priorities/gaps identified at the community, ward, city and national level and with identified needs of community and vulnerable groups and with the 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. The project aims to maximize the funding amount for the concrete adaptation measures; funding allocation to the other (softer) components is required to complement/support these measures and for 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 project objectives

Table 9: Overview of impact of AF funding compared to no funding (baseline) related to project objectives

Project objectives	Baseline (without AF)	Additional (with AF)	Comment/ Alternative adaptation scenario
Community-level			
To support the implementation of prioritized resilience actions in vulnerability hotspot communities.	The most vulnerable areas and people receive limited infrastructure support and no targeted resilience support because of limited capacity and resources.	The most vulnerable areas and people are targeted and appropriate resilience measures are implemented	Some measures may be implemented but they may not target the most vulnerable areas and people and they may not be appropriate in terms of resilience building.
To strengthen the capacity of local communities to respond to climate change and natural hazards through awareness raising, capacity development and training.	Local communities have limited capacity to prepare for and respond to climate change and natural hazards	Local communities are enabled to prepare for and respond to climate change and natural hazards	Hard measures can be implemented but in a less sustainable way because of limited community support
Ward-level			
To support the implementation of resilience actions that target women, youth, urban agriculture and food	The most vulnerable people are not targeted/reached	The most vulnerable people are the main beneficiaries to the project	Some vulnerable people may benefit from the project but measures may not be appropriate for the groups

security, and disaster risk reduction. To strengthen the capacity of ward officials / councilors to lead climate change adaptation and DRR planning activity, in support of increased urban resilience.	Ward officials / councilors do not have the capacity to lead climate change adaptation and DRR planning activity	Ward officials / councilors can lead climate change adaptation and DRR planning activity	Climate change adaptation and DRR planning activity can be implemented but in an unsustainable way (where ward officials / councilors will not be able to implement resilience activities in the future
City-wide To support the implementation of resilience actions to achieve sustainable water supply for the city, in recognition of the threats of climate change and a rapidly growing population have on ensuring access to clean drinking water.	There is no sustainable water supply system in the city for all citizens	Resilience actions required to achieve sustainable water supply for the city are taken	The city/government will need to find other ways to achieve sustainable water supply for the city
To strengthen institutional arrangements at the city-level to respond to climate change and natural disasters through mainstreaming, improved partnership working, and monitoring of progress.	City level officers do not have the capacity to lead climate change adaptation and DRR planning activity	City level officers will have the capacity to lead climate change adaptation and DRR planning activity	Climate change adaptation and DRR planning activity can be implemented but in an unsustainable way (where city officers won't be able to implement resilience activities in the future

J. Sustainability of the project

Institutional sustainability

The project will pave the way for the national government and city and ward authorities to sustain and up-scale the project to other cities and informal settlements by sharing lessons learned. Trained government officials at different levels will support this in combination with the technical support of the Climate Adaptation and Resilience Officer and supporting plans.

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 infrastructure will reduce community vulnerabilities in the long-run. Moreover, community members will be involved in capacity development activity.

Economic sustainability
Investing in 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 and community level plans will include economic opportunities, as well as that resilience building opportunities, including economic benefits of resilience, which can be integrated in national plans and policies.

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

Financial sustainability
With enabling plans in place, there are no barriers for the government of the Solomon Islands to allocate funding to informal settlement resilience building.

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

K. Environmental and social risks and impacts

Table 10: Overview of the environmental and social impacts and risks identified

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

Pollution Prevention and Resource Efficiency		X
Public Health		X
Physical and Cultural Heritage		X
Lands and Soil Conservation		X

Note: an initial environmental and social assessment has been conducted as part of the Vulnerability Assessment and the Honiara Urban Resilience and Climate Action Plan. Further assessments (as per above) are only required for unidentified sub-projects

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

The capacity strengthening activities (under component 2, 4, 6 and 7) are all soft activities. According to the Adaptation Fund's Environmental and Social Policy, "Those projects/programmes with no adverse environmental or social impacts should be categorized as Category C[34]." No environmental and social impacts, whether direct, indirect, transboundary or cumulative are envisaged to arrive as a result of any of the soft activities. Despite this, however, steps will be taken to ensure that no environmental or social impacts can occur. Some of the capacity development, planning and governance support will however directly assess the environmental and social impacts and actively seek to develop countermeasures.

Some activities under components 1, 3 and 5 are 'hard' activities, and as such some activities have the potential, without and environmental and social safeguarding system, including mitigation measures, create negative environmental and social impacts. However, in our assessment, none of the activities proposed could be considered to be in Category A of the Adaptation Fund's impact classification, and as such, the activities in the Table are likely to fit into Category B or C. This is because this project proposes hard activities that are small scale and very localized, and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely.

The community and vulnerable groups consultation that took place in 2015 and 2016 included questions focused on identifying environmental and social risks of the project as per the safeguard areas in the table above. As for components 1, 3 and 5, which include sub-project development that potentially fall in category B, an environmental and social management plan has been developed (see annex 1).

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

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

A. Record of endorsement on behalf of the government[35] *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:*

Chanel Iroi, Undersecretary, Ministry of Environment, Climate Change, Disaster Management and Meteorology	Date*: 29 July 2016*

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

Solomon Islands Government
Ministry Of Environment, Climate Change, Disaster Management & Meteorology
Post Office Box 21, Honiara, Solomon Islands
Tel: +677 28054 Email: fbale@mecm.gov.sb

The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: +1 202 522 3240/5

29th July 2016

Dear Sir/Madam,

Subject: Endorsement for '**Enhancing urban resilience to climate change impacts and natural disasters: Honiara'**

In my capacity as Designated Authority for the Adaptation Fund in the Solomon Islands, I confirm that the above national project proposal '*Enhancing urban resilience to climate change impacts and natural disasters: Honiara*' is in accordance with the government's national priorities in implementing adaptation activities to reduce the adverse impacts and risks posed by climate change in the Solomon Islands.

Accordingly, I am pleased to endorse the above project proposal for support from the Adaptation Fund. If approved, the project will be implemented by the United Nations Human Settlements Programme (UN-Habitat) and executed jointly with the Ministry of Lands, Housing and Survey (MLHS) and the Honiara City Council (HCC).

The project proposal builds on the collaboration between MLHS, HCC and UN-Habitat and support by the Ministry of Environment, Climate Change, Disaster Management and Meteorology whereby a participatory Climate Change Vulnerability Assessment and Climate Change Action Plan were developed for Honiara. The project supports the implementation of this action plan and the details of this project proposal were agreed upon by the above mentioned stakeholders during a consultation workshop on 30 June 2016.

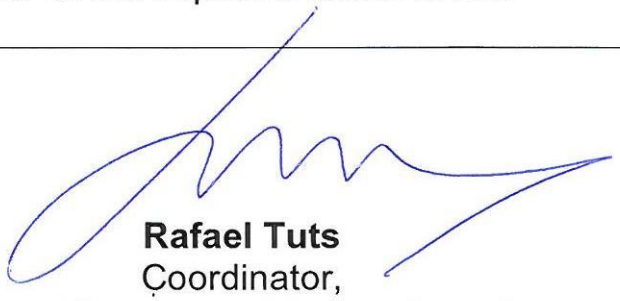
I truly hope that the Adaptation Fund can fund this proposal.

Sincerely,

MINISTRY OF ENVIRONMENT CLIMATE CHANGE DISASTER MANAGEMENT AND METEOROLOGY

Chanel Iroi
AF National Designated Authority

B. Implementing Entity certification

<table>
<tr><td colspan="2">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 National Development Strategy 2016-2035, National Climate Change Policy 2012-2017, National Determined Contribution as well as Honiara specific Policies and Plans, including the Local Planning Scheme, 2015 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.</td></tr>
<tr><td colspan="2"> 
Rafael Tuts
Coordinator,
Urban Planning and Design Branch,
UN-Habitat</td></tr>
<tr><td>Date: 08/01/2016</td><td>Tel. and email:
+254-20-762-3726
Raf.Tuts@unhabitat .org</td></tr>
<tr><td colspan="2">Project Contact Person: Bernhard Barth, Human Settlements Officer</td></tr>
<tr><td colspan="2">Tel. And Email:
Tel: +81-92-724-7121
Email: Bernhard.Barth@unhabitat.org</td></tr>
</table>

Annex 1: Environmental and Social Management Plan (ESMP)

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

The method to identify, assess, manage and mitigate the environmental and social risks of Unidentified Sub Projects (USPs) and related activities is based on a combination of UN-Habitat's Handbook on Environmental and Social Safeguards[36] and the AF Environmental and Social Policy.

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

Table 11: Linking adaptation fund safeguards to UN-Habitat safeguard areas.

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

During the project proposal phase, these safeguards have been used to screen risks of project activities under components 2, 4, 6 and 7 of the project. During the project, these safeguard areas will be used to identify, assess, manage and mitigate social and environmental risks of USPs (which are site-specific, physical interventions).

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

[36] Currently being tested before publication

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

SAFEGUARD AREA

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

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

- Law / Principle # 1 — No / Yes
- Law / Principle # 2 — No / Yes
- Law / Principle # 3 — No / Yes
- Law / Principle # 4 — No / Yes

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

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

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

MEASURES THAT MUST BE ACHIEVED TO ENSURE SAFEGUARD FULFILLMENT

How will you implement measures to safeguard against these risks?

Proposed measures to be achieve:

Through (sub-) project management plan.

SPECIFIC ACTIONS THAT NEED TO BE COMPLETED AT THE PROJECT LEVEL

What are the new recommendations?

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

HAS THE ACTION BEEN COMPLETED?

Have the recommendations been successfully implemented? — No / Yes

Table 12: Outcome of the initial environmental and social assessment (to be updated prior to project start)

1. Safeguard Area		2. National Laws, UN Rules, principles and procedures to be upheld	3. Potential risks/areas of non-compliance	4. Impact & probability (1-5) and Significance (low, medium, large)		5. Measure to ensure safeguard fulfillment	6. Recommended action	Action completed?
UN-HABITAT PILLARS	Youth	▪ UN-Habitat Youth Advisory Board ▪ Solomon Islands National Youth Policy (2010-2015) ▪ SI National Children's Policy ▪ SI National Action Plan for Children (NAPC) ▪ Honiara Youth Council	Failure to engage youth in decision making and/ or of a lack of equity to project benefits.	I = 1 P= 1	Low	Ensure Youth have equal access to the benefits and outcomes of the project.	Involvement of youth within stakeholder participation meetings	☐
						Ensure equal participation of youth throughout project design and implementation	Channels to be available to report instances of discrimination in a safe and anonymous manner.	☐
						Consistency with the Implementation Mechanisms set out in the SI National Youth Policy	Involvement of the Youth Development Division (YDD), Ministry of Women, youth and Children's Affairs (MWYCA) in all stages of project design & implementation	☐
						Build skillsets and knowledge of SI young people to enhance long-term employment and the future skills base of the Solomon Islands	Embed training and youth facilitation throughout project components, using education capacities within the project team (RMIT University)	☐
	Human Rights	▪ Human Rights Based Approach (HRBA)	Failure to understand situation of and lack of proactively addressing the rights of the rights holders and responsibility of the duty bearers.	I = 2 P= 1	Low	Ensure HRBA through use of the human rights marker	Details of human rights markers to be included in MoU and AoC with government and contractors	☐
							Refresher training to be available and completed by all UN-Habitat staff every 2 years.	☐

			Rights abuses, including against indigenous people				
	Climate Change	▪ SI National Climate Change Policy (2012-2017) ▪ SI National Adaptation Plan of Action (2008) ▪ UN-Habitat Vulnerability Assessment ▪ Planning for Climate Change Guidelines	The project causes maladaptation either in the project sites or upstream or downstream	I = 3 P= 1	Low	Ensure VA is completed locally accepted/ endorsed and clear linkages to the project plan produced.	VA to be completed in close cooperation with communities prior to project implementation ☐
						Ensure project is conducted in accordance with Solomon Islands climate change guidelines	Climate Change Guidelines to be read and understood by Project Manager prior to implementation. ☐
	Gender Equity and Women's Empowerment	▪ UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) ▪ ILO Conventions No. 100, 111, 156 and 183 ▪ SI National Policy on Gender Equality and Women's Development	Failure to engage women in decision-making. Women not enjoying equal access to resulting service	I = 2 P= 2	Low	Ensure the continued adherence to the specifications of CEDAW, ILO Conventions and the national women's policy Ensure gender equity throughout project design and implementation.	Quota system for female engagement ☐ Equitable benefits of project outcome for men and women ☐ Channels to be available to report instances of discrimination in a safe and anonymous manner. ☐
1	Promoting better labour and working conditions	▪ UN Secretariat Administrative Instruction ST/AI/2013/4 ▪ ILO Minimum Age Convention ▪ ILO Worst forms of Child Labour Convention ▪ SI Trade Unions Act 1988	Community contracts that are not implemented according to ILO standards	I = 1 P= 1	Low	Ensure transparency and accountability throughout project cycle.	All documents & minutes produced during the project cycle to be available online. Ensure that all consultants and staff are employed in line with UN rules. Promote employment of women and multiple ethnic groups. ☐
						Ensure the project is accordance with ILO Conventions.	Safeguard Officer to visit the project site and ensure ILO Conventions are being upheld. ☐

		▪ SI Safety at Work Act 1996 ▪ SI Labour Act 1996				Ensure that no underage staff or children are employed in the project.	MoUs, AoC and Community contracts to include standard clauses requiring the compliance with ILO conventions. ☐
	Compliance with Domestic & International Law	• SDG targets and indicators and technical standards for water supply, sanitation, etc. • Solomon Islands National Development Strategy (2016-2035)	Risk of non-compliance with standards	I = 2 P= 2	Low	Ensure clear communication between UN-Habitat project staff and the Solomon Islands government.	Written details of the proposed project to be shared with the host country. ☐
							Consistency with the SI NDS (2016-2035) objectives to be reviewed sub-annually in partnership with MDPAC ☐
						Ensure each person associated with the project is trained on domestic and international laws	Details of domestic and international laws to be included in contract for all project staff. ☐
							Provide training for all project staff. ☐
						Ensure project complies with the SDG technical standards	Project Manager will have read and understood SDG technical standards prior to project implementation ☐
2	Enhancing community health, safety and security	▪ International Civil Service Commission (ICSC) ▪ International Health and Safety Standards and SI health act ▪ Slum upgrading projects ▪ Building Back Better Principles Guideline for Shelter, Sanitation, etc.	Communities may use some machinery and/or not have protective equipment	I = 3 P= 1	Low	Ensure that ICSC and SI international health and safety standards are clearly accessible and understood.	Clearly visible signs detailing health and safety standards to be located at projects sites. ☐
							Project will provide all necessary safety equipment. ☐
						Ensure adherence to relevant UN-Habitat policy and programmes	UN-Habitat Slum & Housing upgrading specialist to provide advice and support to project design when necessary. ☐
						Ensure Compliance with the build back better principles	Project to be implemented in accordance with build back better principles. ☐

		▪ Honiara Local Planning Scheme 2015 ▪ SI National Disaster Risk Management Plan (2010)				Ensure adherence to Honiara Local Planning Scheme	Project Manager to have a clear working knowledge of Solomon Islands Building Code ☐
3	Safeguarding land, housing, resettlement and rights	▪ Right to Adequate Housing ▪ Free, Prior and Informed Consent (FPIC) ▪ SDG technical standards for water supply ▪ See also Human Rights crosscutting area; HRBA and Compliance with the law: Solomon Islands town and country planning act	Project actions lead to unintended resettlement consequences	I = 4 P= 2	Low	Ensure all project affected persons have free, prior and informed consent relating to project outcomes.	Accountability in administration with online access to reports. ☐ Principles of FPIC to be adopted throughout project cycle with channels to review project plan. ☐
						Ensure that no (sub-) projects are undertaken that involve forced eviction.	No (sub-) project will be approved where there is the possibility, however small, of forced eviction. ☐
						Ensure Participatory planning	Project to operate with people's approach ☐
						Ensure SDG technical standards for water supply are adhered to throughout project cycle.	Project Manager will be responsible for project water supply is in accordance with SDG technical standards. ☐
	Access and Equity	▪ UN-Habitat Project Template	Failure to engage all relevant ethnic communities (incl. minorities) and people with vulnerabilities in decision-making. Certain ethnic minorities not enjoying equal access to resulting service	I = 3 P= 2	Low	Ensure continued use of UN-Habitat Project Template and equitable benefits of the project.	Project will be submitted to UN-Habitat's Programme Assurance Group (PAG) for quality assurance and review. PAG will offer guidance on ensuring equitable access. ☐
						Ensure project does not exacerbate existing inequalities.	Project will detail how project outcomes will produce equal benefits and Access and equity questions included as part of the VA. Key elements to be translated in Solomon Islands Pigin. ☐

4	Reducing the climate and environmental footprint	▪ Climate Change Marker ▪ Project Advisory Group (PAG) ▪ UN-Habitat Vulnerability Assessment ▪ Planning for Climate Change Guidelines	Mal-adaptation (as described above)	I = 2 P= 1	Low	Include impact monitoring through implementation of the project	Project Manager to have clear understanding of the Climate Change Marker.	☐
							Review and update the VA at the mid-point of the project	☐
						Ensure continued support of PAG throughout the project cycle.	Use UN-Habitat evaluation policy	☐
							Ensure key documents are available online	☐
5	Conserving biodiversity	▪ UN-Habitat Vulnerability Assessment ▪ Convention on Biological Diversity ▪ TEEB Guidance Manual	Impacts of local, upstream and downstream biodiversity as a result of project activities	I = 1 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to be completed prior to project implementation.	☐
						Ensure adherence to the Convention on Biological Diversity.	Project Managers to have read and understood the Convention prior to project implementation.	☐
						Ensure all project outcomes respect the importance of ecosystems and ecosystem services.	Ecosystem services included as part of the VA	☐
							Provide information on ecosystem services within training to project staff[37].	☐
	Protection of Natural Habitats	▪ UN-Habitat Vulnerability Assessment ▪ Convention Concerning the Protection of World Cultural and Natural Heritage (1972) ▪ IUCN Red List Criteria	As above	I = 1 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to include local/community map of natural habitats.	☐
						Ensure Compliance to Convention.	Provide clear information of Heritage sites to Project Managers.	☐
	Lands and Soil Conservation	▪ UN-Habitat Vulnerability Assessment	As above	I = 1 P= 1	Low	Ensure conservation of natural habitats and species included within	Provide Project Managers with links to IUCN Red List.	☐
							Utilize resources produced	☐

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

		▪ IUCN Environmental Policy and Law Paper No. 81				the IUCN Red List.	by IUCN for applying the Red List to project level.	
6	Protection for Indigenous people	▪ UN-Habitat Vulnerability Assessment ▪ Article 27 of the International Covenant on Civil and Political Rights (1966) ▪ UNDRIP Declaration on the Rights of Indigenous People ▪ ILO Convention 169 ▪ Free, Prior and Informed Consent (FPIC)	Example: Failure to engage indigenous people in decision making. Indigenous people not enjoying equal access to resulting service (see access and equity)	I = 3 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to be completed prior to project implementation and to include vulnerabilities of indigenous people	☐
						Ensure that the details of International Covenant on Civil and Political Rights (1966) are respected and upheld.	Include measures to protect indigenous people in project plan.	☐
							Background research to be completed prior to initial project design.	☐
						Ensure that the components of the UNDRIP Declaration and ILO Convention 169 on Indigenous tribes and people, are respected and upheld.	Project Managers to have read and understood UNDRIP Declaration and ILO Convention prior to project implementation.	☐
							Provide summary of UNDRIP Declaration within ESS Handbook.	☐
						Ensure FPIC is granted to indigenous communities affected by project implementation.	Follow a pre-defined FPIC procedure	☐
							Allow 1 month for feedback to be gathered from consent letter.	☐
	Marginalized and Vulnerable groups	▪ UN-Habitat Vulnerability Assessment ▪ Free, Prior and Informed Consent	See access and equity	I = 3 P= 1	Low	Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA will focus on the particular needs of vulnerable and marginalized groups.	☐
						Ensure all project affected persons have free, prior and informed consent relating to project outcomes	Accountability in administration with online access to reports.	☐
							Principles of FPIC to be upheld throughout project cycle with clear channels to review project plan. All research-based activities	☐

							conducted by RMIT University required to be approved through the institutions Human Research Ethics Committee	
7	Protecting and promoting cultural heritage	▪ UN-Habitat Vulnerability Assessment ▪ UNESCO World Heritage List	No damage to any heritage, including 'intangible heritage'	I = 1 P= 1	Low	Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA to include local/ community map of tangible and intangible heritage areas.	☐

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

The activities under Component 3 are 'hard' activities, and as such some activities have the potential, without an environmental and social safeguarding system, to create negative environmental and social impacts. At the project proposal phase, environmental and social risks under components 1, 3 and 5 cannot be comprehensively identified because the project includes unidentified sub- projects (USPs). As a result, this section explains how to identify/assess, manage and mitigate environmental and social risks when an USP is identified.

Scope of sub-projects

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

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

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

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

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

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

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

Sub-project assessment and management principles

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

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

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

SUB-PROJECT ASSESSMENT SHEET

Steps:

1. Please fill out table 1 and provide the specific details for each sub project.
2. Complete the checklist (table2), to assess the potential risk areas.
3. Identify risks mitigation measures by filling table 3
4. Classify the risk of the sub-project in table 4
5. Determine relevant safeguard areas for the sub-project in table 5
6. Sign of the project when above is completed

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

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

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

Adaptation Fund Safeguard Area 10: Conserving biodiversity	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the proposed project be constructed in a conservation or protected area?	
3. Is there a risk that the proposed project will negatively impact upstream or downstream biodiversity?	
Adaptation Fund Safeguard Area 11: Protection of Natural Habitats	
1. Is there a risk that the proposed project will fail to protect natural habitats?	
2. Could the proposed project lead to a detrimental alteration of surrounding natural habitats?	
Adaptation Fund Safeguard Area 12: Lands and Soil Conservation	
1. Could the proposed project lead to the depletion of soil nutrients in the affected area?	
2. Is there a risk that the proposed project will adversely impact the surrounding land area?	
Adaptation Fund Safeguard Area 13: Protection for Indigenous people	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a risk that the proposed project will lead to increased levels of discrimination against indigenous peoples?	
3. Is there a risk that the proposed project will fail to engage indigenous people in decision making.	
4. Could the proposed project lead to unequal outcomes where Indigenous people are not able to enjoy equal access to the resulting services?	
Adaptation Fund Safeguard Area 14: Marginalized and Vulnerable groups	
1. Is there a risk that the proposed project will cause detrimental impact to the lives of marginalized or vulnerable groups?	
2. Could the proposed project lead to increased discrimination against marginalized or vulnerable people?	
3. Will the proposed project limit the access to natural resources or project benefits for marginalized and vulnerable groups?	
Adaptation Fund Safeguard Area 15: Protecting and promoting cultural heritage	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a chance that the proposed project will cause damage to a cultural heritage UNESCO site?	
3. Could the proposed project be implemented without having completed a vulnerability assessment?	

Table 3: Identifying risks mitigation measures

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

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

Classification of sub-projects

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

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

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