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 Entities:	- Honiara City Council (HCC) - Ministry of Lands, Housing and Survey (MLHS) - Ministry of the Environment, Climate Change, Disaster Management & Meteorology (MECDM); With scientific and training support from: - RMIT University, Melbourne, Australia
Amount of Financing Requested:	USD 4,395,877

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 a number of primate Pacific cities as rural people migrate to have access to better education, health, employment opportunities 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 Action Plan (HURCAP)[2]. This was launched by UN-Habitat and local and national government stakeholders in 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 a mix of resilience actions that have been identified by local stakeholders in Honiara through the HURCAP process, as well as providing the necessary local capacity strengthening

[1] http://unhabitat.org/books/honiara-solomon-islands-climate-change-vulnerability-assessment/
[2] https://unhabitat.org/wp-content/uploads/2017/03/HURCAP-final-Endorsed.pdf

activity. This is in recognition that a high level of awareness raising and capacity building is needed in the Honiara context to promote self-empowerment of communities and maximize the long-term sustainability of resilience actions that are implemented.

Concrete actions that target reductions in exposure and sensitivity to climate-related impacts have been proposed at the community, ward, and city scale (see details later in this proposal). In both the literature and in practice, such a multi-actor, multi-level, approach to resilience building has been found to be beneficial for effective adaptation planning. This was recognized in HURCAP, with actions set out to benefit individual hotspot communities, vulnerable groups (women and youth), as well as addressing critical city-wide resilience issues. The implementation of local priority actions in support of a climate-resilient Honiara constitutes the vast majority of the requested budget.

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[3].

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)[4]. 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)[5]. 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

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

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. 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 whom 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.

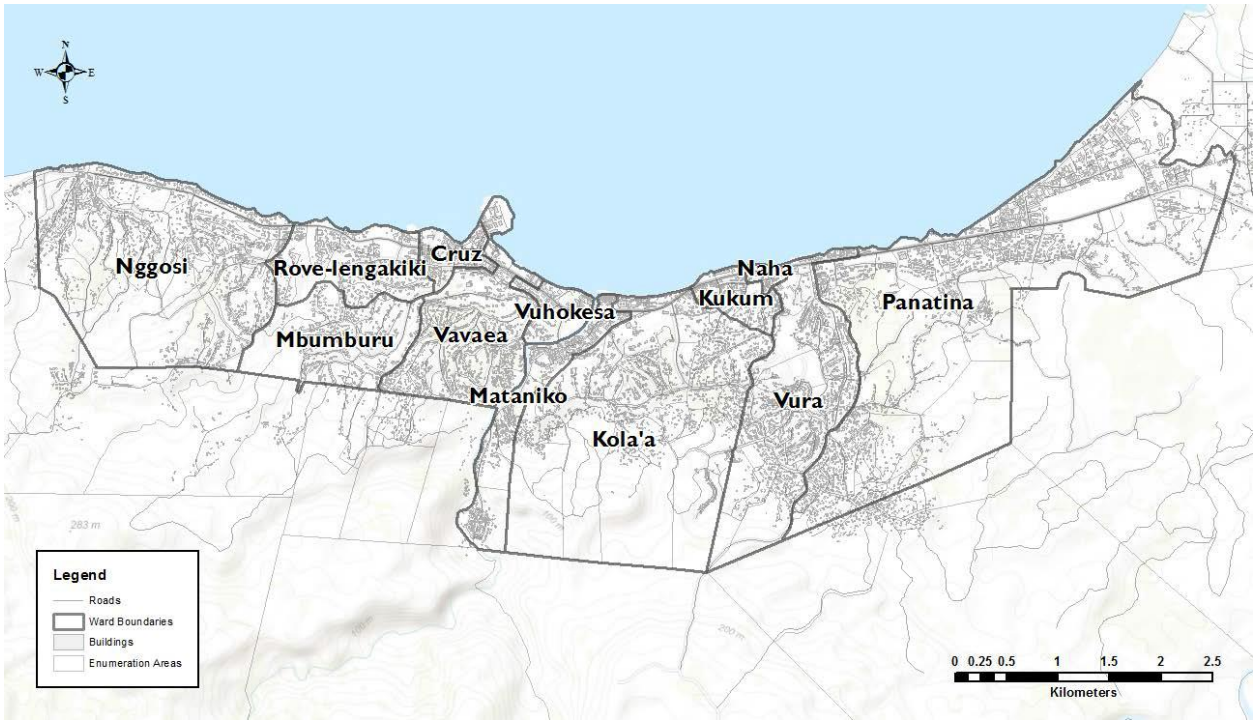

Figure 1: Honiara administrative wards

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)[6].

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

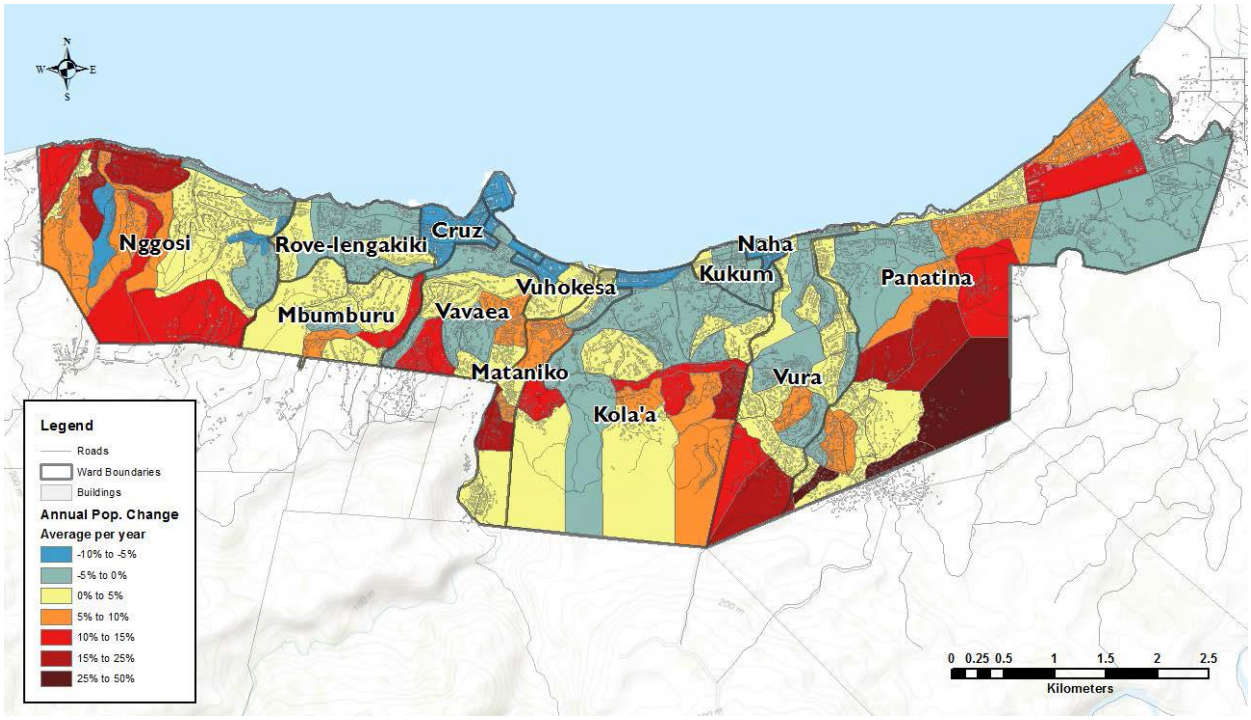

Figure 2: Honiara population growth estimates 1999-2009 by 1999 Enumeration Area (Trundle & McEvoy for UN-Habitat and HCC 2015)

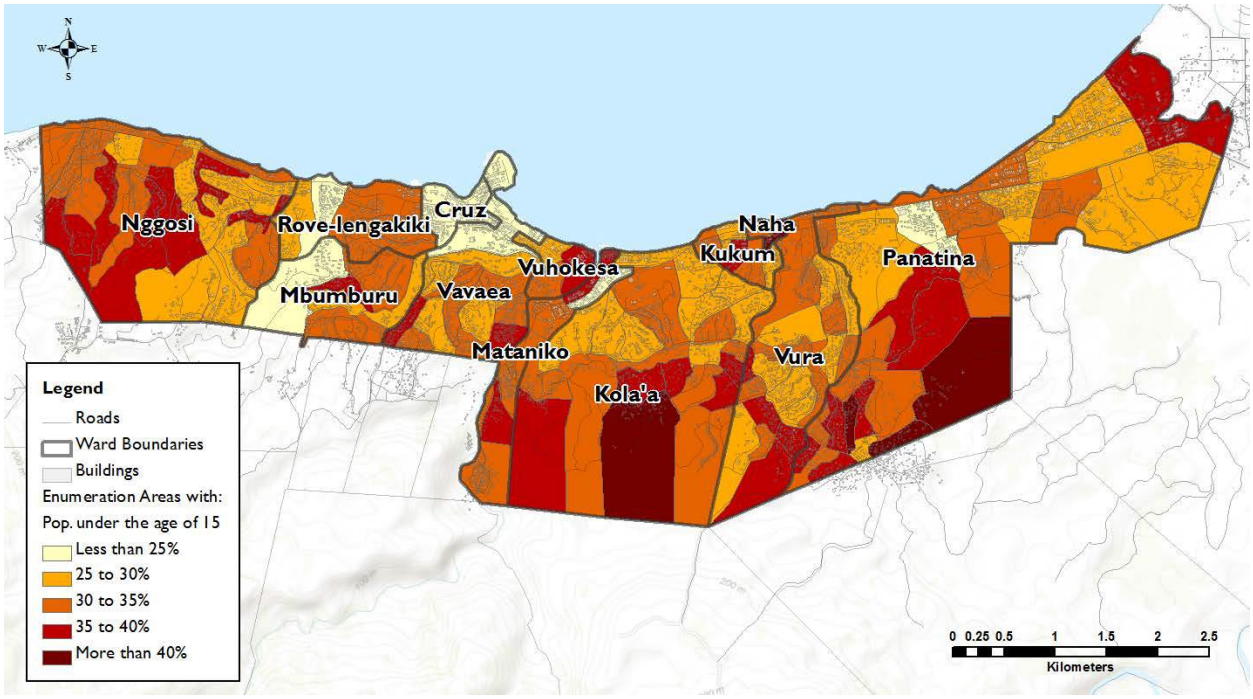

Figure 3: Percentage of total enumeration area population less than 15 years old, 2009 (Trundle & McEvoy for UN-Habitat and HCC, 2015)

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)[7]. 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).

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

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).

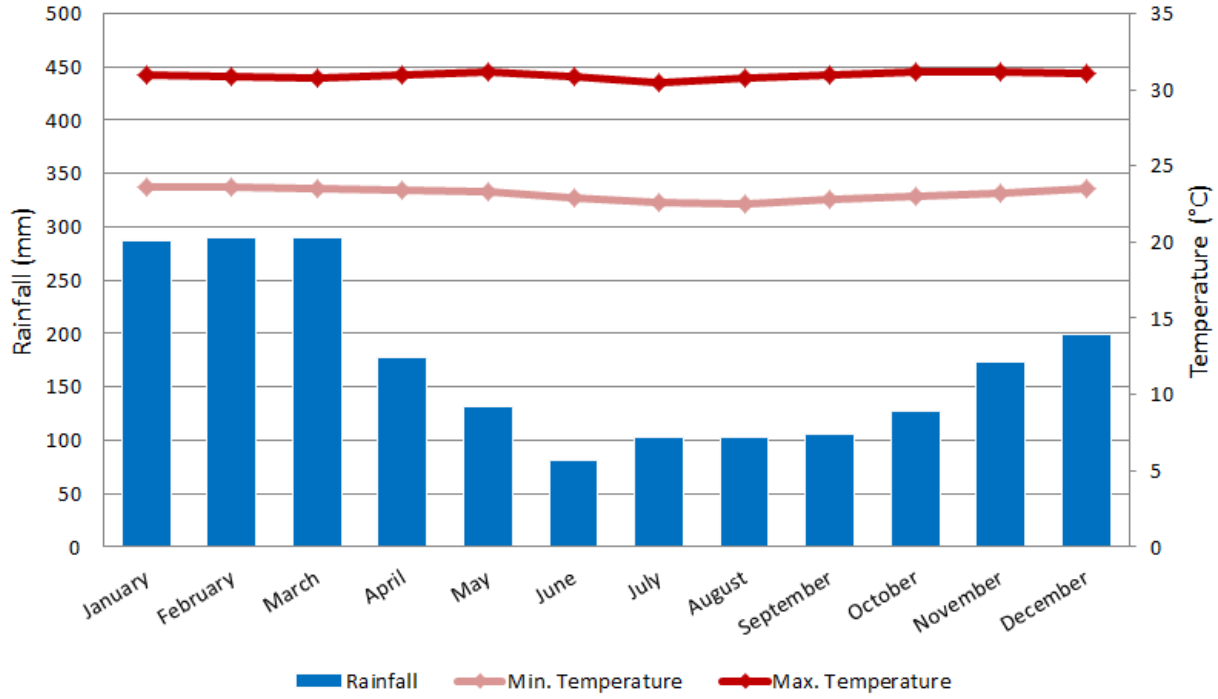

Figure 4: Honiara Monthly Average Rainfall and Temperature (Trundle & McEvoy for UN-Habitat and HCC, 2015)

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)[8]. Rainfall

[8] 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

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)[9].

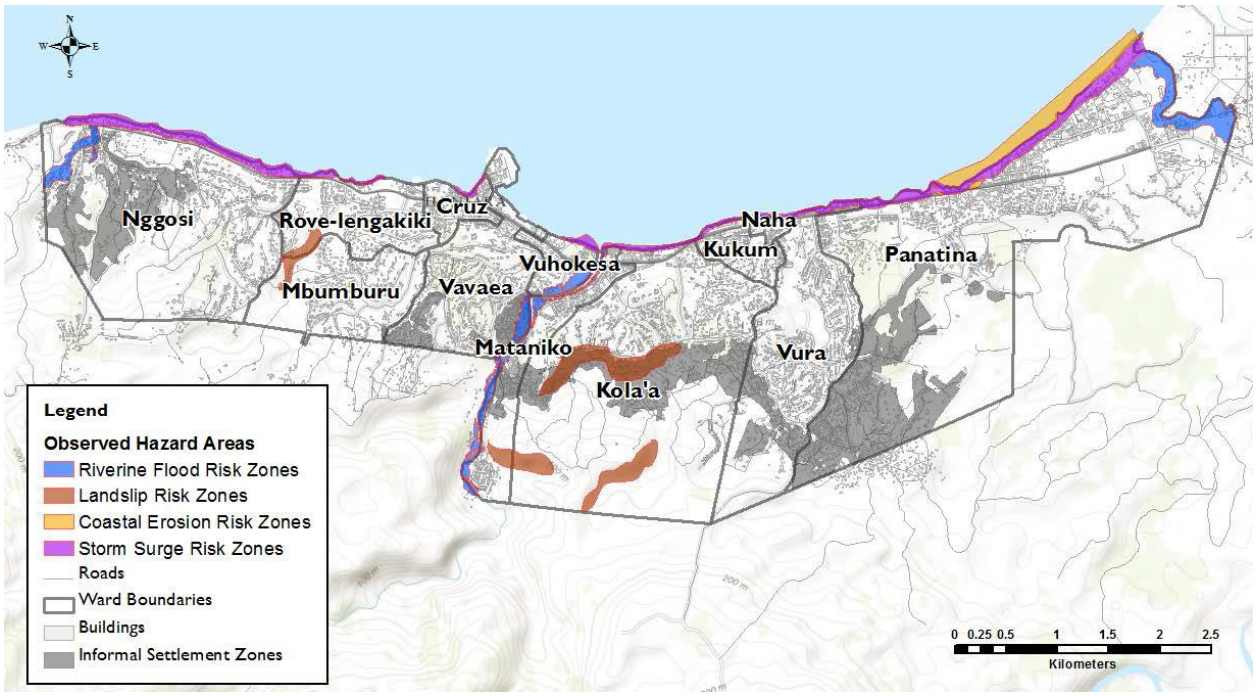

Figure 5: Identified Climate-related Hazard Areas (Trundle & McEvoy for UN-Habitat and HCC, 2015 - data sourced from MLHS, UN-Habitat and MECDM)

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 years (PACCSAP, 2014)[10]. 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.

[9] 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

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

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).

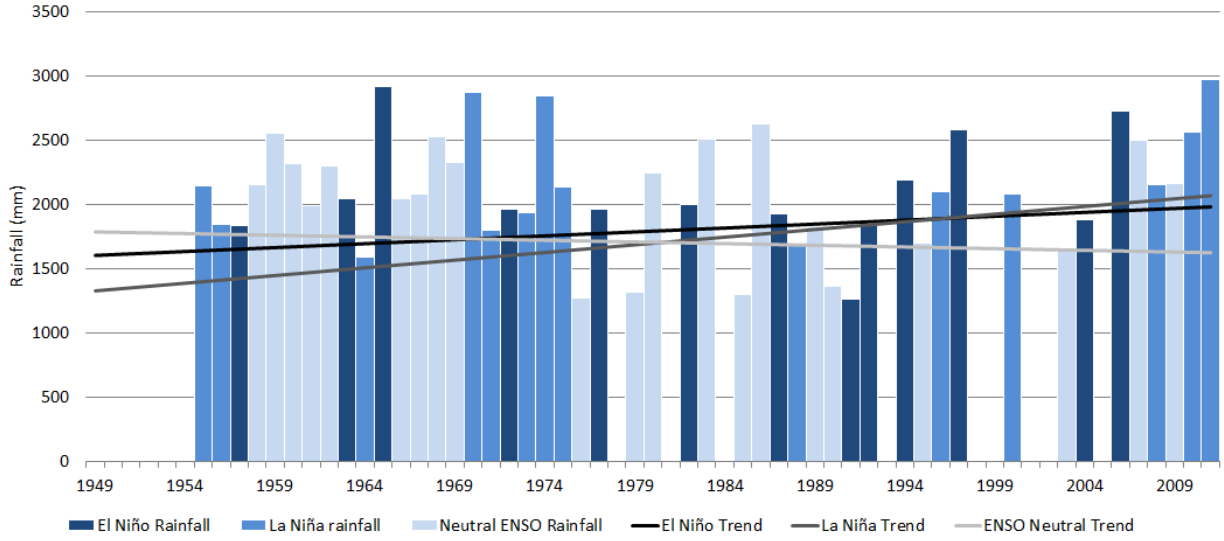

Figure 6: Long-term rainfall trends in Honiara by ENSO status (Trundle & McEvoy for UN-Habitat and HCC, 2015 - sourced from PACCSAP, 2014)

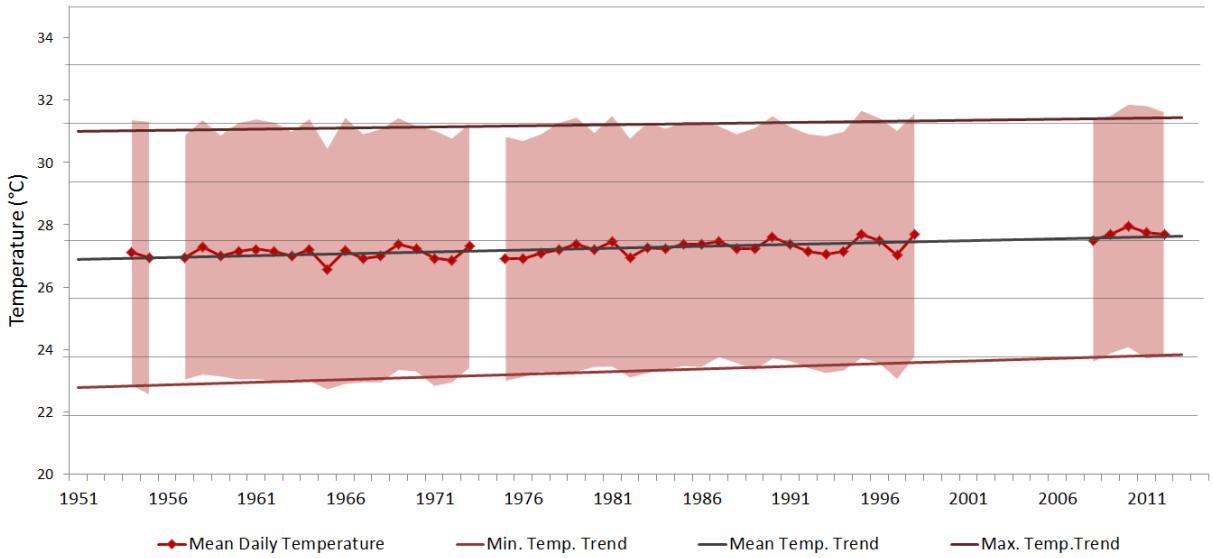

Figure 7: Long-term mean, maximum and minimum temperature trends, Honiara (Trundle & McEvoy for UN-Habitat and HCC, 2015 - sourced from PACCSAP, 2014)

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.

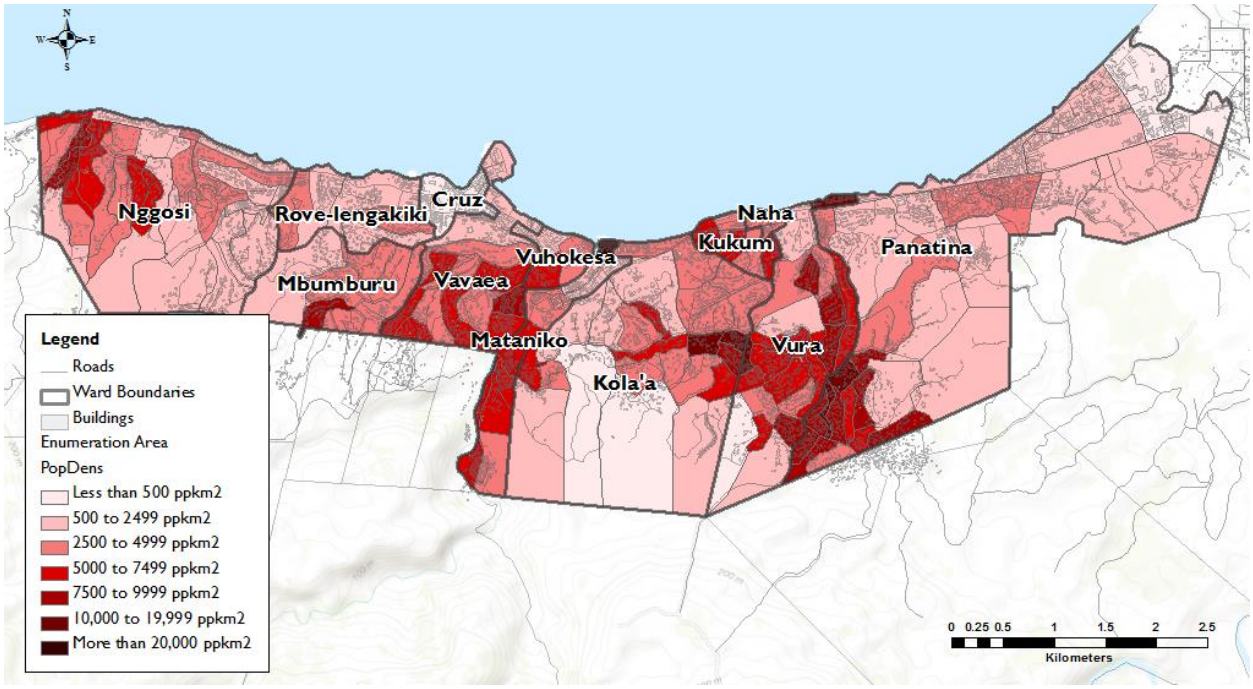

Figure 10: Population Density by Enumeration Area, 2009 (Trundle & McEvoy for UN-Habitat and HCC, 2015)

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 as is common practice across much of the city's informal settlement zones, resulting in variable structural quality and little to no government regulation.

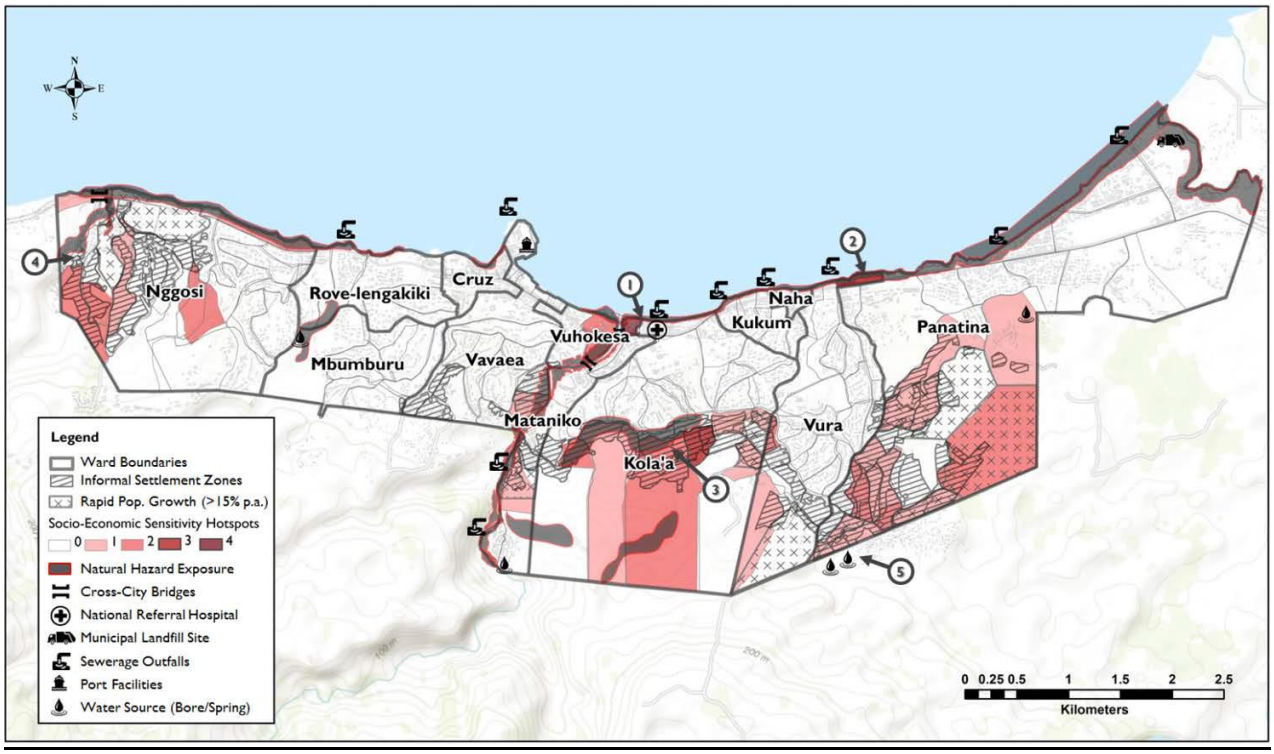

Figure 11: Hotspots based on climate impact assessment – exposure and sensitivity overlays (Trundle & McEvoy for UN-Habitat and HCC 2016)

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, livelihood dependences on fishing meant maintenance of coastal access would also be required). 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 shortfalls in basic urban infrastructure and services are severe in many parts of Honiara and amplify the sensitivity and adaptive capacity of local communities to the impacts of climate change. For example, although a lack of sanitation is neither climate-driven nor climate influenced, the interaction of untreated sewage with floodwater leads to the spread of disease and can contaminate garden areas. Similarly, debris resulting from the lack of enforceable planning of floodplains was instrumental in the destruction of the Old Mataniko Bridge in April 2014. Addressing these current-day development issues is therefore a critical initial stage of enhancing community resilience to climate change and natural disasters, and reduces a fundamental 'adaptation deficit' that exists across the city, but is most evident in the informal settlements and high-risk hazard zones. In each instance, concrete adaptation options will only be selected for implementation when they very clearly address such an adaptation deficit, clearly reduce climate change vulnerability / build climate change resilience.

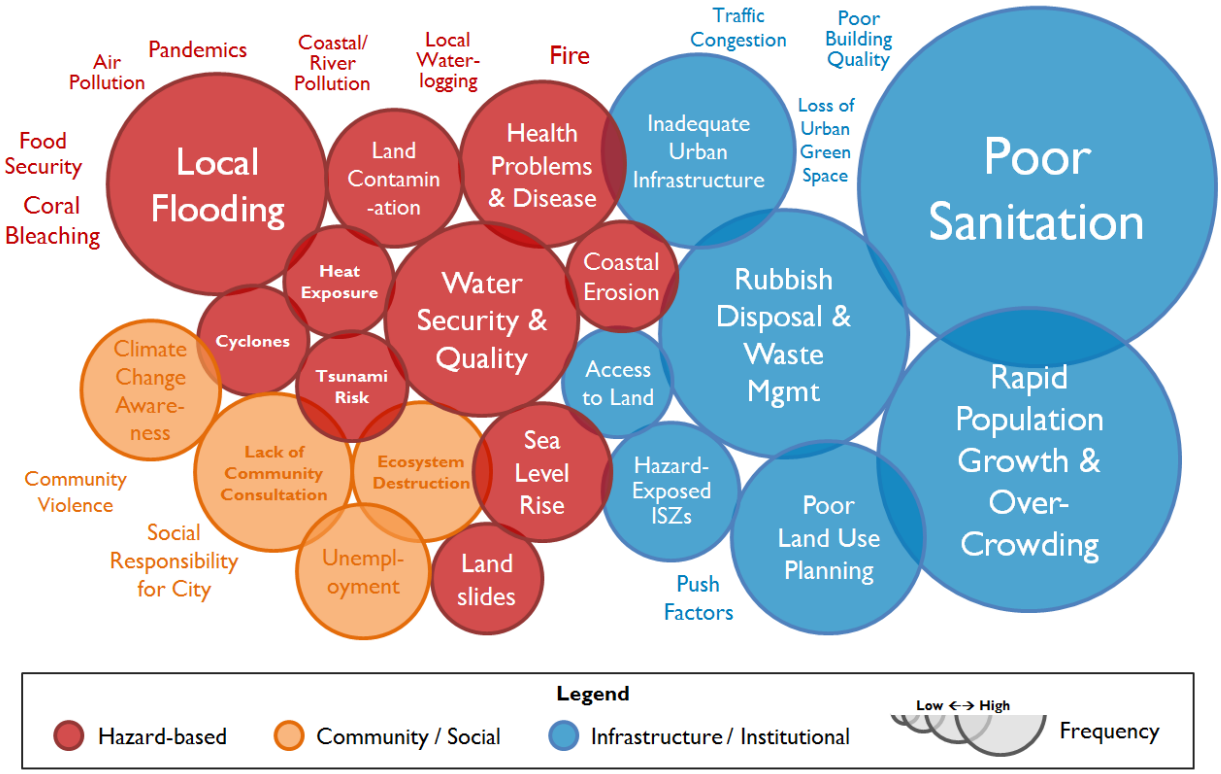

Figure 12: Community Level Priority Issues (Trundle & McEvoy for UN-Habitat and HCC 2015)

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 vulnerable 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 Figure 14 below). 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).

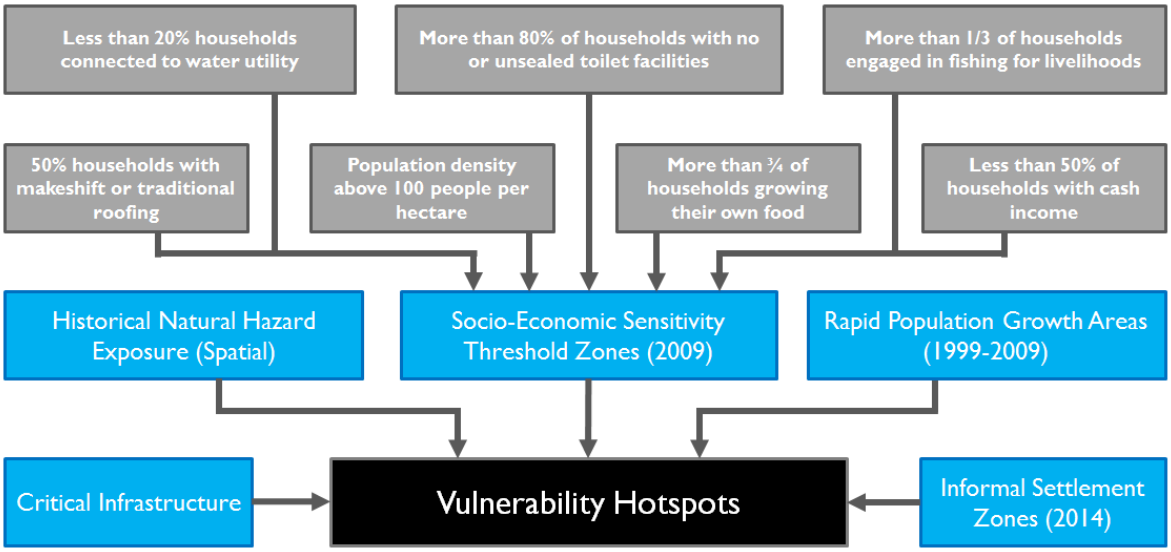

Figure 13: Data overlays used to highlight vulnerability hotspots (Trundle & McEvoy for UN-Habitat and HCC, 2015)

Table 1: Community Summary

Hotspot Name	Number of Households	Total Population	Honiara City Council Ward Location	Number of Women (estimate)**	Youth & Children (0-24 years)**
Ontong Java	**77**	**610**	**Mataniko**	**287**	**342**
Kukum	**60**	**453**	**Vura**	**213**	**254**
Aekafo Planning Area	**822**	**5183**	**Kola'a**	**2436**	**2902**
White River	**113**	**789**	**Nggossi***	**371**	**442**
Tuvaruhu	**360**	**2339**	**Panatina***	**1099**	**1310**

* Parts of these settlements have overflowed into Guadalcanal Province, beyond the Honiara City Council boundary (Source NSO, 2009 Census)

** Based on 2009 city-wide demographic statistics

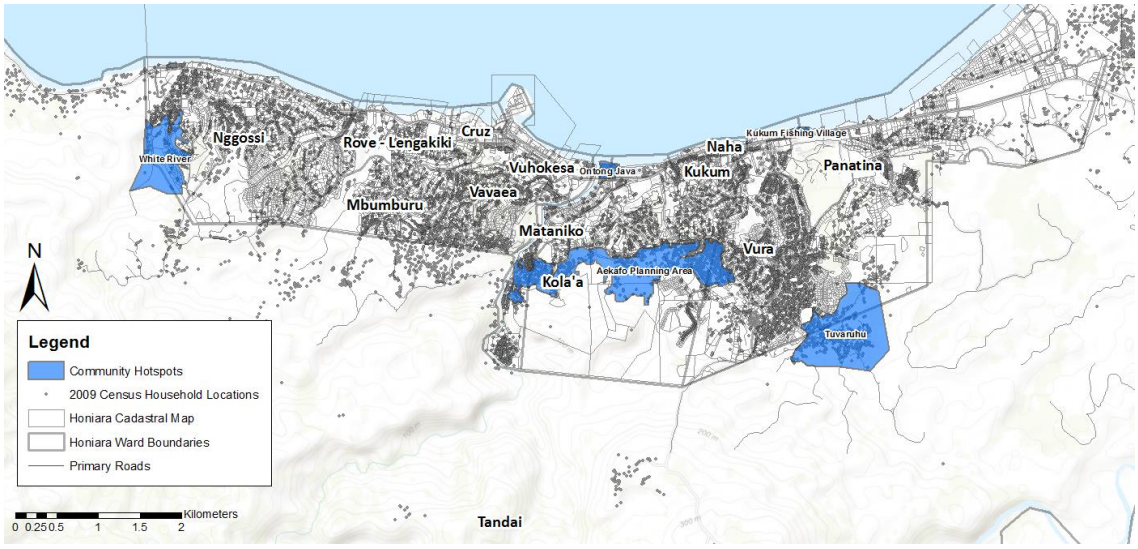

Figure 14: Selected hotspots

Project / Programme Objectives:

Goal:

In line with and in support of the Honiara Urban Resilience and Climate Action Plan, 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 strengthen institutional arrangements at the city-level to respond to climate change and natural disasters through mainstreaming, improved partnership working

Project Components and Financing:

Table 2: project components and financing

Program components	Expected outputs	Outcomes	Amount (USD)
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	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3)	$40,000
	1.2. In-depth community profiling for the hotspot case studies[11]		$40,000
	1.3. Scoping and feasibility studies of prioritized local actions for each hotspot community		$50,000
	1.4. Implementation of screened / agreed resilience actions in each hotspot community[12] (hard)	Increased adaptive capacity within relevant development and natural resource sectors (AF Outcome 4)	$1.550,000 **$1.690,000**
2. Community level capacity strengthening	2.1. Training on conducting community profile self-assessment	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3)	$60,000
	2.2. Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)		$120,000 **$180,000**
3. Ward level actions	3.1. To develop a women-focused climate risk communications program	Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level (AF Outcome 3)	$80,000
	3.2. To integrate climate change into educational programs for youth and children		$80,000
	3.3. Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented[13] (hard)	Increased ecosystem resilience in response to climate change and variability-induced stress (AF Outcome 5).	$450,000
	3.4. Climate resilient community spaces developed, including productive open spaces and community evacuation centres (hard)	Increased adaptive capacity within relevant development and natural resource sectors (AF Outcome 4)	$450,000 **$1.060,000**
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)[14]	Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses (AF Outcome 2)	$100,000
	4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate action planning		$80,000
	4.3. Assess locally appropriate land administration options for peri-urban locations		$100,000 **$280,000**
5. City-wide governance and capacity strengthening	5.1. Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC	Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and	$30,000

[11] Synergies to be sought with UN-Habitat's Participatory Slum Upgrade Programme.
[12] Possible synergies with Mataniko River clean-up program or SPREP Ecosystem Services project etc.
[13] Links to SPREP Ecosystem Services and UN-Women Markets for Change projects.
[14] Links to ICLEI / UNISDR DRR self-assessment and action plan for 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. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 5.4. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 5.5. 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)	environmental losses (AF Outcome 2)	$70,000 $147.000 $30,000 $30,000 **$307,000**
6. Knowledge Management and Advocacy	6.1. Climate change training and knowledge exchange 6.2. Advocacy materials 6.3. Knowledge sharing platform 6.4. Project learning mechanism	Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication;	$150.000 **$150,000**

7. Project/Programme Execution cost	384.500
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 3: 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

Projected Calendar:

Table 4: Project calendar

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

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. The project components

Program design:

The proposed project has been designed to reflect the importance of both adaptation processes and outcomes, though with an intentional emphasis on concrete actions that have already been identified by local stakeholders through the HURCAP process. With outputs 1.4, 3.3 and 3.4 the hardware/assets/infrastructure development component of the project is 67 percent, part at the ward level but most at the community level. Greatest attention is paid to the 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). It is intended that findings will also be transferable to other urban communities.

The project will engage across all spatial scales with resilience actions and capacity building at **city-wide**, **ward** and local **community** levels. A combination of actions, and capacity building across spatial scales, is seen as particularly innovative (and necessary) and ensures that actions are not stand-alone, rather are integrated into a resilience action plan for the city and hence more likely to be sustainable in the longer term. One important 'process' outcome is improved institutional arrangements and working relationships between national and city Government, ward councils (as closest entity to communities and bridging agents for adaptation planning and actions) and vulnerable communities (the direct beneficiaries of actions).

At the community level, a list of priority actions that were identified by local communities are listed on p19 of this proposal. A similar exercise to identify key actions will take place with the two additional hotspot communities (as noted on p20). However, given budget limitations, it will not be possible to implement all actions that have been identified as local needs. Therefore, the intention of this project is to work closely with the communities to 1) prioritize actions for implementation, 2) assess their feasibility and longer-term benefits, 3) screen prioritized activities for their adaptation benefit, and 4) consider where the same actions could be introduced across multiple communities in Honiara in ways that enhance adaptation learning and knowledge transfer between communities (e.g. tree planting initiatives to reduce coastal or riverine flooding, erosion etc.). The overarching themes for these potential actions is indicated on p30 of the proposal, and the 5 hotspot communities together have been allocated USD1.580.000 to implement their hardware/assets/infrastructure priority actions over the 4 year period of the project.

At the ward level the concrete actions focus on women and youth. These activities range from the development of theatre performances, education modules, and the piloting of urban agriculture best practice. Besides that, concrete ecosystem-based adaptation and resilient community spaces development, worth USD900.000, will take place in an urban setting.

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, and re-affirmed at meetings in November 2016 and June 2017). 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 led 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 research and teaching 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 15, 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).

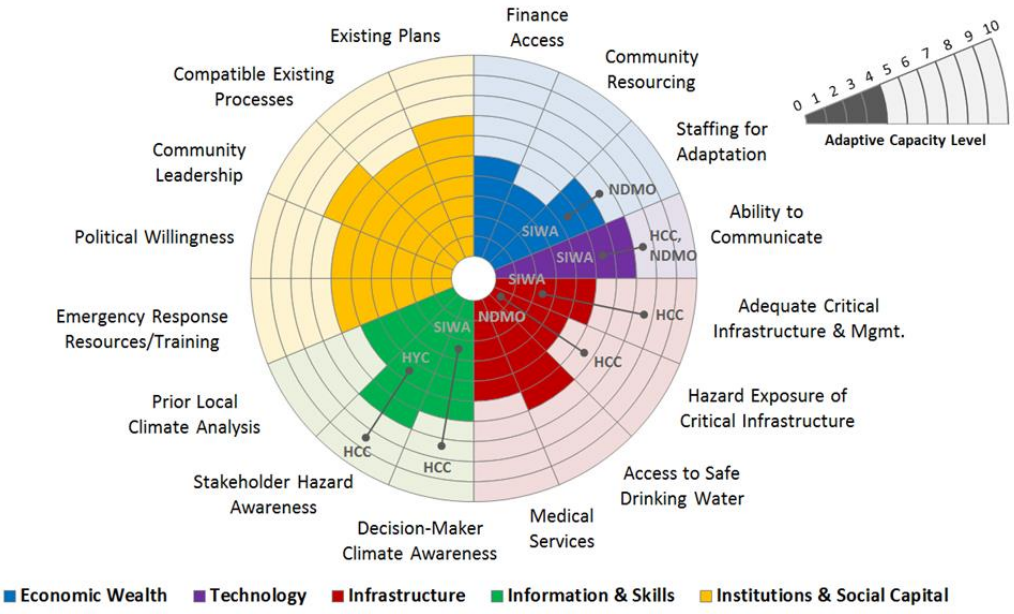

Figure 15: Adaptive Capacity (Trundle & McEvoy for UN-Habitat and HCC 2015)

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 (USD305,250 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)[15]. 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 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.

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

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).[16]

  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 benefiting from pilot actions to a total of five, the other three communities being Aekafo, Ontong Java and Kukum Fishing Village.

- In-depth profiling of all hotspot communities.[17]

[16] 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.

[17] Consistent with:

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. The necessary training will be provided in order to introduce new skills and ensure that this process can also be replicated elsewhere.

Profiling processes will include recording of various informal tenure arrangements, which will range from community leases (such as Ontong Java Settlement), to informal occupation of public land (as is present in many of the government-classified Informal Settlement Zones), to Temporary Occupation Licenses, and customary informal arrangements (beyond the city boundary). In each of these circumstances it is noted that although not complying with the formal definition of land tenure and zoned occupation arrangements, the Solomon Islands Government, through the Ministry of Lands, Housing and Survey, is undergoing a widespread formalization process across a number of these classifications. As such a parallel process (already underway) will establish a decision-tree approach to adaptation options as they relate to these different informal settlement typologies. This will build on work – beginning in August 2017 – by UN-Habitat, RMIT University and the Global Land Tool Network examining the implications of different tenure arrangements in two contrasting hotspot areas, in light of national government policy and current formalization projects.

- 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 concrete adaptation actions, building community assets, in each hotspot community, with technical support from UN-Habitat / RMIT as required.[18]

- 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.

[18] Consistent with:
- Honiara Urban Resilience and Climate Change Action Plan
- 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.
- 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.

As it will not be possible to implement all actions that have been identified by the vulnerable communities, concrete actions will be prioritized in close consultation with each of the community groups. Overarching themes for actions that were identified by the HURCAP assessment include: protection from climate and natural hazards, housing design, resilient infrastructure waste management and environmental clean-up activity to reduce flooding, drainage improvements, and environmental risk awareness programs. A total of $1,580,000 has been allocated for the community to support implementation.

As noted in Part 1 of this proposal, adaptation actions considered under this implementation component are inclusive of those that address all three components of climate vulnerability: namely, not only exposure to climate hazards, but also the sensitivity of community assets and their adaptive capacity (as shown in Figure 16). Therefore this includes components of Honiara's adaptation deficit such as inadequate waste management services, which reduces the function and access to services across the city. Similarly, the reinforcement of community structures and ownership of public open space through environmental clean-up programmes builds adaptive capacity at a local level through community resourcing and support (a key shortcoming identified in the city-wide adaptive capacity assessment shown in Figure 15). Capacity strengthening is further addressed through Component 2 below. Adaptation benefits include the reduction of the critical impacts waste has on the city's drainage network, and the spread of disease following flood events (climate change is anticipated to amplify health risks, including through water- and vector borne diseases, and is noted as a priority issue in the country's NAPA. Honiara City Council and the Ministry of Environment, Climate Change, Disaster Management and Meteorology have set up a working group to for the clean-up of the Mataniko river, the tributaries and banks. This is currently not funded but provides a mechanism to sustain solid waste management efforts. Mechanisms from up-scaling the lessons from this project component to the city-wide scale and ensuring sustainable improvements in waste managements over the longer-term (beyond direct behavior change) are elaborated on in Component 5 (City-wide Capacity Building).

- 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.

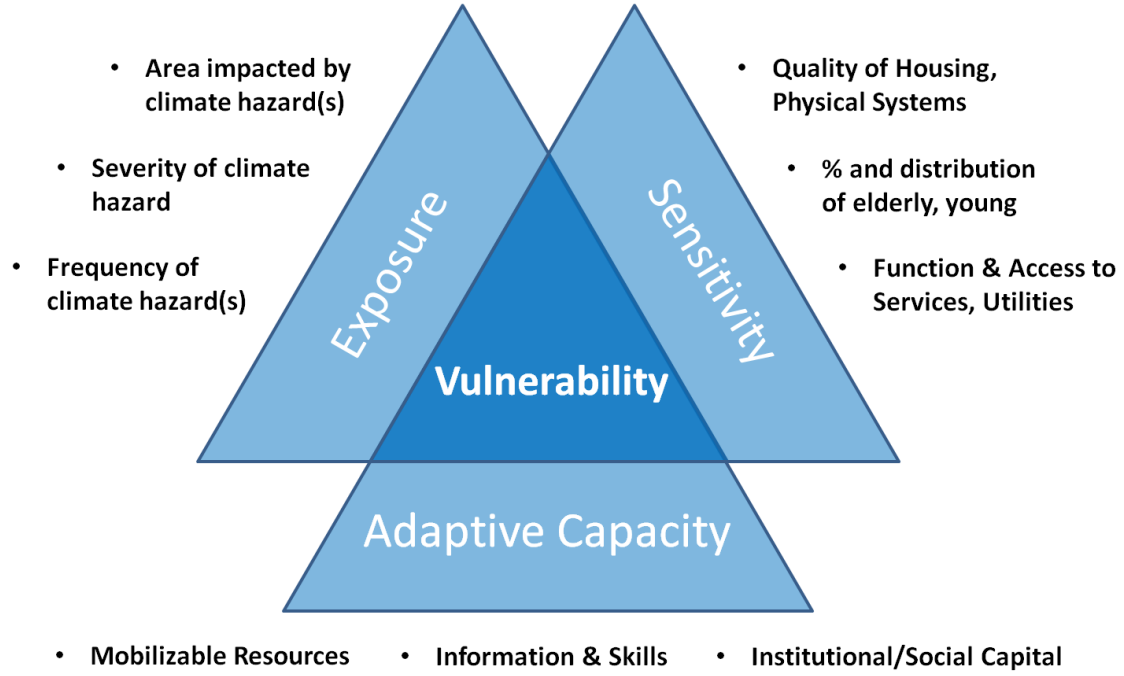

Figure 16: Climate Vulnerability Framework (Trundle & McEvoy for UN-Habitat and HCC 2015)

In the context of this output asset-building activities (hardware) are supported for example:

- *Flood control through construction / improvement of on-site drainage, including solid waste management, to improve runoff and reduce impacts on access ways and to counter water and vector borne diseases,*
- *Flood resilient sanitation to reduce effluent overspill in times of flood and reduce health impacts*
- *Access roads and Jacob's ladders, (i.e. staircases from roads into the steep valleys, which also serve as evacuation routes during flooding),*
- *Relocation of particularly vulnerable houses away from foreshore areas and flood prone banks of rivers/creeks (within settlements) and strengthening of structures to enhance resilience during extreme weather events,*
- *Upgrade, replacement, and diversification of water supply sources and storage types with accompanying conservation*
- *Support to early warning (flood gauge and community communication systems) in support of timely evacuation.*
- *Community facilities (e.g. community hall) that can double as an evacuation centre.*

2. <u>Community level capacity strengthening</u>

- Awareness and capacity building activity relating to key community issues[19]:

[19] Consistent with:

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). As noted above, health has been identified as a priority issue under the NAPA and there are critical linkages between sanitation, health and climate change that need to be addressed as part of a climate-resilient Honiara. Furthermore, land tenure considerations are vital in the Honiara context as they impact the ability of people to adapt and also influence the type of interventions that can be introduced (e.g. permanent dwellings are not allowed on land subject to temporary occupancy licenses, i.e. the tenure arrangement of most informal setters). Informal settlers occupy marginal / high-risk land (steep slopes, bottom of valleys) as this is the only land available to them. Not only does this leave them exposed to hazards, their tenure situation also prevents households as well as government agencies to invest in resilient houses and infrastructure. Land tenure issues need to be explicitly considered for successful and longer term, adaptation. Whilst there are numerous emerging initiatives (such as the Rapid Employment Programme, the provision of services by the utilities and the formalization of the temporary occupancy licenses) which demonstrate that significant adaptation options are possible, it is critical to unlock further tenure issues for larger scale investments.

- Training on conducting community profile self-assessment[20]

  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.

  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

- 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.

[20] 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.

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 particularly vulnerable groups such as women and youth, and key urban issues such as urban agriculture and food security, and the promotion of climate resilient community spaces in the city.

The project will work closely with existing local networks to ensure that engagement is widespread and equitable. UN-Habitat has a long-established presence in Honiara, and through the HURCAP process has developed extensive networks including with women and youth groups (two of these are named in the proposal). Vois Blong Mere is a women's network that was set up post the civil conflict in order to empower women through various media (including theatre and radio) and the Solomon Islands Development Trust are representative of youth and have experience of environmental and climate change education. Other Civil Society Organizations in Honiara – such as the Development Service Exchange - will also be engaged with to ensure that participation in activities and awareness raising is encouraged.

Significant numbers, estimated to reach more than 20,000 people will have access to the benefits either directly through involvement with key actions or indirectly from being the beneficiaries of the theatre, radio, educational or urban agriculture action initiatives. Theatre productions, education classes, and agricultural pilot studies will all take place in the informal settlements within the city and peri-urban environments.

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]

[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 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's groups in Honiara to determine the most effective means of communicating with this cohort about climate risk strategies, and which actions are likely to be most successful given the local context. A pilot activity was conducted RMIT (in 2015) with Vois Blong Mere (theatre), as well as young men and women through the Honiara Youth Council (dance).

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

  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). Actions 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. As observed during the pilot communications activities noted in the program component above, young citizens in Honiara present an opportunity to lead to generational behavior change in terms of waste management processes (from littering to recycling), with increased interest in the Pacific region around marine damage through plastics pollution. Education of youth in the city is therefore a critical component in developing the sustainability of climate resilience and adaptation initiatives.

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

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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.
- National Solid Waste Management Strategy 2009
- Mataniko River Clean Up initiative by HCC, MECDM
- 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.

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.

Specifically the following activities have physical (including green) infrastructure dimensions[24]

- *Catchment management, including reforestation, land-use controls, protection of wetlands and soil conservation*
- *Ecosystem-based adaptation options, in particular for flood management*

- Climate resilient community spaces.[25]

Engage with Honiara City Council to identify and promote climate resilient public space e.g. using floodplains as sports areas, planting trees to increase shading in community spaces and high use public walkways to combat heat stress, and the rehabilitation of community centres for use as safe places for evacuation and climate communications/education initiatives.

4. <u>Ward level capacity strengthening:</u>

- 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).[26]

[24] The two activities will be reviewed in light of the ESP of the AF later in this document

[25] 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.

[26] 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.

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.[27]

  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.[28]

  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.

  It is noted that formalization of tenure will have limits in applicability within at-risk hazard zones, limiting the application of in-situ adaptation options for certain households and areas. Similarly, legislative restrictions (relating to, for example, access to potable water services and grid electricity) will shape the feasibility and suitability of adaptation options for certain tenure types within these communities. The Project will work closely with MLHS to identify restrictions on tenure upgrading in certain zones, as well as ensuring high-risk

[27] 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

[28] 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.
- National Climate Change Policy outcome: partnership and cooperation.

areas (such as those exposed to landslides, flooding and coastal erosion) are considered in the ward-level capacity strengthening process.

5. City-wide level 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. Lessons learnt at a community level through implementation and community engagement will be mainstreamed and sustained through development of supportive legislation and amendment of by-laws where appropriate, with the support of relevant HCC officers, Ministry staff and councilors. In particular, the council executive has agreed to work closely with appointed resilience officers to review the current '5-metre bylaw', which is viewed as ineffective at preventing illegal dumping beyond the city center. Further interest has been expressed in establishing recycling regulations and targets for reducing plastics use and disposal, with the potential for UN-Habitat and RMIT University to bring forward best practice examples applied in other Small Island Developing States for testing in Honiara as part of the wider capacity building project component.

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:

- 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.

- Capacity development needs assessment.[29]

  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.[30]

  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.

- 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

[29] 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.

[30] 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.

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.

- 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, as well as other contributing adaptation deficit areas such as waste management and sanitation).

6. Knowledge management and advocacy:

- Climate change training and knowledge exchange.[32]

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

- 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.

[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.

- Project learning mechanism and evaluation

  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.

Whilst targeting resilience to climate change, each of the individual actions will also have significant flow-on socio-economic and other environmental benefits. These will be unique to the particular community or ward level action, but will involve a range of environmental benefits such as improvements to the local environment through improved stewardship of natural resources, protection of ecosystem services, less pollution and better air and water quality etc. In economic terms, resilience actions will contribute to local livelihoods, safeguard cash crops (or introduce new opportunities in the urban environment), protect assets against hazards etc. Social benefits are improved health and well-being, but there will also be support for less obvious social capital such as customary practice (and how it can be integrated with the latest scientific expertise).

'Soft' interventions aimed at capacity building will also have economic, social and environmental benefits for the vulnerable communities and the city as a whole. Training and awareness raising activity will introduce new knowledge that will aim to stimulate behavior change, and for the local environment this will mean a reduction in the degrading impact of human activity as well as the opportunity for promoting new ecosystem services (tree planting etc). New knowledge will also bring economic benefits through improved land management techniques and by communities being more prepared for future climate impacts, hence reducing future losses. Supporting the empowerment of women and youth networks, and ensuring that climate information is available to all (e.g. theatre performance for those unable to read English), will benefit local society and make a valuable contribution to community resilience.

Table 5: 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.	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
	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.	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.
	Informal urban settlements are fast-growing, high density, lack basic and resilient infrastructure and inhabitants have limited livelihood options.	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 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	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 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 design and implementation of the project focuses on maximizing the size of the 'hard' component; thus limiting the 'soft' components to only those activities required to supporting the appropriate implementation of the 'hard' component and strengthening institutional and community capacities to sustain the project. Although the project aims at maximizing the impact/population coverage of strengthened and/or new community hardware/assets/infrastructure, the type will depend on community priorities. However, construction/development costs will be minimized through large-scale procurement procedures (for multiple sub-projects, by using local and durable materials (if possible) and by in-kind community contributions.

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

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

Taking no action (business as usual) will lead to incrementally increasing costs in time associated with damage and losses due to 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. Community mobilization in Solomon Islands is traditionally very strong and thus, infrastructure development with community involvement is expected to be at least a 30 percent cheaper than government or contractor driven approaches, this is based on UN-Habitat's community contracting processes throughout the Asia-Pacific region; cost savings relate to cutting out the middle man (the contractor) and the in-kind contribution of community members. Besides that, it will benefit the community because of capacity development and through recruitment of semi-skilled and skilled workers.

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

Although non-resilient technical intervention may initially cost less to construct (between 30-50 per cent), resilient technical options are expected to last much longer, especially with every year recurring 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.

Table 6: Cost-effectiveness of project results/outputs compared to alternative approaches.

Expected results	Outputs	Cost-effectiveness rationale with respect to alternative approaches
Community-level Reduced vulnerability of hotspot communities to climate-related hazards and threats	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 In-depth community profiling for the hotspot case studies Scoping and feasibility studies of prioritized local actions for each hotspot community Implementation of screened / agreed resilience actions in each hotspot community (hard)	Alternatively, 'hard' interventions (i.e. resilience actions) may be implemented without the development of action plans, in depth community profiling and scoping and feasibility studies, but this may lead to interventions that do not target the most vulnerable areas and people and that may not be appropriate in terms of resilience building. In order to have an appropriate response, actions are selected based on above processes. Communities will be involved in the budgeting to ensure cost-effective options are selected. Technical

		support will ensure that options with the highest resilience impact will be selected.
Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level	Training on conducting community profile self-assessment Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)	Alternatively 'hard' measures can be implemented without training and awareness and capacity development support but this will lead to 'hard' interventions that are more costly, not necessarily supported by the community and thus not sustainable. In addition the training will support the direct engagement of the communities in the development / construction of community adaptation actions reducing the costs and ensuring maintenance.
Ward-level Increased ward-level climate, disaster and ecosystem resilience in response to climate change and variability-induced stress.	To develop a women-focused climate risk communications program To integrate climate change into educational programs for youth and children	Alternatively, 'hard' interventions (i.e. eco-system based adaptation and resilient community spaces) may be implemented without the development of a women-focused climate risk communication program and educational program, but this may lead to interventions that may not be supported by certain groups. Community level awareness and capacity development initiatives that are not directly anchored in concrete adaptation options are likely to have limited impact. Capacity development without support to implementation is doomed to fail in the Solomon Islands given the high level of poverty / resource constraints.
	Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented[33] (hard)	Eco-system based adaptation options are often more cost-effective than 'hard' infrastructure interventions, but they are only effective at the higher level (ward level and above)
	Climate resilient community spaces developed, including productive open spaces and community evacuation centres (hard)	Alternatively, more funding is allocated to eco-system based adaptation options but the development of resilient community spaces is limited to infrastructure that is needed when disasters strike.

[33] Links to SPREP Ecosystem Services and UN-Women Markets for Change projects.

Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	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) Pilot best practice participatory approach to city government, NGO, and community collaboration in climate action planning	Alternatively, without the training and piloting 'hard' interventions can be implemented but these and new interventions may not be sustainable (where ward officials / councilors will not be able to implement appropriate resilience activities in the future
City-wide Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC 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 Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 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)	Alternatively, climate change adaptation and DRR planning activity can be implemented but in an unsustainable way (where city officers will not be able to implement resilience activities in the future) The project pursues an integrated approach where community, ward and city-level activities are planned and implemented in an integrated manner. This approach recognizes the wide ranging capacity challenges and aims to address these in a comprehensive manner. A piecemeal approach may seem more focused and therefore more efficient but the project consultations clearly resulted in an integrated approach which lays a solid foundation for successful implementation and sustainability. City-level engagement will ensure that ward- and community-level actions will be adequately supported. Identifying and promoting synergies with other initiatives in Honiara will improve outcomes and add to cost effectiveness of actions (win-wins). In-kind time commitment of Ministries, HCC, NGOs, CSOs and local chiefs and community members (already engaged with as part of HURCAP). We have also noted training of nominated resilience officers at the ward level. In-kind time commitment of multi-stakeholder steering group. In-kind time commitment of RMIT

		staff (e.g. scoping visit and collaborative discussions with SINU) Capacity building of SINU staff will add to sustainability of project results and long term cost effectiveness of the program. Engagement with the NGO community will lead to shared cost savings and more coordinated action on the ground e.g. DRR and WASH initiatives. Bottom up approach will also enable free/cheap use of local venues for meetings and training. Engagement with Rapid Employment Program will not only allow employment of local workforce but also promote capacity building and low cost actions.

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). This project will seek to maximise synergies with the UNISDR / ICLEI DRR action plan during its development (currently under discussion for 2017/18). The DRR action plan will provide for an update of a wider suit of disaster response measures within local government, building on the UNISDR 'Making Cities Resilient' Toolkit. Regular meetings between RMIT University and the ICLEI Oceania office (also Melbourne-based) have ensured that both teams regularly exchange information and combine resources when engaging with HCC and in-country stakeholders. UN-Habitat and ISDR have also discussed their respective ongoing programmes in Honiara and the potentials for collaboration under future projects. The positioning of a Resilience Officer within the city council will facilitate on-ground coordination through the council's local disaster management team.

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)
- National Waste Management and Pollution Control Strategy 2017-2026

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

All project activities were screened against existing rules, regulations, standards and procedures endorsed by the government, as shown in the table below. It was found that at this stage the project activities are in full compliance with national and international laws and standards. In addition, screening of all activities was done to ensure compliance with the ESP of the Adaptation Fund which is also represented in the table below. At this stage compliance with the Environmental and Social Policy of the Adaptation Fund seems straight forward. However, given the precautionary process taken, many of the principles have been triggered across all activities – with a particular emphasis on activities under components 1 and 3, where concrete adaptation actions are only identified or designed in a partial or general manner. The ESMP (in Annex 1) will take off from this assessment.

Table 7: Project compliance with relevant rules, regulation, standards and ESP principles

Expected Concrete Outputs	Relevant national rules, regulations, standards and procedures (ESP Principle 1)	Screening against the Adaptation Fund ESP Priniciples (relevant principles and concerns)	Compliance & procedure
1.1. In addition to existing community action plans, complete community climate action plans for White River and Tuvaruhu informal settlements 1.2. In-depth community profiling for the hotspot case studies 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 including: • improved drainage and maintenance • access roads and Jacob's ladders, (i.e. staircases from roads into the steep valleys, which also serve as evacuation routes during flooding) • improved access to water and sanitation (to build resilience during droughts and to counter waterborne diseases during flooding), • relocation of particularly vulnerable houses (within settlements) • strengthening of structures to enhance resilience during extreme weather events • support to early warning (flood gauge and community communication systems) in support of timely evacuation.	Research Permit (Ministry of Education and Human Resources Development) Solomon Islands Environmental and Social Impact Assessments Relevant SI and international rules, regulations, standards and procedures regarding housing design, waste management, water supply, sanitation, drainage, etc.	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation For outputs 1.1 to 1.3 a relevant methodology is required (using a combination of UN-Habitat's Planning for Climate Change Tool, UN-Habitat's community vulnerability and action planning tool in combination with a methodology to assess and plan for the ESP principles). As part of the HURCAP community-level action planning in support of output 1.4 has been done in some of the target communities. However, this is not the case across all hotspots and adaptation actions have not been developed to the feasibility stage. They are thus treated as USPs. However, the types of activities prioritized by communities were reviewed by national and local government, local and international UN-Habitat experts and the communities at the stage of the HURCAP development and the design stage of this project.	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 The project will adhere to SI and international standards (SDG) regarding construction and use building back better principles. The project will use the tools on the left to complete community climate change action plans. For the finalization all project activities the Environmental and Social Management Plan (Annex 1) will be applied. The UN-Habitat Project Manager is responsible for compliance and the Project Management Committee is responsible for approval of all activities including USPs

		It is anticipated that adequate design of the activities would result in the ESP principles not being triggered. However, above listed principles need to be thoroughly gauged to ensure no adverse environmental and social impacts.	
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)	Not relevant Not relevant	3. Marginalized and Vulnerable Groups 5. Gender Equality/Women's Empower't 7. Indigenous Peoples 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 13. Public Health 15. Lands and Soil Conservation The above principles will be of relevance for the planned training and capacity development support	ESMP as above
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 3.4. Climate resilient community spaces including productive open spaces and community evacuation centres	No standard Climate Change Child-Centred Adaptation approach of Solomon Islands Development trust No clear rules, regulations, standards and procedures Solomon Island local planning schemes and draft building codes	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation For outputs 3.1 to 3.2 relevant principles will be considered in the design of the training / educational programme (content, delivery and participation) As part of the HURCAP ward-level action	The project will engage with the civil society sector and women in Honiara to develop a women-focused climate risk communications program. 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 The project will Engage with NGO organisations to promote ecosystem-based adaptation The project will follow the Honiara Planning Scheme and draft building code to develop infrastructure **ESMP will be applied as described above.**

		planning in support of outputs 3.3 and 3.4 has been done but not at the stage of feasibility. However, the identified activities were reviewed by national and local government, local and international UN-Habitat experts at the stage of the HURCAP development and the design stage of this project. It is anticipated that adequate design of the activities would result in the ESP principles not being triggered. However, above listed principles need to be thoroughly gauged to ensure no adverse environmental and social impacts.	
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) 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 for peri-urban locations	Not relevant The HURCAP assessment process Not relevant	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation The above principles will be of relevance for the planned capacity development support at the ward level	The project will follow the HURCAP assessment process to increasing capacity in climate action planning and to promote participatory approaches. ESMP will be applied as described above
5.1. Training and teaching & learning needs assessment 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. 5.3. Employ a climate adaptation and resilience	Not relevant Not relevant	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats	The project will adhere to SI government, AF and UN-Habitat standards ESMP will be applied as described above

officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 5.4. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 5.5. 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	10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation **Given the comprehensive approach at the city level, it is deemed prudent to retain all principles for capacity development, training, networking events.**	
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	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation Whilst output 6 emphasizes knowledge management, it is critical that all principles are adhered to.	The project will adhere to SI government, AF and UN-Habitat standards ESMP will be applied as described above The UN-Habitat Project manager will ensure thorough editing of all advocacy material and publications to ensure compliance with the Adaptation Fund's ESP

F. Other funding sources

One of the selection criteria of the target towns and informal settlements is that of avoided overlap with other projects. This information has been retrieved based on in-depth consultations with the national government Honiara authorities, and on the ground project activity through the UN-Habitat climate change vulnerability assessment and the development of the subsequent climate adaptation plan since 2014.

The UN-Habitat 'Planning for Climate Change' framework advocates a series of key phases which can be understood simply as assessing climate vulnerability, identifying key issues in collaboration with stakeholders (and then translating associated objectives into adaptation actions), implementing the priority actions, and maintaining a regime of ongoing monitoring and evaluation (recognizing that urban resilience to climate change is dynamic). HURCAP expanded the focus of the traditional climate adaptation plan to include urban resilience to non-climate drivers due to the many complex and critical urban development issues that face primate cities in Melanesia (substantial rural-urban migration, rapid urban development leading to informal settlements, inadequate urban infrastructure etc). This proposal builds directly on the evidence base that was established by the vulnerability assessment and the development of the HURCAP, supporting actions that address the critical needs of informal settlements in the city. As well as working closely with local communities, the UN-Habitat activity is fully supported, and has also been formally endorsed, by the City Council and the focal national Ministries.

UN-Habitat also has a long standing commitment to Honiara through its Participatory Slum Upgrading Programme (PSUP). This initiative is aimed at trying to improve the lives of informal settlers through improvements to their housing and provision of basic needs. Correspondingly, these efforts will also contribute to recuing exposure and sensitivity to climate impacts. The lessons learnt, knowledge of local networks, access to chief structures etc., will be extremely valuable in supporting the proposed project activity.

Other projects with complementarity include the SPREP PEBACC programme on ecosystem services and a significant World Bank consultancy on flood risk management in the Mataniko River catchment. The SPREP project is in the early stages of ecosystem identification and mapping, though there are opportunities for aligning with their phase 2 pilot studies in 2017/18 from an informal settlement perspective, and the World Bank project is yet to be awarded though there are obvious benefits in using the flood risk data to inform adaptation options for the communities in the catchment area.

Table 8: Relevant projects and their complimentary potential

Relevant projects	Complimentary potential	Lessons learned
UN-Habitat Honiara vulnerability assessment, 2014	Activities in this project are informed by the vulnerability assessment	Strong community knowledge / engagement can be leveraged for project implementation. Whilst resilience building is an

		emerging concept it provides an engaging 'fuzzy' concept that allows consideration of current and future climate exposure and action planning, while also linking to disaster risk reduction and management. Legislative enforcement across the city in all areas is weak; laws must have community support, education and effective funding for implementation and maintenance to be effective.
Honiara Urban Resilience and Climate Adaptation Plan, 2016	Activities in this project are identified based on the urban resilience and climate adaptation actions	Value of bottom up approach as opposed to top down 'external' programs which don't tend to work well in the Melanesian context. Local knowledge is invaluable in understanding risks and shaping solutions. Need to take account of local cultural structures and processes and integrate scientific and traditional knowledge. Correlation between informal settlement areas and climate exposure and sensitivity. Conversely, strengths in community-based adaptive capacity in these zones, largely operating independently of government structures and top-down initiatives. Need to consider current day exposure and sensitivity to climate extremes and baselines as a starting point for future projections. Due to rapid population growth, consideration of non-climate futures for the city is critical if climate projections are to be effective. Youth unemployment and the significant youth 'bulge' in the

		city's population provides a substantial opportunity for educating and training relating to resilience-building initiatives
UN-Habitat Participatory Slum Upgrading Programme (PSUP)	Align with the programme	Informal settlement upgrading initiatives cannot be sustainable without mainstreaming of resilience. Partnership between communities, Honiara City Council and MLHS can work. Mechanisms have been developed. With and increasing share of the city's population living informally (currently more than 1/3 of residents), there is a need for new, community-based modes of building climate resilience where municipal governance is weak,
SPREP PEBACC project (ecosystem services in Fiji, Vanuatu and the Solomon Islands)	Honiara is one of the case studies for this Pacific project and there are opportunities to complement their activity with a focus on informal settlements.	The project is too new for lessons to be learnt. But SPREP and UN-Habitat have agreed to closely collaborate to ensure joint learning and synergies when implementing pilot initiatives.
World Bank supported Rapid Employment Project, REP (in partnership with Honiara City Council)	REP aims at providing employment opportunities for the urban poor. Whilst many activities relate to street cleaning and urban beautification, the project also supports some small-scale infrastructure projects.	World Bank REP: win-win benefits of engaging local workforce in implementing community actions – potential lessons from training and community investment and labor engagement model. Some expansion from Jacobs Ladders into small-scale drainage works in newer sites, including Koa Hill.
World Bank supported Honiara Flooding study.	The study (to start in late 2017) will further inform resilience action.	Collaboration on setting up the study is on-going. No lessons learnt to date.
AF: UNDP (USD5.5 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.	At this stage lessons relate primarily to the engagement of MIE (UNDP) and national executing entity, project management, financial management. Lessons based on consultations with UNDP and MECDM have been

		integrated into this project document. Substantive lessons are yet to be explored
World Bank project "Community Resilience to Climate and Disaster Risk in the Solomon Islands Project (CRISP)	The objective of the project is to increase the capacity of selected rural communities to manage natural hazards and climate change risk. Although the project does not operate in either HCC or the Greater Honiara Area, management techniques and community engagement strategies relating to climate change risk may have potential to be used in the Project's peri-urban engagement (for instance, preliminary scoping of community resilience characteristics, or traditional disaster management techniques). Although not directly linked, cooperative learning will be facilitated by team meetings between UN-Habitat and the local WB office, as well as through the Land and Urban Management Sector (LUMS) Platform.	CRISP is currently underway and due to be completed in 2019, with the rural Guadalcanal project sites yet to be selected and substantive lessons are yet to be identified, with implementation currently behind schedule (as of the 28th June 2017). Appointment of a Resilience Officer in the Ministry of Health presents (recruitment currently underway) an opportunity for collaboration between the Project and the health sector, with the Officer's brief being to mainstream DRM and CCA into departmental plans and policies. Limitations identified in the Sol-Geo GIS Database and the intent to establish a government-wide spatial data sharing platform will allow wider data sharing from the project across government.
UNDP project "Solomon Islands Water Sector Adaptation Project (SIWSAP)	The project focuses on provincial areas and not Honiara. UN-Habitat and UNDP work closely together in the Solomon Islands and will exchange lessons learnt.	Substantive lessons are yet to be learned.
ICLEI resilient cities program	ICLEI and UN-Habitat worked closely together in the preparation of the HURCAP (UN-Habitat) and the resilience training and planning (ICLEI), ensuring participation in respective workshops (in Honiara) and communication between ICLEI Oceania (Melbourne) and UN-Habitat (Regional Office).	An integrated approach to climate change adaptation and wider urban resilience to ensure efficient and effective institutional response (Honiara and National Government).
Asian Development Bank	Knowledge sharing for peri-	Project in strategy

Greater Honiara Urban Development Strategy and Action Plan	urban communities (focus of the ADB work) beyond the HCC boundary, potential co-resourcing of engagement activities and establishment of complimentary community development committees/structures.	preparation/formulation phase – UN-Habitat currently providing input to formulation through MLHS and the Lands and Urban Sector (LUMS) cross-departmental group.

G. Capturing and disseminating lessons learned

A dedicated component (6) 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.

As part of the sustainability/exit strategy, the project will develop participatory monitoring processes, which will trigger institutional learning processes, participation, knowledge exchange and replication and scale-up of good practices.

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 9: 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
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 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. 5.3. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 5.4. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation 5.5. 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) Understand learning needs (i) report lo) better qualified planners vis-a-vis urban resilience (i) Number of planners 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
6.1. Climate change training and knowledge exchange 6.2. Advocacy materials etc 6.3. Knowledge sharing platform 6.4. 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)[34].

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 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

34 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).

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.

Consultations, taking place over a two year period, involved a mix of workshops, focus groups and interviews. Workshops and focus groups were held at the community, ward and city level, as well as with relevant Government Ministries. Sector specific workshops (water and DRR) and sessions involving women and youth groups in the city were also held. One to one interviews were conducted with city and national Government officials, and locally-based NGOs, to complement the community and ward level input and ensure that actions would be integrated across levels. Findings contributed to the HURCAP action plan and the participatory approach maximized local ownership and support for the actions identified.

This initiative is also particularly timely given the hosting of the first Solomon Islands National Urban Conference (SINUC) 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). Key stakeholders discussed the priorities of the HURCAP in the context of this proposal in a one-day workshop following the urban conference.

In November 2016 the Climate Change Coordinator of UN-Habitat's Regional Office for Asia and the Pacific conducted a mission to Honiara to discuss the finalization of this Project Document.

Table 10: Stakeholder consulted and outcomes

Consultation Group	Stakeholder Role & Input / Consultation Type	Consultation objective	Outcome	Conclusion
Climate Vulnerability Hotspot Communities				
Ontong Java Informal Settlement (climate vulnerability hotspot)	- Community workshop (18 participants, 10M,8F): Settlement participatory climate action planning & climate science communications and past event and observed trend discussion	- Assess Climate Change Vulnerability (2014) - Develop Community Climate Change Action Plan (2015-2016) - Determine settlements climate action in the context of a	- Hotspot Analysis - Key issues and objectives identified - Community-level resilience action plan input - Increased community adaptive	- Resilience actions prioritised for hotspot community (high exposure, high socio-economic sensitivity, limited adaptive capacity).

	- Transect walk (community leaders) examining community-level climate sensitivities, exposure and observed trends - HURCAP Forum representation (~10 community representatives) involving group-based development of ward-level adaptation actions - Community meetings (May 2017) updating on AF Proposal Progress	city-wide adaptation plan (city-wide consultation), - Build awareness of climate change	capacity and understanding of climate change	
Aekafo Informal Settlement Area (climate vulnerability hotspot)	- Community workshop (26 participants – 19M,7F): Settlement participatory climate action planning & climate science communications and past event and observed trend discussion - Transect walk (community leaders) examining community-level climate sensitivities, exposure and observed trends - HURCAP Forum representation (~10 community representatives) involving group-based development of ward-level adaptation actions	- 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), - Build awareness of climate change	- Hotspot Analysis - Key issues and objectives identified - Community-level resilience action plan input - Increased community adaptive capacity and understanding of climate change	- Resilience actions prioritised for hotspot community (high exposure, high socio-economic sensitivity, limited adaptive capacity).
Kukum Fishing Village (climate vulnerability hotspot)	- Community workshop (35 participants – 22M,13F): Settlement participatory	- Assess Climate Change Vulnerability (2014) - Develop Community	- Hotspot Analysis - Key issues and objectives identified - Community-	- Resilience actions prioritised for hotspot community (high exposure, high

	climate action planning & climate science communications and past event and observed trend discussion - Transect walk (community leaders) examining community-level climate sensitivities, exposure and observed trends - HURCAP Forum representation (~10 community representatives) involving group-based development of ward-level adaptation actions	Climate Change Action Plan (2015-2016) - Determine settlements climate action in the context of a city-wide adaptation plan (city-wide consultation), - Build awareness of climate change	level resilience action plan input - Increased community adaptive capacity and understanding of climate change	socio-economic sensitivity, limited adaptive capacity).
Ngossi – Wind Valley	- Community consultations, meetings with chief and leadership representatives, transect walk	- Build community relationships and basic profile - Map community boundaries spatially - Update local representatives on AF Proposal progress	- Basic community profile developed - Refined spatial extent of the community identified - Key issues scoped	- Preparation for Project Component 1 complete
Panatina Peri-Urban Area – Jabros community	- Community consultations, meetings with chief and leadership representatives, transect walk	- Build community relationships and basic profile - Map community boundaries spatially - Update local representatives on AF Proposal progress - Elaborate on customary tenure arrangements	- Basic community profile developed - Refined spatial extent of the community identified - Key issues scoped	- Preparation for Project Component 1 complete
National Government Stakeholder Level				
Ministry of Land, Housing and Survey. Permanent Secretary, Stanley Waleanesia (21 and 23 November 2016), Director of	- SIG National Ministry leadership level (various meetings & correspondence) project authorisation and high-level input	- Review of AFB Secretariat comments on concept note. - Input to Part III of AF project proposal, in particular project	- Agreement on full project document - Formal Endorsement of the HURCAP (2017) - Agreement on full project	- Agreement on partnership and project implementation.

Planning (21 and 22 November 2016), various other officials 22 November 2016 and throughout May-June 2017	- Chairing of HURCAP Forum feedback sessions and plenary contributions	management, risks, logical framework and budget. -	document revision	
Ministry of Finance, Selesia Alepia (Focal Point for MLHS)	- SIG National Ministry leadership level (various meetings & correspondence) authorisation and high-level input	- Financial management of project - Financial safeguards, transparency, pass-through funding for executing agencies and possibility of setting up of trust fund.	- MLHS with Ministry of Finance can setup a trust fund. Executing Agencies UN-Habitat is not signing Agreements of cooperation with, can receive funding through trust fund arrangement.	- Trust fund ideal for MLHS project implementation and possibility for pass-through grants for other executing agencies. - Direct agreements through UN-Habitat Agreement of Cooperation possible.
Ministry of Environment, Climate Change, Disaster Management and Meteorology 1. Designated Authority (Permanent Secretary, Undersecretary and Director of Climate Change) July 2016. On 24 November 2016 meeting with Chanel Iroi (AF designated authority, Undersecretary). Review meeting with Chanel Iroi, Designated Authority (31 May 2017)	- SIG National Ministry leadership level (various meetings & correspondence) authorisation and high-level input - Review and feedback regarding proposed adaptation actions - Workshop on Adaptation Fund Proposal development, prioritization and endorsement - Workshop on AF Proposal Refinement for 2017 re-submission	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - November 2016: Input regarding AFB recommendations, and AF Proposal Part III	- City-wide analysis and resilience action plan - Formal Endorsement of Vulnerability Assessment (2015) and support for HURCAP (2015-2016) - November 2016: MECDM continues to be supportive of project. - Formal Endorsement of the HURCAP (2017) - June 2017: Continued support and agreement as designated authority	- City-wide resilience action plan agreed - Designated Authority to provide endorsement of proposal.
2. National Disaster Management Office (Director NDMO and entire team)	- National government level public sector representatives (13M,2F): participation in vulnerability assessment and action planning workshops; toolkit	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on	- City-wide analysis and resilience action plan - Endorsement of Vulnerability Assessment and support for HURCAP (2015-2016)	- City-wide resilience action plan agreed

	training for capacity building; HURCAP Forum participation; written feedback and report review	HURCAP for national alignment - Workshop on Adaptation Fund Proposal development, prioritization and endorsement		
Ministry of Health, Aaron Oritaimae (Chair, NRH Relocation Board)	- Meeting (25th June 2017) discussing National Referral Hospital Relocation, site hazard risk and implications for city-wide vulnerability	- Potential alignment with MoH project outcomes and data collection (city-wide LiDAR) - Use of health statistics database	- Agreement to meet with MoH Resilience Officer following appointment and brief of the HURCAP & AF Projects	- Ongoing consultation and agreed sharing of project planning documentation
Local/Municipal Government Level				
Honiara City Council (Mayor, Deputy Mayor, Town Clark, Deputy Town Clark, councillors) and municipal government Heads of Department	- City-wide action planning workshop - Review and feedback on community-level hotspot action proposals - Ward councillor facilitation of ward-level action planning in HURCAP forum - Review Workshop for draft HURCAP actions - Project authorisation and high-level steering by executive 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)	- City-wide resilience action plan agreed
City Clerk (Charles Kelly) and Deputy City Clerk (Fred Warereau) 22, 23 November 2016, 3 February 2017	- Municipal government – executive-level meetings and workshopping of project planning input and revision request	- Discussion on AFB recommendations, discussion on Part III - Role of resilience officer - Additional support mechanisms for city government for project implementation - Sustainability of resilience officer - Formal	- Endorsement of proposed project governance and HCC role - Part III of project document agreed upon. - Request to New Zealand volunteer service for resilience planning support. -	- Full project proposal endorsed - Reviewed project proposal endorsed - HCC will support Resilience officer beyond project period - Agreement to identify areas of legislative improvement relating to waste and sanitation by-laws based on community

		Endorsement of the HURCAP (2017)		findings.
Sector-specific Stakeholders and Expert Groups				
Land Management and Urban Planning National Stakeholder Group	- Workshop with SIG Ministry of Land Housing and Survey (Minister, Permanent Secretary, Undersecretary/ Technical, Director, Planning, SPC consultant and INGO specialists – stakeholders outlining city-wide urban planning issues, climate-related extreme event risks to the sector, and complementary initiatives - Individual review of and comment on the vulnerability assessment report and HURCAP by all group members	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on HURCAP for national alignment - Adaptation Fund Proposal development, prioritization and endorsement - Review Feb 2017 AF Proposal Feedback (June 2017)	- City-wide analysis and resilience action plan input - Endorsement of Vulnerability Assessment and support for HURCAP (2015) -	- City-wide resilience action plan agreed
Solomon Water (CEO and senior management team)	- Workshop (13 participants, 11M,2F): Sector specific participant identification of vulnerability	- 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
Honiara Youth Council	- Workshop with 21 youth representatives from each of the city's 12 wards (15M,6F) - Participation by additional youth representatives in the HURCAP Forum action planning and ward-level assessment activities	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016)	- Youth-specific issues relating to climate vulnerability and involvement in adaptation actions	- Contribution to city-wide resilience action plan

Development Services Exchange	- Action planning workshop with 11 representatives of local and international civil society organisations (7M,4F) identifying sector-specific perspectives on climate vulnerability and possible actions, as well as opportunities for building on NGO expertise and existing community linkages and projects	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016)	- Civil society perspectives on climate vulnerability and involvement in adaptation actions	- Contribution to city-wide resilience action plan
SPREP Pacific Ecosystems-based Adaptation to Climate Change Project (PEBACC), Project Manager, Herman Timmermans, 17 November 2016 (in Fiji) and Fred Patison, Country Manager, 22 November 2016	- Multi-lateral international scientific secretariat: various meetings to provide project input from ecosystem-based adaptation viewpoint	- Explore synergies	Ongoing work can inform planned activities under this project (such as watershed and coastal zone assessments for Honiara). Community-level action: potential for synergistic activities in communities and for exchange of tools and joint learning across communities.	Ensure good communication (mailing lists, workshop invitations, working level meetings) SPREP to be on project technical advisory team. UN-Habitat to support SPREP Solomon Islands climate change summit.
World Bank Group Country Office	- Various meetings with organisational representatives to identify opportunities for collaborative input and complementary project objectives - Participation by in-country team and external flood experts in the HURCAP Forum - Meeting with the WB Country Representative	- Assess Climate Change Vulnerability (2014) - Develop city-wide Climate Change Action Plan (2015-2016) - Consultation on AF Proposal synergies - Update on AF Proposal (June 2017) and discussion of review	- Sectoral vulnerability and adaptation actions - Agreement on collaborative approach to CRISP and REP lessons learned	- Contribution to city-wide resilience action plan - Ensure good communication and cross-project coordination

		comments around CRISP collaboration		
UN-ISDR	- Meeting with Timothy Wilcox, UNISDR Pacific Sub-regional Office (November 2016) - Andrew McElroy (replacement of Timothy Wilcox) July 2017 (while still based in Bkk)	- Share information, discuss possible synergies	- Agreement on collaborative agreement. - Joint approach vis-à-vis ICLEI	- Regular meetings to further enhance synergies.
Other cross-scale/multi-sector engagement activities				
City-wide stakeholder Consultation (July 2016)	- N/A: Cross-scale/multi-sector activities	- 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 Conference (June 2016) - Stakeholder consultations (1 day workshop) in preparation for AF proposal (June 2016)	- Validated Vulnerability Assessment. - Agreed upon Resilience and Climate Change Action Plan	- Mandate to go ahead with resource mobilization for plan and plan implementation
Key stakeholder workshop (23 November 2016)	- Review of project concept notes and comments of AF board secretariat - The settlements upgrading country team as well as key climate change stakeholders were present at the meeting. The country team	- Consult with key stakeholders (MLHS, HCC, Utilities, Civil Society) key elements of Part III of the project document in particular: - Steering Committee	- Inputs provided through working groups and plenary session.	- Recommendations are incorporated in this project document.

	includes national and local government, academia, utilities, civil society and as gender mainstreaming focal points Vois Blong Mere and Development Services exchange	- Project Management Team - Key partners - Project risks - Tenure risks / risks of evictions and relocations		
Key Stakeholder Workshop (7th June 2017)	- Review of 3 key areas of requested additional revision from the February 2017 appraisal (waste legislation, land tenure and WB project linkages).	- Confirmation of the rural focus of the CRISP Project - Noting of the SPREP project working with the customary land owners 'upstream' of the Mataniko - Water Quality Assessment Project also noted as forthcoming (SPC) - Volunteer Services Abroad (VSA) interest in embedding a volunteering within HCC in parallel with the Resilience Officer position	- Assessment of AF Board review comments and confirmation of UN-Habitat approach to addressing each component	- Feedback integrated into this project document.

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. Activity includes traditional adaptation activities, but also complements these with broader resilience actions that seek to reduce current day vulnerabilities and build a strong platform for future adaptation pathways. In particular construction of drainage, access (paths, bridges, Jacob's ladders), small-scale water and sanitation projects will be implemented with communities. At the ward level, in particular the support to ecosystems-based adaptation and the construction of emergency shelters (multi-purpose for broader resilience) will be supported. 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 11: Overview of impact of AF funding compared to no funding (baseline) related to project objectives

Project results/outcomes	Baseline (without AF)	Additional (with AF)	Comment/ Alternative adaptation scenario
Community-level			
Reduced vulnerability of hotspot communities to climate-related hazards and threats	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 security, and disaster risk reduction.	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
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 strengthen institutional arrangements at the city-level to respond to climate change and natural disasters through mainstreaming	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 these initiatives 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. Honiara City Council as committed to use this project to institutionalize climate resilience including making one councilor responsible for resilience and to find the means to maintain the position of the Resilience Officer. Where applicable the project will work with public utilities such as Solomon Water to ensure institutional support and sustainability.

Where relevant, lessons learned will explore the potential to implement and/or amend local by-laws and national policy/legislation. For example, current waste management by-laws in HCC are restricted to a '5m meter non-dumping provision', however city officials have noted that this is limited in scope and unable to be implemented beyond the immediate CBD area. Provisioning for clean-up and waste management incentives, as well as penalty-based by-law arrangements, can also be explored as part of the community waste management and clean-up activities.

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
The Ministry of Lands, Housing and Survey and Honiara City Council have started to pay more attention to settlements upgrading including resilience in settlements upgrading. The government has started to allocate funding to the sector, however, insignificantly considering the challenges. The adoption of the Informal Settlements Upgrading Strategy is expected remove further barriers for funding. The adoption of

the HURCAP is also expected to provide opportunities for budget allocations as well as resource mobilization. The project will provide some institutional and capacity development support which will empower the city to replicate community level resilience action. Further, land regularization will be facilitated by better service provision; this in turn will increase the tax base of Honiara City Council. In certain cases infrastructure may be jointly managed with public utilities which would further strengthen the financial sustainability.

At the community level, improved skills, livelihoods, income (or avoided losses) are expected to enhance the financial strength of households.

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. Initial technical improvements in areas such as access will also ensure sustainable advances in other sectors; for example, by allowing waste collection in isolated valley areas, substantial environmental, health and social gains can be sustained.

K. Environmental and social risks and impacts

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). Further to Section II.E, above, outlined below is a summary of the findings of the preliminary screening and assessment process that has been carried out to evaluate environmental and social impacts and risks of the entire project, a categorization of the project and a completed risks and impacts checklist, including mitigation measures. Besides that, the essence of the impact assessments, the environmental and social management plan and the risk monitoring system are described in part III section C and Annex 1 demonstrates in detail how this project will comply with the ESP, which is especially related to dealing with the unidentified sub-projects under component 1 and the not fully designed activities under component 3.

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

Institutional strengthening, capacity development and knowledge management activities under Components 2, 4, 5 and 6 and partially under Components 1 and 3 have been categorized as low risk. Despite this, steps will be taken to ensure that no environmental or social impacts can occur (see also Section II.E).

Activities under Components 1 and 3 in support of concrete adaptation options at the community and ward levels respectively are partially unidentified sub-projects, and partially not fully designed activities, and as such, some activities have the potential,

without an environmental and social safeguarding system, including mitigation measures, to create negative environmental and social impacts. As such, the activities under these components may fit into medium risk (Category B) or low risk (Category C). This is because of the scope of the proposed interventions, that are numerous, small scale and very localized, and proposed and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely.

Because of the nature of some activities under components 1 and 3 the entire project is regarded as a medium risk (Category B) project.

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

Table 12a: Risks screening of the project at design stage using the 15 principles of the AF's ESP

Checklist of environmental and social principles	Potential impacts and risks	Further assessment procedure and potential preventive and mitigation measures
Compliance with the Law	Insufficient alignment with laws and technical standards, especially related to implementation of concrete interventions under components 1 and 3 Principle that always applies	Relevant national and local authorities including Ministry of Public Works and Solomon Water as well as sector specific experts from the UN were consulted during the project design phase to ensure compliance with all relevant laws and technical standards, also for possible USPs. This will be done again after identification of final activities. It will be ensured that each person associated with the project is aware of domestic and international laws and compliance needs to technical standards requirements (see section E), especially for implementing unidentified sub-projects Activities will be screened for this risk during the project
Access and Equity	Unequal distribution among target population / communities and households of project benefits. This principle has been triggered for the planning and implementation process of activities under components 1 and 3	Consultations have and will continue to capture all needs of the target population / communities and households and unidentified sub-project interventions will be designed according to their 'access' needs. Access and equity risk 'triggers' will be included in the (additional / finalization of) vulnerability assessments (by mapping all the groups and their needs) and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects. This will avoid discrimination and favoritism. Activities will be screened for this risk during the project
Marginalised and Vulnerable Groups	Imposing any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS. This principle has been triggered for the planning and implementation process of activities under components 1 and 3	Consultations have and will continue to capture all issues and needs of marginalized and vulnerable groups and particular impacts on- and needs of marginalized and vulnerable groups will be assessed through the vulnerability assessments (by mapping all the groups and their needs), especially related to access to unidentified sub-projects. 'Related risk triggers' will also be included in the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects. USPs will be screened for this risk during the project
Human Rights	Failure to proactively protect the rights (i.e. international standards) of all stakeholders affected by the project	Consultations have and will continue to capture issues related to human rights in target areas and 'triggers' to ensure compliance to UDHR standards will be included in the vulnerability assessments (i.e. specific questions) and the planning and management and monitoring process for implementing all components.

	Principle that always applies	It will be ensured that each person associated with the project is aware of international human rights standards through inclusion of details of human rights markers in MoUs and AoCs with government and contractors and through trainings of staff. The UN-Habitat Human rights officers and PAG will check compliance.
Gender Equity and Women's Empowerment	Women and men do not have equal opportunities to participate in the project and do not benefit equally from interventions, especially related to component 3. This can be caused by male-dominated leadership and unequal involvement of women and men. This principle has been triggered for the planning and implementation process of activities under components 1 and 3 but is also considered for the planning processes under component 1	The project will actively pursue equal participation in project activities and stakeholder consultation. Numerous capacity development activities are specifically promoting gender equality and empowerment of women (and youth). The concrete adaptation actions are to also support this principle actively. Activities will be screened for this risk during the project
Core Labour Rights	Executing entities for the project may not adhere to the ILO labour Standards and national labour laws. Communities may use machinery in an unsafe way and/or not have protective equipment Principle that always applies	The project will monitor that international and national labour laws and codes are respected, for any work that may be carried out in relation to the project. This includes the eight International Labour Organization Convention (ILO) core labour standards related to fundamental principles and rights of workers, as well as ILO Convention No. 169, which concerns rights of indigenous and tribal peoples. Contracts will be reviewed periodically to ensure compliance with these laws. This will be done by ensuring transparency and accountability and by including standard clauses requiring the compliance with ILO conventions and country level standard in MoUs, AoC and contracts. Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by putting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying protective equipment. Activities will be screened for this risk during the project
Indigenous Peoples	Failure to engage indigenous people in planning and decision-making.	Consultations have and will continue to capture all issues and needs of all communities (whilst the terminology of indigenous peoples is not accurate in the context, the principle will be applied to ensure that all ethnic groups are equally / equitably engaged)

	Indigenous people not enjoying appropriate or equal access to resulting service This principle has been triggered for the planning and implementation process of activities under components 1 and 3	The project will be consistent with UNDRIP, and particularly with regard to Free, Prior, Informed Consent (FPIC) during project design, implementation and expected outcomes related to the impacts affecting the varying communities by including standard clauses requiring the compliance with above and local standard in MoUs, AoC and contracts. Activities will be screened for this risk during the project
Involuntary Resettlement	Project actions lead to unintended resettlement consequences The initial screening and vulnerability assessment found that the risk of unintended resettlement consequences is moderate. Although land and tenure issues have been analyzed in depth before selecting target areas the nature of informal settlements is that they are located in precarious locations which may require resettlement (on site) to move people out of harm's way. Due process involving the entire community and other relevant stakeholders will be applied. This principle has been triggered for the planning and implementation process of activities under components 1 and 3	Activities will not be approved where there is the possibility, however small, of forced eviction. MoUs, AoC and contracts will include standard clauses stating that target communities will not be involuntary resettled, also after the project. Involuntary resettlement 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 1. Consideration of resettlement due to high risks related to climate change will involve the entire community and all other relevant stakeholders. Activites will be screened for this risk during the project
Protection of Natural Habitats	Activities not sited or designed adequately might have negative environmental impacts on natural habitats The initial screening and vulnerability assessment found that the risk of negative environmental impacts on natural habitats is low because interventions under activities under components 1 and 3 will focus on enhancing ecosystems and developing infrastructure and services	Natural habitat 'triggers' (i.e. location, characteristic and value) will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 1 and 3 (also assessing up- and downstream impacts). The project will ensure compliance with international and national plans and laws and standards by including these in MoUs, AoC and contracts. Activities will be screened for this risk during the project

	in urban locations where no natural habitats are present However, this principle will still be screened for the planning and implementation process of activities under components 1 and 3	
Conservation of Biological Diversity	Activities lead to reduction or loss of biological diversity. The initial screening and vulnerability assessment found that the risk of reduction or loss of biological diversity is low because interventions under component 3 will focus on enhancing ecosystems and developing infrastructure and services in human settlements without major natural habitats However, this principle will still be screened for the planning and implementation process of activities under components 1 and 3	Biological diversity 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under component 3 (also assessing up- and downstream impacts and consulting experts). Activities will be screened for this risk during the project
Climate Change	Project activities cause maladaptation either in the project sites or upstream or downstream or increase greenhouse gases	Maladaptation and greenhouse gas 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects and activities under components 1 and 3. Climate Change policies and guidelines to be explained to and understood by executing entities and project personnel prior to implementation and monitored by project manager.
Pollution Prevention and Resource Efficiency	Project activities may cause pollution and may not use resources efficiently. The initial assessment found that there is a low risk of using resources for project activities in an inefficient way because sub-project will be small scale and local. However, this principle will	The project will use local materials for construction where possible Activities will be screened for this risk during the project

	still be screened for the planning and implementation process of activities under components 1 and 3	
Public Health	Project activities will lead to negative impacts on public health The initial screening and vulnerability assessment found that the risk of negative impacts on public health is low because interventions under component 1 will focus on improving health and access to basic services However, this principle will still be screened for the planning and implementation process of activities under components 1 and 3	Health 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects and activities under components 1 and 3. Activities will be screened for this risk during the project
Physical and Cultural Heritage	Project activities might affect some unidentified cultural sites which exist in the targeted areas and are impacted by project activities The initial screening and vulnerability assessment did not identify cultural heritage sites	Ensure avoidance of project site location on or near a heritage site or other locally important cultural sites Cultural heritage 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects under components 1 and 3. Activities will be screened for this risk during the project
Lands and Soil Conservation	Project activities leading to soil degradation or conversion of productive lands that provide valuable ecosystem services The initial screening and vulnerability assessment found that the risk of soil degradation or conversion of productive lands that provide valuable ecosystem services is low because interventions under component 1 will focus on reducing degradation and ecosystem enhancement However, this principle will still be screened for the planning and	Lands and soil 'triggers' will be included in the vulnerability assessment and the planning and management and monitoring process for implementing all components but especially the unidentified sub-projects and activities under components 1 and 3. Activities will be screened for this risk during the project

	implementation process of activities under components 1 and 3	

Potential USP interventions and further defined activities under component 3 and AF principles potentially triggered. Possible preventive and mitigation measures are discussed in the table below.

Table 12b. ESP principles initially triggered

Potential interventions (infrastructure / assets under components 1 and 3).	AF principles initially triggered for further screening / assessment and management during implementation components 1 and 3
Flood control through construction / improvement of on-site drainage including solid waste management to improve runoff and reduce impacts on access ways and to counter water and vector borne diseases	1. Compliance with the law 4. Human rights 6. Core labour rights 8. Involuntary resettlement 12. Pollution prevention and resource
Flood resilient sanitation to reduce effluent overspill in times of flood and reduce health impacts	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples
Access roads and Jacob's ladders, (i.e. staircases from roads into the steep valleys, which also serve as evacuation routes during flooding),	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 2. Marginalized and vulnerable groups 4. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Relocation of particularly vulnerable houses away from foreshore areas and flood prone banks of rivers/creeks (within settlements) and strengthening of structures to enhance resilience during extreme weather events	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Upgrade, replacement, and diversification of water supply sources and storage types with accompanying conservation education;	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 12. Pollution prevention and resource
Support to early warning (flood gauge and community communication systems) in support of timely evacuation.	1. Compliance with the law 4. Human rights

	6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples
Catchment management, including reforestation, land-use controls, protection of wetlands and soil conservation	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 8. Involuntary resettlement 9. Protection of Natural habitats 10. Conservation of biological diversity 11. Climate change 12. Pollution prevention and resource 15. Lands and soil conservation
Ecosystem-based adaptation options, in particular for flood management. (relating to Component 3)	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 9. Protection of Natural habitats 10. Conservation of biological diversity 11. Climate change 12. Pollution prevention and resource 15. Lands and soil conservation
Climate resilient community spaces including productive open spaces and community evacuation centres (relating to Components 1 and 3)	1. Compliance with the law 4. Human rights 6. Core labour rights 2. Access and equity 3. Marginalized and vulnerable groups 5. Gender equality 7. Indigenous peoples 9. Protection of Natural habitats 10. Conservation of biological diversity 11. Climate change 12. Pollution prevention and resource 15. Lands and soil conservation

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project management

For this AF project, UN-Habitat will be the Multilateral Implementing Entity (MIE), as requested by the Solomon Islands Government. UN-Habitat's Regional Office for Asia and the Pacific (ROAP) and UN-Habitat's Headquarters (HQ) will ensure project management compliance in accordance with UN-Habitat and AF standards and requirements. In order to fulfil its obligation for day-to-day Implementing Agency functions and related coordination with the Executing Agencies and other local stakeholders a project management unit will be set up building on established partnership arrangements with Honiara City Council and the Ministry of Lands Housing and Survey.

In close consultation with the executing agencies, the Ministry of Lands, Housing and Survey (MLHS), the Honiara City Council (HCC), Ministry of the Environment, Climate Change and Disaster Management (MECDM) and RMIT University, Melbourne, Australia the following mechanisms for project coordination and project implementation were agreed upon:

MLHS is the key national executing agency. The Ministry is responsible for land issues, including urban land and physical planning; informal settlements upgrading; housing and urbanization. Given its mandates the Ministry will chair the **Project Management Committee** will support leadership of the **Project Team** on a day-to-day basis and will support the coordination of the various project components. The Ministry has further offered to house the project office. The Ministry will further provide **Technical Advisory** support relating to land, settlements upgrading, housing and urbanization / urban development.

MECDM is the National Designated Authority and beyond its oversight role, for example expressed in its role as co-chair of the **Project Management Committee** will also support the project on a day-to-day level through support to the leadership of the **Project Team,** and **Technical Advisory** in particular as this relates to national climate change and disaster management policy and strategy and their implementation.

HCC is the local government and key custodian of the Honiara Urban Resilience and Climate Action Plan. It implements national and local policies and plans through infrastructure and other development projects. Given its mandates the City Council will be a member of the **Project Management Committee** and technical staff such as the project supported resilience officer will be part of the **Project Team**. **Technical Advisory** functions as they relate to the implementation of the HURCAP, Ward and community strategies and local infrastructure projects will also be provided.

RMIT has supported the Solomon Islands Government and UN-Habitat in local climate change Planning since 2014 and has agreed to provide a wide range of technical advisory, capacity development and training support through this project.

For local implementation the collaboration with the ward councilors (and their teams) as well as the community development committees is critical. Whilst implementation will be spearheaded by national and local government entities, wards and communities will be involved in the planning, implementation and monitoring of all activities.

Various other national government entities, in particular the Ministry of Infrastructure Development, the Ministry of Health and Medical Services, utilities, Solomon Island National University, NGOs, Regional Organizations, in particular SPC and SPREP as well as Development Partners will engage in the project (as per the organigramme).

MoUs are planned to specify the roles of the parties in the Project Management Committee and for project implementation.

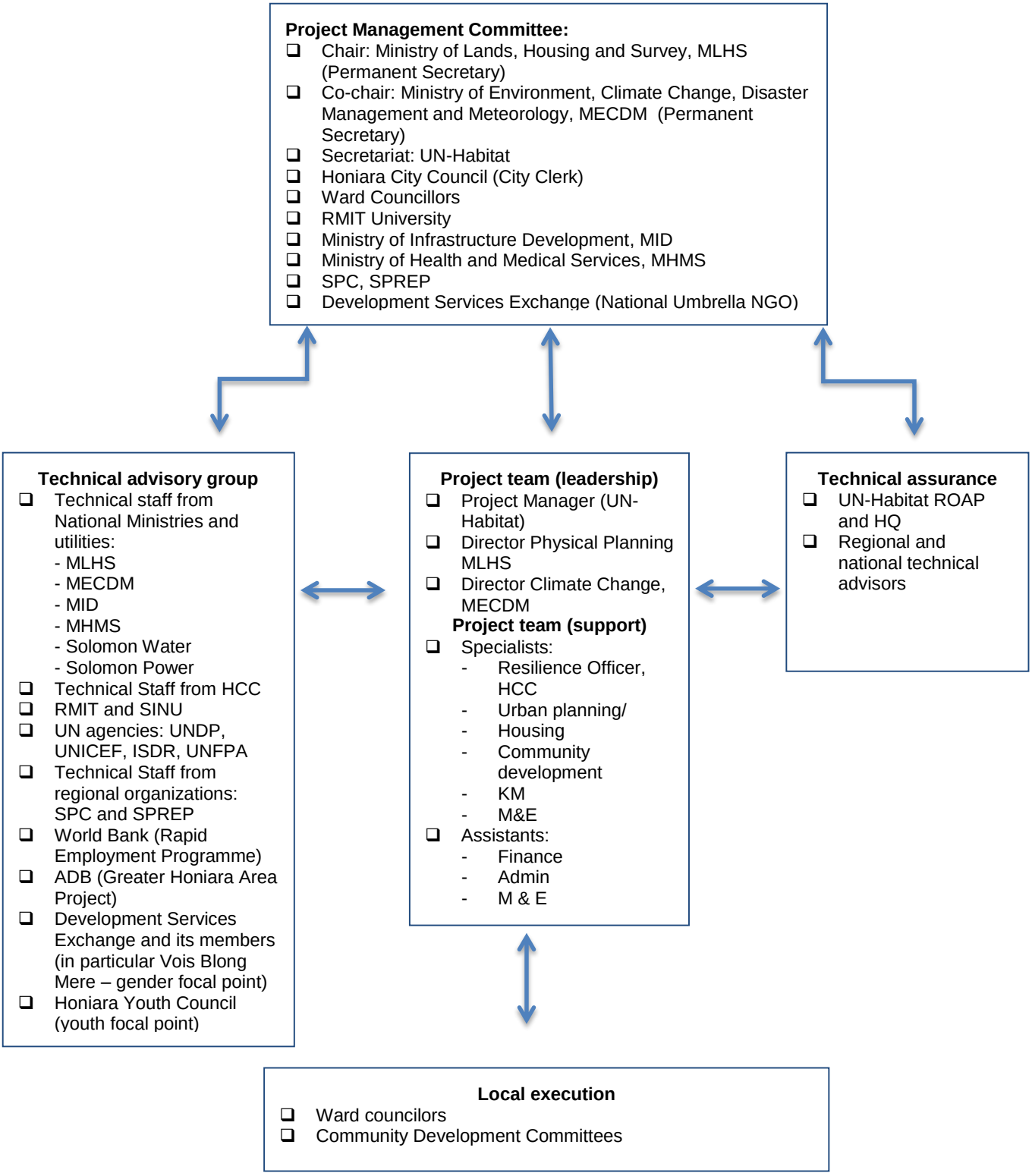
Agreements of Cooperation (AoCs)s, UN-Habitat's legal and financial mechanism to engage with executing agencies will be signed with executing agencies. To further strengthen the oversight role of the key National Executing Entity, the Ministry of Lands, Housing and Survey, the setting up of a trust funds account has been proposed to the Ministry of Finance; the trust fund would be managed by MLHS, signatories to the account would be the Permanent Secretary and the Chief Financial Officer of the Ministry. The project team leadership (UN-Habitat, MLHS, MECDM) would have to clear any financial transaction. This arrangement implies that MLHS would be the sole AoC partner and funds to other government entities would be channeled through the trust fund in line with the rules and regulations of the Solomon Islands Government, this project document and the details of the AoC.

At the national level, the Project will be supported by a **Project Management Committee** (PMC). The PMC will be formed to oversee and keep abreast of project progress and facilitate the implementation of the project, including overseeing and cooperating with the project team. The PMC will be chaired by MLHS and co-chaired by MECDM and UN-Habitat (including secretariat). The PMC will include Permanent Secretaries, the Honiara City Clerk and the respective executing officers (or their designated alternates). The Committee will approve annual work plans and review project periodical reports as well as any deviations from the approved plans.

The Project Team (PT), which will have the responsibility of day-to-day management of project activities and related coordination with the Executing Agencies and other local stakeholders, will also take the lead in monitoring and evaluation and learning. The team will will consist of the members listed in the organigram below.

To assist the Project Team on technical questions, a **Technical Advisory Group** (TAG) will be formed to provide guidance and advice on technical questions related to climate change/resilience, water management, spatial/urban planning, sanitation, health/hygiene, and vulnerable and marginalized people. The main objective of the TAG is to identify technical strengths and weaknesses of the project, take stock of available and required technical know-how under different project components, and provide technical backstopping and quality control throughout the project period.

Organigramme of the project



B. Measures for financial and project risk management

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

Table 13: Financial and project management risks, significance of risks and measures to manage/mitigate risks.

	Category and risk	Rating: Impact/ probability 1: Low 5: High	Management/mitigation Measure
1.	Environmental/social: Current climate and seasonal variability and/or hazard events result in infrastructure construction delays or undermine confidence in adaptation measures by local communities	Impact: 3 Prob: 2	❑ Current climatic variability will be taken into account in the planning and execution of project activities and especially into project Component 3 (the construction of resilient infrastructure): infrastructure will mainly be constructed in the dry season. ❑ Criteria for the selection of infrastructure projects at the community level will provide incentives for communities to cooperate towards long-term resilience because they are based on the outcomes of the climate change vulnerability and disaster risk assessments which look especially at long-term trends and impacts.
2.	Institutional: Loss of government support (at all levels) for the project (activities and outputs) may result in lack of prioritization of AF project activities.	Impact: 4 Prob: 1	❑ Establishment of a project management committee and the overall participatory and inclusive project design will improve national, ward and community level ownership throughout and thus enhance government support for project implementation. ❑ UN-Habitat will establish agreements (MoUs and AoCs) to ensure implementing entities will deliver project activities and outputs. UN-Habitat will facilitate planning processes to deliver these outputs at the all levels of government and in communities. ❑ Through the establishment of the Project Team and the Technical Assurance mechanism, a broad range of government (and non-state actors) will be strongly engaged in the project that will strengthen government buy-in. ❑ At the Ward level (councilors) and the community level (community development committees) the prioritization of resilience and development needs will be ensured. Such prioritization should further counter any government disenfranchising for example in case of political change.
3.	Institutional: Capacity constraints of local institutions may limit the effective implementation of interventions	Impact: 2 Prob: 1	❑ The project has a strong capacity building and training component, designed to promote effectiveness and sustainability at the community and the district, province and national government levels. ❑ The project is deliberately designed to work on the national level (institutionally) at the city, ward and community level, as the lack of institutional capacity has been identified as a key challenge for effective resilience building. Without institutional capacity development at the higher level, local resilience planning is not possible.
4.	Institutional/social Lack of	Impact: 2 Prob: 1	❑ Community stakeholder engagement during the Honiara Climate Change Vulnerability Assessment and the HURCAP

	commitment/buy-in from local communities may result in delay at intervention sites.		development have contributed to the project idea. In addition, consultations during the development of this project with communities, NGOs and support organizations were held to ensure that needs are understood and that full buy-in to the AF project is ensured. ❑ Community representatives will be able to flag any issues through the Project Management Committee as well as the established grievance mechanisms (safeguards) for early detection and institutional mitigation of any issues that may result in reduced community engagement. ❑ A bottom-up approach to detailed planning (including further vulnerability assessments and action planning and prioritizations) and implementation (including through community infrastructure implementation directly by the communities) and community-level monitoring will be followed.
5.	Institutional/social: Disagreement amongst stakeholders with regards to adaptation measures (infrastructure) and site selection.	Impact: 2 Prob: 2	❑ Adaptation measures and intervention sites will be selected using an agreed upon process and list of criteria to ensure the selection is transparent and equitable. ❑ There will be a participatory approach to the AF project, particularly with regards to climate change vulnerability and disaster risk assessments and related to this, the planning and selection of adaptation measures and site selection.
6.	Institutional: Communities may not adopt activities during or after the AF project, including infrastructure maintenance	Impact: 2 Prob: 2	❑ The interventions will be institutionalized within the ministries, Honiara City Council and communities to ensure sustainable delivery of (post-) project implementation, including formal agreements for infrastructure maintenance through communities, HCC and MID as well as service/infrastructure user fees where applicable (e.g. provision of water). ❑ Capacity building and training of communities will be undertaken to improve their awareness and understanding of the benefits of the activities, including infrastructure maintenance. ❑ Communities will be involved in project implementation/decision making throughout the project.
7.	Financial: Complexity of financial management and procurement. Certain administrative processes could delay the project execution or could lack integrity	Impact: 2 Prob: 2	❑ Financial management arrangements have been defined during project preparation. ❑ UN-Habitat's control framework, under the financial rules and regulations of the UN secretariat, will ensure documentation of clearly defined roles and responsibilities for management, internal auditors, the governing body, other personnel and demonstrates prove of payment / disbursement. ❑ A trust fund account (at MLHS) will ensure that the bulk of the funds will be channeled through a mechanism that ensures transparency and immediate accountability vis-a-vis the MIE and the designated authority as well as the implementing entities and beneficiaries. The mechanism should also avoid delays. ❑ Procurement will be done by the executing entities as agreed through AoCs. The project manager and the project team have a certifying role (for key procurements / expenditures).
8.	Institutional:	Impact: 1	❑ The ownership by the Government has been high during the

	Delays in project implementation, and particularly in the development of infrastructure interventions	Prob: 2	preparation phase which will reduce this risk. ❑ A pilot community project (based on existing plans, as per the HURCAP) will be implemented in the first year to ensure that any unforeseen bottlenecks can be resolved prior to the roll out. ❑ Partnerships with key government agencies and infrastructure and community resilience project planning will start early on – in tandem with the community action planning. Institutional arrangements will be put in place well before the finalization of community action plans. ❑ Lessons learnt from the Rapid Employment Project are incorporated in the project design.
9.	Institutional: A lack of coordination between and within national government Ministries and Departments.	Impact: 1, Prob:2	❑ The Project Management Committee under the leadership of MLHS is to ensure coordination. Should UN-Habitat observe coordination problems, the agency will try to resolve issues directly with concerned parties and or the PMC.

C. Measures for the management of environmental and social risks

As described in Sections II.E and II.K systematic screening and assessment has been done based in broad consultation with national and local government stakeholders, a wide range of other concerned stakeholders as well as the target communities. The project design has benefitted from this process.

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

The Environmental and Social Management Plan (ESMP), developed for this project, and detailed in Annex 1, identifies measures and actions that reduce potentially adverse environmental and social impacts to acceptable levels. The plan includes compensatory measures, if applicable. Specifically, the ESMP:

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

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

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

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

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

A detailed environmental and social assessment will be conducted as part of the comprehensive climate change vulnerability and disaster risk assessments in the target cities and informal settlements (These assessments will themselves be approved for their compliance the the 15 ESP Principles). The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of vulnerable and marginalized groups, women, youth, elderly, etc., in all target settlements/communities, as could be done in the proposal development phase.

Based on this information (i.e. community and climate change adaptation criteria) and the assessment of environmental and social risks per USP communities will select the most appropriate sub-projects. Additionally the following elements to ensure the compliance with the ESP are put in place:

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

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

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

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

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

(vi) A grievance mechanism is also part of the plan. This will allow any affected stakeholder to raise concerns, anonymously if they wish, to the community leaders the local steering committee, the project team or the PMC. Modalities for raising grievances will include a postal address to

which community members can write in any language and an email address on the project's website and a confidential telephone number. In addition to the grievance mechanism, local staff will be trained to have an 'open-door' policy with communities, so that communities can discuss any aspect of the project at any time. This less formal mechanism will also enable project staff to listen to communities' concerns or ideas and promote them in the implementation of the project. More formal consultations and workshops, held at local and national levels throughout the project implementation will also serve as a means for stakeholders to raise concerns or suggests with the project's implementation.

Annex 1 provides details on this process and the tools that will ensure participation, assign responsibilities for risk screening and assessment, mitigation measures and monitoring and grievance mechanisms.

D. Arrangements for monitoring, reporting and evaluation

The AF project will comply with formal guidelines, protocols and toolkits issued by the AF, UN-Habitat and Solomon Islands Government. The Monitoring and Evaluation (M & E) of progress in achieving project results will be based on targets and indicators established in the Project Results Framework (see below). Besides that, the status of identified environmental and social risks and the ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks, will be monitored throughout the project (annual project performance, mid-term and terminal reports). The same applies to financial and project management risks and mitigation measures.

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

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

The community-level action planning and the concrete adaptation projects provides the opportunity to collect household and sub-household level data, including gender, age and ability related disaggregation. Whilst this activity supports targeted programming, it further leads to the development of a detailed database which is well suited for baselining as well as monitoring and evaluation.

Participatory monitoring mechanisms (involving different levels of government and communities) will build on the above mentioned information and data (and database). These systems will be put in place for transparent decision making and the updating (collection and recording) of data in support M & E and reporting. This will allow beneficiary communities to directly input to the project's M & E and to highlight issues in project delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains. Data collected will include marginalized groups (e.g. women, youth, the poorest) dis-aggregated (if possible). Project site visits will be jointly conducted based on an agreed schedule to assess project progress first hand.

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

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

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

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

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

E. Project proposal results framework

Table 14: Project results framework with indicators, their baseline, targets, risks & assumptions and verification means.

Expected Result	Indicators	Baseline data	Targets	Risks & assumptions	Data collection method	Frequency	Responsibility
Project objective: 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.							
Project component 1: **Community level actions**.							
Expected Accomplishment 1 Reduced vulnerability of hotspot communities to climate-related hazards and threats	Number of hotspot communities whose physical infrastructure has been improved to enhance climate resilience with particular emphasis on the poorest, women, youth, elderly and other vulnerable households.	0	5	Timely development of participatory community action plans National and local government capacity in place to support communities Timely and high quality implementation by communities and executing agencies.	Community-level monitoring	Baseline, mid-term and end	UN-Habitat
Output 1.1: In addition to existing community action plans developed as part of the HURCAP process, complete community climate action plans for White River (Wind Valley) and Tuvaruhu (Jabros) informal settlements	Community action plans as foundation for concrete adaptation action available. Roles and responsibilities of women are identified in the plans	3 0	5 5	Timely and strong engagement of communities and executing agencies	Review of produced documents	Yearly until completion	UN-Habitat
Output 1.2: In-depth community profiling for the hotspot case studies	Detailed base-line data (including for monitoring of environmental and social risks) available for selected hotspot communities (ensuring gender and age disaggregation of data and detailed	0	5	Well suited technology available Well trained enumerators available. Data analysis and presentation in a GIS data base	Development of data base	ongoing	UN-Habitat

	assessment of household level vulnerability)						
Output 1.3: Scoping and feasibility studies of prioritized local actions for each hotspot community	Action plans and detailed proposals for prioritized community level concrete climate action are available.	0	5	Good facilitation of community consultations Participatory technical design of individual projects	Review of produced documents	Yearly until completion	UN-Habitat
Output 1.4: Implementation of screened / agreed resilience actions in each hotspot community (hard)	Concrete climate actions implemented.	0	Number to be defined but all target communities will be beneficiaries	Detailed baseline information available and tools to assess level of improvement of resilience required	Count of improved or newly constructed infrastructure	Baseline, mid-term and end	UN-Habitat
Activities 1.1.1 Identification of key issues and prioritization of actions for two additional hotspot case studies (Nggosi and Panatina wards) 1.2.1 In-depth profiling of all hotspot communities 1.3.1 Carry out scoping and feasibility study. Assess the cost, feasibility and partnerships that will be needed to implement the actions suggested by the community 1.4.1 Implement screened/agreed pilot-studies in each hotspot community 1.4.2 Provide technical support where necessary				Milestones Community Action Plans Community Adaptation Action - end of year one – one demonstration project) - end of year two – 10 percent of community adaptation projects - end of year three – 40 percent community adaptation projects - end of year four – 100 percent of communication adaptation projects			
Project Component 2: Community level capacity strengthening							
Expected Accomplishment 2 Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level	A majority of community members (including women and youth) are empowered to directly contribute to local resilience building.	0% (to be confirmed in assessment)	60%	Initial assessment survey needs to identify level of awareness. End of project survey needs to be conducted.	Database (to include information on awareness on resilience)	Baseline, mid-term and end	UN-Habitat
Output 2.1: Training on conducting community profile self-assessment and monitoring (also for compliance with ESMP)	No of trainings that are positively evaluated and % of women trained	0	5 At least 50% women	Capacity needs need to be confirmed with regard to self-assessment and monitoring	Training impact evaluation	End of each training	Executing entities
Output 2.2: Awareness and capacity development support, including workshops relating	No of workshops	0	5	Capacity needs with regard to resilience need to be understood	Training impact evaluation	End of each training	Executing entities

to key issues (CCA/Community Early Warning/DRR/Health)				Training tool developed			
Activities 2.1.1: Training on surveys, data recording, and data management. 2.2.1: Awareness and capacity building activity relating to key community issues.				Milestones Baseline on awareness and capacity needs Workshop series conducted Awareness building initiatives implemented			
Project component 3: **Ward level actions**							
Expected Accomplishment 3 Increased ward-level climate, disaster and ecosystem resilience in response to climate change and variability-induced stress.	Ward-level and community (with particular emphasis on women and youth) capacity strengthened in support of ecosystems-based adaptation and public space.	0	2	Ward councilors are actively engaging vis-à-vis climate resilience	Ecosystem and public space review	Baseline, and annually	UN-Habitat
Output 3.1: To develop a women-focused climate risk communications programme.	No of women-focused communication programmes	0	1	Honiara City Council, national government and Local NGOs collaborate	Review of communications programme	Baseline, annual	Executing agencies UN-Habitat
Output 3.2: To integrate climate change into educational programs for youth and children.	No of children and youth educational programmes	0	2	Honiara City Council, national government and education institution collaborate	Review of communications programme	Baseline, annual	Executing agencies, UN-Habitat
Output 3.3: Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented.	No of ecosystem-based adaptation initiatives (participation of women)	0	2 At least 50% women	Ward councilors, HCC and communities prioritize EbA action	Review of EbA action;	Baseline, annual	Executing agencies, UN-Habitat
Output 3.4: Climate resilient community spaces developed, including productive open spaces and community evacuation centres.	No of community / public spaces developed	0	2	Ward councilors, HCC and communities prioritize community / public space resilience action	Review of community public space resilience action	Baseline, annual	Executing agencies, UN-Habitat
Activities 3.1.1: Development of theatre performances, radio broadcasts, and community				Milestones Women focused communication programme outlined – end of year 1, theater			

newsletters. 3.1.2: Work with women's groups in Honiara to determine the most effective means of communication about climate risk strategies, and which actions are likely to be most successful given the local context. 3.2.1 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. 3.2.2 Translate/apply the Climate Change Child-Centred Adaptation approach to schools and youth programmes in Honiara. 3.3.1 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). 3.4.1 Engage with Honiara City Council to identify and promote climate resilient public space e.g. using floodplains as sports areas, planting trees to increase shading in community spaces to combat heat stress, and the rehabilitation of community centres for use as safe places for evacuation.				performances and publications documented – end of year 3, review published – end of year 3 Children and youth programmes conceptualized – end of year 2 and running – end of year 3 EbA programme developed (end of year 3) Public / community space initiatives developed (end of year 3)			
Project component 4: **Ward level capacity strengthening**…							
Expected Accomplishment 4 Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	No of ward development plans that fully mainstream climate change	0	2	Ward councillors and communities support ward development planning	Review of ward development councils	Baseline, end of project	UN-Habitat
Output 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).	No of training events and % of women trained	0	2 At least 50% women	National government, HCC engaging in training	Review of reports	Baseline End of training	UN-Habitat
Output 4.2: Pilot best practice participatory approach to city government, NGO, and community collaboration in climate planning and enhance the understanding of adaptation pathways.	No of ward level structure established	0	2	Ward level capacity adequately raised	Review of Ward level structures	End of year 1, end of year 2	UN-Habitat

Output 4.3: Assess locally appropriate land administration options for peri-urban peri-urban settlements, and households, around Ngossi and Panatina wards.	No of ward level land administration options developed	0	2	National government, HCC and ward councillors engage in review	Review of land administration options	End of year 1, end of year 2	UN-Habitat
Activities 4.1.1 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. 4.2.1 Pilot best practice participatory approach in climate planning and enhance the understanding of adaptation pathways. 4.3.1 Assess appropriate land administration system options that seek to account for both Western and Customary laws when dealing with urban growth, secure and safeguard legitimate tenure rights, and inform decisions on resettlement.				Milestones Training for resilience officers / officials conducted (end of year 1), end of year 3 Ward level structure established, end of year 3 Land review conducted, end of year 3			
Project component 5: **City-wide governance and capacity strengthening**							
Expected Accomplishment 5 Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Capacities of Honiara City Council (and the national government institutions supporting HCC) strengthened as expressed in the HCC corporate plan	0	1	HCC and Ward Councillors take comprehensive approach to climate resilience and integrate it into local development policy	Review of corporate plan	End of project	UN-Habitat
Output 5.1: Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC.	No of capacity needs assessments	0	1	Commitment of HCC and focal ministries	Document review	Upon completion of report	UN-Habitat
Output 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.	No. of capacity development workshops	1	3	HCC, MLHS, MECDM agree on joint curriculum	Review of workshops	Upon completion of trainings	UN-Habitat
Output 5.3: Employ a climate adaptation and resilience	Resilience officer employed	0	1	HCC changes institutional structure	Contract review	Upon on-boarding	UN-Habitat

officer, and constitute a multi-stakeholder steering group and provide support for regular meetings.	No of stakeholder meetings	0	8		Meeting minutes	ongoing	
Output 5.4: Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation.	Set up resilience working group with HCC and Guadalcanal Province	0	1	Political willingness can be continued	Meeting minutes	Ongoing	UN-Habitat
Output 5.5: 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).	No of policy reviews	0	1	Executing agency can identify knowledgeable consultant	Review of document	After completion	UN-Habitat
Activities 5.1.1 Capacity development needs assessment in Honiara (planning, GIS risk mapping, land administration, engineering, data management, climate change adaptation, media and communications). 5.2.1 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. 5.2.2 Development of tailored capacity building workshops for professional staff to build knowledge and required skill sets (HCC and focal Ministries) at RMIT University. 5.2.3 Two-week course of workshops designed to cater for planning, land administration, and GIS risk mapping for HCC and SI Ministry staff. 5.3.1 Employ a Climate Adaptation and Resilience Officer (CARO) for Honiara City Council, and constitute a multi-stakeholder steering group for implementation of the project. 5.4.1 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. 5.5.1 Map and assess linkages between relevant stakeholders and initiatives for improved governance and institutional response to climate change impacts and natural disasters. 5.5.2 Conduct a whole-of-government policy review to identify areas for mainstreaming				Milestones City-level capacity needs assessments Capacity development workshops for planners (year 1, year 3) MoU with SINI (end of year 1) Resilience officer employed (year 1) HCC stakeholder meetings (year 1, year 2, year 3, year 4) Resilience working group with HCC and Guadalcanal Province meetings (year 1, year 2) Policy review (for mainstreaming) year 2			

of climate change considerations across urban policy (including a review of land use plans and the introduction of possible building codes).							
Project component 6: **Knowledge Management and Advocacy**							
Expected Accomplishment 6 Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication	All stakeholders are well aware of programme as documented through pre and post project survey	0	100	Political stability	Pre and end of project survey	Baseline, and end	UN-Habitat
Output 6.1: Climate change training and knowledge exchange.	Knowledge exchange mechanism is established	0	1	Engagement of stakeholders	Review of report	Regular	UN-Habitat
Output 6.2: Advocacy materials.	No of newsletters and web updates	0	4	Good communications consultant recruited by executing agency	Review of advocacy material	Annually	UN-Habitat
Output 6.3: Knowledge sharing platform	No of website updates	0	16	Good communications consultant recruited by executing agency	Review of web content	quarterly	UN-Habitat
Output 6.4: Project learning mechanism	No of lessons learnt documentation	0	1	Good communications consultant recruited by executing agency	Review of document	Regular	UN-Habitat
Activities 6.1.1 Develop climate change adaptation training and knowledge exchange programmes between HCC staff and ward councillors. 6.2.1 Advocacy materials 6.3.1 Develop and maintain a knowledge sharing mechanism at the city-wide scale, in close collaboration with HCC and the two key ministries. 6.4.1 Conduct and record a participatory joint learning event based on annual review of activities and make available project findings and recommendations.				Milestones Knowledge Programme Developed (end of year 1) Advocacy Material (end of years 1, 2, 3. 4) Website updates (end of years 1, 2, 3. 4) Lessons learnt report end of year 4			

Table 15: Activities and milestones (x)

Activity	Year 1				Year 2				Year 3				Year 4			
1.1.1 Identification of key issues and prioritisation of actions for two additional hotspot case studies (Nggosi and Panatina wards)																
1.2.1 In-depth profiling of all hotspot communities																
1.3.1 Carry out scoping and feasibility study. Assess the cost, feasibility and partnerships that will be needed to implement the actions suggested by the community				X				X								
1.4.1 Implement screened/agreed pilot-studies in each hotspot community				X				X				X				X
1.4.2 Provide technical support where necessary																
2.1.1: Training on surveys, data recording, and data management.				X				X				X				
2.2.1: Awareness and capacity building activity relating to key community issues.				X				X				X				
3.1.1: Development of theatre performances, radio broadcasts, and community newsletters.								X				X				
3.1.2: Work with women's groups in Honiara to determine the most effective means of communication about climate risk strategies, and which actions are likely to be most successful given the local context.				X												
3.2.1 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.								X								
3.3.2 Translate/apply the Climate Change Child-Centred Adaptation approach to schools and youth programmes in Honiara.				X								X				
3.3.1 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).												X				
3.4.1 Engage with Honiara City Council to identify and promote climate resilient public space e.g. using floodplains as sports areas, planting trees to increase shading in community spaces to combat heat stress, and the rehabilitation of community centres for use as safe places for evacuation.												X				
4.1.1 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.				X								X				
4.2.1 Pilot best practice participatory approach in climate planning and enhance the understanding of adaptation pathways.												X				
4.3.1 Assess appropriate land administration system options that seek to												X				

account for both Western and Customary laws when dealing with urban growth, secure and safeguard legitimate tenure rights, and inform decisions on resettlement.																
5.1.1 Capacity development needs assessment in Honiara (planning, GIS risk mapping, land administration, engineering, data management, climate change adaptation, media and communications).				X												
5.2.1 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.				X												
5.2.2 Development of tailored capacity building workshops for professional staff to build knowledge and required skill sets (HCC and focal Ministries) at RMIT University.				X												
5.2.3 Two-week course of workshops designed to cater for planning, land administration, and GIS risk mapping for HCC and SI Ministry staff.								X								
5.3.1 Employ a Climate Adaptation and Resilience Officer (CARO) for Honiara City Council, and constitute a multi-stakeholder steering group for implementation of the project.			x													
5.4.1 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.				X				x								
5.5.1 Map and assess linkages between relevant stakeholders and initiatives for improved governance and institutional response to climate change impacts and natural disasters.				X												
5.5.2 Conduct a whole-of-government 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).								X								
6.1.1 Develop climate change adaptation training and knowledge exchange programmes between HCC staff and ward councillors.				X												
6.2.1 Advocacy materials				X				x				x				x
6.3.1 Develop and maintain a knowledge sharing mechanism at the city-wide scale, in close collaboration with HCC and the two key ministries.				X				x				x				x
6.4.1 Conduct and record a participatory joint learning event based on annual review of activities and make available project findings and recommendations.																X

F. Project alignment with the Adaptation Fund results framework

Table 16: Project alignment with the Adaptation Fund results framework

Project Expected Accomplishment	Project Outcome Indicator	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
EA4 and **EA5**: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	No of ward development plans that fully mainstream climate change; Capacities of Honiara City Council (and the national government institutions supporting HCC) strengthened as expressed in the HCC corporate plan	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. No. and type of targeted institutions with increased capacity to minimize exposure to climate variability risks	**587.000**
EA1: Reduced vulnerability of hotspot communities to climate-related hazards and threats **EA2**: Strengthened awareness and ownership of adaptation and climate risk reduction processes and capacity to implement at local level **EA3**: Increased ward-level climate, disaster and ecosystem resilience in response to climate change and variability-induced stress.	A majority of community members (including women and youth) are empowered to directly contribute to local resilience building; Ward-level and community (with particular emphasis on women and youth) capacity strengthened in support of ecosystems-based adaptation and public space.	**Outcome 3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	**330.000**
EA1: Reduced vulnerability of hotspot communities to climate-related hazards and threats **EA3**: Increased ward-level climate, disaster and ecosystem resilience in	Number of hotspot communities whose physical infrastructure has been improved to enhance climate resilience with particular emphasis on the poorest, women, youth, elderly and other	**Outcome 4:** Increased adaptive capacity within relevant development and natural resource sectors	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	**2.000.000**

response to climate change and variability-induced stress.	vulnerable households; Ward-level and community (with particular emphasis on women and youth) capacity strengthened in support of ecosystems-based adaptation and public space.			
EA3: Increased ward-level climate, disaster and ecosystem resilience in response to climate change and variability-induced stress.	Ward-level and community (with particular emphasis on women and youth) capacity strengthened in support of ecosystems-based adaptation and public space.	**Outcome 5**: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	**450.000**
Project Output	**Project Output Indicator**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Output 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) **(and outputs 4.2-3 and 5.1-5)**	No of training events;	***Output 2.1***: Strengthened capacity of national and regional centres and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events	**587.000**
Output 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 **(and outputs 1.2-3, 2.1-2. and 3.1-2)**	Community action plans as foundation for concrete adaptation action available	**Output 3**: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. and type of risk reduction actions or strategies introduced at local level	**480.000**

Output 1.4. Implementation of screened / agreed resilience actions in each hotspot community **(and output 3.4.)**	Concrete climate actions implemented.	**Output 4:** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type 4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)	**2.000.000**
Output 3.3. Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented	No of ecosystem-based adaptation	**Output 5:** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)	**450.000**

Table 17: Indicative Core Indicator Targets

Adaptation Fund Core Indicators	Indicative Targets	Comments
1 Number of Beneficiaries	6,000	This only measures beneficiaries of the direct adaptation actions (Component 1 and 3)
2. Early Warning Systems		Whilst this is not foreseen at this stage, the vulnerability assessments and action planning may result in some villages prioritizing EWS
3. Assets Produced, Developed, Improved, or Strengthened	25	At this stage it is conservatively estimated that five infrastructure / infrastructure system will be produced per hot-spot community.
4. Increased income, or avoided decrease in income	750	Number of households that either directly benefit from the assets (employment during

		construction) or indirectly (e.g. water for irrigation, sick days avoided)
5. Natural Assets Protected or Rehabilitated	2	Two wards will benefit from eco-system improvements

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

G. Detailed budget

Table 18: budget overview

Programme component	Outputs	Activity	Total budget	Year 1	Year 2	Year 3	Year 4	NOTES
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	1.1.1 Identification of key issues and prioritisation of actions for two additional hotspot case studies (Nggosi and Panatina wards)	$40,000	$40,000	$0	$0	$0	A
	Output total		**$40,000**	**$40,000**	**$0**	**$0**	**$0**	
	1.2. In-depth community profiling for the hotspot communities	1.2.1 In-depth profiling of all hotspot communities - establish local survey teams - train local survey teams - conduct household and community-level surveys to establish baselines	$40,000	$40,000	$10,000	$0	$0	B
	Output total		**$50,000**	**$40,000**	**$10,000**	**$0**	**$0**	
	1.3. Scoping and feasibility studies of prioritized local actions for each hotspot community	1.3.1 Carry out scoping and feasibility study. Assess the cost, feasibility and partnerships that will be needed to implement the actions suggested by the community.	$50,000	$20,000	$30,000	$0	$0	C
	Output total		**$50,000**	**$20,000**	**$30,000**	**$0**	**$0**	
	1.4. Implementation of screened / agreed resilience actions in each hotspot communitY.	1.4.1 Implement screened/agreed pilot-studies in each hotspot community.	$1,470,000		$290,000	$690,000	$490,000	D
		1.4.2 Provide technical support where necessary.	$80,000		$30,000	$30,000	$20,000	D
	Output total		**$1,550,000**	**$0**	**$320,000**	**$720,000**	**$510,000**	
Community-level capacity strengthening	2.1. Training on conducting community profile self-assessment and monitoring	2.1.1 Training on surveys, data recording, and data management.	$60,000	$20,000	$10,000	$10,000	$20,000	E
	Output total		**$60,000**	**$20,000**	**$10,000**	**$10,000**	**$20,000**	
	2.2 Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)	2.2.1 Awareness and capacity building activity relating to key community issues.	$120,000	$20,000	$30,000	$40,000	$30,000	F
	Output total		**$120,000**	**$20,000**	**$30,000**	**$40,000**	**$30,000**	
Ward-level actions	3.1. To develop a women-focused climate risk communications programme	3.1.1 Development of theatre performances, radio broadcasts, and community newsletters	$65,000		$30,000	$35,000	$0	G
		3.1.2 Work with women's groups in Honiara to determine the most effective means of communicating about climate risk strategies, and which actions are likely to be most successful given the local context.	$15,000	$15,000	$0	$0	$0	G
	Output total		**$80,000**	**$15,000**	**$30,000**	**$35,000**	**$0**	
	3.2. To integrate climate change into educational programs for youth and children	3.2.1 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.	$40,000	$10,000	$30,000	$0	$0	H
		3.3.2 Translate/apply the Climate Change Child-Centred Adaptation approach to schools and youth programmes in Honiara/	$40,000	$10,000	$30,000	$0	$0	H
	Output total		**$80,000**	**$20,000**	**$60,000**	**$0**	**$0**	
	3.3 Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented	3.3.1 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).	$450,000	$50,000	$150,000	$250,000	$0	I
	Output total		**$450,000**	**$50,000**	**$150,000**	**$250,000**	**$0**	
	3.4. Climate resilient community spaces developed, including productive open spaces and community evacuation centres	3.4.1 Engage with Honiara City Council to identify and promote climate resilient public space e.g. using floodplains as sports areas, planting trees to increase shading in community spaces to combat heat stress, and the rehabilitation of community centres for use as safe places for evacuation.	$450,000	$50,000	$150,000	$250,000	$0	J
	Output total		**$450,000**	**$50,000**	**$150,000**	**$250,000**	**$0**	
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)	4.1.1 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.	$100,000	$20,000	$40,000	$40,000	$0	K
	Output total		**$100,000**	**$20,000**	**$40,000**	**$40,000**	**$0**	
	4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate planning and enhance the understanding of adaptation pathways	4.2.1 Pilot best practice participatory approach in climate planning and enhance the understanding of adaptation pathways	$80,000		$40,000	$40,000	$0	L
	Output total		**$80,000**	**$0**	**$40,000**	**$40,000**	**$0**	
	4.3. Assess locally appropriate land administration options for peri-urban peri-urban settlements, and households, around Ngossi and Panatina wards	4.3.1 Assess appropriate land administration system options that seek to account for both Western and Customary laws when dealing with urban growth, secure and safeguard legitimate tenure rights, and inform decisions on resettlement.	$100,000	$25,000	$65,000	$10,000	$0	M
	Output total		**$100,000**	**$25,000**	**$65,000**	**$10,000**	**$0**	
City-wide governance and capacity strengthening	5.1. Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC	5.1.1 Capacity development needs assessment in Honiara (planning, GIS risk mapping, land administration, engineering, data management, climate change adaptation, media and communications).	$30,000	$30,000	$0	$0	$0	N
	Output total		**$30,000**	**$30,000**	**$0**	**$0**	**$0**	
	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.	5.2.1 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	$10,000	$10,000	$0	$0	$0	O
		5.2.2 Development of tailored capacity building workshops for professional staff to build knowledge and required skill sets (HCC and focal Ministries) at RMIT University.	$30,000	$30,000	$0	$0	$0	O
		5.2.3 Two-week course of workshops designed to cater for planning, land administration, and GIS risk mapping for HCC and SI Ministry staff.	$30,000		$30,000	$0	$0	O
	Output total		**$70,000**	**$40,000**	**$30,000**	**$0**	**$0**	
	5.3. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings	5.3.1 Employ a Climate Adaptation and Resilience Officer (CARO) for Honiara City Council, and constitute a multi-stakeholder steering group for implementation of the project.	$147,000	$27,000	$40,000	$40,000	$40,000	P
	Output total		**$147,000**	**$27,000**	**$40,000**	**$40,000**	**$40,000**	
	5.4. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation	5.4.1 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.	$30,000	$10,000	$10,000	$5,000	$5,000	Q
	Output total		**$30,000**	**$10,000**	**$10,000**	**$5,000**	**$5,000**	
	5.5. 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)	5.5.1 Map and assess linkages between relevant stakeholders and initiatives for improved governance and institutional response to climate change impacts and natural disasters	$15,000	$15,000	$0	$0	$0	R
		5.5.2 Conduct a whole-of-government 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).	$15,000	$15,000	$0	$0	$0	R
	Output total		**$30,000**	**$30,000**	**$0**	**$0**	**$0**	
Knowledge management and advocacy	6.1 Climate change training and knowledge exchange	6.1.1 Develop climate change adaptation training and knowledge exchange programmes between HCC staff and ward councilors.	$20,000	$20,000	$0	$0	$0	S
	Output total		**$20,000**	**$20,000**	**$0**	**$0**	**$0**	
	6.2. Advocacy materials		$70,000	$20,000	$25,000	$20,000	$5,000	T
	Output total		**$70,000**	**$20,000**	**$25,000**	**$20,000**	**$5,000**	
	6.3. Knowledge sharing platform	6.3.1 Develop and maintain a knowledge sharing mechanism at the city-wide scale, in close collaboration with HCC and the two key ministries.	$40,000	$10,000	$10,000	$10,000	$10,000	U
	Output total		**$40,000**	**$10,000**	**$10,000**	**$10,000**	**$10,000**	
	6.4. Project learning mechanism	6.4.1 Conduct and record a participatory joint learning event based on annual review of activites and make available project findings and recommendations.	$20,000	$5,000	$5,000	$5,000	$5,000	V
	Output total		**$20,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	
Project Activities Total			**$3,667,000**	**$512,000**	**$1,055,000**	**$1,475,000**	**$625,000**	
Programme Execution Costs		Project team leader (part time)	$215,000	$51,500	$54,500	$54,500	$54,500	W
		ROAP Technical Support (Regional Climate Change Officer)	$75,500	$15,000	$20,250	$20,250	$20,000	W
		Office support staff	$37,000	$3,000	$3,000	$3,000	$3,000	W
		Office facilities	$25,000	$10,000	$5,000	$5,000	$5,000	W
		Travel related to execution	$27,000	$9,000	$6,000	$6,000	$6,000	W
		Evaluation	$30,000				$30,000	W
Programme execution total			**$384,500**	**$88,500**	**$88,750**	**$88,750**	**$118,500**	
Total Programme Cost			**$4,051,500**	**$600,500**	**$1,143,750**	**$1,563,750**	**$743,500**	
Programme Cycle Management Fee		PSC 7 percent on total operational budget including components below) approx 7.1 percent	$287,581	$42,624	$81,185	$110,997	$52,775	X
		Evaluation Support costs (HQ)	$10,000	$1,500	$2,800	$3,900	$1,800	X
		Project Support Cost (ROAP) - Project Management Committee Meetings - IE staff salaries / supervision of reports etc. - Project supervision missions	$46,797	$6,919	$13,234	$18,022	$8,622	X
Programme cycle management total			**$344,377**	**$51,043**	**$97,219**	**$132,919**	**$63,198**	
Amount of Financing Requested			**$4,395,877**	**$651,543**	**$1,240,969**	**$1,696,669**	**$806,698**	

Table 19: budget notes

Project item	Budget description and related output	Description of expenditures		
Community–level actions				
A	Contractual services, workshops, materials & goods and travel 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	**Main partners MLHS, HCC, RMIT** Climate Change Planning Expert (int): Community Mobilizers Workshops Community & city consultations Update of HURCAP	USD USD USD USD USD	24,000 4,000 6,000 4,000 2,000
B	Contractual services, trainings, materials & goods and travel 1.2. In-depth community profiling for the hotspot communities	**Main partners MLHS, HCC, RMIT** Climate Change Assessment / Informal Settlements Expert (int) including travel: Community Mobilizers Enumerators Tablets, computer, software Communication (data for tablets / GIS etc) Consultations and local transport Production of maps, printing of profiles etc.	USD USD USD USD USD USD USD	28,000 9,000 3,000 3,000 1,000 4,000 2,000
C	Contractual services, workshops, materials & goods and travel 1.3. Scoping and feasibility studies of prioritized local actions for each hotspot community	**Main partners MLHS, HCC, RMIT** Climate Change Planning Expert (int) incl. travel: Settlements Upgrading Expert (int) incl. travel: Infrastructure financing expert (local) Planners (local) Community & city consultations	USD USD USD USD USD	16,000 16,000 6,000 6,000 6,000
D	Contractual services for the design and construction of infrastructure 1.4. Implementation of screened / agreed resilience actions in each hotspot community	**1.4.1 Main partners MLHS, HCC with communities** Budget of USD 1,470,000 is set aside to implement screened / agreed community resilience action priorities (building community assets). Community action plans so far include protection from climate and natural hazards, housing design, emergency shelters, resilient infrastructure, such as drainage, Jacob's ladders, waste management, early warning systems. An equitable distribution of resources based on need/poverty and household numbers will be ensured.		
		1.4.2 Main partners MLHS, HCC, RMIT Community planner / community infrastructure expert:	USD	80,000
Community capacity strengthening				
E	Contractual services, trainings, materials & goods and travel 2.1. Training on conducting community profile self-assessment and monitoring	**Main partners MLHS, HCC, RMIT** Climate Change Planning Expert (int) incl. travel: Training tools: Workshops	USD USD USD	30,000 10,000 20,000
F	Contractual services, workshops, materials & goods and travel 2.2 Awareness and capacity development support, including workshops relating to key issues (CCA/Community Early Warning/DRR/Health)	**Main partners MLHS, MECDM (incl. NDMO), MoH, HCC, RMIT** Climate Change Experts (int) incl. travel: Training tools: Workshops	USD USD USD	70,000 20,000 30,000
Ward-level actions				
G	Contractual services, workshops, materials & goods and travel 3.1. To develop a women-focused climate risk communications programme	**Main partners Vois Belong Mere, Development Service Exchange, RMIT** Gender / communications / theatre expert (int.): Local coordination Workshops for performance / performances Radio production Newsletter (consultant and production) Workshops for planning	USD USD USD USD USD USD	40,000 4,000 16,000 3,000 12,000 5,000
H	Contractual services, workshops, materials & goods and travel 3.2. To integrate climate change into educational programs for youth and children	**Main partners HCC, Honiara Youth Council, Ministry of Education, RMIT** Youth specialist / climate change educator : Curriculum Expert Pilot initiative with schools Material production Workshops for planning	USD USD USD USD USD	30,000 10,000 25,000 10,000 5,000
I	Contractual services for the design and development ecosystem options 3.3 Ecosystem-based adaptation options, in particular for food security, sustainable livelihoods, flood mgt. etc. implemented	**Main partners HCC, Ward Councillors, SPREP, RMIT** Budget of USD 450,000 is set aside for ecosystems-based adaptation. Urban ecologist: Local coordination / local planner Local workshops / design charrettes Implementation of hard EbA approach	USD USD USD USD	70,000 10,000 10,000 360,000
J	Contractual services for the design and construction of infrastructure 3.4. Climate resilient community spaces	**Main partners HCC, Ward Councillors, MLHS, RMIT** Budget of USD 450,000 is set aside for ecosystems-based adaptation. Urban planner / designer: Local coordination / local planner	USD USD	70,000 10,000

	developed, including productive open spaces and community evacuation centres	Local workshops / design charrettes Implementation of public space approach	USD USD	10,000 360,000
Ward-level capacity strengthening				
K	Contractual services, workshops, materials & goods and travel 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)	**Main partners HCC, Wards, RMIT** Climate change planner / educator : Tool development (adaptation to Pijin) Workshops	 USD USD USD	 40,000 10,000 50,000
L	Contractual services, workshops, materials & goods and travel 4.2. Pilot best practice participatory approach to city government, NGO, and community collaboration in climate planning and enhance the understanding of adaptation pathways	**Main partners HCC, Wards, RMIT** Climate change planner / educator : Tool development (adaptation to Pijin) Workshops	 USD USD USD	 40,000 10,000 30,000
M	Contractual services, workshops, materials & goods and travel 4.3. Assess locally appropriate land administration options for peri-urban peri-urban settlements, and households, around Ngossi and Panatina wards	**Main partners HCC, Wards, RMIT** Land management experts for policy review: Workshops / consultations	 USD USD	 60,000 40,000
City-wide governance and capacity strengthening				
N	Contractual services, workshops, materials & goods and travel 5.1. Capacity development needs assessment to be conducted in Honiara with focal Ministries and HCC	**Main partners HCC** Capacity Development / climate change training expert: Workshops / consultations	 USD USD	 20,000 10,000
O	Contractual services, workshops, materials & goods and travel 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.	**Main partners HCC, RMIT** Climate change planner / educator : Workshops	 USD USD	 20,000 50,000
P	Contractual services, workshops, materials & goods and travel 5.3. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings	**Main partners HCC** Employment of full time resilience officer : Office operations (computer etc.) Meeting support	 USD USD USD	 137,000 7,000 3,000
Q	Contractual services, workshops, materials & goods and travel 5.4. Develop and support more effective partnership networks, including for cross-border issues, and provide support for increased participation	**Main partners HCC** Workshops:	 USD	 30,000
R	Contractual services, workshops, materials & goods and travel 5.5. 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)	**Main partners HCC, RMIT** Policy review / consultant: Workshops / consultations	 USD USD	 25,000 5,000
Knowledge management and advocacy				
S	Contractual services, trainings, materials & goods and travel 6.1 Climate change training and knowledge exchange	**Main partners HCC, MLHS, MECDM** Consultant: Workshops / consultations	 USD USD	 5,000 15,000
T	Contractual services, materials & goods 6.2. Advocacy materials	**Main partners HCC, MLHS, MECDM** KM & Advocacy consultant: Printing / online presence	 USD USD	 50,000 20,000
U	Contractual services, materials & 6.3. Knowledge sharing platform	**Main partners HCC, MLHS, MECDM** KM & Advocacy consultant:	 USD USD	 20,000 20,000
V	Contractual services, materials & goods 6.4. Project learning mechanism	**Main partners HCC, MLHS, MECDM** Joint learning events	 USD	 20,000

Project execution.		
W	Project execution costs	Project team leader (part time)
		ROAP Technical Support (Regional Climate Change Officer)
		Office facilities
		Office support staff
		Office facilities
		Travel related to execution
		Evaluation
Project cycle management.		
X	Project cycle management costs	PSC 7 percent on total operational budget including components below)
		Evaluation Support costs (HQ)
		Project Support Cost (ROAP) - Project Management Committee Meetings - IE staff salaries / supervision of reports etc. - Project supervision missions

Table 20: Summary of the M&E costs

Type of M & E activity	Responsible parties	Source and Budget USD	Time frame
Measurements of means of verification (baseline assessment and M & E plans, including for M & E of measures in place for the management of environmental and social risks	Project Manager; Project team	From project execution: 20.000	First quarter of year 1
Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance, risk management and M & E of measures in place for the management of environmental and social risks	Project Manager; With inputs from Project team; Provincial and district-level government, community level monitoring	From project execution: 20.000	Half-yearly and annually. Building on provincial and district level assessments and community level monitoring.
Independent terminal evaluation)	Project Manager; Project team; Provincial and district-level government and community-level monitoring UN-Habitat M&E Section and external consultants (from project execution and project cycle management)	From project cycle management: 10.000 and project execution 20,000	At end of project implementation
Project management committee meetings	Project Manager; Project team Project management committee	From project execution: 5.000	Inception meeting within first 2 months and bi-annual PB meetings (and sub-committee meetings)
Travel	UN-Habitat ROAP;	From project cycle management: 10.000	Quarterly, half-yearly and annually and as needed
Total		From project execution: 65.000 From project cycle management: 20.000 Total: 85.000	

H. Disbursement schedule

Table 21: disbursement schedule

	Year 1	Year 2	Year 3	Year 4	Total
Milestones	1st disbursement – upon agreement signature Milestones (by the end of year 1) • 3 community action plans • One adaptation action demonstration project • Baseline on awareness and capacity needs • Women focused communication programme outlined • Training for ward-level resilience officers / officials conducted • City-level capacity needs assessments • Capacity development workshops for planners • MoU with SINU • Resilience officer employed • HCC stakeholder meetings (year 1, year 2, year 3, year 4) • Resilience working group with HCC and Guadalcanal Province meetings (year 1, year 2) • Knowledge Programme Developed • Advocacy Materia • Website updates	2nd disbursement – One Year after project start ▪ Upon First annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by the end of year 2) • 2 community action plans • 10 percent of community adaptation projects • Workshop series conducted (min 2) • Awareness building initiatives implemented (min 2) • Children and youth programmes conceptualized • HCC stakeholder meetings • Resilience working group with HCC and Guadalcanal Province meetings • Policy review (for mainstreaming) year 2 • Advocacy Materia • Website updates	3rd disbursement - Two years after project start ▪ Upon Second annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by the end of year 3) • 40 percent (cumulative) of community adaptation projects • Workshop series conducted (min 3) • Awareness building initiatives implemented (min 3) • Women focused theater performances and publications documented • Children and youth programmes running (and documented) • EbA programme developed • Public / community space initiatives developed • Training for ward level resilience officers / officials conducted • Ward level structure established, end of year 3 • Land review conducted for wards • HCC stakeholder meetings • Advocacy Materia • Website updates	4th disbursement – Third Year after Project Start ▪ Upon Third annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones (by the end of year 4) • 100 percent (cumulative) of community adaptation projects • Advocacy Materia • Website updates	

Schedule date	January 2018	January 2019	January 2020	January 2021	
A. Project Funds (USD)	$650,000	$1,180,000	$1,500,000	$370,000	$3,700,000
B Programme Execution	100,000	150,000	100,000	34,500	384,500
C. Programme Cycle Management	63,750	113,050	136,000	31,577	344,377
B+C MIE Fee (USD)	$163,750	$263,050	$236,000	$66,077	$728,877
Total	$813,750	$1,443,050	$1,736,000	$403,077	$4,395,877

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*: 7 August 2017*

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

Solomon Islands Government

Ministry of Environment, Climate Change, Disaster Management & Meteorology
Post Office Box 21, Honiara, Solomon Islands

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

Honiara, 7th August 2017

Dear Sir/Madam,

Subject: Endorsement of the Project: **Enhancing Urban Resilience to Climate Change Impacts and Natural Disasters: Honiara**

On behalf of the Solomon Islands Government, I take this opportunity to thank the Adaptation Fund Board for your continued consideration of this nationally significant Project Proposal.

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 Solomon Islands Government's national priorities in regards to implementing adaptation activities to reduce the adverse impacts and risks posed by climate change.

Accordingly, I am pleased to endorse the above Project Proposal for support from the Adaptation Fund. If approved, I note that the project will be implemented by the United Nations Humans 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, through which a participatory Climate Change Vulnerability Assessment and Urban Resilience and Climate Action Plan have been developed for Honiara. Adaptation actions identified through this collaboration have been fully endorsed by the aforementioned Ministries and Local Government Authority. This Project Proposal provides the primary means for implementation of theses initiatives, having been developed through numerous community consultations, expert workshops and a participatory city-wide forum. The most recent iteration of this proposal was further refined through an expert review workshop and consultations in June 2017.

I note my Government's wholehearted support for this Proposal, and our hope that it will receive your support during the next Adaptation Fund Board meeting.

Sincerely,

MINISTRY OF ENVIRONMENT, CLIMATE CHANGE, DISASTER MANAGEMENT AND METEOROLOGY

Chanel Iroi
AF National Designated Authority

B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans including the National Development Strategy 2016-2035, the National Climate Change Policy, 2012-2017, Nationally Determined Contributions as well as Honiara specific policies and plans including the Honiara Local Planning Scheme, 2015, the Honiara Urban Resilience and Climate Action Plan, 2016, and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

Rafael Tuts
Director, Programme Division
UN-Habitat

Date: August 3, 2017	Tel.: +254-20-762-3726 Email: raf.tuts@unhabitat.org

Project Contact Person: Bernhard Barth, Human Settlements Officer, Regional Office for Asia and the Pacific

Tel.: +81-92-724-7121
Email: bernhard.barth@unhabitat.org

Annex 1: Compliance with the Adaptation Fund's Environmental and Social Policy

Development of the project document

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

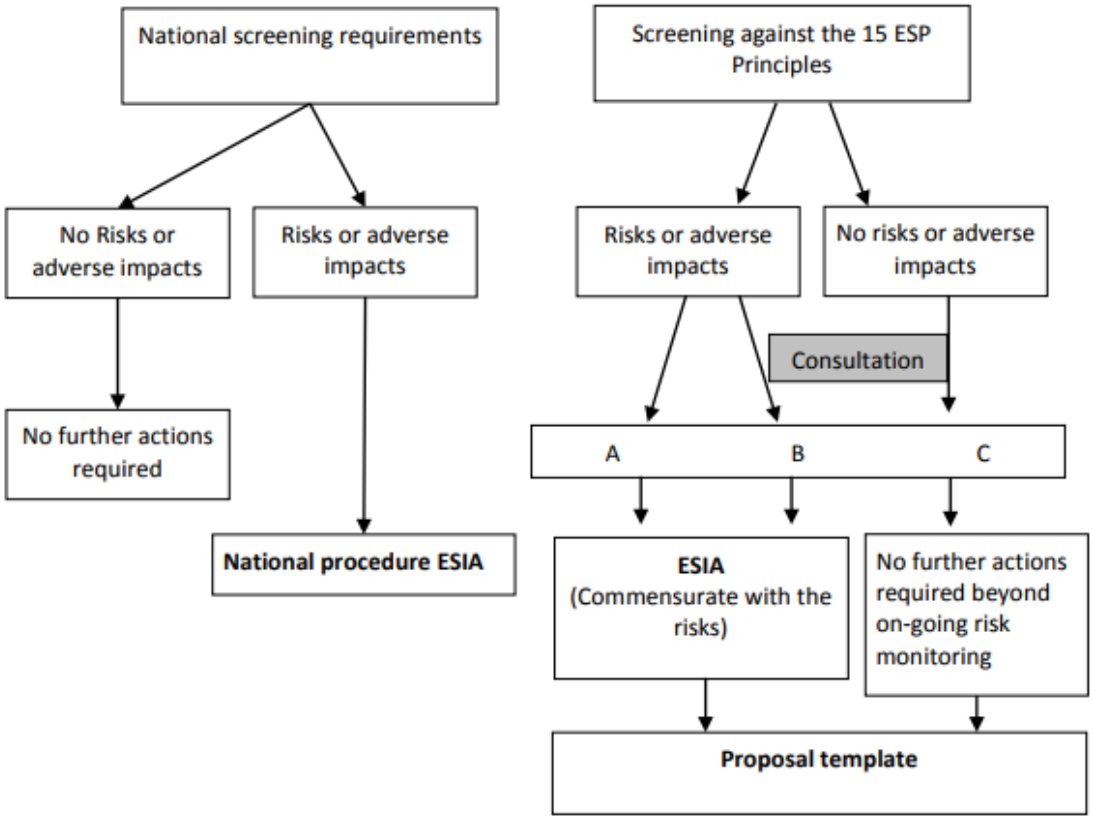


Fig A.1.1 Screening and Assessment Process (from AF ESP Guidance Document, p. 5)

In line with the Adaptation Fund's guidelines all activities were screened against international and national laws and policies as represented in the left flow chart in Fig A.4.1 above and documented (see table A.1 below). At this stage, significant risks were not identified and it is very unlikely that national ESIA procedures will be triggered. However, given that some of the Unidentified Sub Projects (USPs) and some of the Ward Level activities may pose environmental and social risks that could potentially result in the need for national ESIA procedures, the ESMP for the project implementation is taking this into consideration in terms of screening, assessment, risk mitigation and assigns corresponding responsibilities.

Project compliance with relevant rules, regulation, standards and ESP principles – baseline for ESMP

Expected Concrete Outputs	Relevant national rules, regulations, standards and procedures (ESP Principle 1)	Screening against the Adaptation Fund ESP Priniciples (relevant principles and concerns)	Compliance & procedure
1.1. In addition to existing community action plans, complete community climate action plans for White River and Tuvaruhu informal settlements 1.2. In-depth community profiling for the hotspot case studies 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 including: • improved drainage and maintenance • access roads and Jacob's ladders, (i.e. staircases from roads into the steep valleys, which also serve as evacuation routes during flooding) • improved access to water and sanitation (to build resilience during droughts and to counter waterborne diseases during flooding), • relocation of particularly vulnerable houses (within settlements) • strengthening of structures to enhance resilience during extreme weather events • support to early warning	Research Permit (Ministry of Education and Human Resources Development) Solomon Islands Environmental and Social Impact Assessments Relevant SI and international rules, regulations, standards and procedures regarding housing design, waste management, water supply, sanitation, drainage, etc.	3. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation For outputs 1.1 to 1.3 a relevant methodology is required (using a combination of UN-Habitat's Planning for Climate Change Tool, UN-Habitat's community vulnerability and action planning tool in combination with a methodology to assess and plan for the ESP principles). As part of the HURCAP community-level action planning in support of output 1.4 has been done in some of the target communities. However, this is not the case across all hotspots and adaptation actions have not been developed to the feasibility stage. They are thus treated as USPs. However, the types of activities prioritized by communities were reviewed by national and local government, local and international UN-Habitat experts and the communities at the stage of the HURCAP development and the design stage of this project. It is anticipated that adequate design of the	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 The project will adhere to SI and international standards (SDG) regarding construction and use building back better principles. The project will use the tools on the left to complete community climate change action plans. For the finalization all project activities the Environmental and Social Management Plan will be applied. The UN-Habitat Project Manager is responsible for compliance and the Project Management Committee is responsible for approval of all activities including USPs

(flood gauge and community communication systems) in support of timely evacuation.		activities would result in the ESP principles not being triggered. However, above listed principles need to be thoroughly gauged to ensure no adverse environmental and social impacts.	
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)	Not relevant Not relevant	3. Marginalized and Vulnerable Groups 5. Gender Equality/Women's Empower't 7. Indigenous Peoples 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 13. Public Health 15. Lands and Soil Conservation The above principles will be of relevance for the planned training and capacity development support	ESMP as above
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 3.4. Climate resilient community spaces including productive open spaces and community evacuation centres	No standard Climate Change Child-Centred Adaptation approach of Solomon Islands Development trust No clear rules, regulations, standards and procedures Solomon Island local planning schemes and draft building codes	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation For outputs 3.1 to 3.2 relevant principles will be considered in the design of the training / educational programme (content, delivery and participation) As part of the HURCAP ward-level action planning in support of outputs 3.3 and 3.4 has been done but not at the stage of feasibility. However, the identified activities	The project will engage with the civil society sector and women in Honiara to develop a women-focused climate risk communications program. 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 The project will Engage with NGO organisations to promote ecosystem-based adaptation The project will follow the Honiara Planning Scheme and draft building code to develop infrastructure **ESMP will be applied as described above.**

		were reviewed by national and local government, local and international UN-Habitat experts at the stage of the HURCAP development and the design stage of this project. It is anticipated that adequate design of the activities would result in the ESP principles not being triggered. However, above listed principles need to be thoroughly gauged to ensure no adverse environmental and social impacts.	
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) 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 for peri-urban locations	Not relevant The HURCAP assessment process Not relevant	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation The above principles will be of relevance for the planned capacity development support at the ward level	The project will follow the HURCAP assessment process to increasing capacity in climate action planning and to promote participatory approaches. ESMP will be applied as described above
5.1. Training and teaching & learning needs assessment 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. 5.3. Employ a climate adaptation and resilience officer, and constitute a multi-stakeholder steering group and provide support for regular meetings 5.4. Develop and support more effective partnership networks, including for cross-	Not relevant Not relevant	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage	The project will adhere to SI government, AF and UN-Habitat standards ESMP will be applied as described above

border issues, and provide support for increased participation 5.5. 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	15. Lands and Soil Conservation **Given the comprehensive approach at the city level, it is deemed prudent to retain all principles for capacity development, training, networking events.**	
6.1. Climate change training and knowledge exchange 6.2. Advocacy materials etc 6.3. Knowledge sharing platform 6.4. Project learning mechanism	Not relevant SI government, AF and UN-Habitat standards	2. Access and Equity 3. Marginalized and Vulnerable Groups 4. Human Rights 5. Gender Equality/Women's Empower't 6. Core Labour Rights 7. Indigenous Peoples 8. Involuntary Resettlement 9. Protection of Natural Habitats 10. Conservation of Biological Diversity 11. Climate Change 12. Pollution Prevt'n and Resource Efficiency 13. Public Health 14. Physical and Cultural Heritage 15. Lands and Soil Conservation Whilst output 6 emphasizes knowledge management, it is critical that all principles are adhered to.	The project will adhere to SI government, AF and UN-Habitat standards ESMP will be applied as described above The UN-Habitat Project manager will ensure thorough editing of all advocacy material and publications to ensure compliance with the Adaptation Fund's ESP

Further, in line with the Adaptation Fund's ESP guidelines (flow chart on the right in Fig A.4.1) the entire project has been screened. Studies, workshops, community consultations, capacity development, training events, mentoring, information sharing through print and web-based means throughout the components are not expected to have environmental or social impacts. Components 1 and 3 include concrete adaptation measures that will be further identified through community and ward-level processes (supported by national and local government officials and UN-Habitat as well as external experts). At this stage some risks could not be fully excluded and thus most principles were triggered, resulting in a preliminary assessment and the proposal of initial mitigation and monitoring measures proposed as presented in Table 12a in Section II.K. This reflects the knowledge and information available at the project design stage and does not exclude that other risks may arise once all sub-projects are identified. During project implementation, all project activities will be further screened for environmental and social risks applying the ESMP. Actions to mitigate such risks will also be planned through the ESMP, according to the procedures presented in this Annex.

In compliance with UN-Habitat's Environmental and Social Safeguards System a screening and assessment report was prepared based on the above process and presented to UN-Habitat's Project Review Committee[36].

Based on the this screening exercise and following the Environmental and Social Policy of the Fund the overall risk ranking for this project is Category B. However all activities will be screened and monitored throughout the project. All stakeholders will be fully briefed on the ESMP, the project management will certify compliance; the Project Management Committee will approve the projects and provide additional oversight.

Further risk assessments will be conducted according to the procedure established in the latter part of this Annex (in line with the Environmental and Social Management Plan, ESMP). Risk management will be integrated in the project management structure and in all assessment, planning and implementation elements of the project.

Environmental and Social Management Plan (ESMP)

i. Introduction

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

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

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

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

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

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

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

Sections II.E and II.K provide an overview of the 15 principles, the initially screened and assessed risks, potential for further assessments throughout the project, potential mitigation measures, indicators for the monitoring framework and responsibilities.

ii. Components of Risk Mitigation

ii.1 A detailed environmental and social assessment will be conducted as part of the comprehensive climate change vulnerability and disaster risk assessments in the target informal settlements (These assessments will themselves be approved for their compliance the the 15 ESP Principles). The reasoning for this is that the community assessment have not been conducted in all target locations and throughout will be more comprehensive/detailed, including the involvement of vulnerable and marginalized groups, women, youth, elderly, etc., in all target settlements/communities, as was possible done in the proposal development phase[37].

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

- Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding houses and different infrastructure types/servies (e.g. water supply/collection, irrigation, sanitation)
- Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding health and hygiene (e.g. related to dengue, malaria, water and sanitation).

[37] This approach is in line with the Adaptation Fund's Environmental and Social Policy: "in some Category B projects where the proposed activities requiring an environmental and social assessment, represent a minor part of the project, and when the assessment and/or management plan cannot be completed in time or where mitigation measures extend into project implementation, the Board can approve the project subject to assurances included in the agreement signed between the Board and the implementing entity that any environmental and social risks will be adequately and timely addressed through a management plan or changes in project design." Adaptation Fund Environmental and Social Policy (March 2016), paragraph 9, Page 3

- ❑ Other information regarding safeguards at community level (e.g. mapping of biodiversity, natural habitats, Lands and Soil, cultural heritage and human rights situation for certain ethnic groups.

Based on this information (i.e. community and climate change adaptation criteria) and the assessment of environmental and social risks per USP communities will select the most appropriate sub-projects and adaptation actions.

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

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

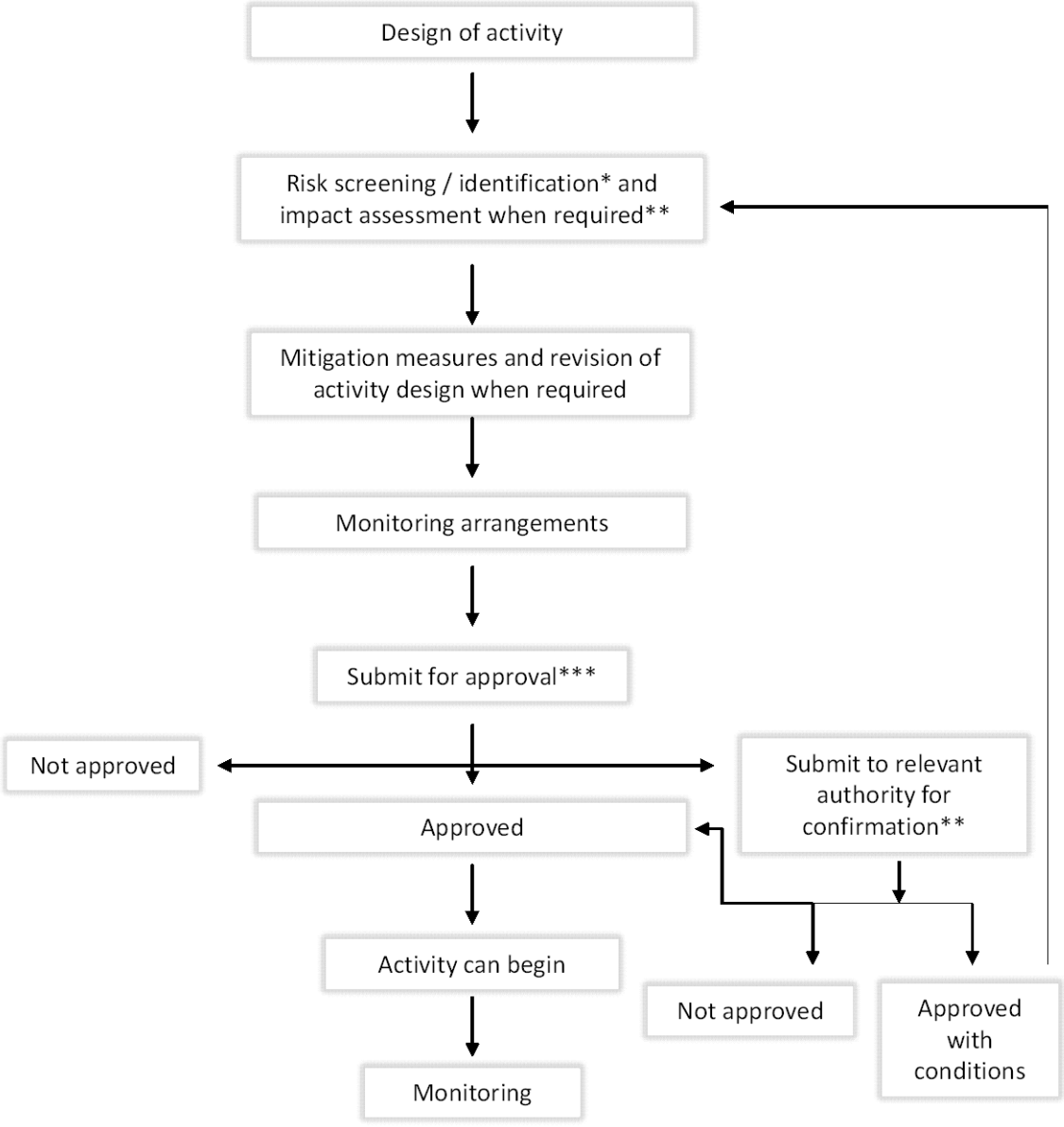
ii.4 All key Executing Entity Partners will receive training / capacity development to understand the 15 Principles, the ESMP and in particular their responsibilities. This will include members of the Project Management Committee, the Local Steering Committees and the Communities.

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

iii. Risk Screening and Management Procedure

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

The following flow chart (Fig A.1.2) represents the risk management and safeguarding process during the project.



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

** In consultation with Technical Advisory Group

*** All after activities to be approved by Project Management Committee

Fig A.1.2 Activity / Sub-Project approval in the context of environmental and social risk management

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

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

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

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

Step 5: The project manager will clear the screening and assessment report and will submit it to the Project Management Committee

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

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

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

- ✓ The 15 ESP Principles
- ✓ Utilize strategic, sectoral or regional environmental assessment where appropriate.
- ✓ Assess adequacy of the applicable legal and institutional framework, including obligations under Applicable Law and confirm that the activities / sub-project would not be supported if it contravenes (inter) national obligations.
- ✓ Assess feasible investment, technical, and siting alternatives, including the “no action” alternative, as well as potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and the institutional, training and monitoring requirements associated with them.

- ✓ Enhance positive impacts and avoid, minimize, and/or mitigate adverse impacts through environmental and social planning and management. Develop a management plan per USP that includes the proposed measures for mitigation, monitoring, institutional capacity development and training (if required), an implementation schedule (including maintenance), and cost estimates.
- ✓ Ensure compliance with international standards and, where appropriate, use independent advisory panels during preparation and implementation of sub-projects that contain risks or that involve serious and multi-dimensional social and/or environmental concerns.
- ✓ Examine whether particular individuals and groups may be differentially or disproportionately affected by the sub-project potential adverse impacts because of their disadvantaged or marginalized status, due to such factors as race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. Where such individuals or groups are identified (through the vulnerability assessment), recommend targeted and differentiated measures to ensure that the adverse impacts do not fall disproportionately on them.
- ✓ All proposed sub-projects with environmental and social risks will be assessed and managed with the purpose to identify potential application of requirements of the Overarching Environmental and Social Policy (ESP) and Principles.

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

SUB-PROJECT RISK ASSESSMENT SHEET

Steps:

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

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

4. Person who filled the form	
5. Date of screening	
6. Signature	

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

ENVIRONMENTAL AND SOCIAL CONTEXT	
18. Description of the environmental context and the main environmental issues on the site / in the area	Give a short description of the environmental situation on the site and in the area and mention the main environmental issues (e.g.: deforestation, soil fertility loss, water scarcity, lack of groundwater, water quality degradation, waste issues, etc.). The description should contain essential information on which the risks identification is based.
19. Description of the social context and the main social issues on the site / in the area	Example: land tenure conflicts, land ownership and use, high incidence of malaria or other diseases, recurrent conflicts between inhabitants, etc. The description should contain essential information on which the risks identification is based

TABLE 3: CHECKLIST OF POTENTIAL RISK AREAS OF NON-COMPLIANCE WITHIN THE ADAPTATION FUND'S ENVIRONMENTAL AND SOCIAL PRINCIPLES	ANSWER (Y/N)
Adaptation Fund principle 1: Compliance with the Law	
20 Is there a risk that the activity does not comply with an applicable domestic or international law?	
Adaptation Fund principle 2: Access and equity	
21. Is there a risk that the activity would exclude any potentially affected stakeholders from fully participating in decisions that may affect them?	
22. Is there a risk that the activity would impede access of any group to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, or land rights?	
23. Is there a risk that the activity does not provide fair and equitable access to benefits from the project to all affected stakeholders?	
24. Is there a risk that the activity exacerbates existing inequities, particularly with respect to marginalized or vulnerable groups?	
Adaptation Fund principle 3: Vulnerable and marginalized groups	
25. Are there any marginalized or vulnerable groups present among project beneficiaries?	
26. Is there a likelihood that the activity would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	
27. Could the activity potentially restrict availability, quality of and access to resources or basic services to marginalized individuals or groups?	
Adaptation Fund principle 4: Human rights	
28. Could the activity lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population?	
29. Would the activity possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	
Adaptation Fund principle 5: Gender equality and women's empowerment	
30. Is there a likelihood that the proposed activity would have adverse impacts on	

gender equality and/or the situation of women and girls?	
31. Would the activity potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	
32. Would the activity potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	
Adaptation Fund principle 6: Core labour rights	
33. Does the activity involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	
Adaptation Fund principle 7: Indigenous people	
34. Are indigenous peoples present in the project area?	
35. Would the proposed activity potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	
36. Would the activity adversely affect the development priorities of indigenous peoples as defined by them?	
37. Has there been an absence of culturally appropriate consultations on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	
Adaptation Fund principle 8: Involuntary resettlement	
38. Would the activity potentially involve temporary or permanent and full or partial physical displacement?	
39. Is there a risk that the activity would lead to forced evictions?	
40. Will the activity lead to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood)?	
Adaptation Fund principle 9: Protection of natural habitats	
41. Is the activity within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	
42. Would the activity potentially cause adverse impacts to habitats (e.g. natural, modified, and critical habitats) and/or ecosystems and ecosystem services?	
43. Does the activity involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?	
Adaptation Fund principle 10: Conserving biodiversity	
44. Could the activity lead to the reduction or loss of biological diversity?	
45. Would the activity pose a risk of introducing invasive and/or non-native species?	
46. Is monoculture foreseen?	
47. Would the activity pose risks to endangered species?	
Adaptation Fund principle 11: Climate change	
48. Will the activity result in significant greenhouse gas emissions or may it exacerbate climate change?	

Adaptation Fund principle 12: Pollution and resource efficiency	
49. Does the activity require significant consumption of raw materials, energy, and/or water?	
50. Would the activity potentially result in the generation of waste (both hazardous and non-hazardous)?	
51. Would the activity potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	
52. Will the activity involve the application of pesticides?	
Adaptation Fund principle 13: Public health	
53. Would the activity result in potential increased health risks (e.g. from waterborne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	
54. Would the activity pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials?	
55. Would elements of activity construction, operation, or decommissioning pose potential safety risks to local communities?	
Adaptation Fund principle 14: Physical and cultural heritage	
56. Will the proposed activity result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?	
Adaptation Fund principle 15: Land and soil erosion	
57. Will the activity lead to the conversion of wetlands, waterways, or woodlots?	
58. Will the activity cause the clearing of natural vegetation and/or forest?	
59. Is there a risk that the activity leads to soil degradation?	
60. Is there a risk that the activity is designed without proper soil analysis and/or does not match soil capability?	

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

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

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

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

Project Grievance mechanism

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

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

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

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

Adaptation Fund Board secretariat
Mail stop: MSN P-4-400
1818 H Street NW
Washington DC