REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
1818 H Street NW
MSN P4-400
Washington, D.C., 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

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ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Concept for Small-Sized Project
Country/ies:	Federated States of Micronesia
Title of Project/Programme:	Practical Solutions for Reducing Community Vulnerability to Climate Change in the Federated States of Micronesia
Type of Implementing Entity:	National
Implementing Entity:	Micronesia Conservation Trust
Executing Entity/ies:	To be determined when preparing the full project proposal: Federated States of Micronesia Office of Environment and Emergency Management and/or the Federated States of Micronesia Department of Resources and Development
Amount of Financing Requested:	$970,000 (in U.S Dollars Equivalent)

Part 1: Project / Programme Background and Context:

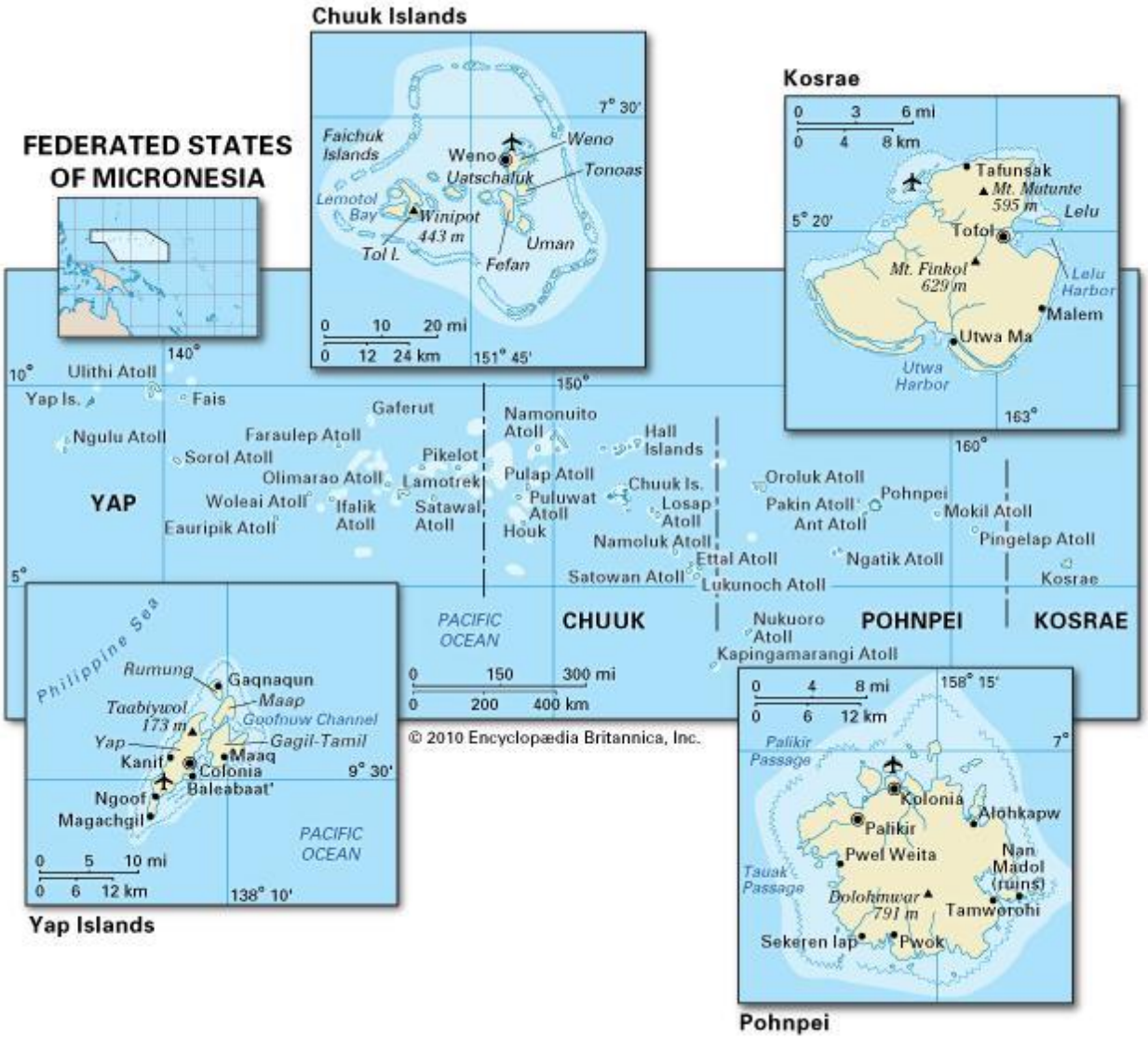
1. Introduction to the FSM:

1.1 Geography and Climate

The Federated States of Micronesia (FSM) is comprised of four states; Yap, Chuuk, Pohnpei, and Kosrae covering the largest and most diverse part of the greater Micronesia region with a total of 607 islands, over 70 of which are inhabited. The islands are spread over a vast region in the Western Pacific, between one degree south and 14 degrees north latitude, and between 135 and 166 degrees east longitude. The distance between the eastern-most State (Kosrae) and the western-most State (Yap) is 1,700 miles (2,700 km). While the total land area of the FSM is only 271 square miles (702 km²), its vast exclusive economic zone (EEZ) covers an area of over one million square miles (2.5 million km²)[1]. The vastness of the islands and the distance between them present significant challenges for transportation, communications and at times, implementation of cohesive conservation, environmental and development strategies.

[1] FSM Second National Communication under the UN Framework Convention on Climate Change, 2015

Figure 1: Map of the Federated States of Micronesia[2]



Many of the islands in FSM are extinct shield volcanoes with steep and rugged centers and land elevations that range up to 2,500 feet (760m). These high islands are densely vegetated and eroded while other islands in the archipelago are relatively flat, small and swampy, with low-lying, forested atoll islets, only about six feet above sea level. Mangroves grow around the coastal fringes of many of the islands.

Due to its geographical location extending north of the equator in the Western Pacific, and paired with the strong influence of northeast trade winds, the FSM has a tropical climate with trade winds that prevail from December through April. Periods of weaker winds and doldrums occur from May to November. Rainfall is generally plentiful especially on the high volcanic islands of Kosrae, Pohnpei and Chuuk sometimes exceeding 400

[2] Encyclopædia Britannica online, Encyclopædia Britannica, inc. (https://media1.britannica.com/eb-media/96/126096-004-C8AC5D46.jpg)

inches (1,016 cm) annually, or up to 22 inches (559 mm) in any one day. The region is affected by storms and typhoons that are generally more severe in the western islands, as well as by periods of drought and excessive rainfall associated with distinct phases of the El Niño – Southern Oscillation (ENSO)[3].

From May to November the rainfall is extremely high on the volcanic islands of Kosrae, Pohnpei and Chuuk. Yap lies in an area that usually experiences a monsoon climatic pattern, with more frequent periods of drought than the other islands. The climate of Chuuk is hot and humid with an average temperature of 81 0F (27 0C), and minor variation throughout the year. Average annual precipitation is 122 in (3,100 mm), with the months of January to March being drier. Pohnpei is generally hot and humid, also with a mean temperature of 81 0F (27 0C) that varies little over the year. The mean annual rainfall is 190 in (4,826 mm), with January and February being slightly drier than the average of all other months. In Kosrae, there are elevated temperatures, heavy rainfall and high humidity. The average annual rainfall is 203 in (5,000 mm). In the mountainous interior rainfall is estimated to be as high as 300 in (7,500 mm) annually. Average temperature is again 81 0F (27 0C) at sea level. Average monthly temperatures vary from the annual average by no more than 0.5 0F (1 0C), and the difference between the average minimum and maximum temperatures is less than 14 0F (8 0C)[4]. Although these islands have substantial amounts of rainfall annually, drought is a significant issue throughout Micronesia because of limited storage capacity and small groundwater supplies[5].

1.2 Political and Legislative

The FSM has four levels of governance – National, State, municipal, and traditional. The National Government, located in Pohnpei, has three branches. The legislative power of the National Government is vested in the Congress of the Federated States of Micronesia. The Congress is comprised of four members (one from each State) elected for four-year terms and ten members (allocated to the States based on population) elected for two-year terms. The Executive power is vested in the President and Vice-President, elected by the Congress from amongst members serving four-year terms. Judicial power is decreed in the FSM Supreme Court, headed by a Chief Justice who is assisted by up to five Associate Justices.

Each of FSM's four State Governments has its own constitutional Government, consisting of the three branches: Executive, Legislative and Judicial. All States have a Governor and Lieutenant Governor. Executive offices are selected by the current Governor and approved by the State legislature. Each State may have fewer or more offices depending on their priorities and needs. Yap is the only State with a traditional leadership branch.

[4] This section draws heavily from FSM Second National Communication under the UN Framework Convention on Climate Change, 2015

[5] Keener, V. W., Marra, J. J., Finucane, M. L., Spooner, D., & Smith, M. H. (Eds.). (2012). Climate Change and Pacific Islands: Indicators and Impacts. Report for The 2012 Pacific Islands Regional Climate Assessment. Washington, DC: Island Press.

The National Constitution of the FSM is the foundation of all legal authorities and decision-making processes and each state has its own respective constitution. The state constitutions allow the states to enact state legislation consistent with state powers as provided for in the FSM Constitution. The FSM Constitution provides concurrent powers for the States to function as semi-autonomous governments in enacting legislation that addresses concerns and issues related to managing natural resources (other than land tenure) and to achieving sustainable development[6].

At the constitutional/legislative level, responsibilities for climate change adaptation initiatives, ecosystem, and natural resource management are shared between the municipalities, states, and the national governments. Each state has jurisdiction of its surrounding natural resources out to 12 nautical miles, and manages its resources through a combination of policies, resource management agencies, and delegation to municipalities. The FSM also has diverse land tenure systems, and communities across the country own and manage large sections of terrestrial and near-shore coastal areas. The national government is also responsible for managing oceanic resources from 12 to 200 nautical miles. The National Government provides guidance and technical assistance, upon request, to the States.

1.3 Demography

The April 2010 FSM Population and Housing census provided a national population count of 102,843 persons, comprising of 52,193 males and 50,650 females. This represents a decrease of 4,178 people compared to 2000, reflecting an annual population growth rate of -0.4 percent per year over the past ten years. In comparing this growth rate by state, Pohnpei had the highest growth rate of 0.48 percent per year over the 10 years since 2000 followed by Yap with about 0.12 percent, especially in the Outer Islands of Yap. In contrast, Chuuk and Kosrae both lost population to the other states or to other countries[7]. The total populations of the 4 states were as follows: Chuuk: 48, 654, Kosrae: 6,616, Pohnpei: 36,196 and Yap: 11,377. There are 4% fewer women of child bearing age in the FSM today than 10 years ago and the population is declining for the first time in recent history[8] and long-range population projections suggest that little population growth can be expected in FSM for the foreseeable future[9]. FSM is at an early stage of the process of urbanization with about 22 percent of its population living in the urban areas (urban areas include Colonia in Yap, Weno in Chuuk, Kolonia in Pohnpei and Lelu in Kosrae), a slight increase from the level estimated in 2000. According to the 2010 FSM Census, 22,924 out of the total population of 102,843 live in the various defined urban areas across

[6] This section draws heavily from FSM Second National Communication under the UN Framework Convention on Climate Change, 2015

[7] Summary Analysis of Key Indicators from the FSM 2010 Census, FSM Office of Statistics, Budget, Overseas Development Assistance and Compact, 2010

[8] Enhancing the Climate Change Resilience of Vulnerable Island Communities in Federated States of Micronesia, Secretariat of the Pacific Regional Environmental Program (SPREP) Proposal to the Adaptation Fund, 2017

[9] FSM Second National Communication under the UN Framework Convention on Climate Change, 2015

the four states compared to 79,919 that live in rural areas[10]. The population is predominately Micronesian comprising of 8 major ethnolinguistic groups and numerous spoken dialects. Each state has its own languages, culture, local government, and traditional systems. English is the country's official language of government and for secondary and tertiary education[11].

See Table 1 below from the Summary Analysis of Key Indicators from the FSM 2010 Census demonstrating population changes between 2000 and 2010, population by state and ratio of urban to rural populations.

Table 1: Population distribution per state/urban to rural population distribution for FSM[12]

	2000			2010			Percent Urban		Percent Rural		Urban-Rural Ratio	
	Total	Urban	Rural	Total	Urban	Rural	2000	2010	2000	2010	2000	2010
FSM	107,008	23,308	83,700	102,843	22,924	79,919	21.8	22.3	78.2	77.7	27.8	28.7
Yap	11,241	1,234	10,007	11,377	840	10,537	11.0	7.4	89.0	92.6	12.3	8.0
Chuuk	53,595	13,802	39,793	48,654	13,850	34,804	25.8	28.5	74.2	71.5	34.7	39.8
Pohnpei	34,486	5,681	28,805	36,196	6,074	30,122	16.5	16.8	83.5	83.2	19.7	20.2
Kosrae	7,686	2,591	5,095	6,616	2,160	4,456	33.7	32.6	66.3	67.4	50.9	48.5

1.4 General Economy

The public sector plays a central role in the economy, as the national and state-level governments employ over half of the FSM's employed people and 38% of the GDP comes from National and State governments jobs. Agriculture is primarily subsistence farming and natural resources available for economic purposes are limited to timber, marine products, deep-seabed minerals, and phosphate. The backbone of the economy is subsistence farming and fishing. According to the 2010 census, of the country's total labor force of around 32,000, about one in five self-reported as being engaged in the informal subsistence sector[13]. While there is potential for a tourism industry, development is restricted by the country's isolation, high airfares and limited infrastructure for tourists. Geographic isolation and poorly developed infrastructure are major impediments to FSM's economic growth, and poverty is among the highest in the Pacific region[14].

[10] Summary Analysis of Key Indicators from the FSM 2010 Census, FSM Office of Statistics, Budget, Overseas Development Assistance and Compact, 2010
[11] Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025, Government of FSM
[12] Summary Analysis of Key Indicators from the FSM 2010 Census, FSM Office of Statistics, Budget, Overseas Development Assistance and Compact, 2010
[13] Summary Analysis of Key Indicators from the FSM 2010 Census, FSM Office of Statistics, Budget, Overseas Development Assistance and Compact, 2010
[14] Enhancing the Climate Change Resilience of Vulnerable Island Communities in Federated States of Micronesia, Secretariat of the Pacific Regional Environmental Program (SPREP) Proposal to the Adaptation Fund, 2017

1.5 Overview of the Importance of Ecosystems to livelihoods in the FSM

Due to a rare combination of geographic isolation and biological diversity, Micronesia's islands are exemplary microcosms for conservation, with some habitats and natural communities found nowhere else on earth. Yet the features that make these islands exceptional also make them especially vulnerable to environmental threats such as deforestation, unsustainable fishing practices, invasive species and climate change. Half of the species in the world that have become extinct have been island species. Without immediate action, the people of Micronesia face continued degradation of the natural resources on which their culture and livelihoods depend.

While the total landmass of the FSM is only 4,840 square km, within that relatively small space exist 12 terrestrial biomes including: atoll forest, littoral beach strand, mangrove forest, swamp forest, freshwater marsh, riparian forest, freshwater rivers and streams, grassland, secondary (agro) forest, primary forest, rain forest, and crest (dwarf or montane cloud) forest. The country's marine biomes include: mangrove forest, estuaries, sea grass beds, lagoons, coral reefs, and open ocean. The biodiversity within these biomes is characterized by a high rate of endemism and a profusion of species. For example, the country is home to more than 1,200 species of ferns and flowering plants, more than half of which are endemic species. More than 1,000 species of fish and more than 350 types of coral inhabit the country's coastal and marine areas. The FSM is also widely

Pohnpei, FSM. Photo © MCT

known as a critical corridor for commercially important migratory fish stocks, including skipjack, yellowfin, and bigeye tunas. The majority of the islands in the FSM are small coral or coralline islands. These islands serve as critical nesting and spawning sites for

many species, including: pelagic and reef fish, seabirds, turtles, sharks, rays, and clams. Within the FSM are also 'high' volcanic islands, notably the islands of Pohnpei, Kosrae, and inner lagoon islands within Chuuk such as Weno and Fefan, and the main island of Yap, (Wa'ab). The FSM consists of two ecoregions. The Yap tropical dry forest ecoregion is characterized by a monsoon-like climate with rainy seasons followed by periods of drought. The other three States share the Carolines' tropical moist forest eco region characterized by heavy rainfall.

The services provided by the ecosystems described above are critical for the maintenance of the FSM's population, as the majority of its just over 100,000 people depend on the country's ecosystems for their livelihoods, both for subsistence and as sources of income. Watersheds, fisheries, fresh water lenses, and agroforests provide the population with food, raw materials, water, and medicines. Many communities practice agroforestry, a farming system characterized by multi-storied crop production. It is widely estimated that these agroforests take up about 35% of the country's landmass and include root crops such as taro and yam, as well as food trees such as banana, coconut, and breadfruit – there are over 133 cultivar names for breadfruit in Pohnpei alone. Due to the relatively small size of the islands of Micronesia, land-based activities quickly and drastically affect adjacent coastal and oceanic ecosystems.

The widespread acceptance of the "ridge to reef" concept in the FSM reflects the understanding of the land–sea connection. Pacific Islanders are aware of, and sensitive to, upstream effects on downstream communities, as activities often affect members of the same village. Coral reef conservation begins on land and requires an integrated watershed management approach[15]. Fisheries provide a principal source of protein and income for the FSM's inhabitants, with widespread subsistence and small-scale commercial fishing of reef fish and marine invertebrates. However, overharvesting of reef fish and invertebrates presents a critical challenge and climate change is further exasperating the problem.

In addition to these provisioning services, the islands' ecosystems also provide critical protection against storm surges, king tides, typhoons, and other natural disasters and contribute to mitigating erosion and buffering wind and waves during storms, storage and processing of soil nutrients, natural waste management, pollution control and detoxification, habitats for resident and transient birds and animals and the provisioning of pollinators for the reproduction of plant populations. The FSM's ecosystems are also a key component to the cultures within the country. For more than 2,000 years, inhabitants of the region have lived off the reefs and lands and these environments have shaped island lifestyles, creating strong cultural identities and attachments to the environment that persists today.

Box 1: Sea Level Rise, Coastal Erosion and Sedimentation

FSM has experienced some of the highest rates of sea-level rise around the world during the period of available satellite and tide gauge monitoring. Sea level rise poses a severe coastal erosion threat

[15] Richmond, Kostka, Idechong (2009). *Reef Ecology and Conservation*

to islands in the FSM, with potential impacts on the natural environment, water resources, infrastructure, food production and human habitation. The threat is particularly acute on low-lying atolls, although high islands are not immune.

There is the potential for a self-reinforcing spiral of erosion. Coastal erosion fragments mangrove stands, leaving shorelines more vulnerable to storm damage and further erosion. The resulting increase in terrigenous sedimentation and turbidity in near-shore areas degrades the health of protecting coral reefs, increasing the islands' vulnerability to further erosion and reducing the supply of atoll-building marine sediments.

Healthy marine ecosystems, that are resilient to the impacts of climate change, will help mitigate these impacts by maintaining natural and protective coastal and reefal geomorphic, sedimentary and hydrodynamic processes.

Pohnpei, FSM. Photo © Dr. Peter Houk, University of Guam

Most relevant, FSM communities depend heavily on nature and the services it provides for subsistence and cash income. Benefits from ecosystems have a quantifiable monetary income value that means when an ecosystem degrades and fails to provide food, raw materials and water, households have to compensate the loss by purchasing those goods and services. A survey conducted in 2016 on the dependence of FSM communities on ecosystem services showed that at three sites in the FSM (Malem in Kosrae, Pakin in Pohnpei and Oneisomw in Chuuk), 75% of the household benefits come directly from marine (i.e., coral reefs, seagrasses) and terrestrial (i.e., mangroves, upland forest) ecosystems. Therefore, nature plays a substantial role for the survival of these communities. Across the three sites, fishery (e.g., reef fish, pelagic fish, crustacean) contributes to 11.2% of the household incomes and to 47.5% of

household subsistence. Conservation and protection of ecosystems also have implications for the traditional culture of Micronesians of sharing and caring for others which has contributed to protecting the most vulnerable in the communities. Indeed, 58.7% of household income comes from marine ecosystem provisioning services, corresponding approximately to US$500 a month per household, more than 10% is shared with clan or family members[16].

1.6 Overview of the Importance and Value of Fisheries to the FSM

Near-shore fisheries have played a central role in Micronesian societies for generations, being sustainably exploited for subsistence purposes under customary ways. In addition to providing food security, human well-being, and cultural value, nearshore fisheries have increasingly been exploited for economic benefits over the last few decades. Unfortunately, due to the introduction of a market economy, easy access to new technologies (such as power boats) and some erosion of traditional values, overfishing has become an urgent and critical threat to the marine environments of the region. **Today, artisanal fishing represents the main source of dietary protein and one of the largest economic sectors in the FSM.** Local nearshore commercial fisheries are estimated to provide nearly 2 million pounds-per-year, valued at USD $3 million (See Table 2 below). Perhaps more importantly, **commercial fisheries provide a reliable source of income for fishing households in many rural areas where income opportunities are limited** at $1.6 million-per-year for fishers' income. Non-commercial fisheries do not provide direct cash benefits, but they do provide a disproportional amount of food for many families across FSM. Conservative estimates suggest nearly 8 million pounds are caught for subsistence purposes in the FSM every year (See Table 3 below). The estimated value of these landings is over $16 million every year. In sum, an estimated 9 million pounds of fish are caught every year by local and commercial fishers, accounting for an estimated economic value of $16.7 million (or 5% of FSM GDP; Table 3 below).

Table 2: Human pressure index (people per square mile of reef area), estimated annual commercial landings of reef and nearshore pelagic fishes (x1,000 lb per year), estimated annual value of combined nearshore commercial landings (USD $ millions per year), and estimated proportion of overall annual economic value that results in net income for fishing families (x1,000 $ per year), for each state and the whole FSM.[17]

State	Population (2010)	Person per reef area (person/mi^2)	Reef landings (x1000 lb)	Pelagic landings (x1000 lb)	Overall landings (x1000 lb / year)	Value (million $)	Fishers income (x1000 $)

[16] Brander, L., Hagedorrn, L., & Franco, C., *Cost-Benefit analysis for Malem (Kosrae, FSM) climate change adaptation strategies, Cost-Benefit analysis for Pakin, (Pohnpei, FSM) and Cost-Benefit analysis for Oneisomw, (Chuuk, FSM) climate change adaptation strategies, climate change adaptation strategies,* from the "Building the resilience of communities and their ecosystems to the impacts of climate change in Melanesia and Micronesia" financed by the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMUB) International Climate Initiative (IKI)

[17] Houk et al. 2012, Houk et al. 2017, Cuetos-Bueno and Hernandez-Ortiz 2015, and Hernandez-Ortiz et al. 'unpublished data', on commercial nearshore fisheries in FSM

Chuuk lagoon	36,152	41	583	134	717	1.25	703
Kosrae	6,616	739	16	22	38	0.07	20
Pohnpei	34,789	262	552	235	787	1.38	772
Yap proper	7,371	142	132	56	188	0.33	159
FSM			1,283	447	1,730	3.03	1,654

Table 3: Overall nearshore fisheries in FSM. Estimations of annual commercial and subsistence landings (x1,000 lb per year), estimated annual value of combined landings (million $ per year), and contribution to state and national annual GDP (%)[18].

	Commercial landings (x1000 lb / year)	Subsistence landings (x1000 lb / year)	Overall landings (x1000 lb / year)	Overall value (million $ / year)	**Contribution to GDP (%)**
Chuuk lagoon	717	3227	3945	6.9	**7.5**
Kosrae	38	172	211	0.4	**1.7**
Pohnpei	788	3544	4332	7.6	**5.2**
Yap proper	188	847	1035	1.8	**3.4**
FSM	1730	7791	9523	16.7	**5.2**

Despite the clear economic and social benefits that fisheries provide, worrisome trends have been observed over the last decades. Over the past decade, combined efforts of national and state management agencies, regional research institutions, and non-governmental organizations have begun to formally review the status of FSM nearshore fisheries. There is currently a growing consensus of studies describing fisheries declines within many FSM states. The following patterns have now been documented in published and ongoing studies:

1. Large species that are most vulnerable to fishing have become rare on most FSM reefs, and are rarely found in fisheries landings today. These species represent large and iconic species of groupers, the Napoleon Wrasse, and the Bumphead parrotfish[19]. Given their slow growth these species have been the first to disappear from Micronesian commercial fisheries despite their high value to culture, tourism, and reef ecology (red area, Figure 2a below).

2. Many medium-sized target fishes that are commonly found in our commercial markets are now showing strong declines in mean body sizes (orange area, Figure 2a below). This was seen for many of the same species across most

[18] Houk et al. 2012, Houk et al. 2017, Cuetos-Bueno and Hernandez-Ortiz 2015, Hernandez-Ortiz et al. 'unpublished data', on commercial fisheries in FSM

[19] Houk, P. et al., 2012. Commercial coral-reef fisheries across Micronesia: A need for improving management. Coral Reefs, 31(1), pp.13–26.

FSM jurisdictions[20]. This results in many fishes being captured before they reach optimal sizes, and often before they have a chance to reproduce (Figure 3 below). A clear example of this shift was found in Kosrae, where clear changes were noted in fishery over the past 25 years[21].

3. Modern fish landings are slowly becoming dominated by smaller-sized herbivores that can grow and reproduce quickly (green area, Figure 2a below). The dominance of these species comes at a major ecological and financial cost. Fishers must spend more time catching more smaller fish to meet the same economic demands. Ecologically, smaller species have disproportionally lower ecological functions and can't keep our reefs free of algae that are slowly outcompeting corals for space on the reef. These impacts permeate throughout our economy and culture.

In general, fishers across the FSM have a clear memory of the "good old days", when the waters around of their islands were full of large fish ready for the taking. Fishers today find it increasingly difficult to fulfill their catch needs, spending more time and money traveling to isolated reefs, spearing fishing at night instead of daytime, and diving deeper. This sequence of events is not unique to the FSM, and is becoming more common across the tropical Pacific, eventually leading islands (i.e. Guam) to highly depend on expensive fish or processed food imports to fulfill local nutritional needs.

Figure 2 (a and b): Overtime changes of fisheries in the FSM
Background color indicates status/resilience of different type of fish; a). More resilient species (red background) have now become very rare in the FSM, and are rarely found in landings today. Mid-sized species (orange background) dominate current FSM commercial landings, yet, clear evidences of overharvesting for many of these species are becoming evident (i.e. decreases in sizes). Lastly, small-size species that are very resilient to fishing are overtime becoming dominant in landings, but at a socio-ecological cost (i.e. loss of coral resilience). A clear example of this shift was found in Kosrae, where changes were noted in the fishery over the past 25 years[22].

[20] Houk, P. et al., 2017. An applied framework to assess exploitation and guide management of coral-reef fisheries. Ecosphere, 8 (March), Houk P, Camacho R, Johnson S, McLean M, Maxin S, Anson J, et al. (2015) The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. PLoS ONE 10(6),Houk, P. et al., 2012. Commercial coral-reef fisheries across Micronesia: A need for improving management. Coral Reefs, 31(1), pp.13–26

[21] Houk, P. et al., 2017. An applied framework to assess exploitation and guide management of coral-reef fisheries. Ecosphere, 8 (March) and McLean, M. et al., 2016. Local Stressors, Resilience, and Shifting Baselines on Coral Reefs. PloS one, 11(11).

[22] Houk, P. et al., 2017. An applied framework to assess exploitation and guide management of coral-reef fisheries. Ecosphere, 8 (March) and McLean, M. et al., 2016. Local Stressors, Resilience, and Shifting Baselines on Coral Reefs. PloS one, 11(11).

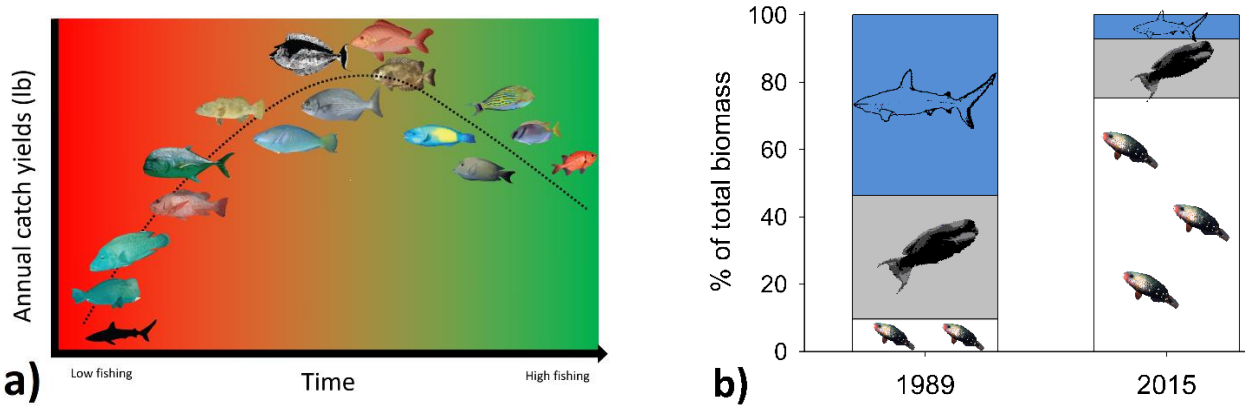
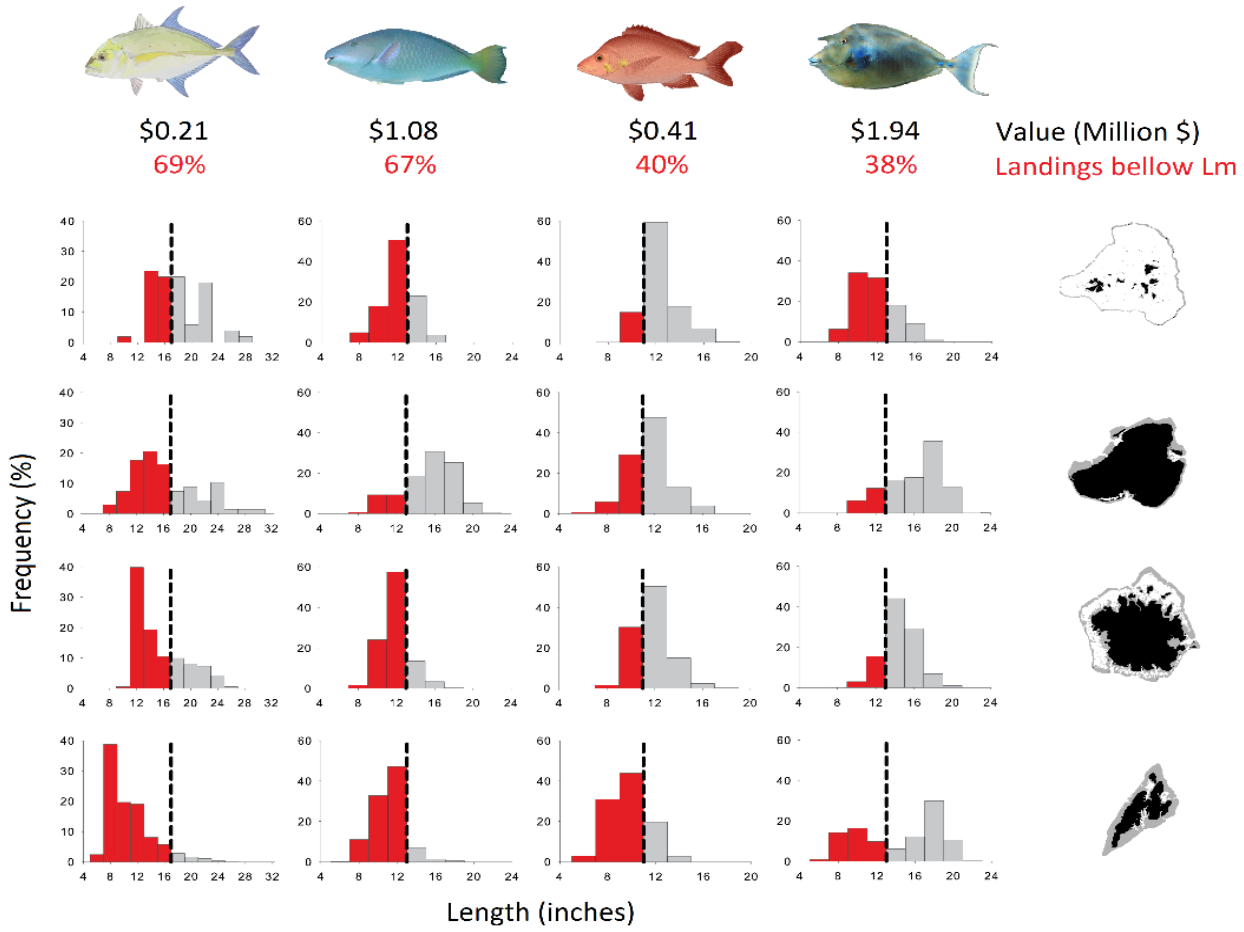
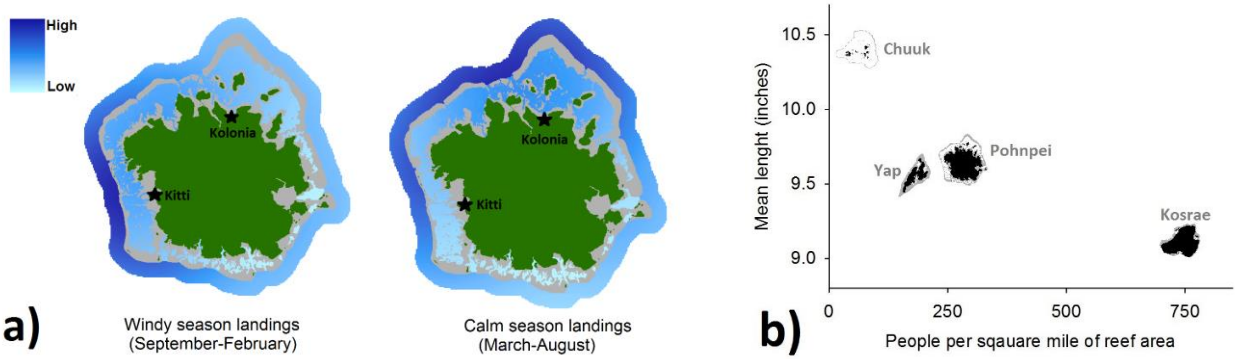


Figure 3. Declines in Medium-Sized Target Fish in the FSM
Four medium-sized target fishes that are commonly found in our commercial markets (annual economic value shown in black numbers) are already showing strong declines in mean body sizes. Many fishes being captured before they reach optimal sizes, and often before they have a chance to reproduce (shown as red bars, and red numbers). Lm= mean length at maturity.



A last line of evidence highlighting the depletion of FSM's valuable fisheries comes from examining geographical gradients of fish populations and landings[23]. Pohnpei is used as an example, but similar findings exist across the FSM. Fisher effort and landings now follow weather patterns closely, as fishers from Pohnpei quickly shifted their fishing efforts from the south-west (wind protected) to the north-east side of the islands during calmer summer months. Most fishers in Pohnpei come from the community of Kitti on the southern part of the island and the shift represents an increase in travel distance and fisher costs (Figure 4a below). The profits from improved catches clearly offsets the higher fisher costs however, the fisheries expansion leaves declining reefs and low value fisheries for many other aspects of society. Further, geographical gradients of depletion can also be observed at the national level, as mean size of commercially caught fish are smaller from islands where human pressure is highest (less reef area available for more people; i.e. Kosrae), but higher for Chuuk, where human pressure is lowest (Figure 4.b below).

Figure 4 (a and b): Shift on fishing pressure associated with dominant wind seasons in Pohnpei, despite increasing fishing costs to access north-west reefs during calmer months, suggest localized depletions at more accessible sites in the leeward side of the island (A). Further, depletion gradients can be also observed at a cross-island scale, as mean size of commercial landings decreases alongside human pressure index (people per square mile of reef area (B).



Local nearshore fisheries are a fundamental component of FSM societies, as they have been for countless generations. **Yet, clear declines in fishing success have been observed, alongside increasing subsistence and commercial harvesting, the demise of traditional management over the last decades and the impacts of climate change. These trends threaten long-term sustainability of these fisheries and the fundamental role they provide for local food and economic security.** In addition, impacts on fish populations have been identified as the main driver of declining coral reef

[23] Houk, P. et al., 2017. An applied framework to assess exploitation and guide management of coral-reef fi sheries. Ecosphere, 8 (March), Houk P, Camacho R, Johnson S, McLean M, Maxin S, Anson J, et al. (2015) The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. PLoS ONE 10(6), McLean, M. et al., 2016. Local Stressors, Resilience, and Shifting Baselines on Coral Reefs. PloS one, 11(11).

habitats[24] threatening the wide array of ecosystem services provided by these ecosystems (i.e. coastal protection).

In the last ten years, non-governmental organizations, universities, and researchers in Micronesia have made considerable progress towards institutionalizing science-to-management feedback loops that are positively influencing decision makers and policy across the region, particularly in the area of fisheries management. For example, in June 2015 a team of researchers published: The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. The researchers took a standardized approach and scored ecosystem conditions across coral reef monitoring sites in the FSM, the Republic of the Marshall Islands, and the Commonwealth of the Northern Mariana Islands. The analysis showed that fishing pressure, acting alone on outer reefs or in combinations with pollution in some lagoons, best predicted both the decline and variance in ecosystem condition. Moreover, the study suggests that "linking comprehensive fisheries management policies and targeting the management of pollution, will strengthen and preserve ecosystem services that coral reefs provide to societies in the face of climate change".

One of the key contributors to the economy of the FSM is offshore fisheries, primarily in the form of fishing licenses fees but also in its contribution through local transshipment and related services to the offshore fishing industry. FSM is one of the richest tuna fisheries in the world and the Pacific. The revenues derived from the offshore fisheries industry, comprised largely of foreign vessels, are a major source of income for the FSM economy. The fishing license fees are a major contributor to the national government's revenues, contributing over $60m in revenues to the national government in 2015 or more than 50% of non-grant revenue (see Figure 5), figures that have grown rapidly in recent years with the introduction of new management schemes.

[24] Houk P, Camacho R, Johnson S, McLean M, Maxin S, Anson J, et al. (2015) The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. PLoS ONE 10(6).

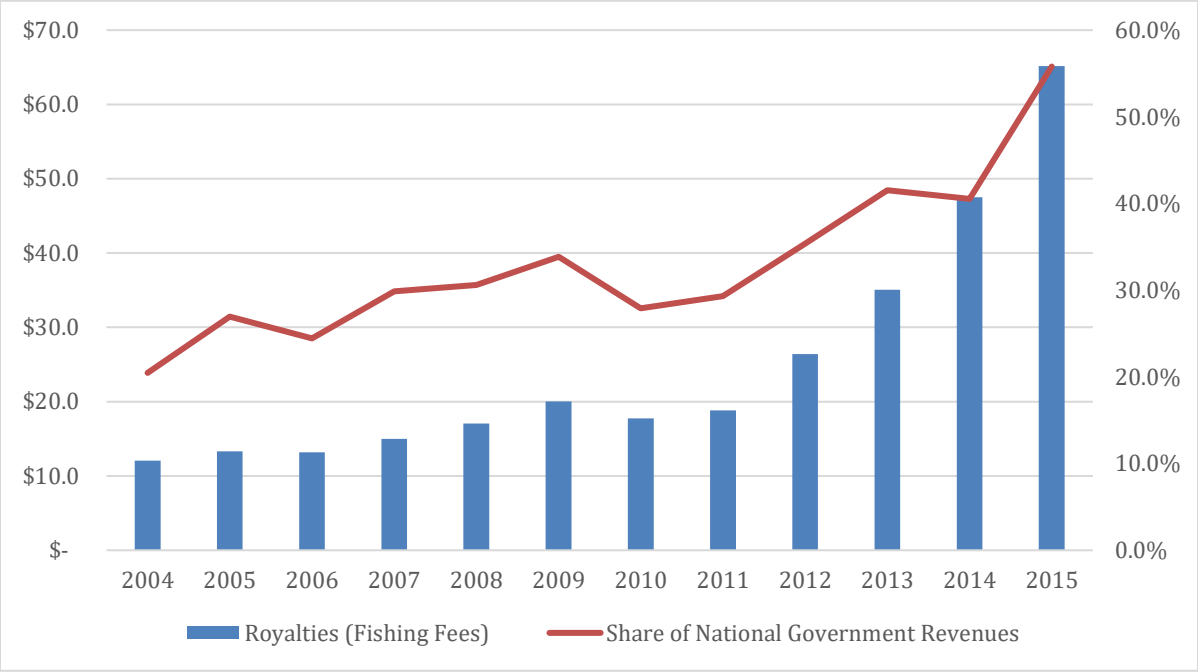


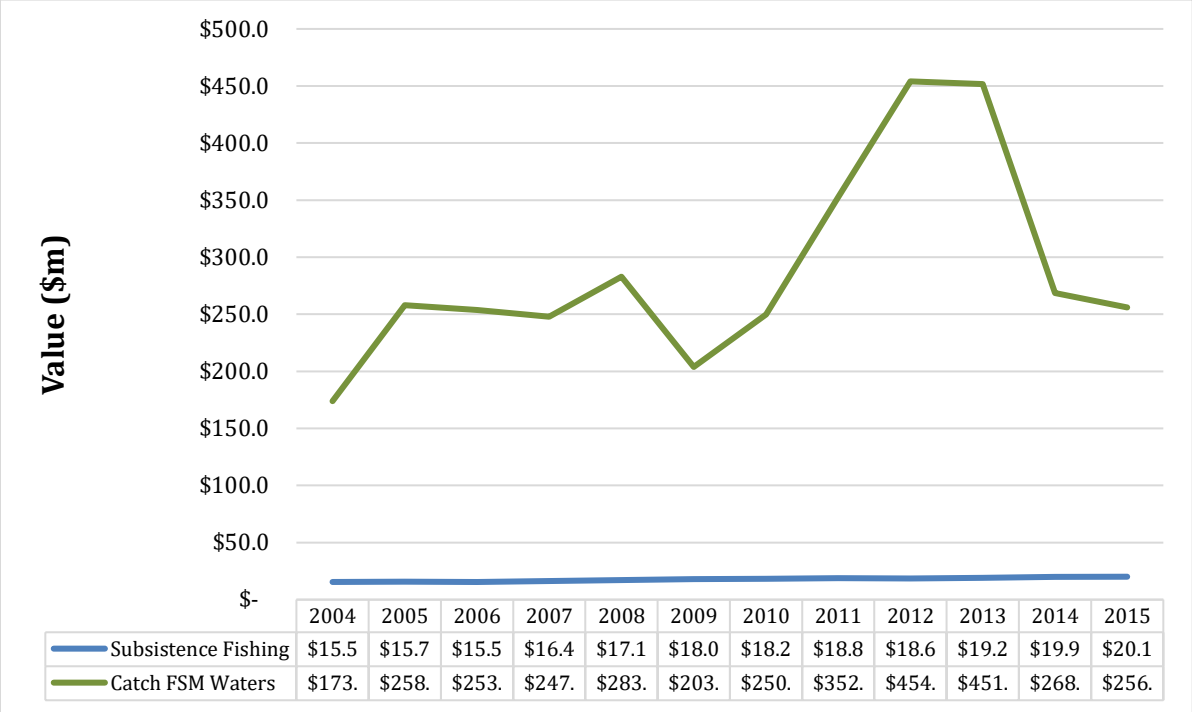
Figure 5: FSM Government Fishing License Fees ($m) and % Share of National Revenue (excluding Grants)[25]

The offshore fishing fee revenues accrue to the FSM National Government with very little of these revenues directly benefitting state governments which have responsibilities for near-shore fisheries and nearshore management. With the fishing license revenues increasing in FSM, the national Government has been able to make additional contributions to its national trust fund in preparation for the impending end of economic assistance provided under the Compact of Free Association with the United States in 2023. Sound management of these additional fishing license revenues will be critical to ensuring fiscal sustainability post-2023.

Sustainability of the tuna fishery and its interaction with nearshore fisheries has been a central theme of fisheries resource management in the Pacific in recent years with development of the Regional Roadmap for Sustainable Pacific Fisheries in 2015 that acknowledged the impacts of overfishing and climate change on both offshore and near-shore fisheries. The value of the high seas fishing is shown in Figure 6. These figures do not account for the value of illegal, unreported and unregulated fishing (IUU) estimated at $616.11m leading to an estimated loss of rent of around $152.67m.

[25] FSM Macroeconomic Fiscal Forecasting Framework, December 2016 -Website: http://www.pitiviti.org/initiatives/economics/fsm.php

Figure 6: Value of Offshore Fisheries in FSM ($m)[26]



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Subsistence Fishing	$15.5	$15.7	$15.5	$16.4	$17.1	$18.0	$18.2	$18.8	$18.6	$19.2	$19.9	$20.1
Catch FSM Waters	$173.	$258.	$253.	$247.	$283.	$203.	$250.	$352.	$454.	$451.	$268.	$256.

Still, for the Pacific Islands, nearshore fisheries are more significant to food security than offshore fisheries. While offshore fisheries make more money for the islands, nearshore fisheries are more vital to food security to the peoples of the Pacific because most of the offshore fishes are sent to offshore markets. Moreover, the nearshore fisheries draw economic activities such as dive tourism and keep the reef resources healthy for food security and climate resilience.

2.0 Climate Change Impacts and Changes to the Marine Ecosystems in FSM

The growing body of research about the relationship between climate change and ecosystem health in the FSM confirms anecdotal observations that healthy, functional ecosystems are crucial to the success of climate change adaptation strategies[27]. As described in the FSM's Second National Communication to the United Nations Framework Convention on Climate Change, the climate-change risks facing the country are increasingly documented through extensive vulnerability and adaptation assessments.

[26] FFA, Catch and Catch Values of WCPO Fisheries by Waters and Fleet, 2016, -Website: https://www.ffa.int/node/1877, FSM Macroeconomic Fiscal Forecasting Framework (Microsoft Excel Spreadsheet), December 2016 -
Website: http://www.pitiviti.org/initiatives/economics/fsm.php

[27] Federated States of Micronesia (2014) *Fifth National Report to the Convention on Biological Diversity*. Palikir, Pohnpei.

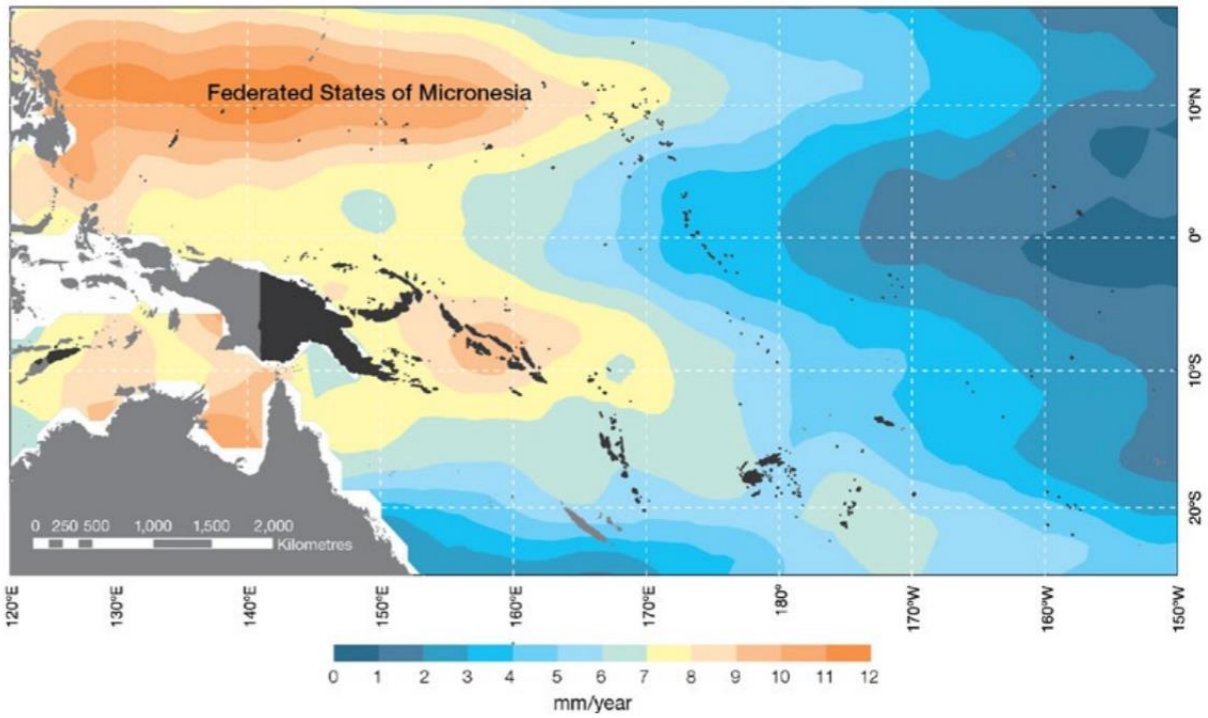
While tropical coral reefs are among the most productive and important ecosystems in the world, climate change stressors are quickly affecting their ability to thrive, nourish and protect marine species and protect the people and communities that depend on them. Two climate change related impacts pose potentially catastrophic threats to the long-term survival of coral reef ecosystems in the Pacific Islands region: rising sea-surface temperatures and changes in ocean chemistry. Coral bleaching that causes corals to expel their crucial, colorful symbiotic algae and thus turn white is already occurring across the region. A rapid ecological assessment in Chuuk in early 2016 and recent assessments in Pohnpei and Kosrae found significant coral bleaching as evidence of this dangerous trend[28]. Intense coral bleaching is often followed by coral death, though corals can recover from mild bleaching events. Adding to the stress of high temperatures is the increasing acidification of the ocean, caused by rising levels of carbon dioxide in the air that is then absorbed by seawater. One of the impacts of ocean acidification is that less carbonate is available in the form necessary for coral reefs to build their calcium carbonate skeletons. The skeletons that these small coral polyps build are a fundamental building block of coral reef ecosystems, which are in turn, vital for the survival of communities in the FSM.

Shifting weather patterns are affecting the health of the marine environment and food and water security. The tropical west Pacific is the site of pronounced ENSO conditions. El Niño conditions are characterized by a general decrease in the intensity of the trade winds; in the FSM, this is already causing a decrease in net precipitation, which is leading to persistent drought, especially during strong events such as those that occurred in 1997-1998 and a 2015-2016 event that caused severe drought and storms across Micronesia. La Niña conditions are characterized by intensification of the trade winds, driving a rise in sea level and precipitation. Rising sea level generates coastal erosion, dangerous marine inundation, and salt contamination of soil, food, and water sources.

As sea level rise has accelerated above rates in the late 20th century when most land use planning and development took place, current land use policies and development planning may not take into consideration issues related to present sea-level rise. FSM has experienced some of the highest rates of sea-level rise around the world during the period of available satellite and tide gauge monitoring. Monthly averages of the historical tide gauge, satellite (since 1993) and gridded sea-level (since 1950) data agree well after 1993. The sea-level rise near the Federated States of Micronesia measured by satellite altimeters (See Figure 7 below) since 1993 is over 0.39 inches (10 mm) per year, larger than the global average of 0.125 ± 0.015 inches (3.2 ± 0.4 mm) per year[29].

[28] Houk, P. et al (2016). *Status and management of coral reefs and fisheries resources in Chuuk Lagoon and Kuop Atoll, Federated States of Micronesia.* Technical report for the Nature Conservancy and the US Department of Interior.
[29] Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation (CSIRO, Climate change in the Pacific: scientific assessment and new research. Volume 2. Country reports, 2011

Figure 7: Rate of Sea Level Change, January 1993 to December 2010[30]: The regional distribution of the rate of sea-level rise measured by satellite altimeters



FSM's climate and sea level are both strongly modulated by the ENSO. These variations are important as drought, floods and marine inundation due to high sea levels may damage soil and degrade food resources and drinking water. During an El Niño year, the mean sea level drops across most of Micronesia. During La Niña, the sea level is elevated above its normal value. These changes in sea level are highly coherent across the region from Yap to Guam, Chuuk, Pohnpei, and Kosrae. These circumstances increase the vulnerability of coastal communities to climate impacts. Mean sea-level is projected to continue to rise over the course of the 21st century. There is very high confidence in this direction of change because sea-level rise is a physically consistent response to increasing ocean and atmospheric temperatures, due to thermal expansion and to some degree, the melting of glaciers and ice caps[31].

More than 80% of communities in the FSM are vulnerable to sea-level rise and flooding, given that most villages and settlements are situated in either coastal areas or in areas around rivers and streams. Salt-water intrusion is intensifying in coastal wetlands and groundwater systems and freshwater lenses on outer islands are increasingly vulnerable. The continued rising of sea surface temperatures has already led

[30] Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation (CSIRO, Climate change in the Pacific: scientific assessment and new research. Volume 2. Country reports, 2011

[31] Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation (CSIRO, Climate change in the Pacific: scientific assessment and new research. Volume 2. Country reports, 2011

to the increased intensities of tropical typhoons in the region[32]. In April of 2015, Typhoon Maysak, a category 5 super-typhoon, caused widespread devastation across both Chuuk and Yap with high winds, sea level inundations and heavy rainfall. Nearly 29,000 people, or more than a quarter of the country's population, were directly affected by the storm across the FSM, with costs for recovery exceeding $8.5 million dollars. While the islands were still reeling from the ongoing effects of Typhoon Maysak, a severe drought caused by considerably lower than usual seasonal rainfall in early 2016 led the President of the FSM to declare a National State of Emergency. The severity of the 2016 drought across the region led local and international government agencies evaluating the situation to proclaim it the worst drought in recorded history.

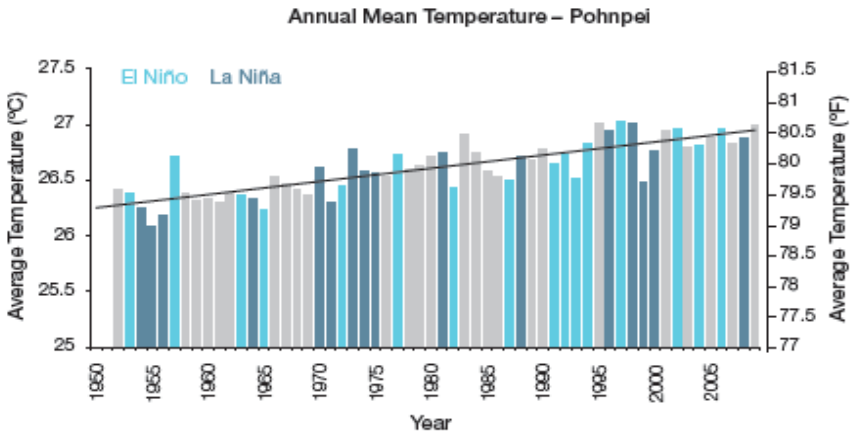
In addition to the effects on the marine ecosystem, climate change is causing significant challenges for the other systems in the FSM. Across the country, stakeholders report that changing weather patterns have already resulted in different harvesting patterns than previously known. Across the region, the longer-than-usual periods of drought followed by heavier-than-normal rains are also increasing sedimentation run off and causing erosion that directly affects the well-being of the marine environment. Intensified rain can cause overflow from watersheds, contributing to excess nutrient runoff that can affect sea grass beds, which are another critical spawning sites for many species[33] (Houk, Golbuu, Gorong, Gorong, & Fillmed, 2013). Excessive nutrient runoff can also lead to severe algae growth that blocks light that is needed for plants, such as sea grass, to grow. When they die, the process of decay decreases the oxygen in the water killing fish, crabs and other aquatic animals[34].

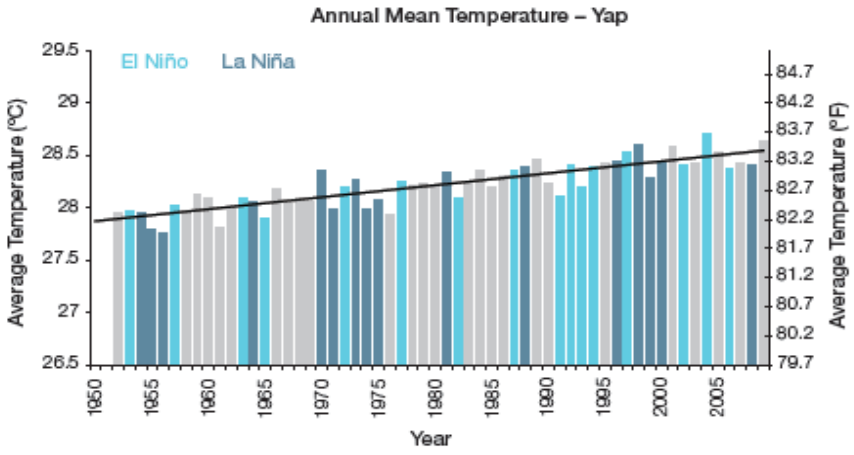
There is evidence that air temperatures are also increasing. The charts below show a steady increase in annual mean air temperatures between 1950 and 2010 in Pohnpei and Yap. These charts originally appeared in the FSM's Second National Communication to the United Nations Framework Convention on Climate Change and are based on information from the Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation.

[32] Federated States of Micronesia (2014) *Fifth National Report to the Convention on Biological Diversity*. Palikir, Pohnpei.

[33] Houk, P, Golbuu, Y. et al. Watershed discharge patterns, secondary consumer abundances, and seagrass habitat condition in Yap, Micronesia, Marine pollution bulletin, 2013

[34] NOAA (2016). What is nutrient pollution? Retrieved from: http://oceanservice.noaa.gov/facts/nutpollution.html





Already-occurring direct changes in ocean temperatures and chemistry are altering the physiological functioning, behavior and demographic traits (such as productivity) of the marine environment leading to shifts in size, spatial range and seasonal abundance of aquatic species and populations[35]. These changes are reducing the health of marine ecosystems and limiting their ability to provide both nutritional and protective services to the people of the islands. The project proposed here seeks to increase the resilience of these systems to combat the impacts on marine ecosystem services in the FSM.

2.1 Institutional Arrangements for Climate Change

The FSM Government signed the UNFCCC on June 12, 1992 and Congress ratified it on November 18, 1993. On December 24, 1994, the Convention entered into force. The Kyoto Protocol was signed by FSM on March 17, 1998 and ratified by Congress on June 21, 1999. As a party to the UNFCCC and the Kyoto Protocol, On April 22, 2016 the FSM signed the Paris Climate Accord and ratified it on July 22nd, 2016. FSM is dedicated to promoting effective strategies to combat Climate Change. Under the UNFCCC

[35] Doney, S. et al (2012) *Climate Change Impacts on Marine Ecosystems*. Annual Review of Marine Science. (4) 11-37

Framework, the FSM aims to maintain greenhouse-gas concentrations at an appropriate level so that ecosystems can adapt to climate change, and allow the economy to develop in a sustainable manner.

The Nationwide Climate Change Policy (NCCP, 2009), the National Energy Policy and State Action Plans (NEP, 2010), and the National Action Plan to Combat Land Degradation (NAP, 2011) and the National Biodiversity Strategy and Action Plan (NBSAP) are a few of the National and State-level plans and policies that the FSM is implementing to address major threats to the sustainability and economic and social viability of the country.

The Nationwide Climate Change Policy was adopted by FSM in 2009. The focus is to mitigate climate change, especially at the international level, and on adaptation at the National, State and community levels to reduce FSM's vulnerability to the adverse impacts of climate change. The Office of Environment and Emergency Management is designated as the focal point for all government climate change activities by law under Title 25 the FSM Environmental Protection Authority Act. The specific priorities of the NCCP include:

- creating a National climate risk management plan and road map for managing climate risk, supported by individual State plans that *emphasize community-based adaptation;*
- building food and water resiliency
- developing a National climate education program implemented through State, non-governmental organizations and community groups;
- installing and maintaining climate-monitoring stations throughout FSM;
- prepare maps of inundation risk and vulnerability and develop an inundation timeline that can inform State and National plans

In 2013, the FSM Nationwide Integrated Disaster Risk Management and Climate Change Policy and Public Law No. 18-43 that corresponds to it were developed. Both are meant to introduce certain legal obligations for departments and agencies of the National Government in relation to climate change.

A Framework National Water and Sanitation Policy for the Federated States of Micronesia was developed in 2011. The objective of the framework is to provide the rationale and direction for a Comprehensive National Water and Sanitation Policy for the Federated States of Micronesia. Key elements of comprehensive policy will include a "Federated States of Micronesia National Water Outlook" and Water Sector Investment Plan. The intent of this policy is to mainstream the principles of Integrated Water Resource Management and Water Use Efficiency into national and state development planning and resource management.

The FSM has a Multi-State Hazard Mitigation Plan 2005, which was developed after an extensive process of consultation, led by what was then the National Emergency Management Office, involving stakeholders across all states within and outside

government. FSM has also commenced integration initiatives from a common institutional platform for disaster risk reduction and climate change adaptation overseen by the Office of Environment and Emergency Management[36].

A Council on Environmental Management and Sustainable Development (or Sustainable Development Council) chaired by the Vice-President was established through Presidential Order No. 14. The functions and purposes of the Sustainable Development Council are to advise and make recommendations to the President on matters affecting the environmental management and sustainable development of the FSM[37].

In 2012 the FSM National government identified food security as a top priority in an official communication to the United Nations Framework Convention on Climate Change[38]. Given the geographic and economic realities of the FSM, the country's biodiversity and ecosystem services are an immediate and critical component of inhabitants' socio-economic wellbeing and development. Given its importance, biodiversity management and conservation as a theme runs throughout the FSM's National Strategic Development Plan and is a key part of the FSM's contribution to reaching the Millennium Development Goals.

Box 2: Ecosystem Degradation and Livelihoods

Ecological degradation in Micronesia threatens not only the myriad of endemic and regional wildlife and ocean systems, but also the foundation of Micronesian cultures and communities. The Micronesian region is intricately connected in a web of ocean currents and widely dispersed islands. Our societal capabilities and economies derive directly from our relationships to each other, and from our fisheries, coral reefs, forests, and watersheds. Micronesia's diverse natural resources support the livelihoods and food security of Micronesians. The natural features that make the islands exceptional also make them highly vulnerable to the principal drivers of biodiversity loss and human poverty: habitat degradation, climate change, unsustainable fishing and other extractive practices, and invasive species and pests. Without immediate action, these threats, both local and external, will further deplete the natural resources upon which the FSM depends to sustain our cultures and livelihoods[39]

3.0 Vulnerability Assessment

Like many pacific island countries, the Federated States of Micronesia is experiencing the adverse effects of the changing climate and are extremely vulnerable. As the FSM relies heavily on its eco-system services to provide subsistence, income and protection from rising sea-levels, warming waters, cyclones, sea-surges and droughts, the need to

[36] This section draws heavily on the Federated States of Micronesia. (2012). *Second National Communication to the United Nations Framework Convention on Climate Change.* Palikir, Pohnpei.
[37] Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025, Government of FSM
[38] Federated States of Micronesia. (2012). *Second National Communication to the United Nations Framework Convention on Climate Change.* Palikir, Pohnpei.
[39] Micronesia Conservation Trust (2016). Strategic Action Plan 2016-2018.

protect them is vital to the ability of communities to adapt to climate change. In a recent Vulnerability Assessment (2016) completed by the FSM Department of Finance and Administration in collaboration with the Pacific Community and the Green Climate Fund (GCF), the following impacts were noted by state of the FSM[40]:

- **For Yap:** recent and current stresses include earthquakes, tsunamis, typhoons, flooding, drought, and high seas storm surges in its outer-islands.
- **For Chuuk**: droughts, typhoons, tropical storms, storm-waves, flooding, landslides, and high sea surges in its outer islands.
- **For Pohnpei:** droughts, variable rainfall patterns, typhoons during El Nino periods, tropical storms, landslides and high sea levels during El Nina.
- **For Kosrae**: tropical storms and typhoons, drought, landslides, higher than normal high tides, large sea swells, increased impact of storm surges and flooding as a result of sea level rise.

Many of these climate impacts are especially destructive to the marine ecosystem on which the country relies. The FSM has already felt these impacts and the outlook reinforces the need for immediate action.

Table 4: Summary of projected climate change impacts for each state[41]

Impacts:	Yap	Chuuk	Pohnpei	Kosrae
Reduced frequency of droughts	✓	✓	✓	✓
Decreased typhoon frequency	✓	✓	✓	✓
Decreased frequency of severe storms	✓	✓	✓	✓
Increased ocean acidity	✓	✓	✓	✓
Rise in sea levels up to 60cm by 2070	✓	✓	✓	✓
Increase in air and sea temperature up to 3.5 degrees celsius.	✓	✓	✓	✓
Land loss via erosion and salination	particularly in the low lying outer islands.	not indicated	particularly in the low lying outer islands.	✓
More often extreme rainfall days	✓	✓	✓	✓

[40] FSM Department of Finance and Administration (2016), *Rapid Vulnerability Assessment Report: Federated States of Micronesia Readiness Phase*. Pacific Community, Green Climate Fund.
[41] FSM Department of Finance and Administration (2016), *Rapid Vulnerability Assessment Report: Federated States of Micronesia Readiness Phase*. Pacific Community, Green Climate Fund.

The assessment concluded, that at present, all states do not have the required 'high' level of adaptive capacity required to ensure adaptation to the effects of climate change. Despite some variation in their adaptive capacities in the 'medium and low' levels, all States are highly vulnerable due mainly to a combination of capacity issues to respond to climate impacts in a timely manner and to isolated and dispersed geographies. Institutional capacity to secure sufficient funds and implement coordinated adaptation and mitigation projects is inadequate, making progress slow and challenging. This makes those living in rural areas, outer islands, and coastal communities especially vulnerable, given the long distances, at times unfavorable weather, logistics and challenges with the high cost of inter-island transportation making it particularly difficult to deliver assistance and implement projects[42].

Table 5 Adaptive Capacity by state:

FSM State:	Sensitivity	Adaptive Capacity	Vulnerability
Yap State	High	Medium	High
Chuuk State	High	Low in all sectors, except Medium in Fisheries, coastal ecosystem and biodiversity	High
Pohnpei State	High	Medium	High
Kosrae State	High	Medium in all sectors, except Low in the Private Sector.	High

As has been highlighted elsewhere in this proposal (Part 1, 1.5), the residents of the FSM remain largely dependent on the marine ecosystem for subsistence and income. In addition to formal income-generating activities, subsistence livelihoods are prevalent throughout the country. According to the 2010 census, of the country's total labor force of around 66,000, about one in five self-reported as being engaged in the informal subsistence sector[43]. These stakeholders (including mostly small-scale farmers and artisanal fishers and low-income families) constitute more than 50 percent of the population, and approximately 60 percent of those are women and children. Fishers in Pohnpei are concerned about resource decline and desire reforms that improve their livelihood[44]. Moreover, as coastal communities depend heavily on their local fishery, the fishery then becomes the key to community sustainability. An intact fishery will therefore lead to increased societal cohesion which in turn increases the health and well-being of communities.

[42] This section draws heavily from: FSM Department of Finance and Administration (2016), *Rapid Vulnerability Assessment Report: Federated States of Micronesia Readiness Phase*. Pacific Community, Green Climate Fund.
[43] Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management, 2010
[44] K. L. Rhodes, unpublished data 2013

To ensure that the communities of the FSM continue to be able to rely on their marine ecosystems and increase their adaptive capacity, planning must consider the economic, social and environmental benefits of projects. These benefits must include:

- resources for the sustainable finance of the marine ecosystem through protected areas networks
- enforcement and policies
- funding for small scale eco-system based adaptation projects in communities, positive impacts on health and nutrition
- local community empowerment to implement projects and in turn experience higher levels of social cohesion and capacity
- preservation of traditional values and pride in local culture
- a reduction in the stressors of climate change on the marine ecosystem

Nahlap, FSM. Photo © Alyson Gombos

3.1 National, Local and Community Level Responses to Vulnerability

In the past few years there has been significant momentum driven by government, non-governmental, and community partners to address these issues. These multi-actor/agency activities have resulted in positive advances. Taking Pohnpei as the example, state government agencies partnered with MCT and a number of local, regional and international conservation groups and community partners to form a Fisheries

Working Group in 2014. Using fisheries and market data gathered with support from a series of complementary projects, the Fisheries Working Group created a clear and easily communicated message about the status of Pohnpei's reefs and marine resources. The Fisheries Working Group also supported the establishment of the state's first fisher and market owner-led Fisheries Advisory Council (Menin Katengensed). Together these groups conducted an extensive fisheries awareness campaign. As a result, municipal and traditional leaders strengthened fisheries management at the community level, calling for moratoriums on several highly threatened and flagship species such as the Napoleon Wrasse, bump head parrotfish, giant clams and giant groupers. Additionally, Pohnpei state adopted a number of new regulations in the second and third quarters of 2015, including size-based regulations for key herbivores as well as additional regulations for harvesting predators.

Building on advances at the state level, the FSM National Government received a grant from the World Bank PROPFish to develop a national nearshore fisheries management plan. A key part of this plan involves ensuring sustainable financing for nearshore fisheries by tapping into the FSM's national revenues from pelagic fishing license fees and setting aside a percentage to fund fisheries management activities. In support of the national plan, MCT and its partners are implementing a bottom-up approach by supporting the development of municipal plans that will in turn inform and feed into the national plan. Since January of 2016, two municipalities in the state of Pohnpei and one municipality in the state of Chuuk have developed draft fisheries management plans. Both plans will be submitted to the Pohnpei State and Chuuk State governments, respectively, and to the FSM National Government, specifically to the Department of Resources and Development and to the National Oceans Resources Management Agency to inform the FSM Fisheries Management Plan.

While current and planned activities are helping address the overharvesting of FSM nearshore fisheries, enforcement remains a critical challenge within each of the FSM states. While well-intentioned, many of the state marine resource agencies and enforcement divisions lack sufficient human and technical capacity and resources (funding and equipment) to enforce existing nearshore fisheries and marine protected areas legislation and regulations.

One mechanism that is proving effective around the FSM is collaborative enforcement teams that include representatives from communities, non-governmental organizations, and other state agencies not normally involved in enforcement activities. For example, in 2014 Kosrae state created a Conservation and Enforcement Taskforce comprised of five state government agencies and non-governmental organizations. To support the establishment of joint-enforcement teams, the *Guide to Support Development of Collaborative Enforcement Plans* was developed. This Guide emerged from previous efforts to build enforcement capacity throughout Micronesia and was developed with input from the following groups: Pacific Islands Managed and Protected Areas Community, the Guam Department of Aquatic and Wildlife Resources, Pew Charitable Trusts, Rare, Inc., the US National Oceanic and Atmospheric Administration's National Marine Sanctuaries Program, MCT and several other local partners.

4.0 Climate Change Adaptation Interventions and Impacts

4.1 MCT and Current Projects

Established in 2002, the Micronesia Conservation Trust (MCT) supports biodiversity conservation, climate change adaptation, and related sustainable development for the people of Micronesia. MCT accomplishes this by providing long-term, sustained funding through grants and capacity-building programs that encourage and enable people to adopt sustainable and appropriate solutions to local environmental challenges. The MCT is a private corporation with a governing board of 9 members, including members from international, regional national, state, and municipal governments, NGOs, business, financial and academic institutions.

Vision: Enduring partnerships that conserve our land and sea to improve quality of life for communities across Micronesia

Mission: We build partnerships, raise and manage funds, make grants, influence policy, and provide conservation and financing expertise.

Over the decade, MCT has garnered significant funding to support the FSM (and the rest of the region) in the establishment of community protected areas, livelihoods projects and projects to support communities to adapt to climate change stressors. Below is a list of current projects at MCT that support MPAs, protected areas, fisheries and climate change adaptation:

Name of project	Start and end date	Donor	Location	Budget	Summary
Enhancing Monitoring, Surveillance, and Control on Ant Biosphere Reserve in Pohnpei, FSM	October 01, 2016-September 30, 2017	Margaret A. Cargill	Ant Atoll, Pohnpei, FSM	$32,400	This project focuses on effective management of the Ant Biosphere Reserve through improved enforcement of the area. Lack of enforcement has been identified as one main factor that imposes threat on the biosphere. Improving Ant's monitoring, surveillance, and control measures/activities can ensure enforcement of such measures and strengthening management/protection of the biosphere. With this project, enforcement training will be conducted for the Ant Rangers and outreach and awareness activities on Ant management in targeted fishing communities around Pohnpei.
Mobilizing MPA	October 01, 2016-	Margaret A. Cargill	Madolenihmw,	$43, 987.90	This project is to conduct data collection trainings, management effectiveness

Communities to Increase Adaptive Fisheries Management Capacity in Pohnpei	September 30, 2017		Kitti, and U Pohnpei, FSM		workshops, consultation meetings to expand their knowledge and understanding of fish landing at 3 MPA communities in Madolenihmw, U and Kitti municipalities. Such trainings and workshops aim to identify main threats on MPAs and appropriate management measures to take to minimize/prevent threats. Analysis will be conducted to determine the best used fishery management practices at the municipal level and incorporate such practices into the statewide fishery management plan.
Supporting Depehk Takaiou and Lenger MPSA as Model Sites in Pohnpei, FSM	October 01, 2016-September 30, 2017	Margaret A. Cargill	Depehk/Takaiou MPA and Lenger MPA, Pohnpei, FSM	$38,400	This project is to improve the overall monitoring and protection of the Depehk/Takaiou and Lenger MPAs with evaluations to determine any fluctuations in fish population; a component of the project is a training for communities (conservation officers) to increase knowledge and capacity in implementing their monitoring, surveillance and enforcement efforts
Expanding science to management frameworks for coral reef ecosystems across Micronesia	October 01, 2016-September 30, 2018	NOAA	Target to impact MPAs in the FSM (and other jurisdictions in Micronesia)	$600,000 funded; $600,000 matched	The project is to collect data on marine ecosystem conditions, socioeconomic factors, and fisheries and analyze the results to produce concrete management recommendations; supporting improved fisheries management, building local capacity to implement and evaluate management strategies to respond to climate change impacts, and strengthening the management of protected areas and PANs in Palau, FSM, and RMI.
Assessing and building adaptive capacity to address climate change impacts on fishing communities and	Sept 1st, 2016 – August 31, 2018	NOAA/University of Hawaii	All 4 states of the FSM	$83,623.12	This project is collecting and integrating data on the social adaptive capacity of fishing communities with existing fisheries, ecological, and climate data. If supported, it is providing one of the first examples of how to integrate social and ecological data to support the resilience of fisheries and fishing communities in Micronesia. It is providing a robust analysis of vulnerability and resilience to inform the development and refinement of fisheries management and climate adaptation plans. The recommendations will inform the

fisheries resources in Micronesia					following: community-based ecosystem approach to fisheries management plans and Marine Conservation Areas in the FSM.
Building the Resilience of Communities and their Ecosystems to the Impacts of Climate Change in Micronesia and Melanesia	May 1st, 2015 – April 30th, 2018	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) Germany	Target vulnerable communities throughout FSM (and other jurisdictions)	MCT portion: $1,132,107.25	The project is helping people on target vulnerable islands to understand climate risks, strengthen their adaptive capacity, and work with decision makers to identify and prioritize adaptation strategies. The project is exploring the economics and socio-cultural aspects of local and regional adaptation efforts, and investigate measures to quantify and reflect on the effectiveness of adaptation. Lessons learned will be disseminated through innovative partnerships and networks. This will in turn inform local and national adaptation strategies, and contribute to global guidelines. The project focuses on the environment and ecosystem services as the foundation for resilient island communities and livelihoods, providing multiple benefits through better management, at scale, of island and coastal natural resources.
Micronesia Challenge: Sustainable Finance Systems for Island Protected Area Management project funded by the Global Environment Facility (GEF 4)	February 2011 – January 2015	The United Nations Environment Programme (UNEP)	Target to impact MPAs in FSM (and other jurisdictions in Micronesia)	$5,454,545 funded $13,921,455 Co-financed/in-kind matching	The project provided critical enabling support to the Micronesia Challenge (MC). The proponents of the MC were the Chief Executives of the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), and the Republic of Palau (RP), who in collaboration with the two United States (US) Territories of Guam and the Commonwealth of the Northern Mariana Islands (CNMI), make up the five Micronesia Challenge States. They announced to the international community that the MC aimed to undertake an expanded commitment to preserve their marine and terrestrial environments through: “effectively conserving at least 30% of the near-shore marine and 20% of the terrestrial resources across Micronesia by 2020.” This GEF project will directly support the development and adoption of sustainable finance mechanisms for Protected Areas in MC States. Sustained investment is critical to success. Establishing and sustaining a representative network of

					protected areas through putting in place legal frameworks, building and maintaining capacity for enforcement of legal frameworks, and develop capacity in science-based Protected Area assessment, management and monitoring, cannot be achieved in the absence of sustainable financing. The objective of this project therefore, is to establish sustainable finance systems and policies to provide long-term core resources to support Protected Area Networks that are well coordinated within and between the three country proponents of the Micronesia Challenge.
Supporting More Effective Natural Resource Management in Micronesia	January 1st, 2016 – January 31st, 2019	The David and Lucile Packard Foundation	Kitti, U, Pohnpei wide	$350,000	This project, in conjunction with a grant from the Margaret A. Cargill Foundation, is to improve the health of nearshore marine ecosystems through more effective fisheries management. Activities under this project currently include: continuing the Ahi Mour, Ahi Pwukoah community-based outreach and behavior change communications campaign aiming to reduce overharvesting and improve compliance to fisheries regulations and no-take zones, continue to fund scientific fisheries research to support management decision making and supporting the continued engagement of lawmakers, fishers, and communities to develop, adopt, and/or improve compliance to fisheries regulations, develop municipal level fisheries management plans for Kitti and U municipalities (in Pohnpei). In U, this project also recently supported a participatory 3-Dimensional Mapping workshop for U Municipality to support the U Community and stakeholders in sustainable planning and management of terrestrial, freshwater, and marine resources.

The current proposal has been designed taking into consideration lessons and findings from past and ongoing projects – as outlined in the table above, many of the projects and programs in FSM aim to build the adaptive capacity of vulnerable communities. Specific lessons that have been incorporated into the current proposal include the following;

1) **Enforcement:** While current and planned activities are helping address the overharvesting of FSM nearshore fisheries, enforcement remains a critical challenge within each of the FSM states. While well-intentioned, many of the state marine resource

agencies and enforcement divisions lack sufficient human and technical capacity and resources (funding and equipment) to enforce existing nearshore fisheries and marine protected areas legislation and regulations. One mechanism that is proving effective around the FSM is collaborative enforcement teams that include representatives from communities, non-governmental organizations, and other state agencies not normally involved in enforcement activities. *Outcome 2 (see section 5 below) has been developed specifically to address the critical need for enforcement and will build on the collaborative mechanism that has proved effective*.

2) **Ecosystem-Based Adaptation (EBA):** Through MCT's varied portfolio it has become clear that the success of EBA interventions depends on a number of important factors including: the identification of such solutions as informed by a vulnerability assessment (VA), socio-political issues, finer-scale physical context and the level of receptiveness of the municipal governments and communities. *The current proposal has therefore structured the sub-grant component to fund the requested adaptation actions from communities that have already completed the VA process*.

3) **Grants tools**: Over the years, MCT has refined and improved on the financial tracking and reporting mechanisms for our subgrantees. Based on feedback }, summarized in table above, the "Grants Tools" have gone through a number of changes. Changes have included a new "Project Plan" tool that leads our sub-grantees through the process of considering their monitoring and evaluation plans, project implementation, and integration of E&S risks and targets and indicators to achieve results. *The most updated "GrantsTool" will be used for Outcome 3 in the Small Grants Facility (SGF).*

4) **Community-level Decision Making:** MCT is a Micronesian organization that has always respected and engaged the cultural norms of the region in which we work. This has meant working within communities and supporting their traditional conservation methods, community practices and autonomy with science based evidence and education. Past projects have shown that the most successful adaptation actions come from decisions made within the communities themselves. Increasingly, we have seen the importance of community influence from the grassroots to the high-level policy arena. *The largest volume of funding within the current proposal has been purposefully dedicated to community-driven adaption actions through the SGF mechanism under Outcome 3 to allow communities to design and make decisions that best suit their adaptation needs.*

5) **Importance of Protected Area Networks:** Through MCT's engagement in the Micronesia Challenge, a body of evidence has been built that demonstrates that effective protected areas result in more resilient ecosystems, better able to withstand the impacts of climate change and that MPAs are one of the best ways to protect diverse and healthy marine ecosystems and coral reef communities. *The current proposal complements the Micronesia Challenge and the government of FSM's commitment to protected areas by accelerating the appropriate enabling environment through Component 1, moving toward concrete activities through community-driven adaptation*

actions in Component 2, and codifying a knowledge base to scale-up investment moving forward. Section 4.4 and 4.5 below provide more detail on the Micronesia Challenge as well as the scientific evidence base for promoting MPAs.

4.2 Partner Agencies

MCT has a long and well-established relationship with many partner organizations locally, regionally and internationally. Below is a list of those organizations that will be engaged in the implementation of this project.

Organization	Location and Type	Contributed Value/Role in Project	Examples of Programs
Kosrae Conservation and Safety Organization	Kosrae State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination. Co-management of the Utwe-Walung UNESCO Biosphere Reserve.
Yela Environmental Landowners Association	Kosrae State/NGO	Representing landowners at one of the potential project areas, on-going engagement in protected area and natural resource management, development of forest stewardship plan, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Forest inventory, management of YELA conservation easement area, resource monitoring and climate change adaptation and resource conservation actions.
Conservation Society of Pohnpei	Pohnpei State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination. Co-management of the Ant Atoll UNESCO Biosphere Reserve.
Chuuk Women's Council	Chuuk State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination.

		climate change adaptation actions and projects. Umbrella organization of community women's groups. Potential executing partner.	
Chuuk Conservation Society	Chuuk State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination.
Yap Community Action Program	Yap State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination.
Wa'agy	Yap State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination.
Island Food Community of Pohnpei	Pohnpei State/NGO	Long-standing relationships with communities in the project areas, implementation and execution of climate change adaptation actions and projects with particular focus on food security and nutrition, promotion of the growing, harvesting and consumption of local foods. Potential executing partner.	Community awareness raising, training on climate smart agriculture, food processing and nutrition.
Marine Environment Research Institute of Pohnpei	Pohnpei State/NGO	Builds capacity in sustainable alternative livelihoods and conservation activities. Conducts climate change and fisheries outreach and education with local communities and entrepreneurs. Potential executing partner.	Development of sustainable and climate smart aquaculture throughout the region.

Kaday Community & Cultural Development Organization	Yap State/NGO	Long-standing relationships with communities in the project areas, on-going engagement in protected area and natural resource management, facilitation of LEAP process, implementation and execution of climate change adaptation actions and projects. Potential executing partner.	Community awareness raising, facilitating community resource management planning and project implementation/execution. Habitat rehabilitation and Protected areas network coordination.
Yap Institute of Natural Science	Yap State/NGO	Dedicated to the idea of maintaining indigenous integrity through wise sustainable use of local resources, and the search for a valid ethno-ecological lifestyle in the Yap islands ecosystem. Potential technical advisory role.	Fruit bat surveys, studying the feasibility of mariculture for Micronesia, reintroducing sailing canoes as commercial fishing vessels
University of Guam Marine Lab (UOGML)	Guam/University	Standardizes coral-reef monitoring across main islands in RMI and FSM	Facilitating monitoring efforts while training local partners on field techniques, database generation, and taxonomy
Palau International Coral Reef Center (PICRC)	Republic of Palau/NGO	Provides research, science and technical support for local organizations and communities across Micronesia. Technical advisory role, particularly around resource monitoring and knowledge management.	Long-term monitoring around Palau and at all marine protected areas (MPAs). Database development and maintenance.
RARE	International NGO	Specializes in social marketing and effective communications for conservation. Technical advisory role.	Building management and technical capacity to test site-level solutions from campaigns that incentivize long term support of MPAs
The Nature Conservancy (TNC) Micronesia Program	International NGO	Empowers regional and local conservation organizations/agencies to be successful in direct conservation action through trainings and capacity building support	Strengthening local partners' capacity at priority sites to undertake ridges to reef and climate change resiliency planning

4.3 The Micronesia Challenge

In 2006, the FSM joined the Republic of the Marshall Islands, the Republic of Palau, the Commonwealth of the Northern Mariana Islands, and the U.S. Territory of Guam in declaring the Micronesia Challenge. The Micronesia Challenge is a regional effort to effectively conserve and manage at least 30 percent of near-shore marine resources and 20 percent of terrestrial resources across Micronesia by 2020. The Micronesia Challenge was a catalyst for creating a regional web of mutually reinforcing projects, programs, and

peer-learning networks to improve the management and ecosystem condition of the natural resources Micronesians rely on. Reflecting the region's diverse resource tenure systems and traditional management practices, national and sub-national government agencies with policy, regulatory, and enforcement mandates are partnered with non-governmental organizations (NGOs) with conservation and community outreach and mobilization skills to work with communities and traditional leaders to manage resources, conserve biodiversity, and increase ecosystem and community resilience to climate change. International universities, institutes, and conservation organizations provide scientific knowledge and support, while regional peer-learning networks connect resource managers and NGOs from across the Micronesia Challenge, functioning as capacity building and knowledge sharing platforms.

Towards this goal of the Micronesia Challenge, in the last decade, government and non-government partners across the FSM have championed the creation of new terrestrial and marine protected areas. Effective protected areas result in more resilient ecosystems, better able to withstand the impacts of climate change and MPAs have proven to be one of the best ways to protect diverse and healthy marine ecosystems and coral reef communities. The FSM National and State governments and their numerous partners are also working towards sustainable financing for protected areas. This includes the FSM's Micronesia Challenge Endowment Fund sub-account that was established as a result of FSM's commitment to the Micronesia Challenge, administered by MCT to support protected area management through contributions and investments. As of October, 2017, this Endowment was valued at just over $5.7M. For more information on the Micronesia Challenge, see Appendices 1 and 5.

4.4 Importance of Protected Areas Networks to Alleviate Climate Change Stressors

Protected areas serve a significant role in the defense of marine ecosystems against climate change stressors. However, if protected areas are weak or the regulations not enforced, the expected benefits will be fewer, or may not materialize[45] at all. MPA's cannot fully address the problems in the absence of other, supporting measures. Therefore, **sound fisheries management practices, enforcement of MPA rules and regulations and community decision-making and empowerment are each fundamental to the success of MPA systems[46].** Although small-island nations have little control over greenhouse gas emissions from developed nations, they can increase their resilience by managing their local resources to enhance the ecosystem services that the reefs provide. Ensuring and maintaining healthy coral reef ecosystems is an essential climate change adaptation strategy for FSM as most of the population lives along the coasts and therefore a vulnerable to the impacts of climate change.

[45] Chollett I, Mumby PJ, Cort´es J (2010) Upwelling areas do not guarantee refuge for coral reefs in a warming ocean. Mar Ecol Prog Ser 416:47–56.

[46] Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

Under the Convention on Biological Diversity and Sustainable Development Goal 14, coastal nations have committed to protecting 10% of their waters by the year 2020. Unfortunately, the world is falling short. As of 2015, only 1,6% of the oceans have been given full protection with another 1.9% promised protection[47]. Recent research suggests that the 10% target should be raised to 30% to safeguard marine ecosystems in the long run. It is therefore vital to **accelerate the implementation of MPA's as part of an integrated strategy of climate mitigation and adaptation, essentially aligning United Nations targets for biodiversity protection and emissions reduction[48].**

In the face of climate change, in addition to reducing gas emissions, aggressive and urgent steps are required to boost the resilience of ecosystems to safeguard their wildlife and protect and enhance their capacity to supply ecosystem services and protection for the people who depend on them. Properly managed fisheries are vital to a sustainable, healthy, and affordable future for local populations. To this end, marine protected areas[49] (MPAs) have proven one of the most effective measures to maintain diverse and healthy reef communities. Scientists in the region suggest that prioritizing the management of MPAs and fisheries will best preserve the underlying trophic relationships responsible for the ecosystem services that coral reefs provide to Micronesian societies[50]. They are also one of the most practical and cost-effective strategies available[51]. **Moreover, extensive MPA networks can help mitigate climate change through multiplication of biological responses to protection[52].**

In a recent publication, Roberts et al (2017) analyzed over 100 publications to examine the role of MPA's in ecosystem health and resilience for five key predicted impacts of climate change. Below is a summary of their findings:

1. *Ocean acidification:* Oceans have absorbed almost one third of human C02 emissions[53] causing surface layers to be significantly more acidic (some estimates at 26%) since preindustrial times. Acidification is a major threat to marine ecosystems affecting plankta and reef-building taxa such as molluscs, corals and

[47] Lubchenco J, Grorud-Colvert K (2015) OCEAN. Making waves: The science and politics of ocean protection. Science 350:382–383

[48] Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

[49] In this proposal, marine protected areas (MPAs) are defined as any clearly-delineated marine managed area that contributes to protection of natural resources in some manner. They include, but are not limited to, areas with a variety of regulations including marine reserves (areas of ocean that are protected from extractive and destructive activities) and areas with fisheries restrictions upon gear, species, size and access. They also include areas with different governance systems, including government and community managed marine areas.

[50] Houk et al. (2015). *The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback.*

[51]Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

[52]Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

[53] Intergovernmental Panel on Climate Change (2013) Climate change 2013: The physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, eds Stocker TF, et al. (Cambridge Univ Press, Cambridge, UK).

algae[54]. Protected areas can help rebuild certain fish populations that play a significant role in the marine inorganic carbon cycle through the excretion of high-magnesium calcite crystals that then act as a first line of defense against reduced saturation states caused by acidification[55].

2. *Sea-level rise:* Thermal expansion and increased meltwater from terrestrial ice caps have increased the volume and sea level of the world's oceans. As was outlined above (see section 2.0), sea level rise in the FSM has averaged 11 mm per year since 1993. Intact coastal wetlands, mudflats, and biogenic reefs offer protection against rises in sea level, leading to increasing momentum for ecosystem-based adaptation to safeguard people, infrastructure, and property against adverse climate change impacts[56].

3. *Intensification of storms:* Warmer waters will drive more intense storm systems that will cause more severe flooding and inundation to coastal communities. Protected areas can reduce loss, damage, and degradation, thereby promoting intact habitats that offer coastal defense, recover after extreme events and enhance human livelihoods. Moreover, the protection of coastal habitats often offers a more cost-effective solution than habitat restoration or engineering solutions after large events[57].

4. *Shifts in species distribution:* Climate change is expected to create a global diaspora of wildlife. Uneven warming and salinity will affect ocean currents that will, in turn, influence the distribution of taxa and marine ecosystems. Redistribution of species towards more temperate waters may reduce diversity in tropical and subtropical regions. Regionally networked protected areas can provide 'stepping stones' for dispersal, safe 'landing zones' for colonizing species and possible refugia for those unable to move. By increasing reproductive output, protected areas increase ecologically meaningful dispersal distances, improving population connectivity as well as promoting genetic diversity by increasing population sizes and broadening the selective environment[58].

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[54] Nagelkerken I, Connell SD (2015) Global alteration of ocean ecosystem functioning due to increasing human CO2 emissions. Proc Natl Acad Sci USA 112:13272–13277.

[55]Morse W, Andersson J,Mackenzie T (2006) Initial responses of carbonate rich shelf sediments to rising atmospheric CO2 and "oceanacidification":Roleof high Mg-calcites. Geochim Cosmochim Acta 79:5814–5830.

[56] Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

[57]Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

[58]Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114), Roberts CM, et al. (2010) Guidance on the size and spacing of Marine Protected Areas in England (Natural England, Peterborough, UK), Commissioned Report NECR037, and Castilla JC, Campo MA, Bustamante RH (2007) Recovery of Durvillaea antarctica (Durvilleales) inside and outside Las Cruces Marine Reserve, Chile. Ecol Appl 17:1511–1522.

5. *Decreased productivity and oxygen availability:* Climate change is warming the average temperature of the ocean and decreasing oxygen levels. Surface warming increases stratification and can reduce mixing, nutrient availability, and primary production[59]. Fisheries productivity is also declining as a result of the warming and dissolving oxygen. Effectively managed protected areas play well-understood roles in supporting fishery management, rebuilding exploited stocks and degraded habitats, increasing production, and facilitating replenishment of fishing grounds[60]. By extending population age structures, they reduce the spatial and temporal variability of population replenishment and increase resilience[61].

Therefore, the cumulative effects of protected areas in building marine ecosystem resilience to climate change stressors cannot be understated. Protected areas:

- Limit direct anthropogenic stressors thus enabling species to recover abundance, biomass, diversity, age structure, and reproductive output along with enabling habitats to recover complexity. Larger populations are more resistant to extinction on local, regional and global scales because there is a greater buffer against decline and higher reproductive output[62].

- Enhance the potential of species to respond to changing conditions and sudden mass mortalities by increasing the change of survival as consequence of more diverse populations and by protecting larger, more fertile animals, thereby promoting recovery[63].

- Limit direct pressures thereby giving ecological communities the best chance to develop and adapt to changing conditions in ways that maintain function and structure[64].

- Protect fish populations. With the marked declines in the presence of herbivore fish, a vital component of any healthy coral reef ecosystem, protected areas help to increase their presence. As microalgae is generally less sensitive to changes in the environment such as temperature or sediment levels, they thrive and grow quickly, having the potential to overwhelm and suffocate coral. Herbivores keep

[59] Hoegh-Guldberg O, Bruno JF (2010) The impact of climate change on the world's marine ecosystems. Science 328:1523–1528.
[60] Roberts CM, Hawkins JP (2012) Establishment of fish stock recovery areas (European Parliament, Brussels, Belgium), IP/B/PECH/IC/2012-053
[61] Hsieh CH, et al. (2006) Fishing elevates variability in the abundance of exploited species. Nature 443:859–86
[62]Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)
[63] Bernhardt JR, Leslie HM (2013) Resilience to climate change in coastal marine ecosystems. Annu Rev Mar Sci 5:371–392.
[64] Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

the ecosystems functioning by consuming the algae, limiting its density and therefore protecting the coral from overpopulation and possible disease. This provides an important balance in the ecosystem and strengthens the reefs resilience and chances of recovery from climate change impacts such as coral bleaching events.

The difficulties that Pacific island nations have in resourcing effective MPA and fisheries regulation enforcement efforts, and thus achieving the climate change adaptation benefits that are possible, were highlighted in a recent study of the risks to reef, stating that:

Marine Protected Areas require day-to-day management and enforcement to effectively protect reef resources, yet many [nations] lack the economic resources and staff for effective management. Governments, donors, NGOs, and the private sector should provide financial and political support to help MPAs build needed capacity, both in terms of equipment (e.g., boats and fuel) and adequately trained staff[65].

Building capacity for reef management and law enforcement among local communities, agencies and organizations can directly benefit reef resources.

4.5 Progress towards Protected Areas Networks in the FSM

Across the FSM, MCT and government, NGO and community partners have worked closely together (through participatory processes and consultation) to establish more than 50 state, municipal, and community legislated and/or traditionally declared protected areas covering a wide range of marine, terrestrial, and atoll ecosystems. **The national government is considering a draft National Protected Areas Network Policy Framework (NPANPF) developed in 2015 in cooperation with MCT and partners** (see appendix 10). This framework outlines a transparent, fair, and efficient system governing the designation and operation of a nationwide protected areas network, inclusive of state-level protected areas networks in Yap, Chuuk, Pohnpei, and Kosrae. This nationwide network is designed to facilitate the national government's delivery of assistance to its states in the protection of significant areas of biodiversity, key habitats, and other valuable resources. The NPANPF establishes procedures for the management entities of protected area sites to apply to join the protected area management network and outlines the benefits of membership in the nation-wide network, including access to long-term and sustained technical and financial assistance.

[65] Burke L, Reytar K, Spalding M and Perry A (2011) Reefs at Risk Revisited. World Resources Institute, Washington D.C.

The FSM's NPANPF is designed to augment efforts at the state, municipal, and community levels throughout the country to achieve conservation and climate change adaptation goals, which broadly reflect the country's participation in the Micronesia Challenge, the United Nations Convention on Biological Diversity, and the United Nations Framework Convention on Climate Change. Funding for the operation of the NPANPF will come from a combination of national government allocations, state financial and in-kind support, and investment earnings from the FSM's Micronesia Challenge Endowment Fund.

Also in 2015, MCT and the FSM Department of Resources and Development prepared a companion document to the NPANPF: the associated Country Program Strategy (CPS) (see appendix 11) with guidelines and procedures for the disbursement of investment earnings from the FSM's Micronesia Challenge Endowment Fund. The strategies and procedures for dispersing these earnings described in the document are intended to support the operation of the FSM's protected areas network. The government of the FSM must adopt protected area laws as a prerequisite for withdrawing funds as is required by the main donors (The Nature Conservancy, Conservation International and Global Environmental Facility-UNDP) to the MC endowment fund. Moreover, MCT cannot release any of the funds to the states, even if all the four states have adopted PA laws, until the FSM officially endorses the NPANPF.

The FSM PAN Policy Framework is currently being reviewed by the FSM Department of Resources and Development and the FSM Department of Finance. This has been reviewed by the R&D and the President and will be forwarded to Congress for adoption at their regular session in January, 2018. Additionally, FSM's GEF5 Ridge to Reef Project, focuses on establishment and strengthening sustainable land management and protected areas networks, including calling for the adoption of the NPANPF. The FSM Department of Resources and Development is the executing agency for the GEF5 Ridge to Reef Project and therefore is making adoption of the NPANPF a priority. It is expected that this policy is adopted before inception of this Adaptation Fund Program.

The FSM national government has the crucial role and responsibility of providing coordinated technical and financial assistance to support state-level resource management activities. Per the constitution of the country however, the FSM states each have sole jurisdiction and resource management authority for the nearshore marine and terrestrial areas within their borders. Therefore, each state has its own set of resource management agencies, policies, and legislation. **To establish a fully functioning nation-wide protected areas network, each state is developing its own state protected areas management network that will link up to the nation-wide network.**

FSM State PAN Laws: The FSM states of Pohnpei, Kosrae and Chuuk already have legislation in place for their state protected areas. Yap has limited jurisdiction over most terrestrial and near-shore marine resources, as most land and coastal areas are either privately or community owned. Government agencies, non-governmental conservation and resource management groups, and community members created a community-managed network of protected areas in 2015. Additional consultation and design is still required to establish a state-recognized network of protected areas in Yap.

During 2016 and 2017, MCT and its partners conducted state-level consultations to inform the design of a protected areas network in Yap that is state recognized, and therefore eligible for government technical and financial assistance, while respecting the existing system of private resource tenure in these states. As is outlined above, the main incentive for the states to adopt their protected areas laws is that it is a prerequisite to withdraw funds from the MC endowment fund. The FSM and the states are also aware of and keen to meet their commitments to the UN Convention on Biological Diversity (protected areas and Aichi Targets), another incentive for them to officially adopt the policies and legislation required for them to meet those UN requirements.

Chuuk PAN Law – Chuuk State passed its PAN Legislation in September of 2017 thanks to the proponents of the bill, including Speaker Innocente Oneisom and Representative Wisney Nakayama of Chuuk State Government. The bill was signed into Law at the State and National Leadership Conference in October.

Yap PAN Law – the Yap State Legislature has requested clarifications on the terms of the draft PAN bill. Local partners in Yap continue to work with the legislature by attending public hearings and offering feedback.

4.6 Community Based Management and Adaptation Action Planning in the FSM

In the FSM, local communities play a leading and integral role in managing coastal and marine resources in cooperation with local government agencies. Community-based adaptation that involves stakeholders throughout FSM must be consistent with the traditional community values prominent in Micronesian culture. This approach is vital to the success of the overall ability of the FSM to adapt to the effects of climate change. Climate risk management in FSM is likely to be most successful if planned and designed with a motivated community. This happens by spending time working with local communities and their leaders, forming partnerships with local stakeholders and non-

governmental organizations, and involves a planning structure that involves landowners and those with land use rights. When the community most affected by climate change is involved in designing the tools to manage climate risk, the likelihood that adaptation steps will be successfully implemented is increased significantly.

In 2010, natural resource managers who support community-based management efforts in Micronesia recognized the need to begin incorporating climate change adaptation into community processes such as protected areas development and fisheries management. In response, MCT, in part through the Micronesia Challenge, launched a collaborative initiative to address climate change and prepare for impacts to ecosystems, natural resources, and the communities that depend on them in a meaningful way. MCT and other Micronesia Challenge partners convened natural resource managers, community leaders, climate scientists, and experts from various sectors to determine what a community-based tool should look like. This collaboration resulted in the development of a tool, *"Adapting to a Changing Climate: Guide to Local Early Action Planning (LEAP) and Management Planning."* This LEAP process of developing and selecting ecosystem-based activities is a community-lead process with support and input from experts and facilitators. The decisions that emerge from the process are community-led and driven, as are the actions and strategies selected during the consultations. through facilitation and the use of locally appropriate tools, the communities themselves will drive the selection process of ecosystem-based activities as they engage in the LEAP process. The process provides guidance for informed community-based decision-making. The aim of the tool is to combine local experience and knowledge with key scientific concepts that enable community members to more fully understand complex issues and to make management decisions that increase their chances of success. For more about the LEAP tool, see appendix 2.

Appropriate fisheries and MPA management can reverse current trends for fishers who rely on fishing for both subsistence and income, while at the same time strengthening the coastal ecosystems that protect the islands of Micronesia as the effects of climate change increase. Part of this effective management also involves integrating alternative livelihoods components and tools into existing community planning processes, conservation and climate adaptation efforts to improve the likelihood of their success and sustainability. The Micronesia Conservation Trust envisions promoting sustainable livelihoods in cooperation with the private sector. This includes grooming conservation leaders and professionals while promoting and supporting conservation and climate change adaptation projects to make conservation and effective resource management a reliable way to support families and communities. This management approach to climate change adaptation was recommended in a recent major report on the vulnerability of tropical Pacific fisheries to climate change[66] (see appendix 5 for more detailed information).

At least 54 communities in the FSM have used the LEAP, or aspects of the suite of tools, to establish priority eco based actions to build community resilience to climate change.

[66]Pratchett MS et al (2011) In: JD Bell, JE Johnson and AJ Hobday (eds) Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change. Secretariat of the Pacific Community, Noumea, New Caledonia.

The LEAP tool is Micronesia's most widely used locally developed mechanism to engage communities in a collaborative process to identify priority climate change impact vulnerabilities and develop and implement specific ecosystem-based activities to address these priority vulnerabilities. In fact, versions of the LEAP have been adapted for use in the Caribbean and elsewhere in the world. Through a combination of outreach, local planning, and technical assistance, communities develop targeted work plans with actions to reduce the exposure and sensitivity of coastal and marine resources, and build their adaptive capacity to climate change threats and stressors.

5.0 Project/Programme Logic and Objectives:

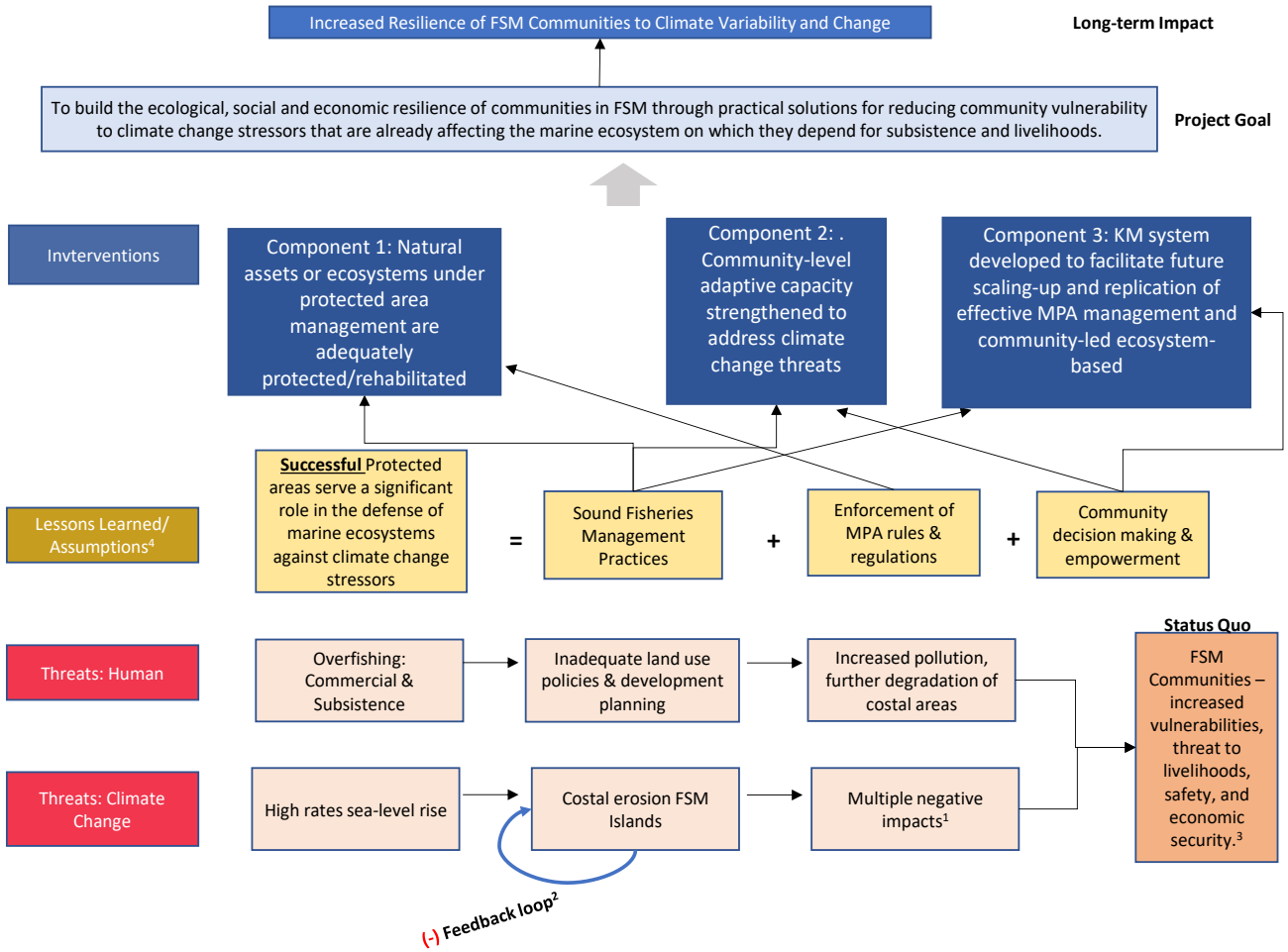
The overall theory of change for the current proposal is outlined in diagram 1 below. FSM faces significant threats as detailed in the previous sections. Climate-related risks are significant to the communities living across FSM because of increased rates of sea-level rise, overfishing both commercial and artisanal, the need for enforcement of marine protected areas, and overall limited adaptive capacity and greater sensitivity of rural communities spread across a wide geographic area to climate-driven impacts. The FSM is composed of 77 main communities (11 in Pohnpei, 42 in Chuuk, 4 in Kosrae and 20 in Yap) with hundreds of villages/chiefdoms spread across 2.5 million kilometers and are characterized by the prevalence of communities vulnerable to the impacts of climate variability and change. This threat requires climate finance for adaptation activities to find its way to these most vulnerable communities. Given FSM's unique geography, climate, and reliance on marine ecosystems for food security and livelihoods, MPAs serve a significant role in the defense of marine ecosystems against climate change stressors.

The project thus entails the implementation of three main components to combat the main threats identified – the first component focuses on securing the appropriate enabling environment to ensure the functioning of successful MPAs and associated fisheries management activities. The third component is designed as an enhanced direct access small grant finance mechanism to address financial, capacity and adaptation need. The Small Grants Facility (SGF) will increase climate resilience in communities that have identified a suite of adaptation options through previous adaptation planning efforts (see details on LEAP in appendix 2). The overall goal of the SGF is to ensure that vulnerable, coastal communities across FSM's four states have reduced vulnerability and increased resilience to the anticipated impacts of climate variability and change. The objective is to incorporate climate adaptation response strategies into local practices so that assets, livelihoods and ecosystem services are protected from climate-induced risks associated with expected sea-level rises, fish-stock depletion and storm-related disaster events. The final component focuses on knowledge management to ensure that best practices through this project are shared with the intention of replication throughout the region. It also includes a monitoring and evaluation component including engagement with both a gender advisor and an E&S specialist to ensure project implementation in line with AF standards.

The project aims to ensure that all four State Governments and the National Government in the FSM have the mechanisms in place to develop and successfully implement a robust

nearshore fisheries management and nationwide protected areas network inclusive of proper enforcement and sustainable finance mechanisms. The SGM will provide communities with the resources and support needed to implement successful eco-based adaptation actions to protect their marine ecosystem and increase resilience to climate change impacts.

Diagram 1: Theory of Change:



[1]Negative impacts to the following: natural environment, water resources, infrastructure, food production and human habitation.
[2]Coastal erosion fragments mangrove stands, leaving shorelines more vulnerable to storm damage and further erosion. The resulting increase in terrigenous sedimentation and turbidity in near-shore areas degrades the health of protecting coral reefs, increasing the islands' vulnerability to further erosion and reducing the supply of atoll-building marine sediments.
[3]Micronesia's diverse natural resources support the livelihoods and food security of Micronesians. The natural features that make the islands exceptional also make them highly vulnerable to the principal drivers of biodiversity loss and human poverty: habitat degradation, climate change, unsustainable fishing and other extractive practices, and invasive species and pests. Without immediate action, these threats, both local and external, will further deplete the natural resources upon which the FSM depends to sustain FSM's cultures and livelihoods
[4]Sections 1.5 and 1.6 detail the scientific rationale for the underlying assumption of the current proposal that MPAs serve a significant role in the defense of marine ecosystems against climate change stressors and the lessons learned from the scientific community MPA's that are successful in the protection of the marine ecosystem against climate stressors must include: (1) The establishment of national sound fisheries management practices (MPAs and MPA networks, legislation, fisheries plans); (2) The enforcement of MPA rules and regulations; (3) Support for community-based decision-making and identification of management actions.

The **long-term impact** of the project is to **increase resilience of FSM communities to climate variability and change.**

Project Goal: The overall goal of the project is to build the ecological, social and economic resilience of communities in the Federated States of Micronesia through

practical solutions for reducing community vulnerability to climate change stressors that are already affecting the marine ecosystem on which they depend for subsistence and livelihoods.

To achieve the Project Goal, this project consists of three main components:

Component 1: Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated
Component 2: Community-level adaptive capacity strengthened to address climate change threats
Component 3: Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based

Project Strategy: The project strategy is to ensure that all four (4) State Governments and the National Government in the FSM have the mechanisms in place to develop and successfully implement a robust nearshore fisheries management and nationwide protected areas network inclusive of proper enforcement and sustainable finance mechanisms. The project strategy is also to provide communities with the resources and support needed to implement successful eco-based adaptation actions to protect their marine ecosystem and increase resilience to climate change impacts.

Box 3: Successful MPAs Reduce Climate Stressors on Marine Ecosystems

Extensive MPA networks can help mitigate climate change through multiplication of biological responses to protection. There is an urgent need to accelerate the implementation of MPA's as part of an integrated strategy of climate mitigation and adaptation, essentially aligning United Nations targets for biodiversity protection and emissions reduction.

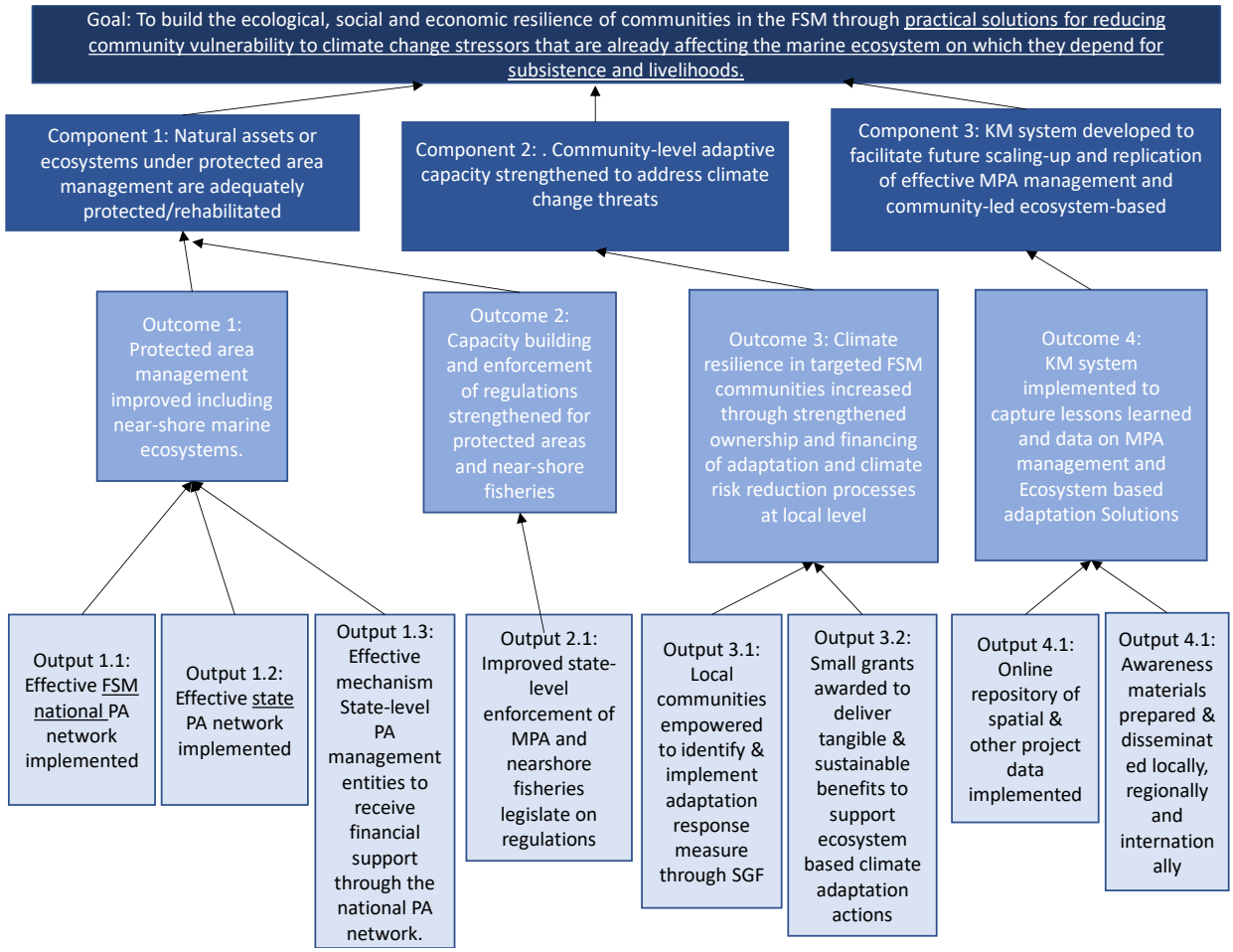
Protected areas serve a significant role in the defense of marine ecosystems against climate change stressors however they cannot solve the problem alone. MPA's that are successful in the protection of the marine ecosystem against climate stressors must include:

- The establishment of national sound fisheries management practices (MPAs and MPA networks, legislation, fisheries plans);
- The enforcement of MPA rules and regulations;
- Support for community-based decision-making and identification of management actions[67]

Program Logic:

[67] Roberts et al. (2017). *Marine reserves can mitigate and promote adaptation to climate change* (www.pnas.org/cgi/doi/10.1073/pnas.1701262114)

Diagram 2 below outlines the overall logic of the program – the more detailed results framework with specific indicators and targets is provide on page 132.



Project / Programme Components, Objectives and Financing:

Project Components	Expected Concrete Outcomes		Expected Outputs	Amount (US$)*
1. Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated	Outcome 1. Protected area management improved including near-shore marine ecosystems.	1.1	Effective FSM nation-wide protected areas network implemented	$2,600
		1.2	Effective state protected areas networks	$282,360
		1.3	Effective mechanisms in place for State-level protected area management entities to receive financial support through the nation-wide protected area network.	$15,000
	Outcome 2: Capacity building and enforcement of regulations strengthened for protected areas and near-shore fisheries	2.1	Improved state-level enforcement of MPA and nearshore fisheries legislation regulations	$56,000
2. Community-level adaptive capacity strengthened to address climate change threats	Outcome 3: Climate resilience in targeted FSM communities increased through strengthened ownership and financing of adaptation and climate risk reduction processes at local level Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1	Local communities empowered to identify and implement adaptation response measure through Small Grant Facility (SGF)	$2,000
		3.2	Small grants (through an enhanced direct access mechanism) to vulnerable communities awarded to deliver tangible and sustainable benefits	$341,120

3.Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation actions	Outcome 4: KM system implemented to capture lessons learned and data on MPA management and Ecosystem based adaptation solutions	4.1	An on-line repository of spatial and other project data implemented	$90,000
		4.2	Awareness materials prepared and disseminated locally, regionally and internationally	$20,000
	5. Project/Programme Execution cost			$84,930
	6. Total Project/Programme Cost			$894,010
	7. Project/Programme Cycle Management Fee charged by the Implementing Entity (base = 7)			$75,990
	Amount of Financing Requested:			$970,000

Projected Calendar:

Milestones	**Expected Dates**
Start of Project/Programme Implementation	May 2018
Project/Programme Closing	April 2021
Terminal Evaluation	October 2021

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

Component 1. Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated

The main outcomes under this component serve the dual function of (i) ensuring a fully-functioning and institutionalized system for national and state government support for protected areas networks in Yap, Chuuk, Pohnpei, and Kosrae; and (II) supporting state-level efforts to ensure compliance with MPA and fisheries regulations. This will reduce overharvesting of near-shore fisheries and maintain coral reef and near-shore marine ecosystem health, resilience to climate change and food security within the FSM.

The outputs and activities under this component will take place at the national and state levels. Efforts to restore and maintain ecosystem health across FSM will contribute to increased climate resilience (see section 4.4 in Part 1).

Outcome 1: Protected area management improved including near-shore marine ecosystems.

Output 1.1: Effective FSM nation-wide protected areas network implemented.

Activity 1.1.1 Work with FSM Department of R&D to have the national leadership endorse the National Protected Areas Policy Framework (NPAPF) document and the associated Country Program Strategy (CPS)

Per the constitution of the FSM, each state has sole jurisdiction and resource management authority for the nearshore marine and terrestrial areas within their borders. Therefore, each state has its own set of resource management agencies, policies, and legislation. To establish a fully functioning nation-wide protected areas network, each state is developing its own state protected areas management network that will encompass the nation-wide network. A national protected areas policy framework (NPAPF) and an associated country program strategy (CSP) are essential to the creation and overall management of the nation-wide protected areas networks in the FSM. The framework outlines a transparent, fair, and efficient system governing the designation and operation of a nationwide protected areas network, inclusive of state-level protected areas networks in Yap, Chuuk, Pohnpei, and Kosrae and establishes procedures for the management entities of protected area sites to apply to join the protected area management network and outlines the benefits of membership in the nation-wide network, including access to long-term and sustained technical and financial assistance. The associated country program strategy outlines the guidelines and procedures for the disbursement of investment earnings from the FSM's Micronesia Challenge Endowment Fund. Therefore, the first activity of this project is to ensure that these documents, currently under consideration by the FSM National Government (Department of R&D), are endorsed. MCT and the Program Manager will continue to hold meetings with key government officials to ensure these documents are endorsed.

Activity 1.1.2: Develop the National Operations Manual based on the FSM NPAPF and the CPS to detail the roles, responsibilities, functions, and activities for the protected areas network that includes the financial mechanism.

To ensure the successful implementation of the protected areas network, this activity will entail the development of a National Operations Manual. The manual will be developed by the Project Manager in collaboration with MCT and appropriate government entities. The manual will be based on the details as established in the NPAPF and the CPS. The purpose of the manual is to help guide government entities, protected area management entities and communities to develop and sustain productive and successful implementation of the protected areas network, to document procedures and policies; to provide policies for fiscal management and procedures; and to serve as a reference for questions and problems as they arise in the day-to-day operations of the protected areas network. The operations manual will be the authoritative guidebook on the overall operation of the network.

Activity 1.1.3: Test and implement the process by which management entities of state protected areas apply to join the nation-wide protected areas management network.

As outlined in the national protected areas policy framework, sites that are legally recognized by a State Government as a refuge, protected area, or preserve and have a management plan as described in the policy itself can automatically acquire PAN site status upon the request of the Governor of that state. Once the State PAN Coordinator determines an application meets the policy criteria, they then submit the application to the National PAN Coordinator/FSM Department of Resource and Development for review and inclusion in the network. Full procedures are outlined in the NPAPF. This activity will entail the first applications and procedures for approval of at least 8 protected areas leading to their successful inclusion in the established protected areas network.

Output 1.2: Effective state protected areas networks implemented.

Activity 1.2.1: Identify/hire State Protected Areas Network Coordinators as full-time state government employees within the appropriate government agencies in Yap, Chuuk, Pohnpei, and Kosrae.

The selection criteria and process for selecting State PAN Coordinators is to be at the discretion of State Governments and the process will be implemented with the support of MCT and the Project Manager. Once selected, each Coordinator will operate in accordance with all applicable state legislation, regulations, and policies regarding protected areas set within the state. Coordinators will be hired for 2 years within the project timeframe. During national consultations for the project, all state governments committed to making these roles permanent government positions at project completion. Coordinators will undertake the following activities to support the protected areas networks member sites within state borders:

- In collaboration with MCT, the Program Manager and the state government, responsible for developing a work plan inclusive of a knowledge management plan for the Coordinator position.
- Responsible for the start-up and initial implementation of protected areas networks of the state
- Responsible for collecting and review all Applications from Applicants within the respective state against the criteria in the NPAPF, applicable state laws or policies, and provide feedback to applicants/management entities
- As required, provide access to technical and capacity building assistance to applicants to strengthen applications
- Submit all Applications that meet the criteria of the policy to the FSM Department of Resources and Development

- Provide access to technical assistance as requested by Management entities within the state to develop and/or revise as necessary management plans for sites designated as part of the protected areas network
- Review management plans to ensure consistency with this NPAPF regarding the content and criteria for management plans
- Support for improving management effectiveness to management entities
- Support for monitoring and research activities to management entities
- Support for enforcement to management entities
- Collect and compile reports and information about protected areas member sites in the state and provide it to the FSM Department of Resources and Development and MCT
- Provide updates on PAN implementation to the States' Leadership
- Work with State leadership to develop state policies and laws in support of the PAN, including provision of state funds to PAN sites and activities

Activity 1.2.2: Yap state PAN Law and Yap and Chuuk rules and regulations established creating state protected area networks

Kosrae and Pohnpei have established state PAN Laws and associated rules and regulations. While Chuuk now has a PAN Law, the rules and regulations are yet to be developed. Once Yap's draft PAN Laws are passed, it will be necessary to also develop the rules and regulations that will effectively create their state protected areas network. In collaboration with the state entities responsible, the state Coordinator, the Program Manager and MCT will work with state authorities to establish said rules and regulations.

Activity 1.2.3: Assist in the initial implementation of state protected area management networks

Along with the roles for the state Coordinators as established in Activity 1.2.1, MCT and the Program Manager will work to support the initial implementation of the state protected areas in all 4 states. This will entail establishing and ensuring relationships with the nation-wide protected areas management, other state PAN mechanisms and government entities, the successful joining of at least 8 protected areas to the nation-wide network, providing workshops and information sessions on the protected areas networks rules and regulations and associated documents (Activity 1.3.1), and provide technical assistance to access the financial mechanisms associated (Activity 1.3.2) with the establishment of the PAN.

Output 1.3: Effective mechanisms in place for state-level protected area management entities to receive financial support through the nation-wide protected areas network.

Activity 1.3.1: Implement workshops for participating state entities to ensure understanding of the entire protected areas network through training on: the FSM national protected areas network policy, country program strategy and the national operations manual.

Most management entities are not fully aware of the details of the protected areas network policy or the associated country program strategy. They will be required to understand these documents (including the to be developed national operations manual) to have the means to join the network and access funding. Through this activity, the state Coordinators, the Program Manager, MCT and the state governments/partners will offer workshops in each state to provide all management entities information on the documents, on the overall protected areas network, on accessing funding, on how to apply for funding through the protected areas network (see Activity 1.3.2), how to apply for funding to implement community based actions under the small grants scheme as part of this project (see Component 3) and to answer questions about any/all of the processes.

Activity 1.3.2: Test and implement the process by which management entities apply for funding through the nation-wide protected areas network

Currently, the states do not receive funding through the PAN network and are not yet able to access the MC endowment funds or other sustainable funding mechanisms. Financing for protected areas currently comes from small projects that do not provide enough guaranteed and/or ongoing and consistent support. Through the establishment of the nation-wide PAN network, the states will have access to funding from the MC endowment to ensure sustainable protection of the marine ecosystems. This activity will help management entities of PAN sites submit requests for funding through an Annual Budget Cycle. Management entities can submit requests to fund activities included in their sites' annual. The Technical Committee will then conduct individual reviews and discusses as a group to reach consensus. At this point, the Secretary of Resources and Development will issue instructions to MCT to disburse funding to the sites based on Technical Committee's decisions. This activity will entail the first applications and procedures for approval of at least 5 protected areas receiving sustainable finance and technical support through the nation-wide protected areas network.

Outcome 2: Capacity building and enforcement of regulations strengthened for protected areas and near-shore fisheries

Output 2.1 Improved state-level enforcement of MPA and nearshore fisheries legislation regulations

Activity 2.1.1: Provide training in each state on existing legislation and any newly adopted regulations and associated activities, such as marine protected area management and collaborative enforcement, to improve enforcement capacity.

Protected areas can promote adaptation to climate change but effectiveness requires proper management and enforcement. Currently state marine resource agencies and enforcement divisions lack sufficient human and technical capacity to enforce rules and regulations. Through this activity, the state Coordinators, the Program Manager, MCT and the state governments and other partners will offer workshops in each state to engage at least 70% of the 100 marine conservation enforcement officers in the FSM through training on existing legislation, newly adopted regulations, associated activities and the collaborative enforcement mechanism. An increase in enforcement officer knowledge and skills on established rules and regulations will lead to increased citations/cases for non-compliance with MPA and fisheries regulations.

This activity includes collaboration with the FSM Ridge to Reef (R2R) project, the SPREP Adaptation Fund project, the German Funded Nature Conservancy project, USAID Climate Ready and others contributing to capacity building efforts and capacitation of management authorities.

Activity 2.1.2: Provide training on joint-enforcement techniques to further the establishment of joint enforcement taskforces with NGOs and communities.

As is noted above in Activity 2.1.1, protected areas can promote adaptation to climate change but effectiveness requires proper management and enforcement. While there are 100 enforcement officers in the FSM, there is a need for NGO and community engagement to ensure widespread understanding of the rules and regulations and more collaborative enforcement efforts. Through this activity, the state Coordinators, the Program Manager, MCT and the state governments will offer workshops in each state to engage at least 4 agencies /NGOs/communities in each of the FSM states to receive training on best practices for joint enforcement to support the work under Activity 2.1.3,

Activity 2.1.3: Establish joint/collaborative enforcement taskforces across the FSM states

While enforcement officers have a lead role in ensuring compliance with PAN and fisheries rules and regulations, collaborative enforcement teams that include representatives from communities, non-governmental organizations, and other state agencies not normally involved in enforcement activities have proven an effective mechanism to expand compliance in the FSM. After Activity 2.1.2 is completed, the Program Manager, state Coordinators and MCT will engage the *Guide to Support*

Development of Collaborative Enforcement Plans (see section 3.1) to ensure the successful establishment of joint enforcement taskforces across the FSM to further enhance collaboration between enforcement officers, communities and NGO's.

Component 2. Community-level adaptive capacity strengthened to address climate change threats

Outcome 3: Climate resilience in targeted FSM communities increased through strengthened ownership and financing of adaptation and climate risk reduction processes at local level

Component 2 utilizes a small grants facility as an effective mechanism for directly beneficiating vulnerable communities and empowering them to identify and implement adaptation responses that buffer them against experienced and anticipated climate-induced stresses. MCT has years of experience with small grant making in FSM and the Pacific region (e.g. implementing the regranting processes for Packard, MacCargill and Oceans5 grant organizations) and through this experience has shown that small grant making can be enormously successful in delivering tangible and relevant benefits to local stakeholders and beneficiaries.

While 54 communities in the FSM have gone through the LEAP processes and identified a suite of adaptation interventions and activities to implement, MCT is not able to de-facto select which communities should be provided grants and which interventions should be funded. Instead, the Small Grant Facility has been designed to utilize an enhanced direct access approach as the mechanism that will best empower local communities to conceive and drive local adaptation responses directly. A top-down approach of pre-selecting recipients and specific activities would not permit this level of local ownership or design. At the same time, the grant review process MCT employs ensures the quality of the project design and builds local capacity to develop and implement actions.

To date, local communities in FSM have had limited access to climate finance especially for funding ecosystem-based adaptation measures and at the local level responses to extreme events and its associated impacts on villages and livelihoods have been largely reactive. The SGF is designed to reduce the climate induced risk and vulnerabilities in the target communities by empowering community members to identify local level adaptation responses themselves, and directly access climate finance to address these. This approach will enable climate finance to flow directly to activities that will be implemented by vulnerable groups themselves.

When the communities most affected by climate change are involved in designing the tools to manage climate risk, the likelihood that adaptation steps will be successfully implemented is increased significantly. Moreover, the process of applying for a grant and undergoing a screening for selection will ensure that a community has the capacity to utilize the approved funding. The SGF will engage communities to take effective

ownership, through project implementation of eco-based solutions to adapt or reduce climate risks in their communities. While some communities have been actively setting their own priorities, and selecting adaptation actions through management planning/LEAP processes, others have yet to go through the management planning process. Component 2 will focus on those communities that have already gone through a planning process and allow them to undertake a collaborative process to identify priority climate change impact vulnerabilities and develop and implement specific ecosystem-based actions to address these priority vulnerabilities and in turn, strengthen the marine ecosystems ability to adapt to climate change stressors.

Output 3.1 Local communities empowered to identify and implement adaptation response measure through Small Grant Facility (SGF

Activity 3.1.1: Issue MCT guidelines for the small grants scheme granting process

The 54 communities that have already completed their planning and established priority actions for community resilience through the LEAP/management planning process do not have adequate financial means to implement their plans (see Section 4.6, Part 1). The needs and actions identified through the LEAP processes (see also 4.6, Part 1) will serve as the basis for communities' requests for support through the small grant facility. See below box and appendices 4 for lists of actions identified through management planning/LEAP processes in Chuuk, Kosrae, Pohnpei and Chuuk that could be funded under this project.

MCT will administer this portion of the project through its established process for awarding and managing sub-grants (see Section 4.2). MCT's Call for Proposals process will illicit invitations from protected areas management entities, community-based organizations and local conservation and climate change NGOs.

The project development and review mechanisms of the SGF will be guided by criteria that ensure that small grant projects clearly respond to experienced or anticipated climate induced stresses, and meet the objectives of MCT and the AF. As part of this, the screening processes will also ensure that all small grant projects meet the requirements for a project with no significant risks in terms of the AF Environmental and Social Policy (ESP), or a project with minor risks that can be mitigated.

A panel that includes members of the MCT Board Technical Committee and Conservation Program staff, will review the proposals based on eligibility, thoroughness and potential for tangible results including the following:

- Concepts provide for direct and concrete ecosystems- based adaptation projects that address the adverse impacts of, and risks posed by climate change eligible under the Adaptation Fund,

- Concepts have been developed through a community-driven and community-based consultative process,
- Projects will have a direct and positive impact on the community in which they are implemented,
- Projects employ ecosystem-based adaptation actions,
- Project proponents must have a plan to participate in learning and knowledge development and dissemination processes according to the knowledge management plan,
- Projects will adhere to both the AF's Environmental and Social Safeguards and Gender Policies.

The SGF has been designed to utilize an enhanced direct access mechanism, and in order to be able to retain a focus on this, it has been agreed that small grant projects with significant AF ESP risks, or risks that cannot be mitigated, will be excluded. This position is further informed by the relatively small size of the grants ($25,000 - $50,000 each), which would make detailed specialist investigations into the identification and mitigation of significant risks unaffordable.

Proposals that will not be funded under this grant scheme include:

- Projects that do not include a concrete adaptation action,
- Projects that increase the environmental and/or social vulnerability of beneficiaries
- Projects that reduce the ability of beneficiaries to adapt to climate change
- Projects that marginalize minority or vulnerable groups,
- Projects that do not show a community/stakeholder-wide consultation process,
- Projects determined to be high risk (Category A under MCT E&S Policy) i.e. projects that require a full Environmental Impact Assessment (EIA)
- Projects that do not comply with AF's E&S and Gender Policies
- Small grants projects that pose significant or unmitigable risks in terms of the AF ESP.

Preference will be given to small grant projects led by women and/or other vulnerable members of the target communities, striving for 50% of the projects. Civil society organizations must also be represented. Organizations will need to show how women will participate and lead some components in their project management structures. MCT will ensure executing partners working with the most vulnerable communities will have strong track records of implementation, financial and project management.

Environmental and social risk screening:

All small grant projects will be screened against the AF ESP and the AF gender policy and potential grant recipients will be required to complete Table 6. Any small grant project that does not meet the requirements for a project with no significant risks in terms of the AF ESP, or minor risks that can be mitigated, will be excluded.

Particular attention will be given to ensuring that small grant projects do not impact adversely on any priority biodiversity areas or ecosystem support areas, and that there

are no negative impacts on local communities, including vulnerable and marginalized groups.

Table 6: Checklist of environmental and social principles

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

Environmental and Social Risk Monitoring

Implementation monitoring and reporting processes will be designed to have explicit focus on the monitoring of the identified minor risks, as well as any unintended environmental and social risks. These will apply to the individual small grant projects, as well as to the project via six-monthly reports. An end of second year review will also be conducted by a gender advisor and an E&S advisor to provide MCT with guidance on implementation of the project to date, ensuring alignment with gender and ESP standards.

Annual Performance Reports, the end of Year 2 review and the Terminal Evaluations will also have a specific focus on compliance with the AF ESP.

All small grant projects will be screened against the criteria of the AF ESP, and projects that do not meet the requirements of a project with no significant risks in terms of the AF ESP, or a project with minor risks that cannot be mitigated, will be excluded from the selection process.

Output 3.2: **Small grants to vulnerable communities awarded to deliver tangible and sustainable benefits to support ecosystem based climate adaptation actions in at least 8 communities**

Activity 3.2.1: Issue grants to local non-governmental organizations/management entities in each of the four states of the FSM (at least 8 communities).

After the Request for Proposals cycle as outlined in Activity 3.1.1, MCT will award funds to at least 8 communities to undertake a combination of concrete ecosystem-based adaptation actions to reduce climate change vulnerability and develop effective local fisheries management plans and marine protected areas plans or implement protected areas. Projects will be monitored through MCT's suite of tools for reporting inclusive of financial and narrative reporting tools and a comprehensive project management system. MCT's sub grantees, using the tools outlined above, will build the adaptive capacity of these communities to cope with potential negative impacts from climate change to coastal and marine resources and associated livelihoods through organization, awareness, adaptation planning, and project implementation.

Summary of Possible Actions from Management Plans (see appendix 4)

-Development of Marine Protected Area management plans
-Development of Municipal ordinances for MPA's
-Development of zoning rules for coastal development projects
-Monitoring training for MPA enforcement
-Developing no-tolerance agreements in line with state laws to ban destructive fishing practices
-Surveys to support the development of Locally Managed Areas (LMA) for marine resources
-Data collection and analysis to support sustainable fisheries planning
-Development of awareness campaigns and materials for MPA's
-Training in standardized fisheries and socio-economic monitoring methodologies
-Re-vegetation of upland forests, coastlines and mangrove areas to decrease coastal runoff of sedimentation
-Relocation of taro patches and other sensitive food crops

Component 3. Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation actions

Outcome 4: KM system implemented to capture lessons learned and data on MPA management and Ecosystem based adaptation solutions

This Component will result in the development of a systematic and documented approach to raising awareness on climate change and ecosystem based adaptation actions through awareness materials and data management. The project funds will support the creation of an on-line repository of GIS spatial analysis data including MPAs, evaluation reports, press releases and monitoring reports and final workshop outcomes and awareness materials on ecosystem based adaptation actions and implementation are prepared and disseminated locally, regionally and internationally.

Output 4.1: Online repository of spatial and other project data implemented

Activity 4.1.1: Establish Knowledge Management Plans for each state and collect project lessons learned and successes throughout project timeframe

In collaboration with MCT, the Program Manager and the state government, the State PAN Coordinators will develop their work plans inclusive of Knowledge Management plans in line with the overall guidelines of the project. Inception meetings with MCT, the Project Manager and the State Coordinators in each state will provide opportunity to share project outputs and activities and work on the KM plan. This will include plans to collect the following: management and LEAP documents, press releases, project reports, progress reports, monitoring reports, pre-project and post-project surveys, maps, GIS spatial data, MPA lists and all other documents developed through the project.

Activity 4.1.2: Develop an on-line repository of resources to be accessible by stakeholders, community members and regional/international audiences

In collaboration with MCT, the Program Manager will organize the on-line repository of project documents that will be accessible at the MCT website (www.ourmicronesia.org). The Program Manager will work with the State PAN Coordinators to ensure that the work plan (Activity 4.1.1) allows for the timely and complete delivery of all project documents.

Figure 8: The Micronesia Conservation Trust website (www.ourmicronesia.org)

Activity 4.1.3: Hold one workshop to share best practices and develop project success products for dissemination

In collaboration with MCT and the state PAN Coordinators the Program Manager and other partners will organize a workshop to bring together project stakeholders at the end of year 3 of the project. The workshop will include time for all to share project best practices and develop project success stories for dissemination. Moreover, workshop objectives will also include: presentations of project outcomes, evaluations of project outcomes and status, documentation of benefits of the project including discussions on any that were not realized including risks and how they were mitigated, discussing measures, discussions about project implementation and information on how to replicate the project in other jurisdictions/communities. Furthermore, data and best practices will be developed into products that will be peer-reviewed, scientifically edited and published in journals or online through existing government and regional publications. MCT will carry out a peer-reviewed process for these products to ensure that the information is of high quality. All available information will also be distributed by CD to ensure full access for those without internet accessibility.

Output 4.2: Awareness materials prepared and disseminated locally, regionally and internationally

Activity 4.2.1: Development and disbursement of awareness materials for use by communities and educators

In collaboration with MCT, the Program Manager will work to ensure that the project is visible and that the lessons learned are made available to all stakeholders, communities and audience locally, regionally and internationally. This will be done by ensuring that information that is captured under Output 4.1 is disseminated. In this activity, resources

will be developed for use in communities during their management planning/LEAP processes to understand examples of successful eco-system based projects in the region. Based on the Micronesia Challenge flipchart used in communities to share about the effects of climate change[68] (see Figure 9), the resources will be shared with communities and local conservation NGO's. Resources will be printed and disbursed for use in future engagement activities. A CD will also be developed with all project resources to allow organizations, communities and others to print and use at any time. MCT will use its established learning networks such as the Micronesians in Conservation (MIC) and the Micronesia Challenge Measures group.

Figure 9: Cover of the Micronesia Challenge Flipchart

B. Describe how the project / programme provides economic, social, and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.

This project will provide economic, social and environmental benefits through the delivery of its interconnected components. It will focus on providing benefits to vulnerable communities in the four states of FSM who depend largely on their natural resources for their livelihoods and who are already facing the negative impacts of climate change.

[68] See: Micronesia Challenge FlipChart:
https://www.dropbox.com/sh/cdpupit4x04sjri/AABO7VmL81ShmOZIGDZlz00fa?dl=0

Economic Benefits: This project will generate economic benefits in several ways, many of which will especially benefit the most vulnerable groups in the FSM, particularly through the small grants facility. Most evident among the economic benefits of the project is the fact that the successful achievement of the outputs under the first two components will result in the availability of considerable funding resources to support the operational costs of the PANs in the FSM. These funds will circulate in local economies, providing employment, supporting commercial activities and artisanal and small-scale enterprises as well. PANs also result in increased income generated by fisheries exploitation as spill-over increases the number and size of fish available for harvest and sale.

The second outcome of the project will also provide direct salary support to five individuals. In small island communities based on extended family systems and mutual support and obligation, this represents a considerable benefit. The state governments have also committed to using a portion of the endowment revenues they will become eligible to access as a result of this project to continuing support these salaries after the life of the project.

The small grants facility will also direct considerable resources to vulnerable communities in the form of funds to carry out activities as well as supporting sustainable livelihood options such as small-scale eco-tourism, aquaculture and mariculture ventures. The indicative list of projects to be supported by the small grants facility will include activities that will provide informal employment opportunities around habitat restoration, small scale construction and community meetings (facilitation, catering, etc.).

The success of resource management activities will also result in improved health outcomes, which will lead to reduced health care costs for communities. Another economic co-benefit of the proposed project is the reduction of expenditures by community members on imported food items as local ecosystems recover and provide increased ecosystem services. This reduces their dependence on the cash economy. At the same time, increased revenues from fisheries harvesting activities resulting from increased spill-over from healthy MPAs will improve buying power.

Social Benefits: The social benefits of the activities proposed range from positive impacts on public health and human capacity to the reinforcement of traditional cultural practices and the protection of important heritage sites. The social benefits conferred will significantly impact the most vulnerable populations in the FSM as project activities are aimed at farmers, fishers and others who are most dependent on ecosystems services for their subsistence and livelihoods.

Food consumption patterns are also sensitive to the impacts of climate change, driving a trend of moving to imported foods and there is also a trend of NCDs, especially on low-lying atolls, related to overeating and changing dietary patterns towards increased consumption of imported, low quality foods[69] The restoration of coconut plantations and relocation of taro patches, the establishment of aquaculture and mariculture enterprises

[69] This section draws heavily on the Federated States of Micronesia. (2012). *Second National Communication to the United Nations Framework Convention on Climate Change.* Palikir, Pohnpei.

and the rehabilitation of watersheds will result in nutritional and public health improvements, as will the increased availability of fresh, locally-sourced protein and other foodstuffs.

Improved ecosystem services resulting from the projects supported through the small grants facility and through the successful management of PANs will result in positive public health outcomes as food security and nutritional status improve. This project is designed to include the implementation of concrete interventions and activities involving communities. Successful interventions will result in increased resource availability, access to sources of protein and other nutrition, opportunities for income-generation and other tangible benefits for the islands' residents.

The employment of the LEAP process encourages social cohesion and builds the capacity of local communities, increasing understanding of climate change vectors and growing planning and organizational skills and knowledge. Because the local peer learning networks involved in the implementation of this project rely primarily on local experts and consultants, the project will enhance local human capacity at the expert level as well as at the community level. Training activities for enforcement officers and the development of monitoring protocols and programs will also enhance local technical capacity and human resources.

The LEAP process employed in the selection of project activities in the small grants facility intertwines scientifically supported interventions with traditional resource management practices. This encourages the perpetuation of traditional knowledge and pride in local cultures and tradition. The small grants facility will also support activities which will require communal efforts and work as well as local material inputs as well, increasing ownership and participation. Additionally, two UNESCO Biosphere Reserve sites have LEAPs completed and will be eligible for inclusion in projects under the small grants scheme, thus enhancing the management and conservation of these important natural heritage sites.

Environmental Benefits: The environmental benefits of this project include the maintenance of the resilience of marine ecosystems to the impacts of climate change, by reducing current and predicted pressures and stressors. This will ensure that the ecosystem services currently provided, such as protection from storm damage and erosion and the provision of food resources, are maintained in the face of a changing climate regime. The dependence on the part of the FSM's vulnerable populations on subsistence fishing and farming makes them extremely vulnerable to the effects of decreased accessibility to and the rapidly depleting nature of the fishery. The protected areas will help rebuild fish stocks which play a significant role in the marine inorganic carbon cycle. The coastal wetlands, mudflats and reefs to be protected by this project's activities also offer protection against sea level rise, which leads to increased momentum for ecosystem-based adaptation to safeguard people, infrastructure and property against the adverse climate change impacts. Protected areas can also reduce loss, damage and degradation, thus promoting intact habitats, which in turn provide coastal defence and promote recovery after extreme events. Successful protected areas also limit direct

anthropogenic stressors, thus enabling species to recover abundance, biomass, diversity, age structure and reproductive output. Larger populations are more resilient to extinction because there is higher reproductive output and a greater buffer against decline.

Table 7: Social, Economic and Environmental Benefits of the Project

Type of Benefit	Baseline Scenario	Key Benefits
Economic	The residents of the FSM remain largely dependent on ecosystem services for income and subsistence. Subsistence livelihoods are prevalent throughout the country. Approximately one in five adults self-reported as being engaged in the informal subsistence sector[70]. 11 percent of the population suffers from food poverty, while 29.9 percent of the population suffer from basic needs poverty. Opportunities for income generation are limited, especially in the rural parts of the country. Unemployment is a serious problem not only in the urbanized centers of FSM States but also in rural areas. High costs of health care due to diabetes and nutrition-related NDCs. Lowered incomes from fisheries caused by depletion of fisheries	Healthier stocks due to reduced fishing pressure may result in spill over of adult fish into adjacent fishing grounds[71] therefore providing for increased income and food security among populations around the MPA. Component 2 will also improve food security and marine ecosystem health by strengthening near-shore fisheries management. Improved food security will lead to improved health as dependence on imported food declines and thus reduced health care costs and reduced expenditures on expensive imports. Access to appropriate and sufficient support to assess vulnerabilities to climate impacts and design ecosystem-based activities to address these threats for communities. Through sustainable financing mechanisms and the establishment of consistent local funding streams, MCT and its partners will sustain resource management and climate adaptation initiatives.

[70] Federated States of Micronesia (2014) *Fifth National Report to the Convention on Biological Diversity*. Palikir, Pohnpei.

[71] Vandeperre, F., Higgins, R. M., Sánchez-Meca, J., Maynou, F., Goñi, R., Martín-Sosa, P., Pérez-Ruzafa A., Alfonso P., Bertocci I., Crec'hriou R., D'Anna G., Dimech M., Dorta C., Esparza O., Falcón J.M., Forcada A., Guala I., Le Direach L., Marcos C., Ojeda-Martínez C., Pipitone C., Schembri P.J., Stelzenmüller V., Stobart B., Santos R.S. (2011). Effects of no-take area size and age of marine protected areas on fisheries yields: a meta-analytical approach. Fish & Fisheries, 12(4), 412–426.

	resources due to coral reef and coastal degradation. Few communities have the financial means to take effective ownership, through project implementation, of their capacity to adapt to or reduce climate risks. The FSM government is not currently eligible to receive funds from the revenues of the Micronesia Challenge Endowment Fund. State marine resource agencies and enforcement divisions lack sufficient human and technical capacity to enforce rules and regulations. Formal employment opportunities in conservation and climate change adaptation activities are limited. Household food access is vulnerable because incomes are low and there is increasing reliance on imported foods which means cheap poor foods will be purchased Rice and other poor-nutrient poor, imported foods are becoming the main staple food for Micronesians. Dependency on food imports is causing loss of agricultural/crop diversity and taste of local foods, resulting in high incidence of non-communicable diseases	Employment for PAN coordinators resulting in increased local economic activity and support to local families and communities. Training and material support to state government bodies responsible for enforcement of near-shore fisheries policy and management. Economic opportunities from eco-tourism, aquaculture and mariculture activities.

Social	The cultural value of traditional activities is often over-looked and is one of the most essential and important benefits of healthy and functional coral reefs to FSM communities. Communities have been setting their own priorities and selecting adaptation actions through management planning/LEAP processes. Communal fishing, sharing of resources, and the physical demands of reef fishing and gleaning are important to societies adjacent to coral reefs, and the value of these activities cannot be replaced by the provision of canned and imported foods alone[72] both in terms of nutrition and in terms of community pride and cohesion As coastal communities depend heavily on their local fishery, the fishery then becomes the key to community sustainability. Low local food production and consumption habits favor imported food items. As a result, cash income is a major factor in accessing food. A high unemployment rate, compounded by large household sizes, is resulting in growing poverty and hardship in FSM.	Traditional conservation methods will be prioritized strengthening and legitimizing local cultural values. Increased support of traditional leaders (empowerment) in conservation efforts. Increased societal cohesion which in turn increases the health and well-being of community members. Improved enforcement, compliance and maintenance of traditional ways of life and enhanced commitment within communities for biodiversity conservation. Improved community ownership and community-driven nature of projects which reflect the Micronesian culture of sustainable resource use[73]. Management capacity built within the existing government system. Use of local capacity and expertise to facilitate training activities and peer-learning, rather than depending on outside experts and consultants, thus strengthening local capacity and minimizing costs

[72] Richmond, Kostka, Idechong (2009). *Reef Ecology and Conservation.*
[73] Federated States of Micronesia (2014) *Fifth National Report to the Convention on Biological Diversity.* Palikir, Pohnpei.

	State marine resource agencies and enforcement divisions lack sufficient human and technical capacity to enforce rules and regulations. .	
Environmental	Overfishing represents a critical issue faced by communities in the FSM. Local commercial fishers who employ unsustainable methods garner larger catches and have a bigger impact on fisheries. Large species that are most vulnerable to fishing have become rare on most FSM reefs and are rarely found in fisheries landings today. Many medium-sized target fish found in commercial markets are now showing strong decline in mean body sizes. Modern fish landings are becoming dominated by smaller-sized herbivores that can grow and reproduce quickly.	Maintenance of the resilience of marine ecosystems to the impacts of climate change. Reduction of current and predicted pressures and stressors. Maintain efficacy of ecosystem services currently provided, such as protection from storm damage and erosion and the provision of food resources. The maintenance of the resilience of marine ecosystems to the impacts of climate change, by reducing current and predicted pressures and stressors. This will ensure that the ecosystem services currently provided, such as protection from storm damage and erosion and the provision of food resources, are maintained in the face of a changing climate regime. Impacts of terrigenous sediment, nutrients and pollutants on marine ecosystems reduced

Table 8: Social, Economic and Environmental Benefits by Output

Output	**Key Benefits (Direct)**		
	Economic	**Social**	**Environmental**
Component 1: Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated **Outcome 1: Protected area management improved including near-shore marine ecosystems.**			
Output 1.1: Effective FSM	Enable the FSM to access the	Bolster existing government	Increase ecologically

nation-wide protected areas network implemented	revenues from the FSM sub-account of the Micronesia Challenge Endowment.	structures, thus supporting a cost-effective and sustainable approach for MPA management and enforcement Government endorsed protected areas network policy framework and country program strategy encourage communities through the support of government	meaningful dispersal distances, improve population connectivity, promote genetic diversity.
Output 1.2: Effective state protected areas networks implemented	Provide income/employment for 4 state PAN coordinators	Build capacity within the existing government system.	Increase ecologically meaningful dispersal distances, improve population connectivity, promote genetic diversity.
Output 1.3: Effective mechanisms in place for State-level protected area management entities to receive financial support through the nation-wide protected areas network.	Infusion of funds and resources to state protected areas networks.	Increased local human resource and technical capacity.	Increase ecologically meaningful dispersal distances, improve population connectivity, promote genetic diversity.
Outcome 2: Capacity building and enforcement of regulations strengthened for protected areas and near-shore fisheries			
Output 2.1: Improved state-level enforcement of MPA and nearshore fisheries legislation regulations	Successful MPAs result in spill-over of marine life, making it available for harvest, sale and other economic benefits	Increased local human resource and technical capacity.	Increase ecologically meaningful dispersal distances, improve population connectivity,

			promote genetic diversity.
Component 2. Community-level adaptive capacity strengthened to address climate change threats **Outcome 3: Climate resilience in targeted FSM communities increased through strengthened ownership and financing of adaptation and climate risk reduction processes at local level**			
Output 3.1: Local communities empowered to identify and implement adaptation response measure through Small Grant Facility (SGF).	Sustainable livelihoods opportunities for community members Reduced health care costs Reduced expenditures on imported food items	Improved public health outcomes. Increased community cohesion, pride in local knowledge and participation. Increased community capacity around planning and awareness of climate change adaption issues and strategies.	Impacts of terrigenous sediment, nutrients and pollutants on marine ecosystems reduced Increase ecologically meaningful dispersal distances, improve population connectivity, promote genetic diversity.
Output 3.2 Small grants to vulnerable communities awarded to deliver tangible and sustainable benefits to support ecosystem based climate adaptation actions in at least 8 communities	Financial support for executing agencies and for MCT, a locally based and managed organization.	Increased organizational capacity for executing agencies and for MCT.	Impacts of terrigenous sediment, nutrients and pollutants on marine ecosystems reduced Increase ecologically meaningful dispersal distances, improve population connectivity, promote genetic diversity.
Component 3. Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation actions **Outcome 4. KM system implemented to capture lessons learned and data on MPA management and Ecosystem based adaptation solutions**			
Output 4.1:		Central and locally, regionally and	

Online repository of spatial and other project data implemented		globally accessible space to access information on eco-based adaptation solutions and replicable successes.	
Output 4.2: Awareness materials prepared and disseminated locally, regionally and internationally		Knowledge and information captured and shared for replication and upscaling to other communities and countries securing future support for adaptation. Access to information provides communities with opportunities to lead their own adaptation projects	

Vulnerable Groups and Indigenous Peoples: This proposal focuses on the residents of the FSM who depend on the marine environment for their economic and social well-being. Moreover, as women carry more of the domestic responsibilities of the home, including responsibility for the health and well-being of their families, this renders them even more vulnerable to the effects of decreased subsistence proteins and higher dependence on a cash economy with which they have limited participation.

The communities most vulnerable to the health effects of climate change in FSM include: populations at risk of being (or that have already been) displaced, for example residents of low-lying atolls or those living close to coasts, rivers and hillsides; women; those at the extremes of age (children and the elderly); those with pre-existing health problems (co-morbid conditions, the disabled); certain occupations (fishermen, farmers, outdoor workers); the poor and socially disadvantaged; and those that lack access to public information broadcasts and communications (e.g. radio) (FSM Department of Health and Social Affairs, 2011).

With this project MCT anticipates conferring economic, social, and environmental benefits to some of the most remote and vulnerable communities and individuals in the FSM. The summary analysis of key indicators from the most recent census of population and

housing (2010) shows that nationwide, just over 71% of the population resides in rural areas of the four states, with the highest portion of rural populations living in Yap State. MCT plans to target outer-island communities, in particular (except in Kosrae state where there are no out-lying islands) and these communities include some of the most economically and socially vulnerable segments of society. Of particular relevance to this project, the outer island and rural communities represent the largest portions of the population engaged in substance activities and those most dependent on fisheries for their livelihoods. For example, in Yap and Pohnpei the age of the populations on the outer islands are skewed to the very young and the elderly compared to the populations on the main and lagoon islands. The starkest differences are in the percentages of household's dependent on subsistence activities and fishing, with the outer islands populations nearing 100% dependence on their natural resources to meet daily needs.

In total, MCT expects to reach approximately 8 rural communities of approximately 300 individuals each, across the nation, for a total of approximately 2,400 people. Given the social context in the FSM, direct impacts to 2,400 people means that many other individuals will also benefit from the projects. While the projects considered for support with AF funds will all go through the grant review process outlined in section K of this proposal, MCT will prioritize projects led women and/or other vulnerable members of the target communities, striving for 50% of the projects.

By leading the projects and participating in capacity-building and project development and management training activities offered by MCT and other technical partners, the groups and individuals leading these projects will increase their ability to access resources and assistance, improving their own circumstances as well as contributing to their communities in addition to enjoying the direct environmental benefits.

Table 9:

	Yap	Chuuk	Pohnpei	Kosrae	
Total population by state	11377	48654	36196	6616	67.4% rural
proper/lagoon* population	7371	36152	34789		
Outer Island population	4006	12502	1407		
total women	49.53%	48.96%	49.25%	49.33%	
proper/lagoon* women	49.10%	48.76%	49.35%		
Outer Island women	53.00%	49.52%	46.62%		
total children	32.35%	36.57%	35.38%	36.49%	
proper/lagoon* children	30.48%	37.42%	35.17%		
Outer Island children	36.55%	34.14%	40.51%		
total elderly	7.20%	5.04%	5.16%	6.97%	
proper/lagoon* elderly	7.34%	4.95%	5.03%		
Outer Island elderly	6.94%	5.31%	8.39%		
total subsistence	21.15%	16.27%	16.58%	5.06%	
proper/lagoon* subsistence	14.34%	9.83%	15.95%		

Outer Island subsistence	33.67%	34.90%	32.13%		
total unemployed	2.72%	8.31%	3.49%	7.78%	
proper/lagoon* unemployed	2.97%	9.21%	3.58%		
Outer Island unemployed	2.27%	5.70%	1.14%		
total fishing households	87.50%	73.60%	59.20%	70.00%	
proper/lagoon* fishing households	83.60%	69.10%	57.20%		
Outer Island fishing households	97.90%	98.00%	95.60%		
total disability	16.89%	11.99%	8.30%	9.11%	
proper/lagoon* disability	18.33%	11.51%	8.15%		
Outer Island disability	14.25%	13.38%	11.87%		

*Yap proper, Pohnpei Proper and Chuuk lagoon

All small grant proposals will be run through a screening process to ensure compliance with the AF's environmental and social policy. Only those projects that are considered low risk or that may have medium-risks that can be addressed through a mitigation plan will be approved for funding. Section A, under outcome 3 and section K provide additional details on how this will be carried out.

MCT will ensure that the Learning and Knowledge Management plans developed for this project will capture and address any gender issues that negatively affect climate adaptation efforts. Importantly, the project will use participatory monitoring approaches that capture the differences in opportunities, risks and benefits for women and men that result from the adaptation process. The monitoring will also aim to capture gender differences in changes in resilience over the life of the project, and how these relate to other social, ecological, political and economic drivers of vulnerability to climate change. As in past and current efforts, youth groups will be particularly targeted with an emphasis on fostering interests and opportunities for young girls to engage in adaptation outreach, planning and actions.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

The cost-effectiveness and sustainability of the proposed project involve two key elements: the costs and benefits of the actions funded and the costs and benefits of the re-granting/enhanced direct access delivery method. Given the remoteness of the islands, and the costs associated with purchasing and transporting hard materials and supplies to the thousands of vulnerable communities in the FSM, MCT and its technical and implementing partners have adopted ecosystem-based solutions to climate change adaptation as the preferred approach for community-based actions. We have developed and implemented several programs and projects to further this approach with demonstrable success. These programs and approaches require lower levels of technical and financial inputs and yield tangible improvements in both ecosystem and social resilience. The LEAP process and examples of past projects that have been supported

by MCT and described in detail in the Component 2 portion of this concept describe eco-system based actions that have been successful in Micronesia.

IUCN has issued publications analysing the effectiveness and cost benefits of ecosystem-based adaption, finding green solutions effective and often also resulting in complementary benefits, thus increasing the value and sustainability of the actions. The Nature Conservancy (TNC), IUCN and other technical partners have also conducted cost-benefit studies for adaptation strategies selected by target communities across Micronesia using the LEAP process, considering grey and green solutions.

The preliminary results of the Micronesia-specific cost-benefit analysis work show that adaptation strategies such as restoration conservation and protection of watersheds bear significant positive results. The work conducted also shows that, in addition to the primary adaptation objective, increased water security in a watershed restoration project, for example and conservation and protection efforts are most effective since they bear additional benefits that hard infrastructures cannot provide. Indeed, ecosystem-based approaches also result in complementary benefits. These benefits include regulation of soil erosion and fertility carbon sequestration, waste water treatment, coastal erosion, improved water-quality, protection against extreme events, and enhanced coral reef health, as well as supporting species and genetic diversity. Overall, for a smaller investment in finances (cost), and other resources, the return in benefit associated with the eco-based adaptation solutions was more important than hard, infrastructure or grey solutions. **Indeed, the preliminary results show that in general for eco-based adaptation solutions, the benefits outweighed the costs. For instance, each dollar invested in preserving or restoring coastal and marine ecosystems at two FSM sites yield, on average, US$ 2**.

Similarly, the benefits of restoring watersheds for enhancing water quality outweigh the costs (Benefit-Cost Ratio = 4.81$), indicating that enhanced green infrastructures (e.g. green buffers, vegetated strips) can help reduce the costs of water treatments by preventing sediments and pollutants entering waterways. Other options such as artificial water reservoirs may be effective to enhance communities water capacity but they do not directly address the considerable problems of erosion and soil fertility. This issue is especially problematic in the Pacific Islands where islands are characterized by a strong ridge-to-reef gradient and inland erosion has great consequences also to coral reef health. In general, eco-based adaptation solutions represent a better investment because of the reduced operation and maintenance costs in the long-term and the added value of benefits such as pollination or regulation of local climate[74].

Among the Coastal EBA Options are:[75]

[74] Brander, L., Hagedorrn, L., & Franco, C., Cost-Benefit analysis for Malem (Kosrae, FSM) climate change adaptation strategies, Cost-Benefit analysis for Pakin, (Pohnpei, FSM) and Cost-Benefit analysis for Oneisomw, (Chuuk, FSM) climate change adaptation strategies, climate change adaptation strategies, from the "Building the resilience of communities and their ecosystems to the impacts of climate change in Melanesia and Micronesia" financed by the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMUB) International Climate Initiative (IKI)

[75] http://www.unep.org/coastal-eba/EBA-options - Accessed 4 September 2017

- Marine Protected Areas (MPAs)
- Mangrove conservation and restoration
- Seagrass conservation and restoration
- Coral reef conservation and restoration
- Dune and beach conservation and restoration
- Managed realignment and coastal set-backs
- Coastal wetland conservation and restoration
- Diversification and protection of ecosystem-based livelihoods
- Living breakwaters
- Sustainable fisheries

These approaches tend to have low costs, high use of local labor, cultural acceptability and few if any negative environmental impacts. Some alternative approaches that can address similar issues would have significant downsides including some actions that would have high costs and therefore low cost-effectiveness. Some of the coastal management alternatives that are not deemed appropriate or cost-effective are listed below in Table 10.

Table 10: Alternatives to Eco-based Approaches to Adaptation

Alternative Approaches to Adapt and Build Resilience	Types	Advantages	Disadvantages
Low-cost or local Materials	• Filled drums • Concrete pipes • Rubber tires • Stacked coral • Routed rock • Gabion baskets • Grout filled sandbags	• Low cost • Relatively simple construction	• Construction impact • Low design life • Long-term resilience • Effectiveness of protecting land • Negative environmental impact
Offshore	• Reef balls • Sand saver	• Moderate negative environmental impact	• Difficult to engineer • Construction complexity
Vertical Seawalls	• Sheet pile wall • Timber retaining wall • Reinforced concrete Mass concrete	• Resilience to climate change	• Engineering Issues
Revetments	• COPED – Coastal Protection and Environmental Development Units • Seabees	• Can cope with rising sea levels • Long-lasting impact	• Expensive • Environmental impacts • Complex construction

	• Samoa Stone • Tetrapods • Concrete blocks • Geo-containers • Rock revetment		

Activities under Component 1 will build from existing government structures, thus employing a cost-effective and sustainable approach for MPA management and enforcement. For Component 1, this will be accomplished by both embedding personnel and engaging existing staff within the executing entity(ies), which are national and state government agencies, to coordinate and spearhead the work of starting up and implementing the FSM nation-wide protected areas network and its constituent state-level protected areas networks. During state wide consultations for this proposal, all 4 state governments confirmed that once the project is complete, these positions will have become permanent positions within these agencies funded by national budgets. Under this component, MCT will provide training and material support to existing state government bodies responsible for enforcement of near-shore fisheries policy and management. This is a cost-effective approach as it does not duplicate government efforts, but rather builds capacity within the existing government system. MCT and its Pacific Islands Managed and Protected Areas Community (PIMPAC) partners also rely on local capacity and expertise to facilitate training activities and peer-learning, rather than depending on outside experts and consultants, thus strengthening local capacity and minimizing costs.

As communities adjacent to and benefiting from the adaption work are best positioned to implement and sustain the work, MCT will deploy a portion of the AF funds via enhance direct access/re-granting (Component 2). For component 2, MCT considered the following: Micronesian communities and local grant recipients currently do not have the absorption capacity to design and implement sound projects of more than $100,000. MCT's decade of grant-making experience shows that projects of $35,000 to $50,000 have the most impact and that communities can handle these amounts without causing dissent and social problems. Larger grants require technical and financial management capacity beyond what community members, especially the most vulnerable groups, can effectively provide. Additionally, larger grants often attract unhelpful members of society who look to find ways to personally gain from such programs/projects. The experiences of the Global Environment Facility-Small Grants Program and other donor entities in the FSM corroborate this assertion.

As the FSM contains 607 islands and stretches across almost 3 million square kilometres of the Pacific, the tools and processes we employ are those that can be scaled up and/or replicated across the country without major equipment or costs. Activities in smaller/right-sized projects also prove more amenable to adaptive management when necessary and can be more practically replicated in other communities across Micronesia. Smaller/right-sized projects also compel communities to practice innovation, to find ways to provide in-kind contributions, and to leverage additional resources to the project activities.

Conversely, providing larger and/or inappropriate grants to local communities would certainly lead to more dependency on project funds and could lead to the design and implementation of project activities which cannot be maintained and sustained by the participating communities beyond the project period.

Given the above, this project includes an enhanced direct access approach to a small grants program under Component 2. Through these targeted small grants, communities will have access to appropriate and sufficient support to assess their vulnerabilities to climate impacts and to design ecosystem-based activities to address these threats. This is a more efficient and appropriate approach to supporting community activities than the traditional government assistance model.

In addition, MCT and its partners continue to work to advance ongoing sustainable financing approaches related to the Micronesia Challenge and its associated efforts. Through sustainable financing mechanisms such as the FSM's Micronesia Challenge Endowment Fund and the establishment of reliable local funding streams, MCT and its partners will sustain resource management and climate adaptation initiatives (such as this proposed project) beyond their periods of performance. The Micronesia Challenge Business Plan (appendix 5) identifies multiple sources of funds, including government budgets, the FSM MC endowment, international donor grants as well as the establishment of a nation-wide protected areas fund from tourism and fisheries fees. The model features a diversity of funds supporting the protected areas system including all ecosystem based adaptation activities. Moreover, each of the states are creating state level endowments as part of their protected areas laws to also provide further resources. There are a number of different mechanisms working together to ultimately sustain the protected areas and all adaption activities associated with the protected areas and the fisheries management effort. See below FSM Endowment Model for more information about that aspect of the funds. Because the FSM's participation in the Micronesia Challenge Endowment funding program is contingent upon the FSM PAN and Country Program Strategy both being operational and meeting the Micronesia Challenge Steering Committee's standards, the activities in Components 1 and 2 of this project themselves will result in the availability of sustainable financing for this work beyond the life of the AF project. An effectively implemented PAN will result in sustainable financing. Finally, MCT's core business, per its mission statement is: "We build partnerships, raise and manage funds, influence policy, and provide conservation and financing expertise." MCT's new Strategic Action Plan also prioritizes Climate Resilience as one of its key Impact Areas. Thus, fundraising and providing technical support for climate change adaptation work and projects such as those proposed here represents an organizational priority and will represent a significant portion of MCT's non-AF, work and budgets for the foreseeable future ensuring the sustainability of project results.

Figure 10: FSM Model[76]

[76]From "FUNDING THE MICRONESIA CHALLENGE: A REGIONAL PLAN FOR SUSTAINABLE FINANCE

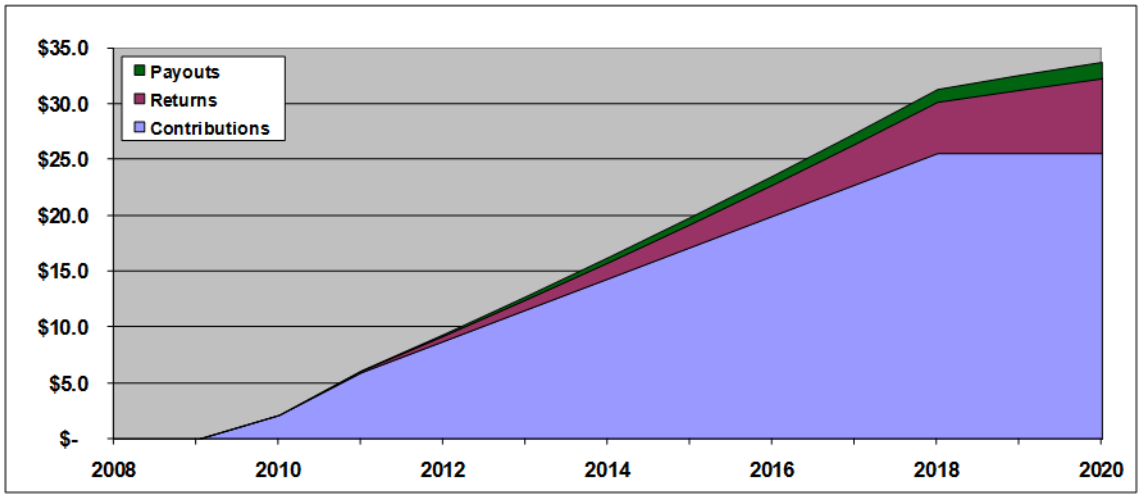


Figure 11: Endowment funds:

Endowment ($M	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Contributions	-	-	2.2	3.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	-	-
Returns	-	-	-	0.2	0.5	0.7	1.0	1.3	1.5	1.8	2.1	2.4	2.5
Payouts	-	-	-	0.0	0.1	0.3	0.5	0.6	0.8	1.0	1.2	1.3	1.5
Total	**-**	**-**	**2.2**	**6.1**	**9.3**	**12.5**	**15.9**	**19.3**	**22.8**	**26.5**	**30.2**	**31.3**	**32.3**

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

This project is consistent with the following FSM national government policies, laws, and international commitments:

No.	National/State Government Policy *Responsible Agency*	Project Elements Consistent with the Policy/Fulfilling the Policy Objectives
1	Nationwide Climate Change Policy (2009) *Office of Environment and Emergency Management (OEEM)*	1. Developing legislation and regulation frameworks for climate resilient development in coastal and marine area 2. Economic resilience: • Robust agriculture, forestry and fisheries sectors that able to rapidly recover from hazards and positively adapt to changing environmental circumstances

Part 2 of 3 of The Micronesia Challenge's Sustainable Finance Project". Carried out for the Micronesia Challenge Regional Coordination Office with the financial and technical assistance of Micronesia Conservation Trust and The Nature Conservancy. December 15, 2010 (Updated February 27, 2012)

		• Reduced reliance on imported commodities 3. Climate Change Adaptation: • Enable adjustments in natural and human systems in response to actual or expected changes in the climate or its impacts in order to moderate harm or exploit beneficial opportunities. • Adapt development and economic activities to gradual changes in average temperature, sea level, ocean acidification and precipitation. • Reduce and manage the risks associated with more frequent, severe and unpredictable extreme weather events.
2	Nationwide Integrated Disaster Risk Management and Climate Change Policy (2013) *Office of Environment and Emergency Management (OEEM)*	1. Holistic, integrated, community and ecosystem based 'ridge to reef' approa ch to risk reduction and natural resources management to ensure that adaptatio n measures are socially and ecologically sound. 2. Robust agriculture, forestry and fisheries sectors that able to rapidly recover from hazards and positively adapt to changing environmental circumstances 3. Reduced reliance on imported commodities 4. An improvement in the resilience and health status of the population, inclu ding special protection measures for vulnerable groups
3	National Strategic Development Plan *Department of Transportation, Communications & Infrastructure*	1. Manage and protect natural resources/protect, conserve, and sustainably manage a full [functional] representation of the FSM's marine, freshwater, and terrestrial ecosystem. 2. Improve environmental awareness and education and increase involvement of citizenry of the FSM in conserving their country's natural resources. 3. Create sustainable financing mechanisms for environmental and sustainable resource initiatives
4	FSM commitment to the United Nations Framework Convention on Climate Change	1. Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems.
5	FSM commitment to the United Nations Convention on Biological Diversity	1. Establish a system of protected areas or areas where special measures need to be taken to protect biological diversity. 2. Develop, where necessary, guidelines for the selection, establishment and management of protected areas. 3. Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species through the development and implementation of action plans or other management strategies

6	FSM National Biodiversity Strategy and Action Plan (NBSAP)	1. Further develop and implement management plans for the existing marine and terrestrial conservation areas within the nation. 2. Identify, develop, design and implement management plans for new aquatic and terrestrial conservation areas within the nation, especially in areas that are currently poorly represented, contain unique habitats, or have high levels of threats. 3. Further develop an appropriate information system (e.g.: Geographical Information System) to store and share information on ecosystems and conservation areas. 4. Continue the development of long-term financial plans within each State for undertaking conservation programs at all levels of the government. 5. Develop sustainable conservation funding mechanisms within the nation (e.g. allocation of tax revenue, user fees, eco-labeling). 6. Carry out a community-based ecosystem management program with municipal communities. 7. Work with leading NGOs to carry out monitoring and surveying of ecosystems
7	The Micronesia Challenge *Pohnpei Department of R&D, Chuuk EPA, Yap Department of R&D and Kosrae Island Resources Management Authority*	1. Contribute to the FSM commitment under the MC to "effectively conserve at least 30% of the near-shore marine and 20% of the terrestrial resources across Micronesia by 2020." 2. To develop and implement practical conservation strategies that can protect resources to the benefit of Micronesia's people. 3. Establishing the foundation necessary for the FSM to access the Micronesia Challenge endowment fund (protected areas policy framework, country program strategy, coordinated nation-wide protected area network).
8	Sustainable Development Goals	1. Sustainable Development Goal number 14; LIFE BEYOND WATER is to conserve and sustainably use the world's oceans, seas and marine resources.
9	The Framework for Pacific Regionalism	1. Sustainable development that combines economic social, and cultural development in ways that improve livelihoods and well-being and use the environment sustainably.
10	The Paris Agreement	1. Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change. 2. Sharing information, good practices, experiences and lessons learned, including, as appropriate, as these relate to science, planning, policies and implementation in relation to adaptation actions 3. Improving the effectiveness and durability of adaptation actions. 4. Each Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions

11	Public Law CB18-134 to prohibit the targeting of sharks (Shark Law)	1. Supporting the law stating: No person shall knowingly capture ship, transport, offer for sale sell, purchase, import, export or have custody, control or possession of any fish taken or retained in contravention of this subtitle or any access agreement, permit or applicable law (Protected areas in included)
12	Public Law 19-167 to extend the no commercial fishing zone from 12 to 24 miles	1. Protected areas and the FSM nation-wide protected area network are within the 0 – 24 mile no commercial fishing area of the FSM and therefore the work of this project is in line with this legislation.
13	Chuuk State Biodiversity Strategy and Action Plan *Chuuk State Government*	1. Ensuring successful actions to conserve, protect, preserve, and sustain Chuuk State Biodiversity for the benefit of the people of Chuuk today and in the future
14	Kosrae Strategic Development Plan 2014-2023 *Office of Development Assistance*	1. Managing development to ensure sustainable use of the natural environment and resources, and ultimately ensure future generations of Kosreans also benefit from Kosraes natural resources and heritage 2. Inform longer-term decisions to be made by Kosrae in relation to policy, planning and resource allocation
15	Kosrae Shoreline Management Plan *Kosrae Island Resource Management Authority (KIRMA)*	1. Continued development and strengthening of the community awareness and outreach activities with a focus on an effective natural coastal defence and Kosrae-relevant climate change impacts and adaptation options.
16	Kosrae State Biodiversity Strategy and Action Plan *Kosrae Island Resource Management Authority (KIRMA)*	1. Develop, review, and enforce policies and regulations for sustainable harvesting of natural resources. 2. Improve, manage and preserve vital ecosystems. 3. Develop programs for restoring biodiversity and species habitat (establish terrestrial and marine reserves).
17	Pohnpei State Strategic Development Plan: Planning for Pohnpei's Sustainable Future: 2023 and Beyond	1. To develop and implement a community based stewardship approach for protecting Pohnpei's natural and cultural resources. 2. To maintain ecosystem functions necessary for all life 3. To promote the conservation and sustainable management of our marine resources 4. To improve the health of marine ecosystems within Pohnpei's jurisdiction 5. To strengthen and improve Pohnpei States's fisheries management policies, programs and operations.
18	Pohnpei State Biodiversity Strategy and Action Plan	1. Increase biodiversity conservation/environmental awareness and enhance the conservation and organizational practices of Pohnpeian organizations working in priority marine, coastal and terrestrial areas, including the development of highly skilled resource managers and scientists.

		2. Increase community leadership and participation in conservation and resource management initiatives, including the establishment of models of true community led efforts and traditional knowledge and practices. 3. Increased prosecution of violators and rehabilitation (corrective measures) on violations.
19	Yap State Biodiversity Strategy and Action Plan	1. Development of local capacity to manage natural resources on a sustainable basis. 2. Use of community-based approaches

In 2013, the FSM government enacted Public Law No. 18-43 as well as approving the Federated States of Micronesia's Nationwide Integrated Disaster and Climate Change Policy (the "CC Policy"). The combination of the law and CC policy introduces certain legal obligations for departments and agencies of the National Government in relation to climate change. The act and the CC Policy provide the overarching framework for further detailed legislation on climate change, and is part of the FSM's commitment to the United Nations Framework Convention on Climate Change (UNFCCC).

This proposal aligns with the FSMs Intended Nationally Determined Contributions (INDC) under the UNFCCC to reduce greenhouse gas emissions. The FSM unconditionally committed to reduce by 2025, 28% its GHGs emissions below emissions in year 2000. Further and subject to the availability of additional financial, technical and capacity building support from the international community, the FSM could achieve by 2025 an additional reduction up to 35% below emissions in the 2000 base year. Three of the INDC necessary assumptions and conditions under their INDC commitment are addressed by this proposal through human, technical and institutional capacity development in:

- vulnerability assessment
- adaptation needs evaluation and prioritization
- climate finance access, mobilization and disbursement.

The proposed project directly addresses the Strategic Outcomes (2013-2023) identified by FSM's government in its CC Policy, specifically the following elements of the policy:

Economic resilience

- Robust agriculture, forestry and fisheries sectors that are able to rapidly recover from hazards and positively adapt to changing environmental circumstances
- Reduced reliance on imported commodities

Climate Change Adaptation:

. Enable adjustments in natural and human systems in response to actual or expected changes in the climate or its impacts in order to moderate harm or exploit beneficial opportunities.

- Adapt development and economic activities to gradual changes in average temperature, sea level, ocean acidification and precipitation.
- Reduce and manage the risks associated with more frequent, severe and unpredictable extreme weather events.

The project further aims to expand and strengthen the implementation of FSM's protected area network by establishing state-level networks in areas of biological, cultural, and ecosystem significance in places where they currently do not exist, and strengthening the effective management of established protected areas. Building on existing government institutions at the different levels, the project will foster inter-ministerial and cross-sectoral coordination on climate change adaptation issues. These aspects of the project directly support the FSM's biodiversity goals as established in its National Biodiversity Strategic Action Plan, developed as part of the FSM's commitment to the United Nations Convention on Biological Diversity. Specifically, the project supports the following Themes:

Theme 1: Ecosystem Management: A full representation of FSM's marine, freshwater and terrestrial ecosystems are protected, conserved and sustainable managed, including selected areas designed for total protection. Component 1: (Nation-wide and state protected area networks fully functioning), Component 2: (Climate change vulnerability reduced in at least eight communities), of this proposed program support this Theme.

Theme 4: Agro biodiversity: The conservation and sustainable use of Agro biodiversity contributes to the nation's development and the future food security of the FSM. Component 2 of this proposed program supports this Theme.

Theme 5: Ecologically Sustainable Industry Development: Economic development activities in the FSM meet the needs of the population while sustaining the resources for the benefit of future generations. Components 1 and 2 of this proposed program support this Theme.

Theme 9: Resource Owners: Traditional resource owners and communities are fully involved in the protection, conservation, preservation, and sustainable use of the nation's biodiversity. All Objectives of this proposed program support this Theme.

As described above, the states have jurisdiction over the natural resources, thus each state in the FSM also developed State Biodiversity Strategic Action Plans. Component 1 activities are aligned with all five of these planning documents. In addition, each state has a fisheries plan, either as a standalone document or incorporated into broader economic/social development plans. More information about these sub-national plans will be provided in the full proposal.

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

This project reflects identified national technical standards of the FSM. This project is directly aligned with the Climate Change Policy of the FSM 2009 that outlines best practices for technical and infrastructure solutions to climate change risks. Only eco-system based projects will be supported by Component 2 adhering to the following guidelines from the CC Policy:

Adaptation:
a. All development activities in FSM to take into account projected climatic changes in the design and implementation as stipulated in the FSM Strategic Development Plan/Infrastructure Development Plan (SDP/IDP);
b. To use eco-system based approaches where applicable
c. To encourage and strengthen the application of traditional knowledge on conservation practices and other relevant areas.
d. To develop and implement appropriate strategies to improve food production and other relevant sectors.

Technology Transfer:
a. To optimize the use of local technologies where available.
b. To identify technology that is locally appropriate.
c. To enhance easy access to, and sustainable use of new technologies

All potential projects will be screened for E&S risks following the MCT "Project Risk Assessment and Management Tool", and projects identified as Category A, "Projects with the potential to cause significant adverse social and/or environmental impacts that are diverse, irreversible or unprecedented", will not be pursued or funded by this program. The MCT E&S indicators directly reflect the FSM Environmental Impact Assessment Regulations developed to implement the Federated States of Micronesia Environmental Protection Act. In this way, this project will directly comply with the regulations and standards as stated by the FSM government EIA documents. While the National Infrastructure Development Plan FY2016 – FY2025 outlines strategies for their development, the FSM currently does not have official National Building Code Regulations. As none of the project activities will include major infrastructure development, the project will easily comply with any standards as they are developed.

MCT projects adhere to the objectives and requirements of its Environmental and Social Principles. In so doing, they will seek to i) strengthen the social and environmental outcomes of projects; ii) avoid adverse impacts where possible, and where unavoidable, apply the mitigation hierarchy of minimisation, mitigation and compensation / offset; and iii) strengthen MCT and its executing entities, grantees, sub-grantees and partners' capacity for managing social and environmental risks and impacts. MCT will only support projects that comply with national law and obligations under international law, and will apply the more stringent standard. MCT will work in a collaborative manner with regional, national, and local partners. MCT will ensure that grievance mechanisms are in place so that individuals and communities potentially affected by MCT supported programmes

have access to effective mechanisms and procedures for raising concerns about the social and environmental performance of a project.

The activities of this proposal, particularly Component 1, will strengthen National and State standards for the development of protected areas networks. This project will continue to support these developments in conjunction with both National and State Governments, the State Environmental Protection Agencies, FSM Department of Resources and Development, State Departments of Marine Resources and the multitude of stakeholders involved in this work. The FSM states of Kosrae and Pohnpei have enacted legislation for the operation of state government-supported protected areas networks. Additionally, the states of Yap and Chuuk have developed protected areas network legislation/policy frameworks, currently under consideration in the state legislatures, to organize government-level assistance to municipal and community resource managers. Likewise, the national government is considering a draft national protected areas network framework and an associated country program strategy.

Table 11: Applicable Standards

No	Activity	Applicable Standards	Application to Project by
Component 1:			
1	Work with FSM Department of R&D to have the national leadership endorse the National Protected Areas Policy Framework (NPAPF) document and the associated Country Program Strategy (CPS)	Apply normal procedural standards in draft legislation for Chuuk and Yap States PAN Laws/endorsement of NPAPF	Department of Resources and Development/MCT/Offices of the Attorney Generals in Chuuk and Yap
2	Develop the National Operations Manual based on the FSM NPAPF and the CPS to detail the roles, responsibilities, functions, and activities for the protected areas network that includes the financial mechanism.	Apply normal procedural standards in collaboration with responsible government entities	Department of Resources and Development/MCT
3	Identify/hire State Protected Areas Network Coordinators as full-time state government employees within the appropriate government agencies in Yap, Chuuk, Pohnpei, and Kosrae.	Apply normal procedural standards for the hiring of staff within government entities	Pohnpei Department of Resources and Development/Yap Department of Resources and Development/Chuuk Environmental Protection Agency/Kosrae Island

			Resource Management Authority/MCT
4	Implement workshops for participating state entities to ensure understanding of the entire protected areas network through training on: the FSM national protected areas network policy, country program strategy and the national operations manual.	Government protocols for participation in learning sharing events	OEEM, State EPA offices, states R&D offices, KIRMA, MCT, Conservation NGO's, women's organizations, community groups
5	Establish joint/collaborative enforcement taskforces across the FSM states	Apply normal procedural standards in collaboration with responsible government entities, NGO's, Communities for establishment taskforces	OEEM, State EPA offices, states R&D offices, KIRMA, MCT, Conservation NGO's, women's organizations, community groups
Component 2:			
6	Issue MCT guidelines for the small grants scheme granting process	Based on MCT existing guidelines developed with the AF ESP as the foundation.	MCT
7	Issue grants to local non-governmental organizations/management entities in each of the four states of the FSM (at least 8 communities)	MCT guidelines	MCT Board/Gender Advisor
Component 3:			
8	Hold one workshop to share best practices and develop project success products for dissemination	Government protocols for participation in learning sharing events	OEEM, State EPA offices, states R&D offices, KIRMA, MCT, Conservation NGO's, women's organizations, community groups
9	Development and disbursement of awareness materials for use by communities and educators	Knowledge standards established by MCT and other agencies	MCT
10	Monitoring and Evaluation	Monitoring and Evaluation plan established by MCT with gender and E&S advisors	MCT, Gender advisor, E&S advisor, State coordinators

F. Describe if there is duplication of project / programme with other funding sources, if any.

While many of the activities outlined in this proposal align with and/or will build on past and ongoing efforts (see section 4.2 for details), MCT and its national executing agencies and local executing partners will ensure efforts are not duplicated with other funding sources. MCT is both aware of and committed to discovering potential synergies that exist between projects that could be funded through the AF opportunity and those that are either already being implemented or on the horizon in the FSM. For example, projects such as the Implementation of the Micronesia Challenge and Climate Adaptation Plans for Forest Areas in FSM as well as MCT's implementation of the Global Climate Change Alliance Adaptation Project all focus on the development of community-based management plans. Thiscurrent AF proposal builds on these planning processes and plans to implement concrete adaptation actions. As these projects all are targeting building community resilience and adaptive capacity to climate change, MCT is committed to maintaining transparent and open communication with project administrators to collectively glean best practices to benefit all project proponents and to decrease the risk of repetition during project implementation. MCT will also seek to work with other project administrators to determine possible gaps that could be filled by the AF funding and coordinate with project administrators to identify opportunities to share together at public events, conferences and meetings and support the outcomes of each other's projects.

Current initiatives in place in the FSM that are already supporting the management of protected areas include:

- "Supporting more effective natural resource management in Micronesia Project" with funding from the David and Lucile Packard Foundation, Margaret A Cargill Foundation. Past grants from these donors have allowed MCT to work in more than 30 sites and communities across the region. This funding is currently supporting the following local projects:

    . Enhancing Monitoring Surveillance and Control on Ant Biosphere Reserve in Pohnpei, FSM
    . Mobililizing MPA Communities to Increase Adaptive Fisheries Management Capacity in Pohnpei, FSM
    . Supporting Depehk Takaiou and Lenger MPAs as Model Sites in Pohnpei, FSM
    . Expansion, Maintenance, Visualization of the Micronesia Challenge Coral Reef Monitoring Database
    . Ensuring Effective Biodiversity and Ecosystem Management in Kosrae
    . Update the Marine Protected Area Management Effectiveness (MPAME) Tool and provide training and funds for implementation in all 4 FSM states
    . Development of a comprehensive fisheries management plan for the FSM
    . Support increased financial and human capacity academic scholarship funding.
    . Organizational capacity building for conservation organizations in the FSM.

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- "Implementing Protected Area Networks and Improving Fisheries Management in Micronesia" funded by Oceans5 that is supporting the development and implementation of robust community outreach and media campaigns to garner widespread support.

- "Building the Resilience of Communities and their Ecosystems to the Impacts of Climate Change in Micronesia and Melanesia" funded by the German Government (BMU-ICI) through The Nature Conservancy (TNC) is supporting a number of adaptation projects across the region. In the communities of Tamil in Yap and Malem in Kosrae, funds will provide the foundations for the development of MPA's.

MCT has a positive record of coordination and collaboration and is consistently invited to inception and consultation meetings for projects being implemented in the FSM and the throughout the rest of the region. For instance, the Government of the FSM hired MCT as the local consultant for the development of their protected areas component under their "Ridge to Reef Programme (R2R)" funded by the Global Environmental Facility (GEF5). The MCT Deputy Executive Director was invited to present about the work of MCT and progress made through its implementation of GEF4 project activities at the R2R FSM inception meeting. This enables MCT to be constantly informed of the work of other major projects and be aware of possible synergies to exploit and potential overlaps to avoid.

MCT program staff also participated in the ensuing, detailed discussions planning for GEF5 project activities and strategies for implementation. The partnerships formed by MCT and the R2R program administrators will ensure that our projects are aligned, that MCT will be involved directly with the work of the R2R in the communities and that we will maintain strong communication throughout implementation. MCT prioritizes its relationships with all organizations working towards the same goals in the FSM and will always work to find synergies to develop a truly symbiotic relationship.

As well, as the Secretariat of the Pacific Regional Environment Programme (SPREP) FSM Adaptation Fund Proposal: *Enhancing the climate change resilience of vulnerable island communities in Federated States of Micronesia* has recently been funded by the Adaptation Fund, MCT plans to work closely with the project team to the benefit of both projects. The National Coordinator for the project attended the Kosrae stakeholder consultation for this project. As one of the SPREP projects strategies is to provide communities with the resources and technical support needed to adopt and manage concrete climate change initiatives and actions, MCT recognizes numerous places of convergence and will seek to collaborate whenever possible. Moreover, as the SPREP proposal establishes the exact communities and sites that will be the focus of the project, MCT will ensure that funds under our AF project will not duplicate those of the SPREP project funding.

Below is a table highlighting current major initiatives underway in the FSM. These efforts are complementary to each other and MCT and its partners work regularly with the implementers in the table to ensure that efforts are not duplicated.

Table 12: Summary of current major initiatives underway in the FSM:

Project Name	Objective	Complementarity and Synergies	Funding Source	Implementer(s)
Ridge to Reef Programme (R2R)	Improved resilience of PICT's, with a particular focus on communities through the integrated implementation of sustainable environmental management, climate change adaptation and/or mitigation and disaster risk.	This proposal is not duplicative of this project. MCT was the local consultant on the development of the Protected Areas component of the overall R2R proposal and will continue to coordinate with the National Government on all aspects of implementation. MCT will work closely with implementing partners to ensure that projects funded under the AF small grants scheme and the R2R are not duplicated in any way. In fact, MCT will work to ensure that all projects are complimentary and work together towards the shared project goals.	GEF	Government of the FSM,
Watershed Management Project	Improvement of water quality and reduction of sediment runoff through relocation of piggeries and conversion to dry litter system and construction of a community center.	This proposal is not duplicative of this project. The Watershed Management project is located in one community on Pohnpei in the FSM and will close by the end of 2016. Under this project farmers are receiving loans to convert piggeries and the community has agreed to limit upland farming in exchange for the MCT will not fund similar work in this location under its proposed project.	Seacology, GEF Small Grants	MCT & Awak Youth Organization

Implementation of Micronesia Challenge and Climate Adaptation Plans for Forest Areas in FSM	Development and implementation of community- based management and adaptation plans.	This proposal is not duplicative of this project. This project focuses on improving the management of specific parcels of forests in Kosrae, Pohnpei, Yap and Chuuk. Landowners are partnered with local NGOs to identify and implement targeted forest interventions, such as invasive species management. MCT will not fund similar work in these locations under its proposed project as the AF funds will focus on fisheries and PAN-related funding granting opportunities not forests.	United States Forest Service	MCT and partner NGOs in each of the 4 FSM States
Global Climate Change Alliance Adaptation Project	Build local/community capacity in FSM to be able to adapt to climate change; and to develop climate adaptation plans and implement plans in at least 3 communities (demo sites) in FSM.	This proposal is not duplicative of this project. The sites for this project were/are Walung, Kosrae, Pakin, Pohnpei, and Piis Peniau in Chuuk. Under this project local NGOs used the LEAP tools described in the Concept to identify community climate change vulnerabilities and design management strategies to improve resiliency. The experiences of NGOs and communities are relevant to MCT's proposed project, particularly Component 2, but MCT will not fund similar work in these locations again.	European Union/Univer sity of the South Pacific	MCT and partner NGOs in Yap, Pohnpei and Kosrae

Building the Resilience of Communities and their ecosystems in Micronesia and Melanesia	Eco-systems based climate change adaptation: community-level adaptation, national and subnational level capacity-building to guide, formation and evaluation of climate change policies and innovative financing systems, such as through PES can support ecosystems-based adaptation.	This proposal is not duplicative of this project. The sites for this project are Onei, Chuuk; Pakin, Pohnpei; Malem, Kosrae; Tamil, Yap; Melekeokand Kayangel, Palau; and Wotho and Mejit on the Republic of the Marshall Islands. Under this project local NGOs used the LEAP tools to identify community climate change vulnerabilities and design management strategies to improve resiliency. The experiences of NGOs and communities are relevant to MCT's proposed project, particularly Component 2, but MCT will not fund similar work in these locations again. Funding under the BMU project for Tamil, Yap and Malem,Kosrae will provide the foundations for the development of MPAs for these communities.	BMU-ICI/The Nature Conservancy (TNC)	MCT, TNC, partner NGOs,

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

MCT recognizes the importance of knowledge management (KM) to enhance impacts, ensure sustainability, and facilitate scaling. Therefore, this project proposes a full component dedicated to 'knowledge management' (Component 3). This component is designed to provide a practical approach focused on documenting and disseminating project successes and lessons learned at the local, regional, and international level through differing mediums and methods. The responsibilities of the Project Manager, the State Coordinators and MCT will entail the implementation of specific activities and development of products as part of the knowledge management aspect. These activities will include the development of an on-line repository of GIS spatial analysis data including MPAs, evaluation reports, press releases and monitoring reports, a final project workshop

for stakeholders to share best practices and project successes and a selection of resources for continued community management planning and implementation of ecosystem based adaptation actions. At project inception, and with the help of MCT, each State Coordinator will develop their own knowledge management plan within their work plans to ensure the successful capture and dissemination of lessons learned through the project. The plan will work in tandem with the monitoring and evaluation strategy of the overall project and serve as the overall guide to facilitating, monitoring and evaluating all knowledge, communication and learning of the project.

The key areas of learning and knowledge sharing will be as follows:

1. A level of knowledge that will provide management entities enough awareness of the protected areas network policy and the associated country program strategy to enforce and implement in their communities.
2. A level of knowledge that will provide management entities the ability to apply and successfully access funding to support their protected area.
3. Guidance for communities on the process and criteria for accessing support from the grants program.
4. An understanding of existing and pending fisheries laws and regulations in the FSM (National & State).
5. Establishment of best practices and mechanisms for joint enforcement – locally and nationally.
6. Improved community awareness in climate change and vulnerability & adaptation ecosystem-based management planning capacity.
7. An understanding of ecosystem-based adaptation solutions that local communities can implement on their own to increase their resilience to climate change impacts.
8. Models of successfully implemented management plans/ LEAPs.
9. MPA project monitoring & evaluation reports, press releases, lessons learned, and final workshop or project outcomes.

The knowledge products will include:

1. Adopted National Protected Areas Network Policy Framework and Country Program Strategies guiding the designation and operations of Protected Area Networks across FSM
2. Awareness Materials (visual, print, and virtual) on Protected Areas Legislation and Regulations in FSM.
3. Completed community management plans/ Climate Change Adaptation Local Early Action Plans (LEAPs)
4. National Protected Areas Network registry for all conservation area sites across FSM under PAN Network.
5. Local, national, and regional enforcement networks.

6. Joint Enforcement Agreements and collaborative networks.
7. Online repository of GIS spatial analysis data including MPAs, monitoring & evaluation reports, press releases, and final workshop outcomes
8. Documentation of lessons learned, case studies for communities
9. Awareness materials on Climate Change for communities and Facilitator's Guide for project/ site managers – CDs, large Flipcharts, Posters.
10. Awareness materials on Climate vulnerability & adaptation and Facilitator's Guide for project/ site managers.
11. Scientific papers in refereed journals.

One of the key KM actions will be to embed a learning mechanism within the small grants component of the project. Executing partners in the field will be tasked with monitoring project progress and required to report on lessons and provide qualitative assessments on successes and challenges. As described in Part III D of the Proposal, MCT will use its existing suite of project management tools, the Grant Tools, to track individual sub-grantee and project performance.

The trainings for management entities will entail an inception workshop to provide knowledge about the overall project, the protected areas network, state Laws and the small grants program as well as continued technical and capacity support for implementation of protected areas, adaptation actions, financial management and project management. The trainings for enforcement officers will entail consultation workshops facilitating process for delineating enforcement mandates and roles & responsibilities of conservation enforcement organizations and officers per the respective jurisdictions and organization. Key to effective enforcement of PAN laws and regulations, officers must be kept abreast of the policies and laws governing the PAN. Hence, enforcement officers will also undergo periodical training and evaluation on the awareness and knowledge on existing fisheries laws and regulations or resource management policy. Training for enforcement officers will also entail reviewing and understanding environmental laws and regulations both in English and the primary local vernacular to enhance capability in responding to and citing violations, and also carry out awareness-raising on laws.

The trainings for NGO and community members will entail community workshops focused on Protected Areas Networks, Ecosystem-based management, Climate Change Impacts, and Climate Vulnerability & Adaptation. Community workshops are to be supported with the use of appropriate tools and materials such as the MCT Climate Change V&A and Local Early Action Plan (LEAP) Toolkit and other related resources.

The work to establish the joint enforcement taskforces will entail consultation meetings among enforcement entities to delineate authorities, roles, and responsibilities, development of Memorandum of Understanding between collaborators, and development of Standard Operating Procedures. This initiative will also be supported through Micronesians in Island Conservation Network (MIC) and the Pacific Islands Managed &

Protected Areas Community Network (PIMPAC) to further build the conservation enforcement capacity in FSM and across Micronesia.

MCT will share the results of this project through the online database and learning resources with a wide variety of audiences including: national and state-level government agencies, partner non-governmental organizations, and regional and international conservation NGOs and multilateral institutions. At the regional and state levels, MCT will share project bright spots, lessons learned, and recommended approaches through the Micronesians in Island Conservation Network, the Pacific Islands Managed and Protected Areas Community, and the Micronesia Locally Managed Marine Areas Network. MCT, as a non-voting member of the Micronesia Challenge Steering Committee and frequent attendee/presenter at regional policy forums including the Micronesian Presidents' Summit, the Micronesia Chief Executives Summit, and MCT's sister organization the Association of Pacific Island Legislatures will use these platforms to share the results of the project and cultivate continued support of the Micronesia Challenge. MCT will also continue to share the progress of the Micronesia Challenge and will highlight specific results from this project through either its direct participation at, or through the Global Islands Partnership, at World Bank, United Nations Framework Convention on Climate Change, and the United Nations Convention on Biological Diversity events.

A community of practice will be convened of grant awardees to share experiences, brainstorm solutions to common challenges, and provide a network of support across islands. This community of practice will be integrated into the three peer learning networks that MCT already supports, the Pacific Islands Managed and Protected Areas Community, Micronesians in Island Conservation, and Locally Managed Marine Area Network, Micronesia Node, as well as the Global Islands Partnership. Below is a brief summary of each entity and its role in the proposed project. For more detailed information on each entity, see appendix 2

Pacific Islands Managed and Protected Areas Community (PIMPAC): PIMPAC's mission is to provide continuous opportunities for the sharing of information, expertise, practice, and experience to develop and strengthen area-based management capacity throughout the Pacific Islands region. PIMPAC does this by providing support to area based management efforts in the region. This includes both land and marine managed and protected areas and aims to support a holistic approach to management from ridge to reef. As a social network, PIMPAC uses four main approaches to carry out its mission. They are: 1) Training and Technical Support, 2) Learning Exchanges, 3) Partnership Building, and 4) Communications/ Information Sharing. PIMPAC is currently co-coordinated by U.S. National Oceanic and Atmospheric Administration (NOAA) and MCT.

Micronesians in Island Conservation (MIC): MIC is a peer-learning network for conservation leaders of government agencies, NGOs, and local/regional initiatives, to leverage financial and human resources for greater conservation impact across Micronesia. Its purpose is increasing the success, effectiveness, and number of conservation leaders in the nonprofit and government sectors. MIC's approach is to

create a support structure that fosters shared self-directed learning to address priority organizational and technical needs.

Locally Managed Marine Area Network, Micronesia Node (LMMA Network): The LMMA Network is a group of practitioners involved in various marine conservation projects around the globe who have joined together to increase the success of their efforts. The LMMA Network is a learning network, with participating projects using a common strategy and working together to achieve goals. Members share knowledge, skills, resources and information in order to collectively learn how to improve marine management activities and increase conservation impact.

Global Island Partnership (GLISPA): GLISPA provides a global platform that enables islands to work together to develop solutions to common problems and to take high-level commitments and actions that address these global challenges.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

The stakeholders for this project include numerous local communities from across the FSM including local NGO's, Women's groups, Municipal, State and National Government entities, local communities, fishers and regional organizations. All these stakeholders have contributed to the development of this proposal and expressed strong support for the components of the project.

As this proposal was developed based on the ambitions of FSM stakeholders from its inception, MCT has continuously consulted to ensure that the proposal meets the needs of said agencies, NGO's, communities, women's groups and other organizations. Through MCT's ongoing engagement across the country, the Executive Director and other program staff have been engaging with identified stakeholders over many years, and therefore were already well aware of the climate adaptation and resources management needs of the communities around the FSM and this informed the development of the project concept paper which, in turn led to this proposal. Moreover, this consultation has included discussions with the highest-level officials in the municipal, states and national governments, including discussions with Governors, legislatures, Secretaries and Directors of relevant Departments.

MCT has over a decade of experience with the conservation of natural resources and climate change adaptation needs of the FSM. Consulting with communities and local conservation organizations regarding their needs and priorities has guided our work and programs since our inception. We strongly adhere to the principle that biodiversity conservation and climate change adaptation can successfully occur only when the people dependant on natural resources for their survival participate and are integrated into

conservation and adaptation efforts[77]. In recent years, MCT has been the lead organization responsible for several direct consultations on various national and state projects.

One of MCT's most extensive previous stakeholder consultations involved the drafting of the FSM's 5th National Communication to the United Nations Convention on Biological Diversity. The primary method of data collection to inform the report was a series of two-day stakeholder workshops held in each of the four states of FSM and at the national level, as well as individual meetings with key stakeholders. Over a three-month period at the end of 2014, the MCT report team met with over 100 individuals, including representatives from 60 national and state government resource management agencies, local NGOs, members of communities, traditional leaders, educational institutions, the private sector and regional and international donor and conservation organizations. During these workshops and meetings, stakeholders discussed the FSM's progress towards achieving objectives outlined in its national Biodiversity Strategic Action Plan. As a small island nation, conversations about biodiversity and protected area management also included significant discussions about the impacts of climate change and related community vulnerabilities. These discussions were captured in the 5th National Communication, which included sections on the accelerating impact of climate change on FSM ecosystems and communities. Because the stakeholders overlapped with those of this project and because of the results thereof, the 5th National Report is considered the initial unofficial consultations for this proposal.

Other recent opportunities for MCT to have consulted with local stakeholders include our work as the local protected areas expert for the development of the GEF5 Ridge to Reef (R2R) proposal that is directly related to this project and the consultations. MCT continues to provide this expert support during the current implementation of the R2R project through our close working relationship with its national and state coordinators. MCT was the executing organization for the UNEP GEF4 project "Micronesia Challenge: Sustainable Finance Systems for Protected Area Management in 'Micronesia Challenge' States". The project midterm and final evaluations provided MCT with input and direction that guides our continued work to support the region for protected areas management and climate adaptation work. The terminal evaluation of the project provided important stakeholder feedback from the external evaluator.

The stakeholders identified and consulted in the process of developing this specific, full proposal are as follows:

State/National/ Regional Partners	**Communities**	**Government Agencies**	**NGOs**
Chuuk State	• Toleisom Community	• Chuuk State Government • Chuuk Governor's Office	• The Conservation Society of Chuuk (CCS)

[77] Micronesia Conservation Trust Policy and Operations Manual

	• Oneisomw Community • Weno Community • Faichuk Community	• Office of Oversees Development Assistance • Chuuk Department of Education • Chuuk Office of Commerce and Industry • Chuuk Environmental Protection Agency • College of Micronesia Land Grant (Chuuk Campus) • College of Micronesia Cooperative Research and Extension (Chuuk Campus) • Historic Preservation Office • Department of Agriculture and Forestry • Department of Marine Resources • Chuuk Ridge to Reef Project (R2R) • Chuuk Budget Office • Chuuk Attorney General's Office	• Chuuk Women's Council • Micronesia Red Cross Society (Chuuk Chapter) • UFO Women's Association • International Organization for Migration (IOM) • Faichuk Education Program
Kosrae State	• Yela Environment Landowners Authority • Malem community watershed core team • Malem Municipal Government • Lelu Town Government	• Kosrae State Government • Kosrae Island Resource Management Authority (KIRMA) • Kosrae Project Management Office • Department of Health Services • Kosrae Conservation Enforcement Taskforce • Kosrae State Land Court • Kosrae State Legislature • Division of Fisheries • College of Micronesia - Cooperative Research and Extension (Kosrae Campus) • Department of Resource and Economic Affairs (DREA)	• Kosrae Conservation and Safety Organization (KCSO) • International Organization for Migration (IOM) • Micronesia Red Cross Society (Kosrae Chapter) • USAID Climate Ready • Kosrae Recycling Program • Kosrae Women's Association

		• DREA Marine Fisheries • DREA Division of Agriculture • Kosrae State Land Court • Kosrae Visitor's Bureau	
Pohnpei State	• U Municipal Government • Dehpahk/Takaiou Community • Madolenihmw Municipal Government	• Pohnpei State Government • Pohnpei Governor's Office • Division of Public Land • Division of Agriculture • Division of Fire and Emergency • Department of Public Safety - Division of Fish and Wildlife • Division of Forestry • Pohnpei Environmental Protection Agency • Pohnpei Office of Foreign Investment • Pohnpei Ridge to Reef Project (R2R) • Election Commission • Department of Administrative Services • Pohnpei Attorney General Office	• Conservation Society of Pohnpei (CSP) • Rare Micronesia • Micronesia Productions • USAID Climate Ready • Pacific Resources Education Learning (PREL) • Island Food Community of Pohnpei • Pohnpei Women's Advisory Council • Pohnpei Farmers Association
Yap State	• Weloy Community • Reey Community • Tamil Community Resource and Conservation Trust • Ngulu Atoll • Nimpal Challenge Protected Area	• Yap State Government • Yap Governor's Office • Yap Ridge to Reef Project (R2R) • Yap Environmental Protection Agency (EPA) • Yap Fishing Authority • Resources and Development (R&D) • R&D Division of Agriculture and Forestry • R&D Division of Land Resources • R&D Marine Ressources Management Division • Yap Attorney General Office	• Yap Community Action Program (YAPCap) • The Nature Conservancy (TNC) • Yap Institute of Natural Science • The Micronesia Challenge (MC)
National Government	• Department of Resources and Development (R&D) • FSM Department of Foreign Affairs		

	• FSM Office of Emergency and Environmental Management (OEEM) • FSM Department of Health and Social Affairs • Department of Transportation, Communication and Infrastructure • Office of the President • National Oceanic Resource Management Authority (NORMA) • FSM Department of Education • FSM Philatelic Bureau • FSM Pacific Adaptation to Climate Change Project
Regional Partners	• The Nature Conservancy (TNC) • Rare Micronesia • Micronesians in Island Conservation (MIC) • Pacific Islands Managed and Protected Areas Community (PIMPAC) • Locally Managed Marine Areas Network • Secretariat for the Pacific Regional Environmental Program (SPREP) • Secretariat of the Pacific Community (SPC) • UN Small Grants Program • USAID Climate Ready Project

In 2016 and 2017, twelve official consultations meetings took place. These consultations provided opportunities to work with stakeholders to confirm priorities for this proposal, receive comments and answer questions to determine the final proposal request to the Adaptation Fund. Details are given below.

Final 2017 Consultations:

Over a 2-week period at the end of May and the beginning of June of 2017, the MCT Executive Director, the MCT Conservation Program Manager, the FSM Ridge to Reef Project Manager, and the Director of External Affairs for the Nature Conservancy, Micronesia Program travelled to all 4 states to conduct stakeholder meetings regarding the development of this proposed project. The Governor of Pohnpei, the Honorable Marcelo Peterson, joined the consultation team during their visits to Chuuk and Yap where he led the team discussions with government officials and held individual meetings with his counterparts, the Governors of Chuuk and Yap, to discuss support for this proposal. See appendix 7 for consultation sign in sheets.

During each of the four state-wide stakeholder meetings, the following agenda was followed:

- Opening: The Honorable Governor (per state)
- Introductions: Participants
- Background (Micronesia Challenge presentation on the UNDEP GEF4 Accomplishments and what still needs to be completed as well as status on the FSM Protected Areas Network Policy Framework): MCT Executive Director, Mr. William Kostka

- Ridge to Reef Synergies with AF Proposal: FSM Ridge to Reef Program Manager, Ms. Rosalinda Yatilman
- Adaptation Fund Proposal: MCT Conservation Program Manager, Ms. Tamara Greenstone-Alefaio
- A/F: Discussions, questions, comments, suggestions – review of project results framework
- Discussion of LEAP/Management Plans in Place for each state and funding needs
- Wrap up/Last comments

The results of the consultation contributed to the strategic results framework elements of all four Components of this project.

A summary of all 12 consultations with stakeholders is described below and further details of consultation meetings in appendix 8.

Meeting	Date	Consulted	Key Findings
Consultative Meeting 1	August 15th - 19th, 2016	80 participants at the 5th FSM Environment and Disaster Risk Management Conference	• The stakeholders agreed that the MCT AF project will focus on community led ecosystem based adaptation work while the SPREP AF led project would focus more on government led infrastructure development projects. • MCT AF will also focus on capacity building support directly to those who are especially effected and/or most vulnerable.
Consultative Meeting 2: (National Government)	May 8th, 2017	• Secretary Mr. Marion Henry, Department of Resources and Development • Director Mr. Andrew Yatilman, Office of Environment and Emergency Management Secretary • Mr. Jackson Soram Department of Foreign Affairs, Assistant Secretary for Asia, Pacific, Africa & Multilateral Affairs, • Ms. Stacey Yleizah, Secretary to Secretary Soram • Rosalinda Yatilman, FSM Ridge to Reef Project Manager. • Mr. Gillian Doone, Office of the President	• Need to ensure full coordination of proposal development and implementation with government offices currently implementing conservation and climate change related projects was shared. • To ensure this collaboration, a request to have the FSM Ridge to Reef Project Manager join the MCT team on their state consultations was granted • State PAN Coordinator funding: consensus recommendation to have the coordinators work within the State governments but remain on MCT payroll during project implementation. Each state will be responsible for organizing sustainable funding source post-project implementation. • Affirmed National Government Support of project/priorities
Consultative Meeting 3: (National Government)	May 12th, 2017	• Alissa Takesy, Assistant Secretary of Resources Management and Development • Rosalinda Yatilman, FSM Ridge to Reef Ms.	• State PAN Coordinator funding: Ms. Takesy felt that the positions were important to ensuring that the PAN work is completed and suggested that this be discussed in each state to

			ensure commitment from state government offices. • Affirmed National Government Support of project/priorities
Consultative Meeting 4: (Pohnpei State Government)	May 16th, 2017	• Honorable Reed Oliver, Pohnpei State Lieutenant Governor	• Sincere gratefulness for the project concept recognizing the need for a more institutionalized protected areas network for Pohnpei. • Confirmed project is in line with state plans for conservation/climate change projects. • Garnered full support to the project including any coordination support necessary for consultations and implementation.
Consultative Meeting 5: (Pohnpei State Stakeholders)	May 17th/18th, 2017	• 26 stakeholder representatives (see appendix 7 for full list)	• Clarification on protected areas network (PAN) sustainable funding mechanism the Micronesia Challenge and how to access the funds leading to confirmation of the importance of this proposal. • Community confirmation of project priorities • NGO confirmation of project priorities • Pohnpei State Government confirmation of project priorities • Clarification on small grants component of proposal: sites not confirmed at proposal stage, an RFP will be mechanism for applying for funding. • Establishment of priority projects to be possibly funded under the small-grants portion of this project (indicative list of needs) • Concerns that local marine protected areas (MPA) are being exploited by local fishers and enforcement is underfunded. Support for the proposal's enforcement component was expressed by all. • Commitment from state marine resources to fund a PAN Coordinator from their budget once AF proposal is complete
Consultative Meeting 6: (Chuuk State Government)	May 24th, 2017	• Honorable Johnson Elimo, Chuuk State Governor and advisors • Honorable Speaker Innocente Oneisom • Sabino Asor, Chuuk State Attorney General • Kelbie Kennedy, Chuuk State Assistant Attorney General • Natural Resource Management Agency	• Chuuk state government confirmation of project priorities • Commitment to work with Legislature to have the Chuuk PAN Law passed in the current government session • Commitment to implement the recently passed Chuuk State Coastal Fisheries Act of 2017 and its associated rules and regulations.

Consultative Meeting 7: (Chuuk State Stakeholders)	May 25th, 2017	• 32 stakeholder representatives in attendance (see appendix 7 for full list)	• Community confirmation of project priorities • NGO confirmation of project priorities • Chuuk State Government confirmation of project priorities • Stakeholders shared an important reminder that in Chuuk and Yap, the marine resources are owned by individual owners, not the communities, something that must be considered within the context of this proposal. • Capacity for enforcement of great concern in Chuuk among all stakeholders • Establishment of priority projects to be possibly funded under the small-grants portion of this project (indicative list of needs) • Commitment from state marine resources to fund a PAN Coordinator from their budget once AF proposal is complete
Consultative Meeting 8: (Yap State Government)	May 29th, 2017	• Honorable Tony Ganngiyan, Yap State Governor • Yap State Senators: Joe Tiucheimal, John Masiwema, Lazarus Ulith, Stan Kensof, Ted Rutun, John Mooteb, Jerry Fagolimul, and Nickolas Figir	• Community confirmation of project priorities • NGO confirmation of project priorities • Yap state government confirmation of project priorities • Commitment to work with Legislature to have the Yap PAN Law passed in the current government session • Commitment to include plan for sustainable financing in the Yap PAN law: a tourism departure fee of $50 per visitor (Roomers Green Fee).
Consultative Meeting 9: (Yap State Stakeholders)	May 30th, 2017	• 22 stakeholder representatives in attendance (see appendix 7 for full list)	• Community confirmation of project priorities • NGO confirmation of project priorities • YapState Government confirmation of project priorities • Reminder that the states while one national have different needs and priorities that need to be outlined in proposal. • Establishment of priority projects to be possibly funded under the small-grants portion of this project (indicative list of needs) • Commitment from state marine resources to fund a PAN Coordinator from their budget once AF proposal is complete
Consultative Meeting 10:	June 4th, 2017	• Kosrae State Chief of Staff, Nena K. William	• Commitment on behalf of the Chief of Staff to continue to work with Governor

(Kosrae State Government)		• Simpson Abraham, FSM SPREP	and inform of project outcomes and inputs
Consultative Meeting 11: (Kosrae State Stakeholders)	June 5th, 2017	• 29 stakeholder representatives in attendance (see appendix 7 for full list)	• Community confirmation of project priorities • NGO confirmation of project priorities • Kosrae State Government confirmation of project priorities • Establishment of priority projects to be possibly funded under the small-grants portion of this project (indicative list of needs) • Commitment from state marine resources to fund a PAN Coordinator from their budget once AF proposal is complete and • Commitment from Governor representative that Kosrae Island Resource Management Authority (KIRMA) will house Coordinator

Consultative Meeting 12: (Kosrae State Government)	June 5th, 2017	• Honorable Lieutenant Governor Marius Akapito Weno
		• Kosrae State Legislature Senators including:
		  • Joe Tiucheimal
		  • John Masiwemai
		  • Lazarus Ulith
		  • Stan Kensof
		  • Ted Rutun
		  • John Mooteb
		  • Jerry Fagolimul
		  • Nickolas Figir
			• Commitment to establish sustainable financing for the PAN work including cost for the PAN coordinator from violation fees to support ongoing costs post- project implementation.
			• Discussion around the Ridge to Reef project seed funding for $10,000 to incentivize the state to legally establish a PAN fund.
			• Discussion to use some of the Micronesia Challenge endowment fund after the end of the AF project to support some of the PAN costs, including the cost for the PAN coordinator.

Finally, prior to this proposal submission, the Results Framework and the Budget were sent to all stakeholders for a final review and approval. Any suggested changes were made and the final RF and Budget are found within this proposal document.

Figure 12: MCT Adaptation Fund Stakeholder Consultation, Kosrae June 5th, 2017

Figure 13: MCT Adaptation Fund Stakeholder Consultation, Yap May 30th, 2017

Summary: Most Vulnerable Groups and Gender Issues

In the FSM, the indigenous people of the islands form the vast majority of the population and land and political institutions are in their full control. Still, there are vulnerable groups within the FSM who are sometimes left out of the consultative processes or lack opportunities to contribute their perspectives and needs to decisions that affect them. Those from distant outer islands, for instance, often live so far away from the political centres that transportation to and from their communities is infrequent, especially at certain times of year when the winds and tides make travel dangerous. As well, in the case of protected areas, there is the potential for some fishers to be marginalized and effected negatively through bans on certain types of fish or regulations that prevent them from fishing in their familiar fishing grounds.

During consultations for this proposal, MCT sought input from the most vulnerable: fishers, their families, women and coastal communities. Fishers in Pohnpei are concerned about resource decline and desire reforms that improve their livelihoods[78]. In Yap, fishers and communities are concerned about unsustainable fishing practices and the impact of changing weather patterns and warming ocean temperatures in the ocean[79]. In Chuuk, women fishers are concerned about the decrease in catch and the number of local fishers selling fish to outsiders/off island (through export)[80]. In Kosrae, community members have expressed concerns over a lack of enforcement for marine protected areas and sanctuaries[81]. Fishers perceive reef fish resources and reef quality to be in decline, with unsustainable fishing practices and environmental degradation the main factors mentioned. Almost all fishers overwhelmingly stated support for an institutionalized

[78] K. L. Rhodes, unpublished data 2013
[79] MCT AF Yap consultation respondent, May 30th, 2017
[80] MCT AF Focus Group, Chuuk Women's Group July 14th, 2017
[81] Utwe Municipal Government, Kosrae, 2011

protected areas network along with proper enforcement in the FSM a well as a variety of state-imposed management options, such as size limits, species bans and limits on foreign fishing[82].

In Pohnpei, Kosrae and Chuuk, women fish either alone or alongside their husbands or a male from the family. In Yap, while women do not go out fishing, they do collect marine resources/invertebrates through gleaning. In Kosrae, women practice mostly near-shore fishing methods as do Pohnpeian women who fish from the shore with a line and spool. The double impacts of decreasing fish supplies and their responsibilities of care of their family is of significant concern to women in the FSM[83]. During a focus group conversation in Chuuk in July 2017, when asked what the biggest issue is with any existing marine protected areas in their communities, all participants were quick to agree that enforcement of existing rules and regulations, or lack of information about them, was the biggest problem[84].

During consultations, fishers and their families expressed concerns about the overwhelming costs to fish for subsistence. One respondent remarked "…while the cost for fuel is increasing, we have to go further, spend more money on fuel and catch fewer and smaller fish"[85]. In Chuuk, a house-wife demonstrated the difficulty in relying on fishing for income mentioning that no one in her family fishes anymore, they are taxi drivers and security guards, and they can only eat fish if they have money to buy it at the market or another family shares with them[86]. This is also reflected in a 2006 video survey of fishers in Pohnpei where a fisher from the community of U said, "The price of gasoline is rising while the price of fish remains the same. We spend $20.00 on gasoline, then the left over is not enough for our family needs"[87]. Since this statement was made, prices of fuel have continued to increase while the costs of buying fish has not increased proportionately.

While communities offered anecdotal support of the decrease in available fish and a need for quick management solutions, some also shared positive statements about their perceptions of already established protected areas. In Chuuk, women remarked "The MPA in my community is doing well and teaching others about this practice"[88]. In Pohnpei, one traditional leader (who is also a fisher) has seen the impacts of MPA's in his community: "Now we have begun to experience the differences between the places we set aside for MPA's and the remaining areas outside the MPA's. In the MPA's, the marine resources are plentiful, while the reefs outside the MPA's have been depleted. However, if we want to have healthy marine resources like 20 to 30 years ago, we should have more MPA's and take good care of these protected areas in order to protect fish populations and support diverse marine life so the future generation will be able to benefit

[82] Based on MCT AF Consultations in all 4 states, 2017
[83] Based on MCT AF Consultations in all 4 states, 2017
[84] MCT AF Focus Group, Chuuk Women's Group July 14th, 2017
[85] MCT AF Focus Group, Chuuk Women's Group July 14th, 2017
[86] MCT AF Focus Group, Chuuk Women's Group July 14th, 2017
[87] Conservation Society of Pohnpei, Fish For Life Video
[88] MCT AF Focus Group, Chuuk Women's Group July 14th, 2017

these natural resources such as Bumphead Parrotfish, Napoleon Wrasse… and aggregating fishes that are vanishing overtime"[89].

Figure 14: Chuuk Women's Council Focus Group July 21st, 2017

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The AF funds will be used to enhance the baseline commitments of the FSM government, local NGO's and community efforts to increase resilience to climate related stressors in the islands. While a number of on-going projects and programmes to increase ecological and community resilience to climate change are making some impact in the FSM, MCT and its partners recognize a gap in both local capacity and funding that will decrease and/or will be significantly addressed with an award of AF funds. This project addresses short and long-term threats to the FSM marine ecosystem and sustainable food sources and will work in tandem with already existing programmes working towards the same objective such as the Micronesia Challenge. The project will further increase the collaborative efforts between FSM policy-makers, local communities and NGO's as well as the continued efforts by scientists and regional organizations to support the work done in the FSM. While vital to the resilience and adaptive capacity of the country, a number of adaptation measures that have yet to be fully funded under current programs will be made possible through the AF funds. Adaptation measures such as integrating alternative livelihoods components and tools into existing community planning processes; conservation and climate adaptation efforts and the development of an institutionalized system for providing technical and financial assistance to FSM protected areas and strengthening the enforcement of near-shore fisheries regulations will all be made possible by this proposal.

[89] Conservation Society of Pohnpei, anecdote - 2016

Component 1: Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated

Baseline (w/o the project)

Current and planned activities are helping to address the overharvesting of FSM nearshore fisheries, however enforcement remains a critical challenge within each of the FSM states. While well-intentioned, many of the state marine resource agencies and enforcement divisions lack sufficient human and technical capacity and resources (funding and equipment) to enforce existing nearshore fisheries and marine protected areas legislation and regulations. The FSM national government currently does not provide adequate financial or technical assistance to the states for management of their protected areas and/or national resources management efforts. The support provided is insufficient and inconsistent. Moreover, because the FSM Government has not officially adopted the National Protected Areas Network Framework, MCT has not been able to release earnings from the Micronesia Challenge Endowment Fund to the sites.

Without AF funding, any legislation, regulations, frameworks, policies etc developed will remain ineffective. The status quo of partial, periodic enforcement will continue indefinitely and the ability of the national and state governments to coordinate, cooperate, and collaborate will remain weak.

Adaptation Alternative (w/ project):

Under the adaptation alternative scenario proposed with this project, FSM will take a holistic approach with passing appropriate and/or improved legislation and developing a network of trained professionals to enforce the strategies and rules agreed to.

The two main outcomes under this component serve the dual function of (i) ensuring a fully- functioning and institutionalized system for national and state government support for protected areas networks in Yap, Chuuk, Pohnpei, and Kosrae; and (ii) supporting state-level efforts to ensure compliance with MPA and fisheries regulations. This will reduce overharvesting of near-shore fisheries and maintain coral reef and near-shore marine ecosystem health, resilience to climate change and food security within the FSM. The AF intervention will allow MCT to work with the FSM and its four state governments to put in place important mechanisms and processes so that MCT can begin to provide consistent funding from the Micronesia Challenge Endowment Fund to the sites.

The total cost for delivering legislation and regulation changes, as well as providing the tools, scope and training materials to effectively train State Protected Area Network Coordinators totals USD $349,960.

Component 2: Community-level adaptive capacity strengthened to address climate change threats

Baseline (w/o the project)

At least 54 communities in the FSM have used the LEAP, or aspects of the suite of tools, to establish priority eco based actions to build community resilience to climate change. The LEAP tool is Micronesia's most widely used locally developed mechanism to engage communities in a collaborative process to identify priority climate change impact vulnerabilities and develop and implement specific ecosystem-based activities to address these priority vulnerabilities.

Through a combination of outreach, local planning, and technical assistance, communities develop targeted work plans with actions to reduce the exposure and sensitivity of coastal and marine resources, and build their adaptive capacity to climate change threats and stressors.

While additional funding maybe available to allow for further communities to utilize the LEAP tool to develop priority actions – without adequate funding the priority ecosystem-based activities will not be funded.

Adaptation alternative (With project)

The adaptation alternative to be implemented through this project under Component 2 builds capacity on the ground, at the community level, to establish effective eco-system based approaches and techniques which will increase the resilience and adaptive capacity of vulnerable FSM communities., It builds the capacity of community-centered civil society, NGOs, and community organizations to support concrete on the ground impact in order to demonstrate the social and environmental benefits of climate change resilience in a range of specific ecosystem-based adaptation interventions. Activities build on and partner with a number of important existing initiatives including the LEAP process to support the 'additionality' of climate change adaptation for FSM communities and villages.

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The project resources for this component total USD$332,000 will be delivered through a small grant financing mechanism providing an enhanced direct access modality that will increase ownership and commitment of beneficiaries to directly improve ecosystems to supply services to they depend on for their livelihoods, food security, and water quality.

Component 3: Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation solutions

Baseline (w/o the project)

Currently in FSM there is no systematic nor documented approach to raising awareness on climate change generally and ecosystem based adaptation actions more specifically. There is also a lack of materials, data management sources, and a repository that

provides GIS spatial data. Without a systematic approach to knowledge management communities across FSM have no way to learn from each other's experiences moreover with a lack of curated information scaling-up or replicating successful interventions will be haphazard at best and likely nonexistent.

Adaptation alternative (with project)

With resources of USD $124,860 mobilized for component 3, the project will capture data on MPA management and ecosystem based adaptation solutions and provide an online management system to allow for wide access across FSM. The project will also importantly capture lessons learned from the SGF grant awards providing information and data on successful interventions as well as unsuccessful so that communities across FSM as well as others regionally and globally can learn from real cases.

By investing in KM and systematically collecting and disseminating lessons learned, this component provides the basis for future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation solutions.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.

MCT is only recommending community-level project sizes and activities which can be supported by MCT, the national executing entity(ies) and grants to recipients within the life of this project. MCT, the national executing entity(ies), and grants recipients also intend to make sure there are linkages between this project's activities with other projects/programs to ensure they can be sustained. For Component 2 activities, MCT, its national executing entity(ies) and the grant recipients will encourage and/or require that project proponents include sustainable financing and sustainable livelihoods as specific activities. Component 1 is designed to support the start-up and initial implementation of national and state protected areas networks, and the FSM's Micronesia Challenge Endowment Fund and other national/state government allocations will support the maintenance of these networks. Lastly, The component also includes training and human capacity building activities which are designed to improve long-term enforcement of near-shore fisheries regulations.

In addition, MCT and its partners are continuing to work to advance on-going sustainable financing efforts related to the Micronesia Challenge and its associated efforts. Through sustainable financing mechanisms such as the FSM's Micronesia Challenge Endowment Fund and the establishment of consistent local funding streams, MCT and its partners are working to maintain resource management and climate adaptation initiatives (such as this proposed concept) beyond the project/programme periods of performance. The FSM's participation in the Micronesia Challenge Endowment funding program is contingent upon the FSM PAN Policy Framework and Country Program Strategy both being operational and meeting the Micronesia Challenge Steering Committee's standards. Thus, the activities in all 4 of the Components of this project themselves will result in the availability

of sustainable financing for this work beyond the life of the AF project. Effective institutionalization of the PANs supports and leads to the establishment of funding streams that guarantee continuity of funding and management. Moreover, during national consultations for this proposal, MCT received commitments from each state government entity to fund the state PAN Coordinator positions after this project is complete. As well, in July of 2017, the Board of the Green Climate Fund (GCF) approved the accreditation of Micronesia Conservation Trust. Accreditation from the GCF will provide another long-term source of funding beyond the life of this AF grant. MCT and the FSM National Designated Authority for the GCF have already begun discussions to develop a US$10million project for enhanced direct access supporting projects such as the ones to be supported by this proposed Adaptation Fund project, with significant potential to fund additional projects and scale up projects funded by AF.

Finally, MCT's core business as stated in its mission statement is: "We build partnerships, raise and manage funds, influence policy, and provide conservation and financing expertise." MCT's new Strategic Action Plan also prioritizes Climate Resilience as one of its key Impact Areas. Thus, fundraising and providing technical support for climate change adaptation work and projects such as that proposed here is an organizational priority and will represent a significant portion of MCT's work and budgets for the foreseeable future.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

To avoid or reduce potentially negative impacts of the project activities, the potential risks have been identified and analyzed, in line with the AF's Environmental and Social Policy as well as MCT's environmental and social policy.

The highest potential risk under the current project proposal is related to Component 2 of the project the awarding of grants through the small grants facility (SGF). The checklist below identifies the main areas of potential risk and management on how these risks will be mitigated. For many of the E&S principles there is a risk that a submitted proposal will adversely impact one of the AF's principles. To mitigate such a risk, the SGF will have stringent criteria and a thorough review process prior to the awarding of the grant. In addition, the grants will go through a specific E&S screening process and E&S risks will be closely monitored throughout the life of the grants. The steps of these processes are detailed below and the actual tools and templates to be utilized are detailed by appendix and in the MCT Operations Manual. The initial screening will be done against the AF's ESP as outlined in section A under output 3.

Prior to approval the grant proposals will be screened by a gender expert and an E&S expert[90] to ensure that all potential risks have been flagged and appropriate measures

[90] A budget allocation of $15,000 is included for these services.

taken to mitigate any potential risks. As stated above, only low-risk projects with clear steps for how those risks will be mitigated will be approved for funding through the SGF.

Table 13: Checklist of Environmental and Social Principles

Checklist of environmental and social principles	**No further assessment required for compliance**	**Potential impacts and risks – further assessment and management required for compliance**
Compliance with the Law	The project has been designed to be in full compliance with FSM's national and state laws and policies. In particular, it takes into consideration the various resource tenure systems of the four states of the FSM. MCT has more than 10 years of experience in implementing similar programming and has not had any legal issues as a result of the technical activities of its projects.	Any small grant proposal that does not comply with national and state laws will not be approved
Access and Equity		Potential risk for Access and Equity include: 1)The SGF may receive more quality grant proposals than there is funding available. A potential risk includes ensuring equity and transparency for grant awards. 2)Activities planned under the SGF are of community interest. As such, an effective participation of all actors and fair access to the benefits are important for a successful implementation. Mitigation measures: 1)Transparent grant mechanism set-up with rigorous criteria to ensure that women, men and youth have equitable access to capacity building activities (training, meetings, surveys, monitoring) and project benefits.

		2)It is important for all MCT interventions that all members of the community have a voice and participate actively in projects. The LEAP process on which the selection of projects to be supported by the SGF is specifically designed to make resource management planning accessible and understandable to all members of involved communities. The project's environmental and social management (ESMP) plan will include management measures to ensure fair access, transparency, and equity throughout implementation.
Marginalized and Vulnerable Groups		Low risk - FSM does not have marginalized groups per formal definitions (i.e. specific ethnic or religious groups that are marginalized). Mitigation Measures: To ensure that no members of the community are left out of the decision-making process all projects submitted to the SGP must demonstrate development through a community-driven and community-based consultative process. Identification: As part of the grant proposal, grant proponents will need to identify and describe the community to be supported in detail. Stakeholder consultations will also need to be conducted, minutes taken, and input from stakeholders recorded – the record, minutes and how issues

		raised were addressed will need to be sent in as part of any SGP proposal. As stated in Section C, each proposal will be reviewed by an E&S and gender expert to ensure the proposal complies with the AF's E&S Policy and Gender Policy.
Human Rights		There is a potential risk that a submitted grant could infringe upon human rights. The SGF will screen to ensure that grant proposals are in compliance with all applicable FSM and international laws relating to human rights.
Gender Equity and Women's Empowerment		Potential risk for not fully engaging women, specifically there is a risk that proposals submitted to SGF will not be from women-led organizations/communities. Mitigation measures: 1) MCT will track and include specific plans on integrating gender. MCT has specific strategies in place ways for engaging women in the larger community and has experience implementing these strategies successfully. AF project funds will only support projects and activities which ensure that, during implementation, both men and women: i) are able to participate fully and equitably; ii) receive comparable social and economic benefits; and iii) do not suffer disproportionate adverse effects although no such effects are anticipated.

		2) One of the review criteria for the SGF will be to prioritize projects from women-led groups MCT will provide additional support to ensure women and other vulnerable groups have the capacity to develop sound proposals.
Core Labour Rights		Potential risk that core labour rights could be violated. Mitigation measures: The AF funds will not support activities that would infringe on labour rights. The large proportion of project- funded activities will not involve formal labour arrangements. Projects submitted to the SGF will be screened against this principles. In the cases where the activities will involve employment (e.g. hiring of state PAN Coordinators under Component 1), the Project is in compliance with all applicable FSM and international labor laws. All labour payments including ad hoc labour payments will adhere to State laws as promulgated by labour regulations defining the relevant wage rate, workers benefits and other relevant working conditions
Indigenous Peoples	No risk - As stated above, the indigenous people of the FSM are also the political, social, and cultural leaders of the country – the vast majority of the population is comprised of indigenous peoples. The vast majority of the participants in the consultations conducted during the development of this project proposal were individuals indigenous to the islands where the project activities will take place. The few non-indigenous	

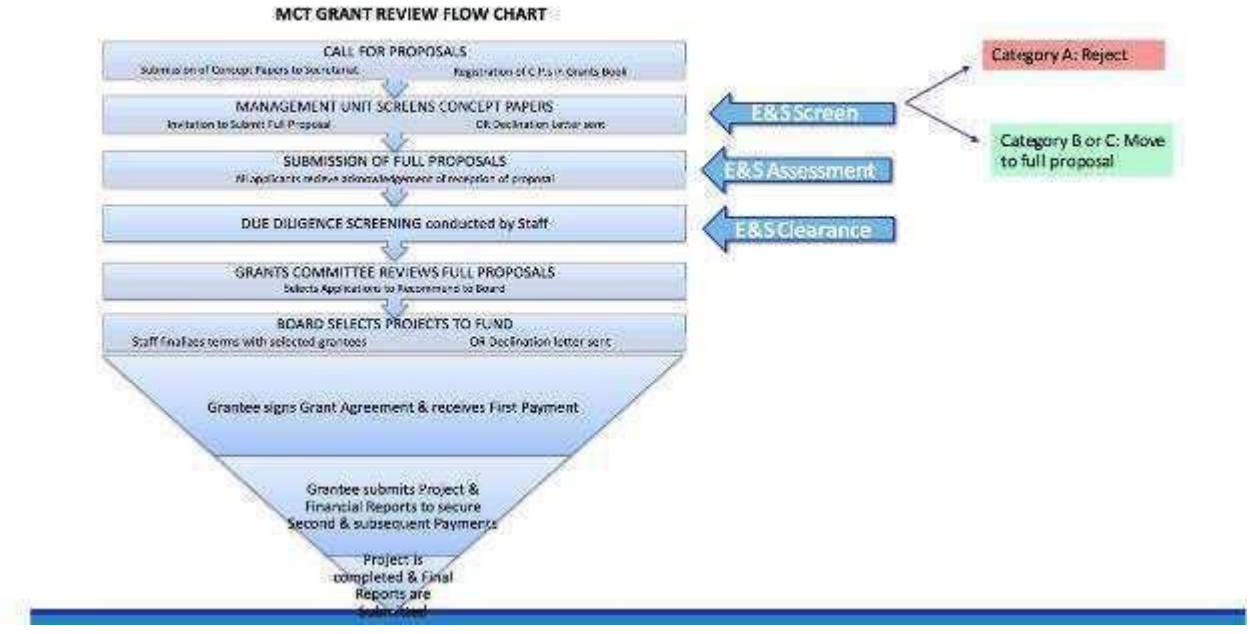
	participants were long-term residents employed by organizations involved in climate change adaptation, conservation and related development and livelihoods projects and activities.	
Involuntary Resettlement	No risk -The AF funds will not support any activities that would result in involuntary resettlement. upland to f Many of the project activities are specifically designed to allow for local community members to remain on their family lands. Additionally, the sale of land is prohibited in the FSM and eminent domain has never been resorted to and strong local traditional leadership remains intact.	
Protection of Natural Habitats	.	There is a potential risk that a submitted grant could adversely impact the protection of natural habitat Mitigation measures: The design and objectives of the SGF are focused on improving the effective management of protected areas in FSM; this is part of the Micronesia Challenge, which has been in place since 2006. The actions selected through the LEAP process to be supported by the small grants facility are also geared towards enhancing the resilience of ecosystems which provide community subsistence and livelihoods. Projects will be screened to ensure they comply with the overall objectives.
Conservation of Biological Diversity		There is a potential risk that a submitted grant proposal could adversely impact biological diversity. Mitigation measures:

		The AF funds will not support any activities that would adversely impact biological diversity. Proposals will be screened against this standard
Climate Change	No risk – given the size of the grants proposals they would not in any meaningful way increase GHG emissions)	
Pollution Prevention and Resource Efficiency		There is a potential risk that a submitted grant proposal could increase pollution. Mitigation actions: The AF funds will not support any activities that could increase pollution, and all of the proposed objectives and review criteria of the SGF aim to improve ecosystem services (i.e. resource efficiency).
Public Health		There is a potential risk that a submitted grant proposal would adversely affect public health. Mitigation actions The AF funds will not support any activities that could negatively impact public health. Rather, several activities in the indicative lists of projects to be funded would have positive impacts on public health particularly nutrition and water safety During the initial screening, projects submitted through the SGF will be screened to ensure they do not adversely affect public health.
Physical and Cultural Heritage		There is a potential risk that ecotourism activities could pose a threat to heritage by

		monetizing cultural practices through ecotourism activities and attractions. Mitigation actions: 1)The FSM has one World Heritage Site (the ruins at Nan Madol in Pohnpei State) and there are no projects identified in the indicative lists that would impact the area. The FSM has two UNESCO Biosphere Reserves (Ant Atoll in Pohnpei State, and the Utwe-Walung Reserve in Kosrae State) and these two sites both have active management plans in place and have relevant projects in the indicative lists presented in this project proposal. 2)Through its E&S screening process the AF funds will not support any activities that would infringe on physical and cultural heritage; to the contrary Component 1 includes strengthening the management and preservation of such site
Lands and Soil Conservation		There is a potential risk that a submitted grant proposal would adversely affect lands and soil conservation. Mitigation actions AF funds will not support any activities that would infringe on lands and soil conservation. The review criteria of the SFP will ensure activities proposed will have positive impacts on land and soil conservation.

As stated above because the proposal includes several small grant projects which will only be finalized during project implementation. MCT will carry out a full E&S and gender screening of all submitted proposals. MCT's grant review process, the assessment of potential environmental and social risks will form part of the criteria used to asses detailed project proposals (see section A, outcome 3).

Figure 15: detail flow chart of MCT Grant Review Process:



During the SGF grant review process, proposals will initially be screened against the AF's ES Principles. After the initial screening to ensure compliance, E&S risks using the procedures, documents, tools and templates that are embedded in MCT's Policy and Operations Manual and MCT's Program and Project Planning Templates (see appendix

9) to executing partners. MCT has also developed a 'Project Risk Assessment and Management Tool' which has been expanded to include the identification, assessment, and management of E&S risks.

Particular attention will be given to ensuring that small grant projects do not impact adversely on any priority biodiversity areas or ecosystems, and that there are no negative impacts on local communities. Project resources under the small grants facility will be allocated primarily according to the outcomes of the community-driven LEAP processes described in other sections and appendices of this project proposal. This process reinforces MCT's commitment to the full and fair inclusion of all members of participating and affected communities by ensuring that project activities come from the communities and local NGOs and that project management rests there as well. MCT-supported projects and activities will be gender- responsive in their design and implementation. The different needs, constraints, contributions and priorities of women, men, girls and boys will be identified and built into MCT's programming.

Finally, environmental and social risk screening and risk management planning are required elements of the Program and Project Planning Templates tool that will be provided to executing partners as part of the small grants facility of this project (attached as appendix). The tool includes a risk screening process which results in a risk monitoring and management plan.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

The project will be implemented through the four levels of governance of the FSM – National, State, municipal, and traditional. The management arrangements of the project have been designed to provide for coordination and close collaboration among project partners and key stakeholders, and wherever possible, alignment with other ongoing initiatives and programs of work. Regular feedback and communication on progress with project implementation will be maintained through the Project Manager, the State Coordinators, the Micronesia Conservation Trust through the project reporting structures, quarterly and annual reports, small-grants program reports, M&E and Knowledge Management plans. One of MCT's main objectives is to draw lessons and experiences from the project implementation process to support overall climate change adaptation planning, decision making and monitoring and evaluation for the project with a view to enhancing the benefits of adaptation responses both nationally and internationally.

- The executing entities will be the FSM Office of Environment and Emergency Management, the FSM Department of Resources and Development, Pohnpei

State Government, Kosrae State Government, Chuuk State Government and the Yap State Government.

- The implementing entity will be: The Micronesia Conservation Trust
- Within the implement entity, an individual will be hired/identified to manage the project as Project Manager.
- For Component 1 the Project Manager will oversee the work along with MCT, all executing entities and the National Protected Areas Network Coordinator.
- For Component 2, the Project Manager will oversee the work along with MCT (specifically the Conservation Program Manager and the Conservation Team) to oversee the grants program. MCT will administer and issue the grants directly to the sub-grantees and the Project Manager will work in conjunction with MCT staff to manage the awards. See below for MCT's management framework.
- For Component 3, the Project Manager will oversee the work along with MCT, all executing entities.

Oversight, Governance and Coordination:

Oversight of project activities will be the responsibility of MCT. This will include a focus on social and environmental risk management. MCT will work with key partner institutions including the Executing Agencies as outlined above and the NGO partners and communities as part of the small grants scheme. As a matter of principle, the project will work with and strengthen existing coordination, decision support and learning structures where these exist.

The Executing Agencies and the State Coordinators will report any unintended social and environmental risks that are detected through the project monitoring, evaluation and reporting processes to MCT and together, the entities will develop a proposed risk management plan that shows how these risks will be mitigated.

Strategic and Operational oversight will be guaranteed by MCT. MCT is governed by its Board of Trustees (BOT). There are four standing committees of the Board of Trustees: Governance, Partnerships and Development, Technical and Investment and Finance. While the BOT will oversee the project through all standing committees, two of the committees will have more input, they are:

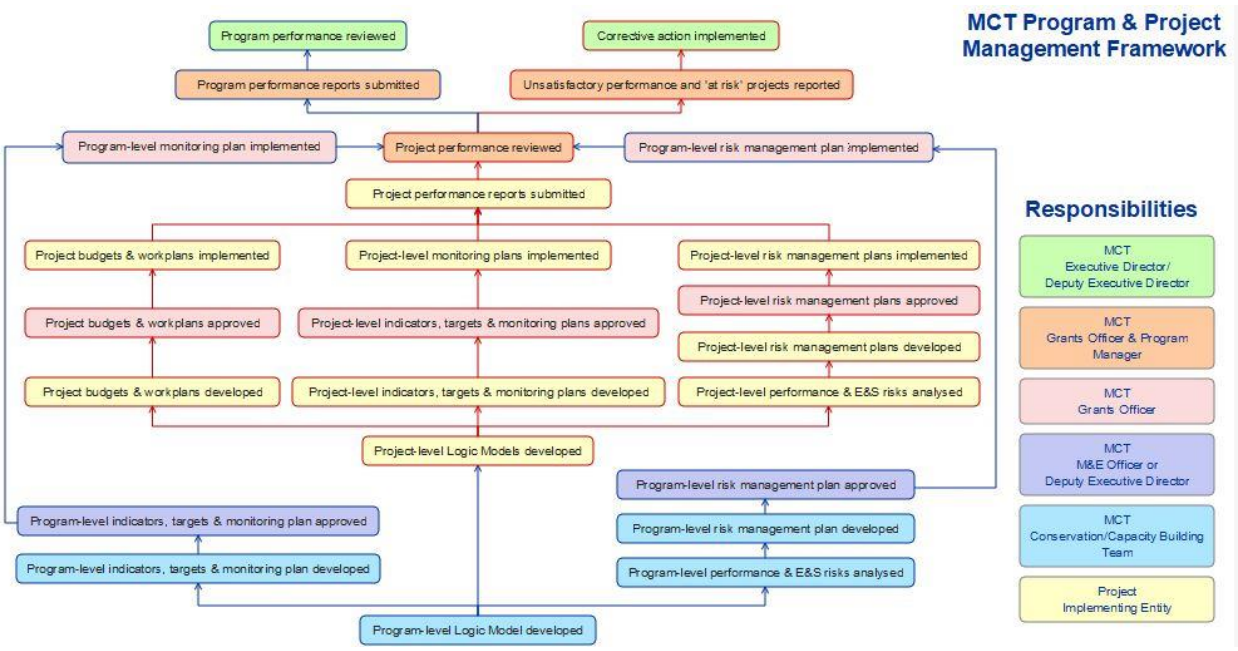
- Governance Committee: Purpose is to ensure that the BOT fulfills its legal, ethical and functional responsibilities through adequate governance, policy development, recruitment, training programs, evaluation of board members and the Executive Directors

performance. Trustees serving on this committee seek effective ways to monitor BOT activity and MCT policies to ensure alignment with MCT's strategy, mission and goals.

- Technical Committee: Purpose is to ensure that grantmaking procedures are carried out according to MC's strategy goals, theory of chance and performance standards. Trustees on this committee seek to monitor and improve MCT's grant making as well as the efficacy of MCT's grants programs.

Per MCT's Adaptation Fund accreditation condition, MCT confirms the expertise and ability of our resources to complete or oversee procurements over $10,000. MCT has a strong history of managing and distributing sub-grants to partners that often exceed $10,000. Grants from MCT have been between $5,000 and $100,000. Sub grantees use our suite of Program, Project and Financial reporting and planning tools (the Grants Tools as attached to this proposal) to implement, monitor and report on their grants. MCT's own financial office abides by FSM and International accounting standards with oversight from the Executive Director and the Board of Trustees and the Operations Manual has a detailed procurement policy. Since MCT was accredited by the Adaptation Fund, we have hired a CFO (who is also a CPA) and improved internal procurement and financial management systems.

Figure 16: MCT Program and Project Management Framework:



Project Management

The project will be administered by the Project Manager who will be housed at MCT and will report to the Deputy Executive Director and the Executive Director through the Conservation Program Manager. The State Coordinators will report to their State Government and the Program Manager. The Project Manager and the State Coordinators, in collaboration with MCT, will be responsible for providing technical leadership to the project, managing and coordinating project activities, reviewing quarterly reports, providing oversight on the day to day operations of the project including procurement, financial management and reporting, communications, monitoring and evaluation of project performance, and reporting.

Management Responsibilities:

MCT Technical Committee:

- Responsible for evaluation of open-call grant applications and selection recommendations

MCT Executive:

- Overall responsibility for program governance
- Engage with external stakeholders and executing entities to address program problems and issues
- Responsible for conducting monitoring and evaluation of program performance

Program Manager, State Coordinators, MCT Conservation & Capacity Building Program Teams

- Responsible for the implementation of the program components and projects
- Engage with external stakeholders and implementing entities to achieve project objectives
- Responsible for conducting monitoring, evaluation and reporting of implementing entity project activities

MCT Financial & Administrative Program Teams:

- Responsible for oversight of financial records and reporting by implementing entities

Executing Entities:

- Responsibility for the implementing program's project components
- Engage with external stakeholders to achieve project objectives
- Responsible for conducting monitoring, evaluation and reporting of project activities and outcomes

B. Describe the measures for financial and project / programme risk management.

Table 14: Financial and Project Risks

Expected Risk	Rating of Risk	Risk Management Strategy
Limited political will or buy-in from national and state government stakeholders	Low	-Through state wide consultations, this project will begin with a high level of support from all levels of government -The inception workshop will invite high level stakeholders from national and state governments -Continued engagement and consultation with government officials will ensure they are aware of the project, progress and able to contribute to overall project direction and outcomes
Changes in Leadership to unsupportive leaders	Low	-In the case of leadership change, the project management will brief new leadership on the project -All relevant parties will be consistently informed of project progress and will be able to contribute to overall project direction and outcomes, this will include any new leadership
Short falls and interruptions in local funding streams	Medium	-The project outcomes will ensure that sustainable funding mechanisms, such as the Micronesia Challenge Endowment, are available to the FSM as security in the case of interruptions in other funding sources
Difficulties finding 4 strong applicants for the State Coordinators positions	Low	-The Inception workshop will include discussion on hiring State Coordinators and the State, National and community stakeholders will all be involved in ensuring that the positions are advertised far and wide -MCT envisions hiring successful college graduates who have the capacity and motivation for the positions. There are increasingly more college graduates returning home to FSM for employment.
Enforcement officers' engagement and participation in trainings is low	Low	-The inception workshop will clarify the project goals, strategies, objectives, activities, roles, responsibilities of all stakeholders and a project timeline will be shared

		-Planning for training will include enforcement officers to ensure that the timing, the outcomes and the locations of training/workshops make attendance possible for the officers
Small Grant recipients/PAN management entities are unable to manage the funds and projects under this grant scheme	Low	-Though MCT's capacity building program, all sub-grantees and management entities will be provided with technical support for fiscal management along with continuous support and monitoring
Potential for communities to lose confidence and momentum if there are delays/complications	Low	-The inception workshop will clarify the project goals, strategies, objectives, activities, roles, responsibilities of all stakeholders and a project timeline will be shared - Continued engagement with community stakeholders will ensure they are aware of the project, progress and able to contribute to overall project direction and outcomes including problem solving if there are delays or complications
Issues of capacity for implementing projects among community	Low	Though MCT's capacity building program as well as the State Coordinators and the Program Manager, all sub-grantees and management entities will be provided with technical support for project implementation along with continuous support and monitoring
Limited community will and engagement (men, women, traditional chiefs, local government representatives) for the work of implementation	Low	-The inception workshop will clarify the project goals, strategies, objectives, activities, roles, responsibilities of all stakeholders and a project timeline will be shared -Meetings will be called by the community leaders, State Coordinators and Project Managers to update progress and report on risks, issues and assistance that is required either by the communities or with them

Project implementation is stalled and/or suffers problems that prevent completion	Low	-The Monitoring and Evaluation plans include technical support and site visits to projects annually. This will ensure that all risks or problems are caught before they become obstacles to project completion
Established mechanisms (learning networks, print media, internet media) will be slow/do not prioritize project stories	Low	-The Knowledge Management plans of the Project Manager and the State Coordinators will ensure that media and knowledge dissemination are an integral part of their work plan. -Best practices, project successes and other communications will be shared widely through MCT's own mechanisms therefore ensuring that this information is prioritized
Locally available printing companies may not have all the necessary resources	Medium	-The project will seek printing companies from within the FSM -If local companies are not able to provide what is necessary, the project will seek services from neighbor countries such as Guam as it is close enough that transport of products will not be an issue
Those who need the information will not be able to access it due to difficulties with connectivity or access to internet access or other constraints	Low	-Resources will be made available on the internet but also on CD's and posters that will be distributed to communities, especially those without accessibility to the internet
Products will not reach communities	Low	-Through MCT, its project partner NGO's and the State Governments engagement with communities, there will be many mechanisms for ensuring that knowledge management products will be sent to even the hardest to reach communities

Diverse land tenure systems will complicate project management	Low	Greater individual self-interest accompanying westernization is weakening traditional systems of land tenure based on lineage. However, authority regarding land use lies also with the local community. Hence, the implementation of any adaptation strategies requires that landowners, local communities, and decision-making bodies are all in agreement with regard to the problem, the need for a solution and the design of adaptation steps. Frequent and consistent consultation and monitoring of project activities will be key to managing this risk. MCT's longstanding relationships with project partners and experience working in facilitating consultation activities in all four states will help mitigate this risk.
Limited capacity of sub-grantees to implement coordinated adaptation projects	Medium	The MCT Capacity-Building program focuses efforts and resources on building the capacity of sub-grantees through facilitating organizational self-assessments and strategic planning activities, addressing training and continuing education needs, building leadership and technical skills. The participants in this project will be included in the opportunities and training initiatives offered through the Micronesians in Island Conservation and the Pacific Islands Managed and Protected Areas Community networks that MCT manages as well as any and all other capacity-building opportunities. The sub-grantees to this project will also receive support from MCT grants officers with the development of project plans and with use of the ensuing project management tools.

The PAN laws in Yap and Chuuk do not receive formal/legal endorsement	Low	Collaborative efforts have resulted in the passage of PAN laws in Pohnpei and Kosrae and similar efforts have led to the correlated legislation being introduced and the passing of the PAN Law in Chuuk in September 2017. The Yap State Legislature has requested clarifications on the terms of the draft PAN bill. Local partners in Yap continue to work with the legislature by attending public hearings and offering feedback. In the event that the bills do not pass, efforts to educate and advocate for the bills will continue, with an emphasis on explaining the benefits both to the environment and the fiscal advantages (access to the MC endowment revenues)

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

This project is categorized as a Category B project with low to moderate adverse Environmental or Social Impacts and several risk management measures have been designed to mitigate potential risks. The main E&S risks are related to the deployment of small grants through a call for proposals. Since the project include a Small Grants Facility (Component 2), where the interventions are not defined at the project approval stage, MCT's E&S management plan is a process-oriented risk management plan where mechanisms are built into project implementation to ensure that rigorous risk assessment and management measures will be applied through the SGF and at each stage of implementation from concept through implementation, closure and evaluation.

Section K, details the potential risks involved and describes the mechanisms for mitigating the identified risks. The project is anticipated to have numerous economic, social and environmental benefits (see Part 2, Section B for a summary of such benefits).

The table below details the ESMP for the current project including how the E&S risks will be monitored. The PM and State Coordinators will be responsible for supplying the necessary data and for drafting the quarterly, semi-annual, and annual progress reports. MCT as the IE will ensure reports are reviewed and go through a quality assurance process. For E&S risks and gender integration a Gender Expert and E&S Expert will review all monitoring reports to ensure continued compliance with AF and MCT standards.

For evaluation – an independent evaluator will include an analysis of the effectiveness of the ESMP as well as how gender aspects have been integrated into project implementation. The assessment will be for the overall project as well as the individual small grant awards.

Grievance Mechanism – at the organization level MCT provides people affected by any projects with an accessible, transparent, fair and effective process for raising complaints about environmental or social harms caused by any such project.[91] In addition to the organization level complaint handling mechanism, MCT will develop a procedure for the AF project which explains how the grievance mechanism will work at specific project sites (i.e within the communities where the small grant adaptation actions will be implemented). The mechanism will be presented at public meetings held with the beneficiary communities. All grievances will be tracked, investigated, and resolution options developed. The performance of the mechanism will also be monitored, evaluated and reported on. Complaints can also be addressed directly to the AF Board Secretariat either (1) by email to afcomplaints@adaptation-fund.org or (2) by hard copy to the Adaptation Fund Board Secretariat, 1818 H Street NW, N7-700, Washington, DC 20433, USA.

Principles	Particular Risk	Mechanism to Address	Implementation Steps	Monitoring
1. *Compliance with the Law*	-Low risk submitted grant proposal does not fully comply with FSM national, state laws, and policies. -Low risk that submitted grant proposal does not comply with resource tenure systems of one of the 4 FSM States	-Screening for risk undertaken during initial review of grant proposals. Any proposal that does not comply with FSM national, state law will be ineligible for funding	-Step 1: initial concept submitted screening by PM -Step 2: Screened concepts that meet review criteria (including E&S and gender) submit full proposal	-Quarterly reports submitted by sub-grantees, will include section on compliance with E&S principles and details on

[91] Stakeholders can lodge a complaint via MCT's website (www.ourmicronesia.org). Formal complaints can also be forwarded to the Executive Director (director@ourmicronesia.org) who shall handle as appropriate. In addition, at the project level, MCT ensures that all projects have a mechanism in place at the site of where activities

			-Step 3: E&S assessment undertaken by staff MCT. -Step 4: E&S expert clears E&S assessment. Only projects with minimal risks that can be mitigated at low-costs will move to Step 5 -Step 5: project reviewed by Grant Review committee provides recommendation -Step 6: Board makes final approval decision	implementing ESM plan. -Reports reviewed by PM and State Coordinators. -E&S risks and mitigation reported on through annual project progress report (PPR)
2. *Access and Equity*	-Low-medium risk SGF may receive more quality grant proposals than there is funding available. Potential risk includes ensuring equity and transparency for grant awards. -Activities planned under the SGF are of community interest. As such, an effective participation of all actors and fair access to the benefits are important for a successful implementation.	-Transparent grant mechanism set-up with rigorous criteria to ensure that women, men and youth have equitable access to capacity building activities (training, meetings, surveys, monitoring) and project benefits. - The LEAP process on which the selection of projects to be supported by the SGF is specifically designed to make resource management planning accessible and understandable	-Calls for proposals are made publically available through MCT website, local news outlets in all 4 States, and through outreach to villages/communities that have completed the LEAP process -Review criteria are well explained, detailed, and available -Results of each stage of the process are	-Website and local news source announcements produced -PPR to include progress on SGF granting, # of concepts received, # cleared to develop full proposal, # approved etc. -The project will also track the reasons why

		to all members of involved communities.	made publically available and any requests for why a proposal was not approved are provided	projects did not move to a subsequent stage (i.e. high risk, incomplete proposal, etc)
3. *Marginalized and Vulnerable Groups*	-Low risk, that a submitted grant would not consider particular impacts on marginalized and vulnerable groups and that the project would impose any disproportionate adverse impacts on these groups	All projects under the SGF will benefit marginalised and vulnerable groups, including women, children, the elderly, , and people living with disabilities. As outlined in section B - MCT will prioritize projects led by women and/or other vulnerable members of the target communities, striving for 50% of the projects led by these groups.	See implementation steps under Principle 1	See monitoring under Principle 1
4. *Human Rights*	-Low risk that a submitted grant could infringe upon human rights	Screening for risk undertaken during initial review of grant proposals. Any proposal that does not comply with FSM and international laws relating to human rights.	See implementation steps under Principle 1	See monitoring under Principle 1
5. *Gender Equity and Women's Empowerment*	-Low-medium risk for not fully engaging women, specifically there is a risk that proposals submitted to SGF will not be from women-led	-MCT will track and include specific plans on integrating gender. MCT has specific strategies in place ways for engaging women in the larger	-One of the review criteria for the SGF will be to prioritize projects from women-led groups	-The project will target 50% of grants be awarded to women-led groups

	organizations/communities. .	community and has experience implementing these strategies successfully. AF project funds will only support projects and activities which ensure that, during implementation, both men and women: i) are able to participate fully and equitably; ii) receive comparable social and economic benefits; and iii) do not suffer disproportionate adverse effects although no such effects are anticipated.	-All grant project concepts and full projects proposals will be reviewed by a Gender Specialist to ensure all proposals comply with the AF and MCT gender policies -MCT will provide additional support to ensure women and other vulnerable groups have the capacity to develop sound proposals	under the SGF
6. *Core Labour Rights*	-Low risk that core labour rights could be violated.	The AF funds will not support activities that would infringe on labour rights. The large proportion of project- funded activities will not involve formal labour arrangements. Projects submitted to the SGF will be screened against this principles	In the cases where the activities will involve employment (e.g. hiring of state PAN Coordinators under Component 1), the Project is in compliance with all applicable FSM and international labor laws. All labour payments including ad hoc labour payments will adhere to State laws as	

			promulgated by labour regulations defining the relevant wage rate, workers benefits and other relevant working conditions	
7. *Indigenous Peoples*	No Risk			
8. *Involuntary Resettlement*	No Risk			
9. *Protection of Natural Habitats*	-Low risk that a submitted grant could adversely impact the protection of natural habitat	The design and objectives of the SGF are focused on improving the effective management of protected areas in FSM; this is part of the Micronesia Challenge, which has been in place since 2006. The actions selected through the LEAP process to be supported by the small grants facility are also geared towards enhancing the resilience of ecosystems which provide community subsistence and livelihoods.	-Grant proposals will be screened to ensure they comply with the overall objectives of the SGF. -See implementation steps under Principle 1	- See monitoring under Principle 1
10. *Conservation of Biological Diversity*	-Low risk that a submitted grant proposal could adversely impact biological diversity	-AF funds will not support any activities that would adversely impact biological diversity. - Proposals will be screened against this standard	- See implementation steps under Principle 1	-See monitoring under Principle 1

11. *Climate Change*	No Risk			
12. *Pollution Prevention and Resource Efficiency*	-Low risk that submitted grant proposals could increase pollution.	-AF funds will not support any activities that could increase pollution, and all of the proposed objectives and review criteria of the SGF aim to improve ecosystem services (i.e. resource efficiency).	-See implementation steps under Principle 1 and 9	-See monitoring under Principle 1
13. *Public Health*	- Low risk that a submitted grant proposals would adversely affect public health	-AF funds will not support any activities that could negatively impact public health. -Several activities in the indicative lists of projects to be funded would have positive impacts on public health particularly nutrition and water safety	- During the initial screening, projects submitted through the SGF will be screened to ensure they do not adversely affect public health. -See implementation steps under Principle 1	-See monitoring under Principle 1
14. *Physical and Cultural Heritage*	-Low risk that ecotourism activities could pose a threat to heritage by monetizing cultural practices through ecotourism activities and attractions.	- AF funds will not support any activities that would infringe on physical and cultural heritage; - Component 1 includes strengthening the management and preservation of such sites	-See implementation steps under Principle 1	-See monitoring under Principle 1
15. *Lands and Soil Conservation*	-Low risk that submitted grant proposals would adversely affect lands and soil conservation.	- AF funds will not support any activities that would infringe on lands and soil conservation. The	-See implementation steps under Principle 1	-See monitoring under Principle 1

		review criteria of the SFP will ensure activities proposed will have positive impacts on land and soil conservation.		

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

MCT uses a program logic-based approach to program and project planning, monitoring and evaluation. Program logic is a widely-used approach that involves analyzing a project and developing a visual logic model – a picture of the project. The model clearly shows the outcomes the project aims to achieve; the activities it will implement; and the cause-and-effect linkages between activities and outcomes. The theory and assumptions underlying the project are then examined. Finally, how success will be measure through indicators, targets, monitoring and evaluation is determined and documented.

This process is aided by MCT's Program and Project Planning Templates (see attached appendices), which allow MCT and its implementing entity partners to cooperate on logic model development and to identify and document assumptions; work plan activities; indicators, targets and monitoring; and evaluation questions, evidence requirements and evaluation methods. The Templates also facilitate the identification, analysis and mitigation planning for project performance and environmental and social risks.

Implementing entities report quarterly on their work plan and target performance, as set out in their logic model and project plan. MCT Grant Officers perform both remote and on-site monitoring and evaluation at least once a year of implementing entity performance against both their project plans and against MCT-wide baseline performance measures and targets.

The following section outlines the principle components of the Monitoring and Evaluation scheme and indicative cost estimates related to M&E activities.

State Inception Workshops/Meetings: The Program Manager and the Executive Director of MCT will implement a national inception workshop for government as well as four state Inception Workshops. The inception workshops in each state will bring the project to the state stakeholders and the communities who will be involved. The workshops will also be important for understanding of the small grants program, encourage communities and management entities to apply for the small grants and carry out training to help the communities to submit proposals for the small grants scheme.

The overall objective of the inception workshops is for key stakeholders to take ownership of the project's goals and objectives and to work begin to work on the preparation of the state-level work plans for the project based on the project's strategic results framework (Table 17). The key objectives and activities of the workshop are:

- To introduce the Program Manager to stakeholders and work out details for hiring the State Coordinators;
- To review and check the project results framework and add additional information if necessary;
- To review stakeholder understanding of the project components;
- To begin to draft the state level work plans;
- To clarify the monitoring protocol for indicators;
- To ensure that all stakeholders fully understand the project and are prepared for implementation
- To encourage communities and management entities to submit projects for the small grants program.

A Project Inception Report will be prepared immediately following the series of inception workshops. It will include an initial work plan divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the project. The Report will also include appendixes of detailed project budget for the first full year of implementation, prepared on the basis of the AWP, and including any monitoring and evaluation requirements to effectively measure project performance during the first year of the project. Subsequent yearly budgets and update M&E requirements will be included in project progress reports.

Overall Project Annual Progress Reports: These reports will be prepared by the Project Manager in collaboration with the state Coordinators and MCT. The reports will be prepared with progress against set goals, objectives and targets, lessons learned, risk management and detailed financial disbursements.

Sub-Grantee Reports: As part of the MCT Program and Project Planning Templates, all sub-grantees receiving funding through Component 2 small-grants program will be responsible for reporting to MCT on project progress including monitoring and evaluation of the program. These reports will be sent to MCT on a quarterly basis and included in the overall Project Annual Progress Reports.

End of Year 2 Review:
This review will be conducted by the SPC gender advisor and others to provide MCT with guidance on implementation of the project to date, ensuring alignment with gender and also ESP standards. This review will also provide feedback as to how to make adjustments where necessary. This peer review will focus on whether MCT and its project grantees are implementing the projects in line with our ES and Gender policies.

Terminal Evaluation: The project work plan includes a terminal evaluation that will be carried out within three months following implementation closure of the project. The

evaluation will be carried out by an independent evaluator who will produce a terminal evaluative report.

The evaluation report will include progress towards the outcomes of the project and outline results against the strategic results framework. The evaluation will also provide a conclusion of the overall projects achievements of the goal, objectives, outcomes and outputs it set out to implement. The report will outline key management and capacity recommendations highlight results, lessons learned and best practices.

Table 15: Monitoring and Evaluation Plan and Budget:

Monitoring and Evaluation Activity	**Responsibility**	**Year 1**	**Year 2**	**Year 3**	**Total $**	**Timeframe**
Inception Workshop/Report	Project Manager/ED MCT	$4,200			$4,200	Within 1 month of project start
Project Performance Report (Annual)	Project Manager, State Coordinators, and MCT staff	$2,700	$2,700	$2,700	$8,100	Annually
Field Visit (Supervision/Validation)	Project Manager & MCT Staff	$2,700	$3,000	$3,000	$8,700	Annually
Terminal Evaluation	External Consultant			$12,000	$12,000	3 months after project closure
	Totals:	**$9,600**	**$5,700**	**$17,700**	**$33,000**	

Kosrae, MCT Photo

E. Include a results framework for the project proposal, including milestones, targets and indicators.

Table 16: MCT Project Results Framework (Next Page)

Outcome/Output	Baseline	Indicators	Target	Source of Verification	Risks and Assumptions
Component 1: Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated					
Outcome 1: Protected area management improved including near-shore marine ecosystems.	Natural assets or ecosystems under current protected area management arrangements are not adequately protected/rehabilitated through effective legislative, institutional and financial arrangements and support. While protected areas can mitigate and promote adaptation to climate change, effectiveness requires proper management and enforcement.	**AF Core Indicator: Natural Assets protected or rehabilitated** No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change	At least 30% of the nearshore marine and/or terrestrial habitat in 8+ sites in the FSM, are protected or sustainably managed through improved fisheries management and locally managed marine areas that enhance biodiversity and fish biomass, improve livelihood and food security, and demonstrate scalable approaches for other sites in Micronesia/Pacific No and type: 8+ MPA sites Estimated Area of targeted sites: approximately 35,000 hectares	Progress Reports/AF Terminal Report Project Monitoring Reports Project Evaluation Report Scientific papers in refereed journals Project Inception Report	**Assumptions:** Political will and commitment to endorse protected areas networks (National/State) Strong national and state leadership and support to engage in the project activities Support from Traditional Leadership **Risks:** Limited political will or buy-in from national and state government stakeholders Short falls and interruptions in local funding streams
Output 1.1: Effective FSM nation-wide protected areas network implemented	Draft national protected areas policy framework and an associated country program strategy under consideration by the FSM National Government (Department of R&D) FSM government currently does not have an institutionalized system for providing technical and sustainable finance assistance to protected	**AF Outcome 7: Improved policies and regulations that promote and enforce resilience measures.** AF Indicator 7.1. Number of policies introduced to address climate change risks or adjusted to incorporate **climate change risks** No. of protected areas admitted to the nation-wide protected areas network	No. of policies: FSM Protected Areas Network Policy Framework endorsed and finalized Associated FSM Country Program Strategy endorsed and finalized National protected areas network operations manual developed	Endorsed and finalized Country Program Strategy document Endorsed and finalized national protected areas policy framework document National Protected areas network operations manual All four states sites are registered to nation-wide protected areas network	**Assumptions:** Political will and commitment to endorse protected areas network (National) Strong national and state leadership and support to engage in the project activities **Risks:** Limited political will or buy-in from national and state government stakeholders.

	areas contributing to gaps in management.		Test and implement the process by which management entities of state protected areas apply to join the nation-wide protected areas management network. At least 8 protected areas successfully join the nation-wide protected areas network	Monitoring and evaluation framework document Progress Reports/AF Terminal Report Project Monitoring Reports Established knowledge management frameworks for the nation-wide protected areas strategy	Changes in leadership to unsupportive leaders
Output 1.2: Effective state protected areas networks implemented	Kosrae, Pohnpei and Chuuk have PAN Laws in place for state protected areas Yap has a developed draft PAN law, currently under consideration in the state legislatures.	No. of new state level protected areas No. of protected areas that receive financial and technical support through the protected areas network No. of State PAN laws passed No. of Rules and Regulations established for PAN Laws.	State Protected Areas Network Coordinators employed and placed in government offices in Yap, Chuuk, Kosrae and Pohnpei Chuuk rules and regulations established creating state protected area networks Yap PAN Law passed, rules and regulations established creating state protected area networks All four FSM states have government-endorsed and fully functioning PAN laws and networks. Established state protected areas networks Process implemented for management entities of protected areas to apply for protected area status to the states and officially join the state protected areas networks	Signed Employment Contracts for State Coordinators Government legislative proceedings records Yap state PAN Laws Yap and Chuuk rules and regulation documents FSM receiving Micronesia Challenge Endowment funds, Funds transfers to protected areas All four states are registered to nation-wide protected areas network Progress Reports/AF Terminal Report Monitoring Reports	**Assumptions:** Political will and commitment to endorse protected areas networks (States) Strong national and state leadership and support to engage in the project activities There are 4 people with the capacity to lead the work as State Coordinators available and willing to apply **Risks:** Limited political will or buy-in from national and state government stakeholders. Difficulties finding 4 strong applicants for the State Coordinators positions

			Process implemented for state-level protected areas to apply to join the national protected areas network		
Output 1.3: Effective mechanisms in place for State-level protected area management entities to receive financial support through the nation-wide protected areas network.	Currently, the states do not receive funding through the PAN network and are not yet able to access the MC endowment funds or other sustainable funding mechanisms. Financing for protected areas comes from small projects that do not provide enough guaranteed and/or ongoing and consistent support Management entities are not fully aware of the details of the protected areas network policy or the associated country program strategy. They will be required to understand these documents (including the to be developed national operations manual) to join the network and access the funding	National Protected Areas Network Policy Framework adopted by National government Associated Country Program Strategy adopted No. of workshops for management entities on the FSM national protected areas network policy, country program strategy and the national operations manual No. of protected areas that receive financial and technical support through the protected areas network	FSM Protected Areas Network Policy Framework and associated Country Program Strategy adopted Sustainable and sufficient financing for participating protected areas beyond the project timeframe established Testing of application for funding process established and formalized through the nation-wide protected areas network At least 5 protected areas receive sustainable finance and technical support through the nation-wide protected areas network	Government legislative proceedings records All four states sites are registered to nation-wide protected areas network FSM receiving Micronesia Challenge Endowment funds. Funds transfers to protected areas Surveys and interviews from training/evaluation feedback	**Assumptions:** Political will and commitment to endorse protected areas networks (States) Strong national and state leadership and support to engage in the project activities Management entities have the capacity to manage the funds they receive **Risks:** Limited political will or buy-in from national and state government stakeholders. Short falls and interruptions in local funding streams Management entities are unable to manage the funds and projects under this grant scheme Potential for communities to lose confidence and momentum if there are delays/complications

Outcome 2: Outcome 2: Capacity building and enforcement of regulations strengthened for protected areas and near-shore fisheries	Natural assets or ecosystems under current management arrangements are not adequately protected/rehabilitated through effective enforcement of MPA and nearshore fisheries legislation regulations	**AF Core Indicator: Natural Assets protected or rehabilitated** No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change	At least 30% of the nearshore marine and/or terrestrial habitat in 8+ sites in the FSM, are protected or sustainably managed through improved fisheries management and locally managed marine areas that enhance biodiversity and fish biomass, improve livelihood and food security, and demonstrate scalable approaches for other sites in Micronesia/Pacific No. and type: 8+ MPA sites Estimated Area of targeted sites: approximately 35,000 hectares	Progress Reports/AF Terminal Report Project Monitoring Reports Project Evaluation Report Scientific papers in refereed journals	**Assumptions:** Enforcement officers are receptive to further training and are engaged Enough enforcement officers are employed to cover the area requiring protection **Risks:** Enforcement officers' engagement and participation in trainings is low Not enough enforcement officers are employed
Output 2.1: Improved state-level enforcement of MPA and nearshore fisheries legislation regulations	State marine resource agencies and enforcement divisions lack sufficient human and technical capacity to enforce rules and regulations. Overfishing represents a critical issue faced by communities in the FSM Local commercial fishers who employ unsustainable methods (night-time spearfishing and net fishing) garner larger catches overall and have a bigger impact on the fisheries, and in turn negatively impact the livelihoods of the larger portion of the population that	**AF Indicator 2: Strengthened institutional capacity to reduce risks associated with climate induced economic losses –** AF Indicator 2.1 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks No. of trainings in Yap, Chuuk, Kosrae and Pohnpei on joint-enforcement techniques to further the establishment of joint enforcement taskforces in these states. (representatives	No of targeted institutions: Representatives from at least 4 agencies /NGOs/communities in each of the FSM states receive training on best practices for joint enforcement (**at least 50% female representatives**) At least 70% of all Enforcement Officers (**100 total at least 30 female officers**) in each of the FSM states receive training on existing and pending fisheries laws and regulations. Established joint/collaborative	Trainings documents including visuals and reports Number of officially certified officers Number of successful cases against violators Progress Reports/AF Terminal Report Monitoring Reports Photos of trainings Surveys and interviews from trainings (evaluation/feedback)	**Assumptions:** Enforcement officers are receptive to further training and are engaged Enough enforcement officers are employed to cover the area requiring protection **Risks:** Enforcement officers' engagement and participation in trainings is low Not enough enforcement officers are employed

	depends on fisheries as a subsistence protein source. Protected areas can mitigate and promote adaptation to climate change but effectiveness requires proper management and enforcement	disaggregated by gender) No. of participants (**disaggregated by gender)** and participant host organizations/cross sectors training represented at trainings No. and location of trainings held on existing legislation and any newly adopted regulations and associated activities Increase in enforcement officer knowledge and skills (no of enforcement officers disaggregated by gender) No. of citations for non-compliance with MPA and fisheries regulations. Damaging marine food harvesting practices and levels reduced	enforcement taskforces across the FSM states	Citations for non-compliance	
Component 2. Community-level adaptive capacity strengthened to address climate change threats					
Outcome 3: Outcome 3. Climate resilience in targeted FSM communities increased through strengthened ownership and financing of adaptation and climate risk reduction processes at local level	Communities have been actively setting their own priorities and selecting adaptation actions through management planning/LEAP processes Few local communities have the financial means to take effective ownership, through project implementation their	**AF Indicator 3.1. Targeted population aware of predicted adverse impacts of climate change, and have the means to implement appropriate responses**	No. of communities with established priority actions implement concrete ecosystem-based adaptation actions to reduce climate change vulnerability (no. of women involved in establishing priority action – target 50% of participants) No. of communities without established priority actions	Photos of projects Progress Reports/AF Terminal Report Monitoring Reports Completion Reports LEAP documents Management plans	**Assumptions:** Communities (men and women) are prepared to implement projects and have the capacity Communities (men, women traditional chiefs, local government representatives) have the will and buy in to do the work to implement projects

	capacity to adapt or reduce climate risks Many communities are unaware of the types of eco-system based activities they can implement on their own to increase their resilience		have the means to develop effective local fisheries management plans and marine protected area plans (no of women involved in having the means to develop effective local fisheries – target 50% of participants) Impacts of terrigenous sediment, nutrients and pollutants on marine ecosystems reduced	Completed Projects	Projects will be complete within the allocated timeline and have few problems **Risks:** Issues of capacity for implementing projects among community Limited community will and engagement (men, women, traditional chiefs, local government representatives) for the work of implementation Project implementation is stalled and/or suffers problems that prevent completion
Output 3.1: Local communities empowered to identify and implement adaptation response measure through Small Grant Facility (SGF).	Many communities in the FSM do not have the means to conduct vulnerability assessments or develop community management plans to protect their resources. 54 communities who have already completed their planning and established priority actions for community resilience through the LEAP/management planning process do not have the means to implement their plans	MCT guidelines for the small grants scheme issued No. of calls for proposals issued. No. of proposals received by female headed communities. No. of completed community vulnerability assessments No. of Completed community management plans/LEAPs No. of successfully implemented adaptation actions	Community vulnerabilities to climate change impacts identified in at least 8 communities (**target at least 3 adaptation actions funded that are submitted by female-headed communities**) Communities understand criteria for participating in grants program (no. of women who understand criteria – target 40-50% of participants)	MCT small grants request for proposals process documents/operations manual Photos of projects Progress Reports/AF Terminal Report Monitoring Reports Completion Reports LEAP documents Management plans Completed Projects	**Assumptions:** Communities (men and women) are prepared to implement projects and have the capacity Communities (men, women, traditional chiefs, local government representatives) have the will and buy in to do the work to implement projects Projects will be complete within the allocated timeline and have few problems **Risks:** Issues of capacity for implementing projects among community Limited community will and engagement (men, women,

					traditional chiefs, local government representatives) for the work of implementation Project implementation is stalled and/or suffers problems that prevent completion
Output 3.2: Small grants to vulnerable communities awarded to deliver tangible and sustainable benefits to support ecosystem based climate adaptation actions in at least 8 communities.	The Micronesia Conservation Trust has an already established granting mechanism that includes a thorough grant review process, diligent financial and narrative reporting tools and a comprehensive project management system	**Core Indicator AF: Beneficiaries.** No. of direct beneficiaries (disaggregated by gender) No. of grants issued and location of grantees No. of grants issued to communities led by women. No. of projects funded Amount of $ granted to support community-led ecosystem based actions No. of adaptation actions funded No. of management plans funded No. of MPA's created	No. of direct beneficiaries – approximately 2,400. (**50% female**) At least 8 communities will undertake a combination of concrete ecosystem-based adaptation actions to reduce climate change vulnerability and develop effective local fisheries management plans and marine protected areas plans **At least 3 grants funded for communities led by women** Grants worth USD 330,000 awarded to communities	Documentation of RFP (email announcement, website postings) Report of review process Photos of projects Progress Reports/AF and Terminal Report Monitoring Reports Completion Reports LEAP documents Management plans Completed Projects	**Assumptions:** Communities (men, women, traditional chiefs, local government representatives) are prepared to implement projects and have the capacity Communities (men, women, traditional chiefs, local government representatives) have the will and buy in to do the work to implement projects Projects will be complete within the allocated timeline and have few problems **Risks:** Issues of capacity for implementing projects among community Limited community will and engagement (men, women, traditional chiefs, local government representatives) for the work of implementation

					Project implementation is stalled and/or suffers problems that prevent completion
Component 3. Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based adaptation actions					
Outcome 4: KM system implemented to capture lessons learned and data on MPA management and Ecosystem based adaptation solutions	No systematic and documented approach to raising awareness on climate change and ecosystem based adaptation actions through awareness materials or data management	**AF Indicator 3.1. Targeted population aware of predicted adverse impacts of climate change, and have the means to implement appropriate responses**	Online database compiled for project spatial analysis of MPA's, evaluation reports, press releases, monitoring reports and final workshop outcomes. (ensure database includes ability to disaggregate data by gender)	Knowledge Management Plan Press Releases Project Reports Progress Reports/AF Terminal Report Monitoring Reports Workshop Report Pre-Project and Post-Project surveys	**Assumptions:** Information will be shared through established mechanisms Strong island and community interest in, support for, and engagement, in eco system based solutions. **Risks:** Established mechanisms (learning networks, print media, internet media) will be slow/do not prioritize project stories
Output 4.1: Online repository of spatial and other project data implemented	No repository exists focusing on GIS spatial data	No. of GIS MPA maps developed No. of evaluation reports included No. of press releases developed No. of Monitoring Reports included No. of stakeholders participating in	At least 5 project success stories or knowledge projects have been produced, published and disseminated with stakeholders (in and outside of FSM) each project year 1 workshop to share project best practices and develop project success stories for dissemination (**target 50% women attending workshop**)	Repository/Files available for public/community retrieval on Micronesia Conservation Trust website Press Releases Project Reports Progress Reports/AF Terminal Report End of year two review	**Assumptions:** Local capacity exists to produce, publish and disseminate project outputs Information will be shared through established mechanisms The database will be easily accessible and information will be shared with those who need it

		community/government meetings to share about the project **No. of community members (disaggregated by gender target 50% women)** participating in meetings to share about the project No. of workshops carried out to share best practices No. of stakeholders engaged in monitoring & evaluation interviews and reporting (disaggregated by gender target 50% women)	Implementation of comprehensive Monitoring and Evaluation plan Gender advisor and E&S specialist conduct end of year two review to ensure project implementation in line with AF standards.	Monitoring Reports Workshop Report Pre-Project and Post-Project surveys	**Risks:** Established mechanisms (learning networks, print media, internet media) will be slow/do not prioritize project stories Locally available printing companies may not have all the necessary resources Those who need the information will not be able to access it due to difficulties with connectivity or access to internet access or other constraints
Output 4.2: Awareness materials prepared and disseminated locally, regionally and internationally	Resources available to communities to help them plan and implement eco-system based adaptation strategies are not well publicized and internet connectivity issues in Micronesia makes them more difficult to access	No. of awareness materials available to the communities No. of stakeholders participating in community/government meetings to share about the project (disaggregated by gender – target 50% women) No. of community members (**disaggregated by gender – target 50% women**) participating in meetings to share about the project No. of project success stories developed and	Awareness materials on CD's/large flipchart/posters for use by communities/facilitators including information on climate change and (ii) vulnerability and adaptive capacity (eco-based adaptation solutions) Awareness materials on CD's/large flipchart/posters (500 total combined) At least 50% of participating communities participate in meetings (target 50% women to share about project)	CD's Project Reports Progress Reports/AF Terminal Report Monitoring Reports Workshop Report	**Assumptions:** Local capacity exists to produce CD's and printed materials Products will reach community members seeking to learn about the project and best practices **Risks:** Locally available companies may not have all the necessary resources to produce CD's and printed materials Products will not reach communities

		disseminated through developed projects			

F. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

Table 17: Program Alignment with AF Results Framework

Project Objective/Component	Project Objective/Component Indicator	Fund Outcome	Fund Outcome Indicator	Grant Amount
Component 1: Natural assets or ecosystems under protected area management and near-shore	Hectares of natural assets under protected area management protected or rehabilitated through effective legislative, institutional	Outcome 2: Strengthened institutional capacity to reduce risks associated with	2.1 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks	$355,960

fisheries are adequately protected/rehabilitated	and financial arrangements and support	Climate induced economic losses Outcome 5 Increased ecosystem resilience in response to climate change and variability induced stress Outcome 7: Improved policies and regulations that promote and enforce resilience measures	5. Ecosystem services and natural assets maintained or improved under climate change and variability induced stress 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) 7.1. Number of policies introduced to address climate change risks or adjusted to incorporate climate change risks	
	Hectares of natural assets under protected area management protected or rehabilitated through effective legislative, institutional and financial arrangements and support	Outcome 2: Strengthened institutional capacity to reduce risks associated with Climate induced economic losses Outcome 5 Increased ecosystem resilience in response to climate change and variability induced stress Outcome 7: Improved policies and regulations that promote and enforce resilience measures	2.1 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks 5. Ecosystem services and natural assets maintained or improved under climate change and variability induced stress 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) 7.1. Number of policies introduced to address climate	

			change risks or adjusted to incorporate climate change risks	
Component 2: Community-level adaptive capacity strengthened to address climate change threats		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	3.1 No. and type of risk reduction actions or strategies introduced at local level 6.1 Percentage of households and communities having more secure (increased) access to livelihood assets	$343,120
Component 3: Improve Knowledge Management for protected areas and ecosystem based adaptation solutions		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses 3.1 No. and type of risk reduction actions or strategies introduced at local level	$110,000

Nimpal Protected Area, Yap FSM (MCT photo)

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs ***(next page Table 18: Budget)***

Project Components		Expected Outputs	Year 1 (US$)	Year 2 (US$)	Year 3 (US$)	TOTAL (US$)*	Budget Notes
1.Natural assets or ecosystems under protected area management and near-shore fisheries are adequately protected/rehabilitated	**Outcome 1: Protected area management improved including near-shore marine ecosystems**						
	Output 1.1: Effective FSM nation-wide protected areas network implemented						
	Activity: 1.1.1	Work with FSM Department of R&D to have the national leadership endorse the National Protected Areas Policy Framework (NPAPF) document and the associated Country Program Strategy (CPS)	100			**$100**	Meetings with R&D and national leadership (full drafts of documents already provided to FSM R&D by MCT)
	Activity 1.1.2	Develop the National Operations Manual based on the FSM NPAPF and the CPS to detail the roles, responsibilities, functions, and activities for the protected areas network that includes the financial mechanism.	1,000			**$1,000**	Manual to be developed by project manager using existing information from NPAPF, CPS and the states PAN legislations
	Activity 1.1.3	Test and implement the process by which management entities of state protected areas apply to join the nation-wide protected areas management network.	500	500	500	**$1,500**	One meeting per year of the national PAN technical selection committee
	Output 1.2: Effective state protected areas networks implemented						
	Activity 1.2.1	Identify/hire State Protected Areas Network Coordinators as full-time state government employees within the appropriate government agencies in Yap, Chuuk, Pohnpei, and Kosrae.	74,338	119,618	80,404	**$274,360**	State coordination costs for protected area management
	Activity 1.2.2	Yap and Chuuk state PAN Law rules and regulations established creating state protected area networks.	5,000			**$5,000**	Attorney fees for the development of PAN rules and regulations
	Activity 1.2.3	Assist in the initial implementation of state protected area management networks	1,000	1,000	1,000	**$3,000**	State workshops to asssist site management teams with the development of their management plans and nomination applications to the nationwide PAN
						$0	
	Output 1.3: Effective mechanisms in place for state-level protected area management entities to receive financial support through						
	Activity 1.3.1	Implement workshops for participating state entities to ensure understanding of the entire protected areas network through training on: the FSM national protected areas network policy, country program strategy and the national operations manual.	13,500			**$13,500**	$6500 travel + $6K mtgs + $1.5K printing/stationary. These are state inception workshops
	Activity 1.3.2	Test and implement the process by which management entities apply for funding through the nation-wide protected areas network.	500	500	500	**$1,500**	One meeting per year of the national PAN technical selection committee
	Outcome 2: Capacity building and enforcement of regulations strengthened for protected areas and near-shore fisheries.						
	Output 2.1: Improved state-level enforcement of MPA and nearshore fisheries legislation regulations						
	Activity 2.1.1	Provide training in each state on existing legislation and any newly adopted regulations and associated activities, such as marine protected area management and collaborative enforcement, to improve enforcement capacity.	15,000	10,000	10,000	**$35,000**	Includes travel, trainers and workshops for enforcement experts
	Activity 2.1.2	Provide training on joint-enforcement techniques to further the establishment of joint enforcement taskforces with NGOs and communities	5,000	5,000	5,000	**$15,000**	Includes travel and workshops for MCT staff
	Activity 2.1.3:	Establish joint/collaborative enforcement taskforces across the FSM states	2,000	2,000	2,000	**$6,000**	Travel and other expenses for MCT staff to develop MoUs and SOPS
		TOTAL COMPONENT#1	**117,938**	**138,618**	**99,404**	**$355,960**	

Component 2: Community-level adaptive capacity strengthened to address climate change threats	**Outcome 3: Climate resilience in targeted FSM communities increased through strengthened ownership and financing of adaptation and climate risk reduction processes at local level.**						
	Output 3.1 Local communities empowered to identify and implement adaptation response measure through Small Grant Facility (SGF).						
	Activity 3.1.1	Issue MCT guidelines and call for proposals for the small grants scheme granting	2,000			**$2,000**	Advertising costs on radio, local papers and displaying banner
	Output 3.2: Small grants to vulnerable communities awarded to deliver tangible and sustainable benefits to support ecosystem based climate adaptation actions in at least 8						
	Activity 3.2.1	Issue grants to local non-governmental organizations/management entities in each of the four states of the FSM (at least 8 communities)	254,000	87,120		**$341,120**	These will be for small grants of between $30-50,000 + Gender and E&S expert consultant fees
						$0	
		TOTAL COMPONENT#2	256,000	87,120	-	343,120	
Component 3: Knowledge Management system developed to facilitate future scaling-up and replication of effective MPA management and community-led ecosystem-based	**Outcome 4: KM system implemented to capture lessons learned and data on MPA management and ecosystem based adaptation solution**						
	Output 4.1: Online repository of spatial and other project data implemented.						
	Activity 4.1.1	Establish Knowledge Management Plans for each state and collect project lessons learned and successes throughout project timeframe	12,500	10,000	8,500	**$31,000**	Travel to all field sites and workshops
	Activity 4.1.2	Develop an on-line repository of resources to be accessible by stakeholders, community members and regional/international audiences	10,000	9,000	8,000	**$27,000**	Setting up a data base and maintaining a website
	Activity 4.1.3	Hold workshop to share best practices and develop project success products for dissemination			32,000	**$32,000**	Travel, Lodgings and other meeting expenses
	Output 4.2: Awareness materials prepared and disseminated locally, regionally and internationally						
	Activity 4.2.1	Development and disbursement of awareness materials for use by communities and educators	10,000	5,000	5,000	20,000	Development and printing, of materials and awareness and community outreach in each of the four states
		TOTAL COMPONENT#3	32,500	24,000	**53,500**	**$110,000**	
TOTAL COMPONENTS 1-3			**406,438**	**249,738**	**152,904**	**809,080**	
5. Project Execution Costs	5.1	Salary of Project Staff	19,517	17,712	18,421	**$55,650**	Management salaries including ED, DED,
	5.2	Financial Audit	2,994	2,994	2,994	**$8,982**	External annual audit fees 15% charged
	5.3	Operating Costs	7,037	3,088	1,780	**$11,905**	This includes office rent, stationery and phones
	5.4	Travel Costs	8,393	-	-	**$8,393**	
		Total Project Execution Costs	37,941	23,794	**23,195**	**$84,930**	
6. TOTAL PROJECT COSTS			**444,378**	**273,533**	**176,099**	**$894,010**	
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (base = 8.5%)			**34,196**	**26,597**	**15,198**	**$75,990**	
TOTAL PROJECT COSTS			**$478,574**	**$300,129**	**$191,297**	**$970,000**	

Table 19: Salaries of Project Staff (detailed breakdown execution cost budget line 5.1)

5.1 - Salaries and Benefits				
Line Item	**Year 1 Amount($)**	**Year 2 Amount($)**	**Year 3 Amount($)**	**Total Amount**
Personnel				
Position				
Executive Director (YR1=10%, YRS2&&£=15%))	$3,585	$3,728	$3,877	$11,191
Deputy Executive Director (5%)	$2,979	$3,098	$3,222	$9,298
Chief Finance Officer (5%)	$3,090	$3,214	$3,342	$9,646
Finance Officer (5%)	$2,152	$2,238	$2,327	$6,717
Administration Officer (5%)	$1,067	$1,110	$1,154	$3,331
Senior Grants Officer	$0	$0	$0	$0
Project Manager (100%)	$0	$0	$0	$0
Coordinators (4 at 100%)	$0	$0	$0	$0
Subtotal - Salaries	**$17,271**	**$15,675**	**$16,302**	**$49,248**
Benefits				
Social Security	$1,295	$1,176	$1,223	$3,694
401K	$518	$470	$489	$1,477
Medical	$432	$392	$408	$1,231
Total Benefits	**$2,245**	**$2,038**	**$2,119**	**$6,402**
TOTAL SALARIES AND WAGES	**$19,517**	**$17,712**	**$18,421**	**$55,650**

Table 20: Operating Costs (detailed breakdown operations cost budget line 5.3)

Line Item	Budget Detail	Program Total
	Object Class Categories	
5.3- Operating		
1	Office Rent	3,370
2	Office Supplies	450
3	Office Equipment	2,495
4	Printing and Publication	895
5	Audio/Visual	1,031
6	Courier/Postage	900
7	Comminications/Phones/Internet	2,764
8		
	Total Operating Costs	***11,905***

Table 21: Project Cycle Management Fee

Project Cycle Management Fee Amount	Total Amount($)
(a) Project Identification	$ 2,000.00
(b) Preparation of Project Concept	$ 3,000.00
(c) Preparation of the detailed Project Document	$ 4,600.00
(d) Project Approval and Start Up	$ 3,000.00
(e) Project Implementation and supervision	$ 30,390.00
(f) M&E	$ 3,000.00
TOTAL	$ 75,990.00

Fee total is 8.5% of total project cost ($894,010)

Additional Budget Notes:

Component 1:

- *1.1.1: Registration cycle of initial 8 protected areas joining national network:* Funds for project Program Manager and MCT leadership to have meetings with FSM leadership to ensure collaboration on implementation of the initial cycle of protected areas to join the network.
- *1.2.1: Yap state PAN Law and Yap and Chuuk rules and regulations established:* Funds required to ensure that the Yap PAN Law and Yap and Chuuk rules and regulations are in line with other state and national laws, are reviewed by the Attorney General and are prepared for submission to government.
- *1.3.1: Workshops for participating state entities on the NPAPF/CPS/Operations Manual/Application process for small grants:* Funds to hold workshops in each state to ensure that all eligible management entities and communities are aware of the details of the new policy and the process to join the nation-wide protected areas network and apply for funding under the small grants scheme.
    - *2.1.1: Organize and implement workshops for enforcement officers in each state:* Funds to train enforcement officers in each state on the new/existing policies, laws, rules and regulations so that they can better enforce and protect the protected areas in their care.
    - *2.1.2: Organize and implement workshops for NGO's/communities in each state:* Funds to train local NGO's and community members on the new/existing policies, laws, rules and regulations so that they are aware and can work with the enforcement officers to ensure compliance with all policies/laws
    - *2.1.3: Establish joint/collaborative enforcement task forces across the FSM:* Funds to develop task forces in each state made up of government, community, NGO and state enforcement officers to work collaboratively to ensure compliance with all policies/laws.

Component 2:

- *3.1.1: Implement the request for small-grants proposals and review process:* Funds to ensure wide spread awareness of the small grants program including funds for meetings and advertising
- *3.2.1: Grant awards issued to at least 8 communities for eco-based adaptation projects:* Funding to issue sub grants to local NGO's and communities to implement eco-based adaptation actions. Funds will average $40,000 per project. Includes cost to review and ensure compliance with AF and MCT's E&S and gender policies (hiring E&S and gender expertise)

Component 3:

- 4.1.1 *Establish Knowledge Management Plans for each state and collect project lessons learned and successes throughout project timeframe:* Includes cost to travel to each state to ensure plans are developed, appropriate data collected, and submitted results verified

- *4.1.3.: Final Project Workshop for all stakeholders to gather best practices, share maps, reports, management documents, for the repository: Funds to bring all stakeholders together (airfares, per diem, accommodations) to discuss best practices, project successes and develop products for further dissemination.*
- *4.2.1: Development and printing FlipChart/management as well as production of CD as planning resources with best practices to share with communities:* Funding to develop resources to share with communities and resource managers to use as part of future engagement and resource planning.

H. Include a disbursement schedule with time-bound milestones.

Table 22: Disbursement Schedule

DISBURSMENT SCHEDULE	**Upon Signature**	**One Year After Project Start**	**Year 2**	**Total**
Scheduled Date				
Project Funds	$444,378	$271,713	$177,919	**$894,010**
Implementing Fee	$34,195	$26,597	$15,198	**$75,990**
TOTAL	**$478,574**	$298,309	$193,117	**$970,000**

Table 23 Project Disbursement Matrix:

No	**Major Activity**	**Time Line**
1	Inception Workshops (National, State and Community)	0-3 months
2	Project Manager Hired	0-3 months
3	State Coordinators Hired	3-4 months
4	Endorsement of Framework/Country Strategy	0-3 months
5	Yap PAN Law	0-3 months
6	Workshops for Management entities/communities to understand policies, laws, mechanism for joing PAN network and small grants scheme	3-9 months
7	Workshops for enforcement officers, NGO's, communities on policies and laws	4-36 months
8	Establishment of join enforcement task forces	4-24 months

9	Implementation of small grants program	9-36 months
10	Collection of knowledge management, project successes, project products for further dissemination	0-36 months
11	Capacity building and training programs for sub grantees	0-36 months
12	Program Management activities including reporting	0-39 months
13	Terminal Evaluation	36-39 months

Pohnpei, FSM. Photo © MCT

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

A. Record of endorsement on behalf of the government[92] *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:*

Lorin S. Robert, Secretary, Federated States of Micronesia Department of Foreign Affairs	Date*: 9, January 2018*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

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 FSM's Nationwide Integrated Disaster Risk Management and Climate Change Policy and corresponding Public Law No. 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.	
William Kostka Implementing Entity Coordinator	
Date: 9, January 2018	Tel. and email: (691) 320-5670 director@ourmicronesia.org
Project Contact Person: William Kostka	
Tel. And Email: (691) 320-5670 director@ourmicronesia.org	

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.

APPENDICES:

Appendix 1: The Micronesia Challenge
Appendix 2: Further information re: LEAP
Appendix 3: Further information on Management
Recommendations Appendix 4: Summary of FSM
Management/LEAP Plans (Per State)
Appendix 5: Micronesia Challenge Business Plan and Conservation Campaign
Appendix 6: Further Knowledge Management Details
Appendix 7: State Consultations Attendees List/Sign in Sheets
Appendix 8: Detailed Information: Consultation Meetings
Appendix 9: Program and Project Planning Templates
Appendix 10: draft National Protected Areas Network Policy Framework (NPANPF)
Appendix 11: draft Country Program Strategy (CPS)

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DEPARTMENT OF FOREIGN AFFAIRS

of the

FEDERATED STATES OF MICRONESIA

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February 6, 2018

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

Subject: Endorsement for "Practical Solutions to Reducing Community Vulnerability to Climate Change in the Federated States of Micronesia"

Dear Sir,

In my capacity as designated authority for the Adaptation Fund in the Federated States of Micronesia(FSM), I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the FSM.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Micronesia Conservation Trust and executed by the FSM Office of Environment and Emergency Management and by the Department of Resources and Development.

Sincerely,

Lorin S. Robert
Secretary (Minister) Department of Foreign Affairs