AFB/PPRC.14/8
6 March 2014

Adaptation Fund Board
Project and Programme Review Committee
Fourteenth meeting
Bonn, Germany, 18-19 March 2014

Agenda Item 6 e)

PROPOSAL FOR THE FEDERATED STATES OF MICRONESIA

Background

1. The Operational Policies and Guidelines (OPG) for Parties to Access Resources from the Adaptation Fund (the Fund), adopted by the Adaptation Fund Board (the Board), state in paragraph 45 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the endorsement of the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would ultimately require the Board's approval.

2. The Templates approved by the Board (OPG, Annex 4) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

> *For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.*

3. The first four criteria mentioned above are:
   1. Country Eligibility,
   2. Project Eligibility,
   3. Resource Availability, and
   4. Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:
   5. Implementation Arrangements.

5. It is worth noting that since the twenty-second Board meeting, the Environmental and Social (E&S) Policy of the Fund was approved and consequently compliance with the Policy has been included in the review criteria both for concept documents and fully-developed project documents. The proposals template was revised as well, to include sections requesting demonstration of compliance of the project/programme with the E&S Policy.

6. In its seventeenth meeting, the Board decided (Decision B.17/7) to approve "Instructions for preparing a request for project or programme funding from the Adaptation Fund", contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both concepts and fully-developed proposals.

7. Based on the Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 8 April 2010.

8. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

9. The following project concept titled “Enhancing the resilience of vulnerable island atoll communities in the Federates States of Micronesia (FSM) to climate change risks through a “Living with the Sea” national risk management framework” was submitted by the Secretariat of the Pacific Regional Environment Programme (SPREP), which is an accredited Regional Implementing Entity of the Adaptation Fund. This is the first submission of the proposal, using the two-step approval process. The submission was received by the secretariat in time to be considered in the twenty-third Board meeting.

10. The secretariat carried out a technical review of the project proposal, assigned it the diary number FSM/RIE/Coastal/2014/1, and completed a review sheet. In accordance with a request to the secretariat made by the Board in its tenth meeting, the secretariat shared this review sheet with SPREP, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

11. The secretariat is submitting to the PPRC the summary and, pursuant to Decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section.

Project Summary

Federated States of Micronesia – Enhancing the resilience of vulnerable island atoll communities in the Federates States of Micronesia to climate change risks through a "Living with the Sea" national risk management framework

Implementing Entity: *SPREP*

Project/Programme Execution Cost: USD 293,125
Total Project/Programme Cost: USD 8,375,000
Implementing Fee: USD 711,875
Financing Requested: USD 9,380,000

Programme Background and Context:

The proposed project seeks to engineer a shift in the management of flood risk and marine resources from an ad hoc problem centric approach to a holistic strategic coastal management and watershed drainage management approach. The specific objectives aim to: prepare institutional and regulatory frameworks, policies and guidance; build long-term coastal community relocation planning into state-wide land use and marine management policies; introduce including soft coastal engineering techniques, climate resilient planting techniques and groundwater protection techniques; implement transitional planning projects on the island of Kosrae to help deliver the Shoreline Development Plan and provide communities with the infrastructure to migrate away from high risk coastal inundation regions.

Component 1: National policy and institutional development to support delivery of climate resilient coastal management in FSM (US$ 1,155,000)

Component 1 will support all four states in FSM in preparing suitable regulatory and institutional frameworks to support the decision making of sustainable coastal management in a way that embraces the lessons learnt from demonstration activities carried out in Kosrae (2010-2014). The Component shall particularly focus on improving the connectivity between state legislation and national law with regard to climate change implementation. A formal approach to addressing these two issues will be integrated in the existing National Policy for Climate Change, and a separate information management tool to assist evidence-based decision making systems will be developed along with the necessary technical capacity building. Specific activities include: legal and regulatory enforcement support for climate resilient coastal and marine management for each FSM State; preparation of policy guidelines for each state to help deliver the "Living with the Sea" approach; establish road and building standards for each state; institutional reform and capacity development; the establishment of a knowledge and information system and the establishment of performance measurement procedures.

Component 2: Practical support services to the states of Yap, Chuuk and Pohnpei on delivering climate resilient coastal management (US$ 3,675,000)

Component 2 will provide technical and administrative assistance to the States of Yap, Chuuk and Pohnpei to help deliver climate resilient coastal management in the immediate and longer term. The Component will help establish the technical evidence base and associated regulatory structures necessary to create the future pathway for State wide coastal resilience in light of climate change. Specific activities include: the preparation of Shoreline Management Plans for Yap, Chuuk and Pohnpei with each defining sets of maintenance targets and integrating

recurrent and capital expenditures; piloting sustainable “low cost” coastal adaptation options (incorporating food security and water resource management) in each state; training programmes on the coastal development and environmental policy guidance and state-specific roads and building standard for each state; and education and awareness programmes.

Component 3: Implementation of the Kosrae Shoreline Management Plan (US$ 3,545,000)

This Component focuses specifically on the recommended implementation tasks that the State of Kosrae (through the Governors requests and SMP recommendations) has prioritised. The road infrastructure interventions reflect the state wide needs as identified in the endorsed SMP for Kosrae and the approaches already adopted as part of the Pacific Adaptation to Climate Change Pilot initiative that has taken place between 2011 to 2014. The specific activities include: maintenance coastal protection projects; a new road section construction plus access routes to the two villages; new capital coast protection schemes; community engagement and flood resilience programmes and education and awareness training.

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regular-sized Project Concept

Country/Region: **Federated States of Micronesia (Micronesia)**
Project Title: **Enhancing the resilience of vulnerable island atoll communities in FSM to climate change risks through a "Living with the Sea" national risk management framework**
AF Project ID: **FSM/RIE/Coastal/2014/1**
NEI/MEI Project ID:
Requested Financing from Adaptation Fund (US Dollars): **9,380,000**

Reviewer and contact person: **Daniel Gallagher**
Co-reviewer(s): **Franck Jesus**
NIE/MIE Contact Person: **Andrew Yatilman**

Review Criteria	Questions	Comments 2 Feb 2014	Comments 21 Feb 2014
Country Eligibility	1. Is the country party to the Kyoto Protocol?	Yes	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes. Micronesia is a developing country vulnerable to tropical storms, typhoons and drought, effects which are presently modulated by the El Nino Southern Oscillation. Future climate change is expected to increase the intensity and frequency of extreme rainfall events. Sea level is observed to be rising at 28-36mm/decade exacerbating coastal erosion and placing at risk human communities in coastal areas of atoll islands and islets.	

Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	A letter has been provided but does not follow the template provided for government endorsement. **CAR1:** Please use the template for letter of endorsement provided on the AF website, ensuring to explicitly name the selected implementing and executing entities. https://www.adaptation-fund.org/page/government-endorsement-letter-template-submitted-through-niesriesmies	**CAR1**: Addressed

	2. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	Somewhat. The proposal recognizes that there are capacity issues that must be addressed in order to deliver concrete adaptation benefits in a sustainable manner, and proposes several measures in this regard. It also proposes several soft engineering and infrastructural measures. Taken together, the institutional framework and adaptation measures are termed the 'Living with the Sea' principle. The review finds that conceptually the approach has potential to significantly address the needs of vulnerable communities in coastal lowlands of the country. However, it finds that the adaptation justification of some of the proposed measures should be revisited and reconsidered. Specific requests for clarification are made below: Component 1 and Activity 2.1 aim at strengthening the institutional framework for climate resilience management. The activities	

		proposed mainly focus on designing plans, policies, regulations, guidelines, road and building standards and protocols. However, the proposal fails to articulate how the project will overcome the apparent obstacles that prevent proper enforcement of existing rules and legislations (e.g. land use planning rules) as illustrated in Section A3. **CR1**: Please discuss how the project will overcome the apparent obstacles to properly enforcing existing rules and legislations. In doing so, please describe any proposed mechanism that will effectively ensure enforcement of new regulations, standards and protocols on climate adaptation. Activity 2.1 focuses on integrating climate risks into State-wide Shoreline Management Plans, which is similar in many respects to the activities under Component 1. Additionally, the requested amount of financing for policy and	**CR1**: Not addressed. The section in the project document that documented the obstacles that prevent proper enforcement of existing rules and legislations has been deleted from the new submission, and the elements added to do not yet clarify how the project will overcome obstacles to a proper enforcement of rules and regulations. As currently presented in the document, there appears a high chance that the plans, policies, regulations, guidelines, standards and protocols developed may not yield the expected outcomes.

		institutional development and planning appears too high to represent effective use of Adaptation Fund resources to concretely address the adaptation needs of vulnerable communities. **CR2**: Please consider improving coherence between activities on adaptation policy and planning between national and state level by including them under one project component. In doing so, please revise the requested funds for all adaptation planning activities to realistic amounts that reflect the policy and planning environment in Micronesia. The proposal outlines the need for a specific set of guidelines for participatory climate adaptation planning for coastal protection, land reclamation, land use, harbour development and a range of adaptation measures that span the 'hard and soft' spectrum of development and adaptation options. Confusion arises where the proposal takes a	**CR2**: Mostly addressed. The requested funds for adaptation planning activities appear high but have been reduced.

		specific focus on the roads sector through activities 1.3, 2.2, 2.3 and 3.2. Whilst it is accepted that climate impacts will affect the road sector, the extent to which the proposed investment in road infrastructure constitutes adaptation to climate change (rather than infrastructure development) is unclear. **CR3**: Please clarify the logical reasoning of selecting road infrastructure as the priority intervention for addressing the adaptation needs of the most vulnerable communities, and consider whether alternative concrete measures that could better be justified as climate adaptation may more effectively address the adaptation needs of vulnerable communities. **CR4**: For each of the three investments proposed under component 3, please clarify how (in practice) the investments are expected to provide improved resilience to future climate change and for how long.	**CR3**: Not addressed. The information added to the description of Component 3 does not provide a clear justification for the selection of road infrastructure as a priority intervention for addressing the vulnerability of the communities on Kosrae to the effects of climate change. **CR4**: Not addressed. The proposal presents engineering works that expect to protect the coast but does not discuss how these provide resilience to future climate change, nor

			how these investments themselves are made resilient to future climate change.
	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy of the Fund?	Somewhat. The proposed 'Living with the Sea' approach has potential to deliver benefits to vulnerable communities in Micronesia. **CR5**: Please clarify the approximate number of beneficiaries for each of the proposed project components and discuss how the risks of negative impacts (especially for infrastructure investment activities) will be managed.	**CR5**: Partially addressed. The number of beneficiaries has been provided, but the proposal to undertake an EIA during the first year of project implementation does not provide assurance that potential negative impacts of infrastructure works have been adequately considered (e.g. maladaptation through increased resettlement on newly protected coastline areas instead of the planned incentivizing of communities away from the coastline)

	4. Is the project / programme cost effective?	The requested financing does convincingly represent effective use of Adaptation Fund resources. The institutional, policy and planning activities proposed under Component 1 and Activity 2.1 appear overly expensive (covered above) whilst the justification of how the capital investment under Component 3 was selected to deliver benefits to vulnerable communities is lacking. **CR6**: Please clarify how the proposed infrastructural investments were selected and whether their choice is the result of a cost/benefit, cost effectiveness or multi-criteria decision analysis.	**CR6**: Partially addressed The proposed interventions have been selected after consultation with stakeholders, a rapid assessment of options, financial effectiveness and recommendations from the shoreline management plan. This is not tied to an explanation of why the proposed investments were chosen, (e.g. it does not clarify why road infrastructure investment appeared to be the best option to address future adaptation issues of the local population on Kosrae).

	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	Yes, the project is consistent with the relevant legislation discussed in the proposal. The *Nationwide Climate Change Policy (2009)* includes a commitment to addressing climate change adaptation through a framework in which: "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." This has now been replaced by the *Nationwide Integrated Disaster Risk Management and Climate Change Policy (2013).*	

	6. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	**CR7**: Given the challenges in enforcing national technical standards in Micronesia at present, please clarify how enforcement of relevant standards will be applied through the implementation of the project. Please state whether an environmental impact assessment is required for any of the proposed activities and in such a case when this assessment would be undertaken.	**CR7**: Not addressed. The proposal states that EIA legislation is only "randomly enforced" and that "decisions… [lead] to unacceptable negative impacts … to local communities" yet does not clarify how the relevant standards will be applied through the implementation of the proposed project. Further, postponing the EIA to the implementation stage would unlikely comply with the AF Environmental and Social Policy given that an environmental and social management plan may be expected to be in place before project approval.

	7. Is there duplication of project / programme with other funding sources?	The proposal mentions that soft engineering approaches (e.g. beach replenishment, artificial coral placement and coastal vegetation planting) are already tested on a small scale in some areas of the country (e.g. mention on p. 21) **CR8**: Please clarify what lessons were learned from these existing initiatives, why they are not sufficient as a means to demonstrate the utility of soft-engineering, and what the soft-engineering activities proposed by the project will enable that would not be possible otherwise. **CR9**: Please clarify the complementarity between the proposed project and initiatives under the SPCR, PPCR, GCCA, PACC, GEF-SPA explaining how the proposed project will avoid any overlapping of activities. In particular the proposal should make clear how the project will avoid duplication of activities related to the establishment of a knowledge and information system with the PPCR-funded programme.	**CR8**: Mostly addressed. The added elements state that further work is needed to better understand the local species of beach binding vegetation required and the local geomorphology of the receiving island location. **CR9**: Not addressed The information provided does not clarify whether, or why, the knowledge and information system planned through the PPCR could not be used by this project and why additional means are needed for the proposed project for this activity.

		Under the Infrastructure Development Plan (2004-2023) prepared by the Dept. of Transport,Communications & Infrastructure, the Kosrae Circumferential Road was identified as a national priority and investment needs and options were presented. It is understood that some funds are provided for investment in road infrastructure through the Compact of Free Association. **CR10:** Please clarify whether the funds being sought from the Adaptation Fund are complementary to existing investments in infrastructure and how overlaps between these funds are avoided.	**CR10**: Mostly addressed. Information provided states that the Joint Economic Management Committee has placed the funding of road infrastructure on the "back burner". The proposal does not make clear, however, how AF funds would be used to "climate proof" investments in infrastructure based on adaptation reasoning, rather than provide infrastructure that does not directly provide adaptation benefits to vulnerable communities.

	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes, several activities on knowledge management and capacity building with awareness-raising are proposed. **CR11:** Please clarify how capacity building activities under outputs 1.4, 2.3, 2.4 are complementary and avoid overlap.	**CR11**: Addressed.
	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	A proposed consultative process for the full proposal stage is discussed, but it seems that very limited consultation has been done to date during project preparation. At the concept stage, an initial consultative process has to take place, with key stakeholders of the project/programme. **CR12:** Please clarify whether an initial consultative process has taken place and, if so, provide a list of the stakeholders consulted during project preparation and a description of the findings of such a process.	**CR12**: Addressed.

	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Broadly, yes. The proposal demonstrates that the project activities are relevant in addressing its adaptation objectives. Consideration should be given as to how to enforce regulations, standards and protocols on climate adaptation to ensure that the activities are successful in meeting the project's adaptation objectives.	
	11. Is the project / program aligned with AF's results framework?	Potentially, but alignment is not stated in the proposal. **CR13**: Please clarify how the project objectives align with the Adaptation Fund's results framework.	**CR13**: Addressed
	12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	Yes, but consideration should be given to how the project benefits will be sustained in the long-term and transferred more broadly. **CR14:** Please clarify what mechanism the project will put in place to ensure that the capacity built under component 2 and the ability to put in place soft-engineering activities can expand in the needed localities beyond the six demonstration sites chosen	**CR14**: Partially addressed. The proposal indicates that the expansion of soft engineering activities will mainly be based on capacity building, awareness and institutional support provided through the project. It expects to require

		for the project.	ongoing financing but does not suggest whether this may be from e.g. the state, private sector, or international cooperation. The new information provided suggests that the local capacity built will be sufficient for communities to maintain the physical constructions. The rationale for this assumption could be better explained, by for example providing examples of if, and where, this had proven true previously and what capacity gaps had been overcome in such cases to allow community maintenance of infrastructure.
	13. Does the project / programme provide an overview of environmental and social impacts / risks identified?	No. **CAR2**: Please resubmit the proposal using the template made available on the Adaptation Fund website and ensuring to complete all relevant sections as related to environmental and social impacts. The template is available at this location: https://www.adaptation-	**CAR2**: Addressed.

		fund.org/content/request-projectprogramme-funding-adaptation-fund-amended-november-2013	
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Yes. However, as outlined in the *Operational policies and guidelines for parties to access resources from the Adaptation Fund* project formulation grants are presently only made available to National Implementing Entities. **CAR3**: Please remove the requested fee for project formulation from the requested financing.	**CAR3**: Addressed.
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Yes	
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	Yes	
Eligibility of NIE/RIE/MIE	4. Is the project/programme submitted through an eligible NIE/MIE that has been accredited by the Board?	Yes	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management?	The proposal suggests that the Government of Micronesia will decide at a later date upon the involvement of SPREP and the potential involvement of UNDP and SPC (p.50). The Adaptation Fund requires that	

		Implementing Entity and executing entities be named in the project proposal. This should be clarified through using the template for Letter of Endorsement made available on the AF website and referred to in CR1 (above). **CAR4**: Please ensure that Part IV (Endorsement by Government and certification by Implementing Entity) is completed in addition to providing the letter of endorsement.	**CAR4**: Addressed
	2. Are there measures for financial and project/programme risk management?	N/A	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy of the Fund? Does the proposal describe how the Implementing Entity will ensure that executing entities are fully aware of their responsibilities with regards to the provisions of the Environmental and Social Policy of the Adaptation Fund, including the promotion of human rights, where applicable, and how the executing entities and direct beneficiaries are made aware of the grievance mechanism available in the country and of the complaint handling mechanism of the Fund, in case of non-compliance?	N/A	

	4. Is a budget on the Implementing Entity Management Fee use included?	N/A	
	5. Is an explanation and a breakdown of the execution costs included?	N/A	
	6. Is a detailed budget including budget notes included?	N/A	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators?	N/A	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	N/A	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	N/A	
	10. Is a disbursement schedule with time-bound milestones included?	N/A	

Technical Summary	The initial technical review found that, conceptually, the approach of addressing capacity issues and promoting several soft engineering and infrastructural measures has potential to significantly address the needs of vulnerable communities in coastal lowlands of the country. However, it found that the adaptation justification of some of the proposed measures should be revisited and reconsidered. The following **four corrective action requests (CARs)** were made: **CAR1:** Please use the template for letter of endorsement provided on the AF website, ensuring to explicitly name the selected implementing and executing entities. **CAR2**: Please resubmit the proposal using the template made available on the Adaptation Fund website and ensuring to complete all relevant sections as related to environmental and social impacts.

	CAR3: Please remove the requested fee for project formulation from the requested financing. **CAR4**: Please ensure that Part IV (Endorsement by Government and certification by Implementing Entity) is completed in addition to providing the letter of endorsement. In addition, the following **14 clarification requests (CRs)** were made: **CR1**: Please discuss how the project will overcome the apparent obstacles to properly enforcing existing rules and legislations. In doing so, please describe any proposed mechanism that will effectively ensure enforcement of new regulations, standards and protocols on climate adaptation. **CR2**: Please consider improving coherence between activities on adaptation policy and planning between national and state level by including them under one project component. In doing so, please revise the requested funds for all adaptation planning activities to realistic amounts that reflect the policy and planning environment in Micronesia. **CR3**: Please clarify the logical reasoning of selecting road infrastructure as the priority intervention for addressing the adaptation needs of the most vulnerable communities, and consider whether alternative concrete measures that could better be justified as climate adaptation may more effectively address the adaptation needs of vulnerable communities. **CR4**: For each of the three investments proposed under component 3, please clarify how (in practice) the investments are expected to provide improved resilience to future climate change and for how long. **CR5**: Please clarify the approximate number of beneficiaries for each of the proposed project components and discuss how the risks of negative impacts (especially for infrastructure investment activities) will be managed. **CR6**: Please clarify how the proposed infrastructural investments were selected and whether their choice is the result of a cost/benefit, cost effectiveness or multi-criteria decision analysis. **CR7**: Given the challenges in enforcing national technical standards in Micronesia at present, please clarify how enforcement of relevant standards will be applied through the implementation of the project. Please state whether an environmental impact assessment is required for any of the proposed activities and in such a case when this assessment would be undertaken. **CR8**: Please clarify what lessons were learned from these existing initiatives, why they are not sufficient as a

	means to demonstrate the utility of soft-engineering, and what the soft-engineering activities proposed by the project will enable that would not possible otherwise. **CR9**: Please clarify the complementarity between the proposed project and initiatives under the SPCR, PPCR, GCCA, PACC, GEF-SPA explaining how the proposed project will avoid any overlapping of activities. In particular the proposal should make clear how the project will avoid duplication of activities related to the establishment of a knowledge and information system with the PPCR-funded programme. **CR10:** Please clarify whether the funds being sought from the Adaptation Fund are complementary to existing investments in infrastructure and how overlaps between these funds are avoided. **CR11:** Please clarify how capacity building activities under outputs 1.4, 2.3, 2.4 are complementary and avoid overlap. **CR12:** Please clarify whether an initial consultative process has taken place and, if so, provide a list of the stakeholders consulted during project preparation and a description of the findings of such a process. **CR13**: Please clarify how the project objectives align with the Adaptation Fund's results framework. **CR14:** Please clarify what mechanism the project will put in place to ensure that the capacity built under component 2 and the ability to put in place soft-engineering activities can expand in the needed localities beyond the six demonstration sites chosen for the project. The final technical review finds that despite the provision of additional information, the revised proposal fails to adequately address the corrective action requests and clarification requests made in the initial technical review. The following observations are made: i. The proposal should provide a clear and reasoned explanation of how the range of adaptation planning measures including plans, policies, regulations, guidelines, standards and protocols will be enforced in Micronesia given the apparent barriers to enforcement of the current policy and regulatory framework. ii. The proposal should provide a logical justification of how the proposed project activities have been selected based on adaptation reasoning. The justification of the proposed engineering activities, such as road infrastructure in Kosrae, should be articulated demonstrating a clear link between the adaptation needs of vulnerable communities on the island with the proposed solution.

	iii. The proposal should demonstrate how the proposed engineering works to protect the coast provide resilience to communities with regards to their vulnerability to future climate change, and how these investments themselves are made resilient to the impacts of future climate change. iv. The proposal should account for the need to undertake an Environmental Impact Assessment to provide assurances that potential negative impacts of infrastructure works have been adequately considered, that maladaptation has been avoided to the extent possible and that provisions are in place for an environmental and social management plan for the relevant activities that would require mitigation and monitoring during project execution. v. The proposal should avoid confusion with regards to the implementation of the project such as references to the UNDP Country Office being engaged in monitoring and evaluation of the project, the use of auditing in line with UNDP finance regulations, and oversight and technical support being delivered by UNDP for the implementation of the project. As the accredited implementing entity acting on behalf of Micronesia, SPREP's roles and responsibilities for the implementation of the project must be reflected in the proposal.
Date:	21 February 2014

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

ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	REGULAR PROGRAMME
Country/ies:	FEDERATED STATES OF MICRONESIA (FSM)
Title of Project/Programme:	**"ENHANCING THE RESILIENCE OF VULNERABLE ISLAND ATOLL COMMUNITIES IN FSM TO CLIMATE CHANGE RISKS THROUGH A "LIVING WITH THE SEA" NATIONAL RISK MANAGEMENT FRAMEWORK"**
Type of Implementing Entity:	RIE
Implementing Entity:	SPREP
Executing Entity/ies:	Office of Environment and Emergency Management (OEEM), KOSRAE STATE GOVERNMENT, POHNPEI STATE GOVERNMENT, YAP STATE GOVERNMENT, CHUUK STATE GOVERNMENT
Amount of Financing Requested:	**US$9,380,000** (in U.S Dollars Equivalent)

Project / Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

Low-lying atoll islets of FSM pose special management challenges, and hence are one of the focal areas of this proposal. Dozens of atoll islets in the FSM are occupied by human communities of a few hundred people each. These islets are composed of sedimentary accumulations of calcium carbonate (CaCO3) sands and cobbles derived from the skeletal fragments of reef dwelling organisms including coral and various carbonate-secreting algae. Some sediment is loose, and others are lithified by natural cements. Loose sedimentary deposits may be transported in various directions (seaward, lagoon ward, or along the shore) and re-deposited on the island surface by storm overwash and winds. Some researchers hypothesize that the tendency for high water events to carry sediment from the reef margin into island interiors may allow these islands to accrete upward with rising sea level. The islet landform might thus persist under a regime of accelerated sea level rise associated with global warming. Other researchers speculate that atoll islets are pinned on the reef by rock ramparts and when rising waters breach these cemented deposits on oceanic shores, the islet will become unstable and rapidly erode out of existence. The human communities on these atoll islands need to now consider relocation unless a climate adaptation strategy is developed to help determine if there are any measures that will accelerate recovery reef rates or whether flood overwash events can be anticipated and incorporated into planning so that community recovery (resilience) is enhanced.

The "Living with the Sea" project (this proposal) has therefore been designed to try and provide some answers to this issue and provide a service nationally for atoll communities in FSM. It seeks to help engineer a paradigm shift in the management of flood risk and marine management issues on each State

from an ad hoc site/problem centric approach to a holistic strategic coastal management and watershed drainage management approach, where whole natural defence systems such as outer reefs, mangroves, beaches and coastal vegetation are managed to enhance and improve flood resilience and to climate proof livelihoods and businesses along the coastal zone. The "Living with the Sea" approach also links tangible adaptation techniques to address flood risk with existing marine management principles for fisherfolk in the outer atolls.

The project will promote an integrated approach towards fostering shoreline, marine management and ecosystem based adaptation – seeking to balance environmental management with development needs. This shall also complement the "ridge to reef" (R2R) approach being proposed for the High Islands of FSM (being pursued under a complementary project managed through UNDP for "High islands"). Amongst other things, the approach shall set-up a multi-sector planning platform to balance competing environmental, social and economic objectives in the coastal zone. Through a new set of formally adopted Shoreline Management Plans (SMPs) for each State (Kosrae already has an updated SMP prepared in December 2013), the project shall seek to encourage the soft engineering solutions (ecosystem based adaptation such as tree planting, reef rehabilitation and beach ridge enhancement schemes – see Appendix E) that considers livelihood security techniques (e.g.: defence barriers to enable taro plantations to grow in non-salt inundated areas) in tandem with reducing coastal erosion and flooding problems. Often, these are caused through poor design and bad decision making on coastal protection works and also poor land use planning decisions whereby unsuitable land-uses are often granted permits in coastal hazards zones. From this, it is intended that the project shall improve the sustainability of coral reefs (marine management improvements etc), mangrove forest and wetlands management as natural defence measures so as to maintain the flow of vital natural defence mechanisms and sustain the livelihoods of local coastal communities. *Mangrove forests, in particular provide a valuable role in buffering the force of waves, including storm surges, and thus protect the coastline from erosion. The "fringe" (seaward) mangrove is therefore seen as being especially valuable for this coastal protection function and such "ecosystem based adaptation" measures will be promoted throughout the project design.*

The project is purposely designed (initially though a formal consultation process arranged and delivered during December 2013 – see Appendix A) to ensure the integration of key climate change theme intervention areas of food security, water resources and coastal management. To this end, it will demonstrate coastal adaptation techniques and practices – by engineering the relocating roads inland away from coastal hazard zones and this encouraging communities to relocate (at their own will) to safer settlement areas on higher ground where crops (such as taro and sweet potato) are better able to thrive and be cultivated, and groundwater supplies are less prone to saline intrusion and inundation. The project also provides innovative and cost effective alternative solutions, to delivering coastal protection measures that integrate food security and (where possible) water conservation and groundwater protection where these are deemed of urgent necessity (and where clearly stated within the state wide SMP – see Component 2). The approach is also to be neatly embedded within the compliance objectives of the R2R as the relocation of populations inland must not contribute further to any existing or newly introduced environmental stressors on highland ecosystems that may arise. The project will ultimately help to integrate the various donor project objectives and improve FSM State capacities to effectively manage its coastal zone in a sustainable manner.

Project / Programme Objectives:

List the main objectives of the project/programme.

Project Objectives

1. Prepare the necessary institutional and regulatory frameworks, policies and guidance to help deliver the "Living with the Sea" climate resilient approach for all FSM States.

2. Implement the “Living with the Sea” approach through building long-term coastal community relocation planning into State wide land use and marine management policies and information systems that emphasize climate risk management and adaptation on the coastal zone.

3. Introduce “transitional” livelihood security measures (including the integration of marine management with soft coastal engineering techniques, climate resilient taro planting techniques and groundwater protection techniques) to help 6 outer atoll islands implement the long term delivery of the “Living with the Sea” approach within the States of Yap, Chuuk and Pohnpei.

4. Implement necessary “Living with the Sea” transitional planning projects on Kosrae to help deliver the Kosrae SDP and SMP (2013) to provide communities with the infrastructure to migrate away from high risk coastal inundation regions.

Project Strategy

a) Overview

The overall project strategy is to provide State Governments in FSM with the institutional frameworks and coastal communities with the tools to prepare and adapt for future higher sea levels. This is to be achieved through a new concept entitled “Living with the Sea” which is iterative and long term in its nature. It embraces the combined aspects of marine management principles, coastal protection and sediment erosion measures, water resource management (protection of groundwater) and food security (techniques to help climate resilient planting of taro in salt affected areas etc). This principle addresses the important concept of “working with nature” so that cost-effective, sustainable and adaptive measures are introduced in an integrated and sustainable manner. A project shall introduce interim soft coastal engineering measures on 6 atoll islands (within 3 FSM States) to ensure that a “transitional” period is initiated, to plan for long term relocation and to help protect livelihood security for communities living along vulnerable atoll island shorelines in Yap, Chuuk and Pohnpei in the short to medium term (up to 20 years).

b) Purpose and Need for the Intervention

The pressures of climate change, sea level rise, coastal fishery habitat destruction and socio-economic regeneration of FSM coastal zones and watersheds are very well documented. Climate change is a fact. Its effect on the coast is now becoming clearly evident. Micronesia is a developing country vulnerable to tropical storms, typhoons and drought, effects which are presently modulated by the El Nino Southern Oscillation. Future climate change is expected to increase the intensity and frequency of extreme rainfall events. Sea level is observed to be rising at 28-36mm/decade exacerbating coastal erosion and placing at risk human communities in coastal areas of atoll islands and islets. Already, FSM has seen coastal features (including beaches, mangroves, reefs etc) beginning to change more dramatically and often in unpredictable ways. Many coastal livelihoods are increasingly threatened by coastal flooding and erosion and the reality of rising sea levels and increased storm frequency will inevitably increase that risk. The “**Living with the Sea**” principle is designed to instil climate resilience within State Government development planning for FSM’s islands and shorelines. Instead of a sectoral focus on, for example coastal protection, efforts to address climate change through an integrated sectoral approach is proposed now for FSM.

Of equal concern (and despite considerable new efforts by FSM with regards to the preparation of new climate change legislation in Kosrae and a draft updated Kosrae Shoreline Management Plan (SMP 2013)), there is still an apparent lack of strategic delivery of an integrated risk management approach policy to address these concerns for ALL FSM States. Even in Kosrae, the updated SMP (2013) declares that there is an urgent need to improve the decision making regarding coastal adaptation and climate change resilience in the coast. Coastal protection and sea defence structures are currently not planned with regard to their purpose, their outcome and importantly, their long term maintenance costs. There is also negligible consideration of how a coastal protection scheme or policy action can help with protecting

groundwater supplies or improve food security issues (i.e.: combining agriculture crop planting design to mitigate saltwater intrusion or overtopping etc). Despite the professional efforts of Kosrae to address the problems being faced, the approach to shore protection (at present) and catchment flood management is reactionary and without long term national planning mechanisms in place.

The “Living with the Sea” approach seeks to introduce clear transitional advice for FSM on how to adapt to climate change in the short and longer terms. It shall be designed to learn from the existing approach undertaken by the State of Kosrae. It seeks to use the Kosrae Strategic Development Plan (2013-2024) as a model document for other States to follow and prepare so that climate resilience can be planned for the next generation and beyond. This strategic plan, supported by more detailed climate proofed Shoreline Management Plans (already prepared by Kosrae in 2013 – see Appendix B for structure) enables the introduction of robust and sustainable land use planning for the long term for each State. It also encourages a “mind shift” (where appropriate) from “hard” engineering solutions alone (such as building sea walls) to a more “soft” approach to climate change adaptation on the coast (such as methods used to enhance the natural features or processes such as beach replenishment, artificial coral placement or coastal vegetation planting), which involves local communities in identifying risk areas, implementation and monitoring. In remote and small outer islands, soft approaches shall be considered that attempt to protect land for food security and where possible, the soft engineering measure can combine higher areas for planting crops whilst also protecting important ground water lens locations. An island feasibility assessment shall be undertaken on each of the 6 proposed outer atoll islands, to ensure that only feasible adaptation options are considered, especially on islands where the hydrodynamics dictate that regular overtopping is a daily problem (i.e.: land topography is so low that options for soft measures are significantly reduced. Such soft engineering approaches (almost exclusively mangrove plantations) are not totally new in FSM, through these have only been tested on an extremely small scale in FSM to date. Preliminary findings of these approaches suggest that a good scientific understanding is required not only of the locally species of beach binding vegetation required, but also of the local geomorphology of the receiving island location. The modelling and baseline data collection exercises proposed for each Shoreline Management Plan (Activity 2.1) shall help towards establishing a baseline understanding of key reaches where engineering intervention is being proposed.

FSM also needs to protect their natural coastal and marine assets (e.g.: fish nursery grounds) if they want to safeguard their man-made infrastructure assets. They have to promote and encourage working (in partnership) *with* the sea and watersheds draining into it rather than trying to fight natures’ unstoppable response to global sea level rise and increases in precipitation and flood frequency. The platform from which to promote this and to launch an EFFECTIVE and SUSTAINABLE coastal management is the “Living with the Sea” programme, which is hoped to be devised through revised legislation, with clearer institutional responsibilities and be delivered in PARTNERSHIP with key institutions for all 4 FSM States.

The “Living with the Sea” approach is proposed to be achieved in tandem with work ongoing for sustainable land management (SLM) and also the new **“Ridge to Reef – R2R”** programmes (UNDP Fiji initiative) which is linking SLM with protected area management in FSM. “Living with the Sea” act as a strategic “glue” to merge together the work of the Kosrae SMP, R2R and SLM (see Figure 2a). It also shall support actions for high islands and low lying atoll islands (Figure 2b) in an integrated way (through the design of State specific Shoreline Management Plans –see Appendix B).

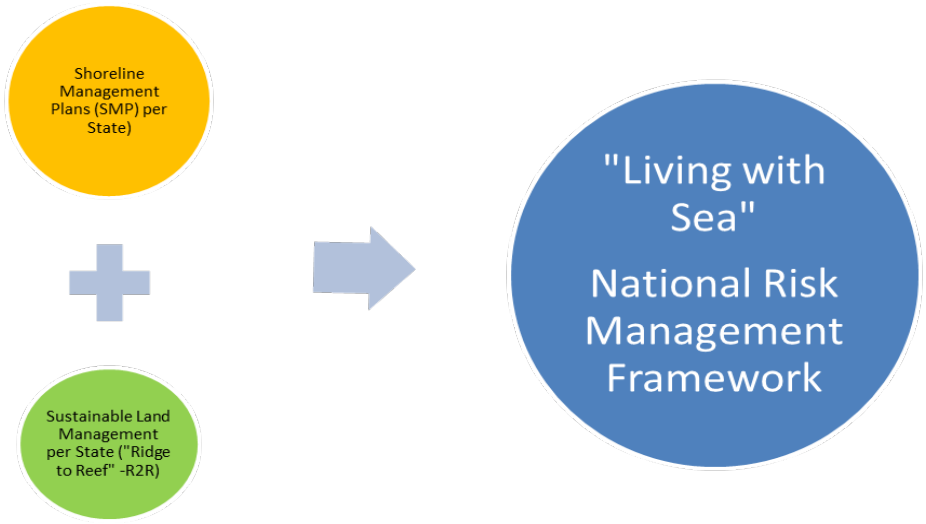

Figure 2a – Concept Approach for the Living with the Sea Concept for FSM

Figure 2b – Living with the Sea approach to cover all major island types in FSM (taken from Micronesia Conservation Trust "Ridge to Reef – Adapting to Climate Change" 2012)

c) Aims of the "Living with the Sea" Framework

"Living with the Sea" can be defined as an approach to managing the risks that are associated both with living on the coast of "high islands" (R2R project) AND on small atoll islands (on each FSM State) in order to maintain resilience in the face of climate related extremes. Specific to Kosrae, support shall be provided to address sediment erosion in watersheds as proposed within the Shoreline Management Plan (2013). It integrates food security and water resource management into coastal and marine management planning. This is key as most of the real climate related challenges that the people of the each FSM State are grappling with at present is coastal related (in particular coastal fisheries and lagoon community livelihood protection). These include coastal erosion and flood inundation, saline intrusion, precipitation flash flooding and associated pollution via land drainage impacting on marine biodiversity and water supply. This concept builds on the experiences and lessons that the Pacific Adaptation to Climate Change (PACC) project generated in 14 Pacific countries in the past four years.

The specific aim of this proposal is therefore to support FSM in preparing a regulatory and institutional framework to help support sustainable coastal and marine management decision making. Its primary aim is to help set policy for lengths of shore or islands (similar to the SMP for FSM – 2013) to better provide economical and sustainable solutions to "live with the sea" for all FSM States. The approach sets a framework for the eventual delivery of a national strategy for Integrated Coastal Zone Management (ICZM) and marine spatial planning (MSP) for FSM.

The success of Living with the Sea will be the need to place its objectives and aims within the overall national planning framework of existing or new planning regulations for each FSM State, and articled within the update to the FSM National Policy on Climate Change (2011). This is key as there is an important need to consider climate change adaptation within a formal State wide land-use planning mechanism which would provide the policy and development standards for implementation of a new development approval process. At present, only Kosrae State has such a land use plan mechanism (SDP 2013-2024).

d) How will the Living with the Sea Framework make a difference for FSM?

The Living with the Sea concept takes an ecosystems based adaptation (EBA) approach but focuses more on what need to be done to deal with the risks that are related to the coasts and marine resources surrounding each FSM State. Traditionally, villages in FSM commonly are situated very closely to the shore (70% of the Kosrae population live on the coastal lowlands) for ease of transportation and sources of livelihood and sustenance. At present, that co-existence is now becoming a real challenge threatened by the extreme weather events that FSM is now facing. Therefore, the need to consider the watershed and coastal areas as an integrated component is needed especially where people and ecosystems co-exist. FSM is proposed (via the work undertaken in Kosrae) provide leadership in this nation and region so that the development and future security of coastal communities are assured.

As part of the overall framework, a new legally defined Flood Risk Management Area (FRMA) shall be established for each FSM State (updated flood risk hazard areas) whereby all land use development (including defences) shall need to comply to new national climate change regulations which shall be integrally linked to a separate State Development Plans as appropriate. Kosrae is the only State that has embarked on this approach, and this is proposed to be up-scaled to the other 3 States in FSM. In addition, marine management areas (MMA) shall be defined to help with future delivery of sustainable marine management principles for outer atoll islands.

Project / Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.

For the case of a programme, individual components are likely to refer to specific sub-sets of stakeholders, regions and/or sectors that can be addressed through a set of well defined interventions / projects.

PROJECT COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US$)
1. **NATIONAL POLICY AND INSTITUTIONAL DEVELOPMENT TO SUPPORT DELIVERY OF CLIMATE RESILIENT COASTAL MANAGEMENT IN FSM ("LIVING WITH THE SEA")**	National and state institutions, regulations and capacity are strengthened to deliver climate resilient policies and actions for the coastal zones of all FSM states.	Activity 1.1: Law and Regulatory Enforcement support for climate resilient coastal and marine management for each FSM State;	150,000
		Activity 1.2: Prepare Coastal Development and Environmental Policy Guidelines for each State to help deliver the "Living with the Sea" approach (ie: linking R2R and SMP policy direction).	150,000
		Activity 1.3 Establish road and building standards and protocols for the each FSM State.	175,000
		Activity 1.4 Institutional reform and capacity development to improve coordination for future Living with the Sea policy compliance (for each FSM State)	300,000
		Activity 1.5 Establish a national knowledge and information system for "Living with the Sea" delivery.	270,000
		Activity 1.6 Establish State Government "Living with the Sea" "performance measure" procedures for key staff/departments	110,000
SUBTOTAL FOR COMPONENT 1			**1,155,000**
2. **PRACTICAL SUPPORT SERVICES TO THE STATES OF YAP, CHUUK AND POHNPEI ON DELIVERING CLIMATE RESILIENT COASTAL MANAGEMENT ("LIVING WITH THE SEA")**	Vulnerability of coastal communities and infrastructure investments to climate risks is reduced through production of new state wide shoreline planning, engineering standard setting and risk reduction adaptation measures	Activity 2.1 Preparation of Shoreline Management Plans for Yap, Chuuk and Pohnpei States with each defining sets of maintenance targets and to integrate recurrent and capital expenditures.	600,000
		Activity 2.2 6 (six) Pilot sustainable "low cost" soft coastal adaptation pilot intervention options (incorporating food security and water /marine resource management) on 6 atoll islands in Yap, Chuuk and Pohnpei States.	2,600,000
		Activity 2.3 Training programmes on the implementation of coastal development and environmental policy guidance (Activity 1.2) and the State specific Roads and Building standard (Activity 1.3) for each 3 States (linking to Activity 2.2)	275,000
		Activity 2.4 Education and awareness programmes on "Living with the Sea" principles for all 4 FSM States.	200,000

SUBTOTAL FOR COMPONENT 2			**3,675,000**
3. **IMPLEMENTATION OF THE KOSRAE SHORELINE MANAGEMENT PLAN (2013)**	Increased climate resilience of Kosraen coastal communities through the effective delivery of "climate proof measures" through the implementation of relevant activities set out in the Kosrae SDP (2014-2023) and Kosrae Shoreline Management Plan (SMP).	Activity 3.1 Maintenance coastal protection projects (Lelu Island as defined in the SMP for Kosrae and SDP 2013-2014).	350,000
		Activity 3.2 Intervention A: New road section construction (Malem to Yeseng) plus access routes to the two villages	2,100,000
		Activity 3.3 Intervention B: New capital coast protection schemes (Mosral and Pal).	1,000,000
		Activity 3.4 Community engagement and flood resilience programmes for Kosrae villages.	50,000
		Activity 3.5 Education and awareness training programmes on "Living with the Sea" principles.	45,000
SUBTOTAL FOR COMPONENT 3			**3,545,000**
4. Implementing Entity Management fee (8.5% of Total Project Cost - ceiling limit – see Appendix F)			$711,875
5. Total Project/Programme Cost			8,375,000
6. Project Cycle Management Fee charged by National Govt (3.5% of Total Project Cost- national FSM fee)			$293,125
Amount of Financing Requested			**$9,380.000**

Table 4: Proposed Components and Activities

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	December 2014
Mid-term Review (if planned)	January 2017
Project/Programme Closing	November 2018
Terminal Evaluation	January 2019

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 - NATIONAL POLICY AND INSTITUTIONAL DEVELOPMENT TO SUPPORT DELIVERY OF CLIMATE RESILIENT COASTAL MANAGEMENT IN FSM ("LIVING WITH THE SEA")

Overview

The specific aim of Component 1 is to support the all FSM States in preparing suitable regulatory and institutional frameworks to support the decision making of sustainable coastal management in a way that embraces the lessons learnt from demonstration activities carried out for the PACC project in Kosrae (2010-2014). The Component shall particularly focus on improving the connectivity between State legislation and national law with regard to climate change implementation. A formal approach to addressing these two issues will be integrated in the existing National Policy for Climate Change, and a separate information management tool to assist evidence-based decision making systems will be developed along with the necessary technical capacity building.

Despite the professional efforts of the FSM States to address the creeping problems caused by climate change in an efficient and sustainable manner, the approach to climate change risks at present, including shoreline protection is reactive and without national/regional guidance. Whilst there is a national climate change policy in place for FSM, given the geographical challenges faced by outer islands, how this centrally-driven policy will be effective in practice at the outer island level remains uncertain unless there is clear guidance and State Government legislative and regulatory commitment to make a difference.

Kosrae is the only State with a specific climate change legislation in place, which is supported by a Strategic Development Plan (2013-2024) and a climate proofed Shoreline Management Plan (SMP). For the other 3 States, in the absence of national legislation governing climate resilient coastal management, it is crucial that a set of State Government institutional frameworks and legislatures are developed (similar to Kosrae) to address these issues in a manner that can be sustainable and executable by local communities and that could automatically become a chapter of future State wide Strategic Development Plans in the future. Consequently, under Component 1 the existing Kosrae SDP (2013-2024) will be used as a platform to integrate localized climate change concerns for each of the other 3 FSM States.

Specifically, a set of guidance manuals will be prepared on climate proofing roads and also a climate resilient coastal protection manual (for soft and hard defences) will be prepared, which will help in the production of State wide Shoreline Management Plans (SMP) in Component 2 (for Yap, Chuuk and Pohnpei).

Through the completion of this Component, by end of the project, a Living with the Sea Risk Management Framework shall be established for FSM which is linked clearly to the production of enforceable climate resilient plans (in Component 2) and policies through each State Government. Appropriately trained and empowered agencies shall be assigned to implement and carry out future M&E. Its members are engaged, committed with clear responsibilities and capacity to carry out responsibilities.

Activity 1.1: Law and Regulatory Enforcement support for climate resilient coastal and marine management for each FSM State

This activity shall engage national government fully in addition to State Governments and provide support on how each State can implement the new 2013 Policy on Disaster Risk Management and Climate Change Adaptation (recently endorsed by National Government). A thorough legal and regulatory policy assessment shall be undertaken to assess the most practical and suitable institutional approaches to support climate resilient coastal management for FSM nationally and within each State (adhering to the lessons learned from Kosrae where possible). A detailed consultation and stakeholder engagement exercise shall culminate in a detailed "road map" and implementation action plan for the national government to adhere to and promulgate, to ensure that climate resilient mainstreaming is endorsed and is set out as digestible actions. The output of this Activity shall feed directly into Activity 2.1 (compliance of State wide detailed Shoreline Management Plans to adhere to the new National Policy on Disaster Risk Management and Climate Change Adaptation (2013).

A review of defined regulatory inspection procedures shall be undertaken along with improved clarity on the regulatory remits within the government structures shall be carried out. Proposed management approach options (scenarios) shall be proposed for consultation and compared against the present day situation. From this, areas for enhancement will be identified and consultations undertaken to secure improved interfaces and from this propose improvements to better permit collective working. Significant gaps will be addressed through institutional reform, which will be implemented within the lifetime of the project. Enhancing work reforms to fill gaps will lead to improved coordination of future coastal risk management and land use development, physical interventions and sea defence maintenance.

The Activity shall seek to stimulate cooperation by organising joint inspections and exchange (send or invite) inspectors to and from other States in FSM. Joint inspections is hoped to result in inspections in which different State enforcement authorities cooperate on a national or State wide level. In most States cooperation is necessary to help not only with environmental regulation inspections, but also because it helps to mobilise capacity; skills and experiences of different participants which is hoped to be effectively combined as a national consistent approach towards building climate resilient coastal and marine management in FSM.

Activity 1.2: Prepare Coastal Development and Environmental Policy Guidelines for each State to help deliver the "Living with the Sea" approach (ie: linking R2R and SMP policy direction)

This Activity shall set clear formal structures to communicate the responsibility to coordinate and provide policy direction on "climate proofing" of development initiatives and climate change adaptation measures.

Activity 1.3 Establish road and building standards and protocols for the each FSM State.

Currently there are no written guidelines on how to build or how to inculcate climate change resilience into coastal erosion control, land reclamation and harbour/wharf development (i.e.: coastal or marine engineering exclusive of road development). Environmental Impact Assessment (EIA) requirements are generic on this issue though in the State of Kosrae, efforts are being made to "climate proof" EIA regulations and approaches. The purpose of this Activity is for State Government and other relevant agencies to address gaps in technical knowledge and know-how on how best to plan and develop wharves, conduct land reclamation, other major developments and manage coastal erosion in a changing climate without increasing vulnerability (both hard and soft coastal engineering measures).

The purpose of this Activity is therefore to formulate an FSM specific set of guidelines for climate risk resilient coastal protection planning and engineering, using a participatory approach that shall include recommended amendments to existing Land Use Planning and Environmental Impact Assessment (EIA) regulations for each FSM State, new National Building Codes, and the latest Disaster Management and Climate Change national policy (2013) as necessary in the future to better address climate change adaptation. The Activity shall provide pragmatic evidence based advocacy that shall be supported by high level political endorsement for the coastal protection guidelines document.

A separate parallel exercise shall also be carried out (that complements the above) which focuses specifically on the roads sector. The purpose of this Activity is to improve adaptation to climate change in FSM but adhering to a specific roads standard that shall comply to the State wide SPM policy on road relocation, rebuild, maintenance or relocation inland advice. The Standard provides the engineering detail required for drainage and construction approaches/materials for "critical road infrastructure" in SMP identified areas. This shall also enforce the need to engineer and incorporate climate risk analysis into road transport infrastructure project identification, formulation and execution based on the latest climate change science and risk information tools available. Details of the "Climate Resilient Roads Standard Project for each State is identified as a draft Terms of Reference in Appendix C *(NB: the production of the Climate Risk Resilient Coastal Protection Guidelines shall important to informing the specific content of the Climate Resilient Roads Standard output)*.

Activity 1.4 Institutional reform and capacity development to improve coordination for future Living with the Sea policy compliance (for each FSM State)

This activity is designed to address the institutional and capacity development needed to help implement the Living with the Sea approach in terms of how to inculcate measures to ensure the Living with the Sea policy is implemented correctly within each State. Once this activity is delivered, it will target all key national and local institutions and individuals and various planning departments. The Activity will involve a detailed institutional analysis exercise and creation of clear and costed actions.

Activity 1.5: Establishing a knowledge and information system for "Living with the Sea" delivery

Under this activity, an information management tool will be established to assist with future evidence-based decision making on shoreline and freshwater management. A complex institutional architecture with respect to coastal inundation risks are preventing informed decision making. The ongoing PACC project in Kosrae program is enhancing key information collection capacity in Kosrae for both real time climate data (precipitation) and also tide data (sea level rise monitoring) and this project will further develop information management capacity for the remaining 3 States.

Enhanced data management systems are an integral part of improved shoreline management decision-making under a changing climate. Not only will this project assist in establishing the infrastructure for storing and managing information, engagement of island communities and State Governments in monitoring of beaches but it will also ensure that real time information can be effectively used for future decision making. Through the PPCR programme (Component 1- mainstreaming), a complementary initiative is planned, though clear differences exist between the two. Between the two projects, it is

anticipated that data collection capacity will be greatly enhanced at the community level in each State, topographic information through LiDAR for Kosrae (University of Hawaii), quarterly mapping of shoreline position and geomorphology, and tide gauge information shall be developed further. While this would enable the government to access comprehensive set of information through state-of-art technologies for better decision making, there is a risk that the tremendous opportunities will be lost if the information is not properly stored and managed in a manner that is more accessible to a wider group of stakeholders beyond some key technicians in KIRMA. To strengthen communication, knowledge sharing, and more active cooperation among various scientific and research institutions in climate change related research across institutions, the database will be managed out of Kosrae whereas the technical specification of the database will ensure the ability of State level officers to input raw data. This will have immediate impact beyond the project sphere as local communities can start populating their specific coastal related database at no additional costs.

The approach to be adopted is NOT to introduce an expensive GIS or complicated database system. Instead, a community focused “monitoring system” is to be promoted.

Tasks under Activity 1.6 include:

- User Needs Assessment meeting to agree spatial data infrastructure requirements
- Consultancy studies to identify needs for a Spatial Data Infrastructure (SDI) for future shoreline management needs
- Purchase, install and operate recommended hardware and software
- Training on data capture, storage and coastal database management, software design and document control, both at the island and central level (MLSNR).
- Cross link with Activity 2.3 and 2.4 with regards to the training and education aspects of Component 2 on food security, water conservation and coastal protection integrated data collection needs.

The Output is therefore to develop a national coastal zone monitoring program that is functional to support planning, management and evidence-based decision-making. The monitoring program will be managed by each State Governor (appropriate organisation such as the EPA) as befitting their institutional remit and also the strengthening of their institutional operational capacities. Clear roles of research institutions and the EPA shall be set out in order to monitor and advise on aspects such as coastal habitat change and project /engineering design performance etc. Guidance for monitoring support roles of local Village Committees shall also be introduced at this time. This output shall be designed to integrate with other donor funded initiatives, especially the PPCR support project for integrated coastal zone management and the mainstreaming of climate change' project in order to ensure synergy and complementarity. The format and content of the PPCR knowledge and information system is yet to be defined and an opportunity is presented to work together with this project in the development of the system (as part of Activity 1.5). The annual FSM Environment Conference is scheduled for March 2014 in Kosrae and the PPCR focus is to formulate a detailed design of the information/knowledge management system as part by the PPCR Situation Analysis exercise

Activity 1.6 Establish State Government “Living with the Sea” “performance measure” procedures for key staff/departments

This activity is designed to address the institutional and capacity development needed to help implement the Living with the Sea approach in terms of how to inculcate key performance measures into staff contracts and to set up incentive requirements to ensure the policy is implemented correctly within each State. Once this activity is delivered, it will target all key national and local institutions and individuals and various planning departments.

COMPONENT 2 - PRACTICAL SUPPORT SERVICES TO THE STATES OF YAP, CHUUK AND POHNPEI ON DELIVERING CLIMATE RESILIENT COASTAL MANAGEMENT

OverviewThe specific aim of Component 2 is to provide technical and administrative assistance to the States of Yap, Chuuk and Pohnpei to help deliver climate resilient coastal management in the immediate and longer term. The Component shall assist by providing experienced gained from the PACC project in Kosrae to help establish the technical evidence base and associated regulatory structures necessary to create the future pathway for State wide coastal resilience in light of climate change.

The process of encouraging the development of State wide SMPs (similar to Kosrae) to help inform future policy decision making and also low cost soft coastal engineering adaptation measures for highly vulnerable outer atoll islands will help to provide a "learning by doing" strategic vehicle for each State Government. It shall entail mutual learning on the part of policymakers, stakeholders, and the general public. The selected measures adopted as part of Activity 2.2 shall provide direct learning opportunities for specific shoreline management actions, inform the formulation of State wide SMP, and as implementation proceeds, help accumulate the knowledge base that shall feed directly into Activity 1.5.

By the end of the project, a "Living with the Sea" program is introduced to and implemented through an endorsed State wide Shoreline Management Plan, that builds awareness within State institutions and communities regarding ***"Living with the Sea"*** approach;

Component 2 will consist of the activities and tasks:

Activity 2.1 *Preparation of Shoreline Management Plans for Yap, Chuuk and Pohnpei with each defining sets of maintenance targets and to integrate recurrent and capital expenditures.*

At present, there is no formal approach, nationally or regionally, towards addressing the key climate change challenges of increasing coastal erosion in the States of Yap, Chuuk and Pohnpei. Under changing climatic conditions, unless these issues are addressed according to a proper institutional framework, efforts to combat them will remain ad hoc, reactive and uncoordinated, resulting in ineffective and inefficient use of limited resources.

In Kosrae, the Strategic Development Plan (SDP 2013-2024) is a mechanism that guides the way in which Kosrae's development is planned, budgeted and executed. The purpose of the SDP is to take a strategic, community-based approach to ensure a sustainable socioeconomic development. Currently, only Kosrae has a climate proofed SDP. Following visits to each State in FSM, it is clear that no structured approach is adopted towards promoting long-term sustainable land use planning on islands to help populations migrate away from natural hazard areas. Instead a "wish list" of development actions within each State are identified in a non-formal way (separate State wide internal documents etc) that loosely comply with the Millennium Development Goals.

The AF resources will therefore be used to build on this existing platform created in Kosrae to further integrate potential risks of climate change and appropriate actions in the form of State wide Shoreline Management Plans (SMP). Specifically, the SMP will carry out detaied diagnostic and modelling studies to help provide the scientific and engineering information required to help identify specific areas of climate vulnerability and appropriate costing to have the vulnerability reduced. The SMP will be appended to the States SDP (when completed) and will include designation of strategic and vulnerable areas/coastlines and necessary actions for coastal defense needs and road relocation lengths (e.g. following a conventional approach to shoreline erosion, options to be considered are typically: do nothing; hold the line, retreat the line, advance the line). This ensures that future land use and vehicle transportation routes are appropriately developed and cognizant of flood risk inundation or erosion hazards zones. The consultative processes under this Output will involve key representatives from other

FSM States so that the lessons learnt can be applied during the revision or formulation of SDPs for all States. See Appendix B for an indicative process of formulating consistent SMPs across FSM.

Tasks under Activity 2.1 include:

- A review of the existing knowledge and baseline understanding of coastal behaviour, groundwater conditions and shoreline dynamics in each State;
- Carrying out new field data assessments on coastal processes with supporting atoll geomorphological and hydrodynamic modelling studies;
- Consolidating the assessments of observational surveys and results from any parallel donor initiative to help identify strategic or vulnerable areas and coastlines to future flood, erosion and inundation risks;
- Formulation of "Shoreline Management Group" within each State who, with assistance from the project team, shall lead State level consultations on the main island and outer atoll islands;
- Define the coastal features of each island in each State including the assets at risk, the economic benefits and social issues relating to future relocation issues to "High Islands".
- Production of vulnerability maps for each State (and associated atoll islands);
- Preferred future coastal planning scenario identified and confirmed through sensitivity testing, environmental and socio-economic assessment exercises (i.e.: accommodation of sea level rise or relocation etc);
- Costing exercise for priority actions identified and draft an SMP to be appended to a future State SDP;
- Public examination and consultations for the revision of the SDP.

Activity 2.2*: Pilot (initiate the testing of) sustainable "low cost" coastal adaptation options (incorporating food security and water resource management) in each State.*

The specific aim of this Activity is to implement a series of small scale "soft engineering" demonstration projects/ approaches (supported by the preparation of a specific guidance manual -Activity 1.2) on their construction and maintenance. The focus is NOT to replicate or upscale the PACC work undertaken on Kosrae, but instead to provide some tangible low cost and short term engineering approaches that may assist in "buying time" for communities to plan for a more transitional strategy to relocate to "safer islands". The focus of this activity is specifically for 6 small atoll outer islands in Yap, Pohnpei and Chuuk States (see Appendix H).

While robust and fixed engineering solutions (to be demonstrated under Component 3 for Kosrae) can provide a long-term shoreline defence (if designed properly) for areas where urgent actions are required or where there is a need for a "transition" approach to be adopted (ahead of a more permanent community relocation strategy for outer atoll islands), softer more temporary engineering solutions offer low-cost, and often more sustainable engineered options that make use of the in-built buffering capacity of natural ecosystems and therefore often provide a more flexible approach to managing shoreline volatility. Soft engineered solutions can take the form (often implemented in combination) of rehabilitating coastal habitats, by introducing shoreline vegetation, coral recruitment programmes (for attenuating wave forces and trapping sediments), wetland rehabilitation, temporary groynes and small-scale beach nourishment.

The adoption of soft engineering solutions, at an island scale, is crucial for countries like FSM where public funds are limited, transporting rock and hard materials is both expensive and technically

challenging, and there is a dearth of technical baseline information of structure/scheme performance, which is a prerequisite for the effective implementation of hard engineering solutions. Soft engineering solutions are more effective in locations where shoreline erosion is the result of habitat deterioration or where sediment provenance (i.e. its source) is unknown or in net deficit, or in locations where the future dynamics/equilibrium of shorelines are unknown – which is the case for many outer atoll islands in FSM. The soft engineering approach to be adopted in this Activity seeks to use island ecosystem functions or low-cost temporary structures to either attenuate wave forces, generate accretion of sand in key areas and redistribute sediment, or mitigate the impact of wave actions (such as salt spray). The technical simplicity and low-cost nature in their applications allow local communities to "adapt by learning". This is particularly important for States such as Yap and Chuuk, in particular, which include atoll islands where the prevailing knowledge on soft engineering approach is very limited. From this, atoll communities will be able to re-design the location and types of intervention (e.g. the use of temporary groynes – see Appendix E) relatively easily depending on the level of erosion and growing understanding of seasonal sediment movements. This flexibility is particularly important for effective, resilient adaptation when climate change is likely to increase the level of uncertainty about the severely of erosion.

Under this Activity, at least four sets of soft engineering approaches will be demonstrated within the States of Yap, Chuuk and Pohnpei (see Part II (B)), allowing island communities to customize a locally suitable set of measures and therefore expanding the knowledge base for available options to be replicated. Lessons learnt from these activities will be synthesized and codified. Based on such knowledge, the initial Guidance Note produced in Component 1 will be updated and ultimately disseminated as part of education and training Activities within Component 2. The Guidance Note will be dedicated to provide clear assistance on how the replication of these soft engineering measures can be achieved across FSM. Through specific tasks under this Activity, local communities will be involved in a direct manner in implementing these measures, offered trainings on the techniques, and made aware of benefits of such techniques along with beach monitoring principles.

At least two atoll islands in Yap State are selected as demonstration sites based on their currently vulnerability as a consequence of the recent typhoon Haiyan event that was spawned from Yap in November 2013. Potentially 2,000 people should benefit from the intervention. The indicative shoreline management techniques to be adopted include:

- Coastal vegetation planting to prevent wind and salt spray;
- Enhancement of the existing ridges;
- Taro planting "mounds" (similar to the proven design of pilaka pits in Tuvalu);
- Coastal vegetation planting to stabilize the ridges;
- Embankment structures to protect water resources and to promote crop growing on broad ridge designs;
- Temporary groynes;
- Small-scale beach recharge;
- Artificial coral reefs;
- Setbacks and embankment defense creation.

More details on each of these techniques are presented in Appendix E.

Tasks under Activity 2.2 include:

- Assessments of vulnerable shorelines, to identify the exact locations of four demonstration sites
- Profiling of sediments of both recipient beaches and potential source(s) to verify the compatibility and feasibility of any foreshore replenishment
- Synthesize existing lessons learned from the past community-level initiatives,
- Analysis of suitable and tolerant coral and plant species for artificial coral reef plantation and coastal vegetation in FSM
- Identify sources where local coral planulae can be imported from for the artificial coral reef intervention.
- Training of and awareness raising for local communities, and NGOs on locally suitable soft engineering techniques and their engagement for community-based monitoring of techniques

- Update to the "Living with the Sea Best Practice" technique Guidance Note based on pilot project findings.
- Encouragement of livelihood security and food security design options to integrate crop growing, water conservation and coastal protection into "integrated Living with the Sea" engineering schemes.

Activity 2.3: *Training programmes on the coastal development and environmental policy guidance (Activity 1.2) and the State specific Roads and Building standard (Activity 1.3) for each 3 States.*

One of the key barriers preventing FSM States from achieving sustainable and affordable shoreline management and climate resilient road standard practices stems from the lack of technical understanding about a suit of effective and low-cost soft engineering techniques that can be easily adopted in the country. Through activities envisaged under this project Activity, it is expected that government engineers, coastal-related managers and other officers involved in shoreline defense operations (both stationed at the National and State level) will obtain the technical aspect of shoreline management. Training activities will cover technical aspects such as climate change-induced acceleration of shoreline dynamics, methodologies for implementing an array of soft and hard engineering shoreline management measures, and the linkages between sea defense locations and groundwater protection. It is important for technical officers to acknowledge that these two measures are not necessarily spatially linked together in some locations (i.e. building a seawall may not necessarily protect a nearby groundwater aquifer from becoming saline). This project Activity is complementary to Activity 2.2 since demonstration activities in at least 4 island locations will expose the target officers to sufficient number of tested techniques. Acquired know-hows of the implementation of these soft engineering techniques can be immediately replicated through the project component 2, which is dedicated for replication of these measures with focus on soft engineering techniques.

This project output also presents a great degree of complementarity with Activity 2.4 which proposes to enhance the capacity of communities to maintain and monitor the investments envisaged under Component 2. It is also crucial that the two elements of community engagement and technical clearinghouse capacity are developed in a mutually reinforcing manner.

Tasks under Activity 2.3 include:

- Organize targeted technical trainings for officers in each State of FSM on soft engineering shoreline management measures, which include benefits on groundwater protection.
- Organize study visits to demonstration sites.
- Prepare project briefs on the implementation of shoreline management measures including technical specifications, baseline assessments, costs, benefits and maintenance requirements.
- Complete a training workshop for key national and state officers on the application of the revised guidelines for "Living with the Sea" techniques at the state level to test their ability to fully engage in climate change adaptation related activities within the framework of "Living with the Sea".
- Documentation of the lessons learned from the application of the revised guidelines for Living with the Sea and associated State wide SMPs.
- Demonstrate adaptation action at the local level in the 6 target atoll islands.

Activity 2.4: *Education and awareness programmes on "Living with the Sea" principles for all 4 FSM States.*

Micronesia, due to its small population and relative isolation, has limited capacity and expertise in key technical and functional areas relevant to climate change adaptation. Building capacity and instilling greater awareness of climate change risks at the regional, island, and community levels is important to build long term sustainability of climate adaptation initiatives as well as the ability of communities to

replicate adaptation “best practices” on their own. In addition, activities to encourage behaviour change at the local level and motivate communities to place greater value on protecting those natural resources that build each island’s resilience to climate change impacts should be the core focus of any education and awareness programs. Involving communities early and continuously in the process and building on-the-ground ownership of adaptation activities is vital to maximizing success and longevity of climate adaptation work and integrating information gleaned from this Component into an improved understanding and buy-in at the community level of the need and importance any such activities carried out.

This project Activity, and set tasks under it, intends to ensure that the adaptation benefits will be maintained within the project target areas beyond the project cycle. In particular, it will enhance the framework and capacity within local communities to maintain and monitor the investments delivered, especially under Activity 2.2 plus also link directly to the Knowledge Management System being designed in Component 1 (Activity 1.5). As described earlier, there is presently limited understanding among communities of a suit of soft engineering measures available for shoreline protections and the need for periodic maintenance for village water supply infrastructure. Under this project Activity, following the lessons learned from Activity 2.2 in implementing adaptation measures and in mobilizing communities, similar sets of activities will be replicated outside the project target areas.

Given the challenges for State Government to provide sufficient public services in remote islands, it is crucial that community involvement be encouraged and their capacity enhanced to minimize the gap between the actual and desired service delivery. Also community engagement is one of the key elements of the “Living with the Sea” principle. In particular, the capacity building sessions will be organized and offered to community groups and members that are relevant for the maintenance of the soft engineering shoreline management schemes implemented under Activity 2.2.

Tasks under Activity 2.4 include:

- Conduct awareness-raising activities on climate change impacts and adaptation options in each of the 6 target islands. Materials will be prepared using existing experience from Micronesian Conservation Trust (MCT) and partners. Awareness will be built through integrating messaging with community workshops and meetings, especially where experiences from other Pacific communities can be documented and shared. This will help share issues and ideas between project target sites. Activities will be led by the main partner organization at each site.
- Identify and select staff of key local partners at the 6 sites in the FSM, who will lead the education and building awareness of climate change and island resilience in local communities on each island. The campaign will represent the start of a three year program on each island to build local capacity and understanding of key issues surrounding ecosystem resilience and climate change adaptation.
- Effectively monitor campaign results and knowledge/behaviour in local communities through periodic, education/community attitudes and behaviour specific knowledge surveys conducted before the campaign, as a baseline, and after the campaign to judge its impact (Linking in Activity 1.5 – design of the knowledge management system. These surveys will measure the community knowledge, attitude, and behaviours at targeted sites Information gleaned from this work and from work with the communities in general will build greater on-the-ground context for national, regional and global level policymakers.
- Organize awareness raising and training sessions on the maintenance of the particular shoreline management scheme demonstrated under Activity 2.2.
- Formulate an action plan in each atoll community for the periodic monitoring and maintenance of their shorelines.
- Explore the possibility of affecting school curriculum for participatory learning of the “Living with the Sea” concept and a beach monitoring programme (similar to UNESCO SandWatch approach).
- Organize trainings on the data collection methodologies for shoreline monitoring in accordance with the approaches defined under Activity 2.2.

- Arrange study visits of members of other States at least twice during the implementation of soft engineering shoreline management measures.
- Produce at least two project briefs for each community-based program
- Prepare local media news items about the project on TV, radio and newspaper

COMPONENT 3 -IMPLEMENTATION OF THE KOSRAE SHORELINE MANAGEMENT PLAN (2013)

This Component focuses specifically on the recommended implementation tasks that the State of Kosrae (through the Governors requests and SMP recommendations) need to prioritise. The road infrastructure interventions reflect the state wide needs as identified in the endorsed SMP for Kosrae. They also reflect the best practice climate adaptation approaches already adopted as part of the PACC Adaptation to Climate Change Pilot initiative that has taken place at Tafunsak between 2011 to 2014.
The locations where transitional interventions are proposed are shown in 4 (taken from the SMP 2013) highlighted in pink.

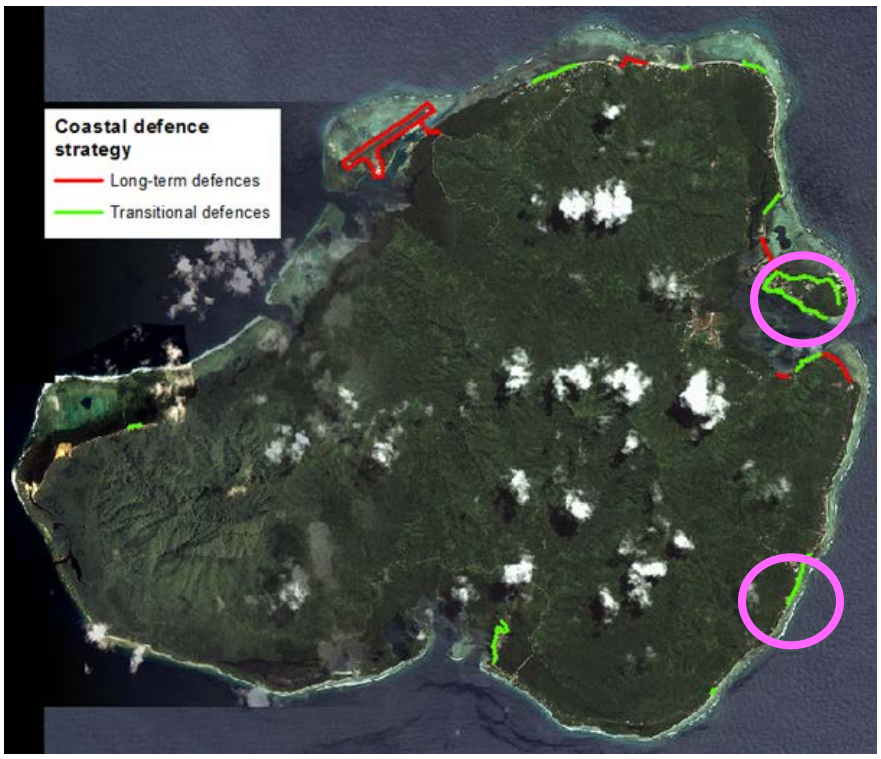

Figure 4: Proposed Intervention locations as set out within the SMP for Kosrae 2013 (source: Kosrae SMP 2013).

Activity 3.1:. *Maintenance coastal protection projects (Lelu Island as defined in the SMP for Kosrae and SDP 2013-2014)*

This activity investment shall improve the resilience to climate change for all communities living and working on Lelu Island. This investment is likely to support resilience specifically for the causeway on Lelu and hence livelihood security for the poorest communities along the causeway frontage for up to 25 years (as stated in the latest SMP for Kosrae – 2013).

Building resilience through engineering intervention at Lelu Island causeway requires maintaining the existing coastal defences when damage occurs, upgrading rock armour layers where they are currently

inadequate and improving on the wave overtopping performance as sea level rise results in higher volumes and more frequent wave overtopping of existing defences. In the short to medium term (1 to 2 generations) this may require additional crest protection, such as mass concrete upstands / wave return walls at the landward edge of the rock revetment crest. The proposed intervention is set out below for Lela Island:

Lelu Causeway (seaward)	650 m 715 yards	Upgrade armour protection of the causeway with single layer of rock armour at a 1:1 slope. A secondary layer may be required in the future as well as further crest protection such as a concrete upstand.
Lelu Causeway (Harbour – Lelu Island to Marine Resources)	245 m 270 yards	Upgrade armour protection of the causeway with single layer of rock armour at a 1:1 slope.

Activity 3.2 *Intervention A: New road section construction (Malem to Yeseng) plus access routes to the two villages*

This activity investment shall improve the resilience to climate change for communities at Malem and Yeseng by building “climate resilient transport links” that help communities to resettle away from coastal risk zone. This investment is likely to support resilience for both village communities for at least another 30 years (as stated in the latest SMP for Kosrae – 2013).

The proposed intervention is set out below for the new road construction between Malem and Yesung (see Table 5).

Upgrading the inland road between Malem and Utwe is considered the highest priority due to the risks posed due to wave overwashing and potential breaching of existing sections at Pal and Mosral. There is a very real present day risk that road access to Utwe could be cut off. The natural storm berm to the south of Malem also tends to be lower in elevation (than other areas such as north of Malem and the Pukusruk coast) resulting in the road being more prone to wave overwashing where it is exposed.

At Pal despite rock protection being extended south from Malem and further concrete rubble being dumped along the most exposed section a significant investment is required to provide adequate protection of this section in the short to medium term. At present there is a very real risk of the road being breached or damage to the power line, which is located to the seaward edge of the road. Over the next 25 years further sections of the road to the south of Pal will become progressively exposed as the shoreline continues to retreat back.

At Mosral the concrete bags that have been placed along the most exposed section to the south of the Mosral River outlet similarly do not offer an adequate standard of protection with there still being a significant present-day risk of the road being damaged. There are already signs that this section of wall is exacerbating further the rate of retreat of the shoreline to the immediate south. Over the next 25 years further sections of road to the south of Mosral to where the road bends inland at Kuplu, will become progressively exposed as the shoreline continues to retreat back. The road may also become more exposed to the north as well, if the tideflex outlet, which acts as a groyne trapping gravel being moved south, deteriorates further.

Should a severe typhoon affect Kosrae during the next 25 years, it is likely that substantial sections of the road from Malem to the south of Pal, at Mosral, and from Hiroshi Point towards Utwe could experience substantial damage irrespective of whether coastal defences are in place or not.

Table 5: Indicative costs for inland road and associated infrastructure development between Utwe and Malem. Costs are shown for upgrading/developing the inland road to both sub-base wearing course and to hot mix asphalt pavement.

Section	Upgrade existing road (m)	New road section (m)	Total to sub-base wearing course ($)	Total to Hot Mix Asphalt Pavement ($)	Power line upgrade/ installation ($)
Inland: Malem to Yeseng		2000	$746,000	$1,392,000	$38,000
Access: Malem	870		$163,000	$444,000	$16,300
Access: Yeseng	500		$94,000	$255,000	$9,400
TOTAL	**1370**	**2000**	**$1,003,000**	**$2,091,000**	**$63,700**

Activity 3.3 *Intervention B: New capital coast protection schemes (Mosral and Pal).*

This activity investment shall improve the resilience to climate change for coastal communiites at Mosral and Pal through the construction of new rock revetments by 2015. This investment is likely to support resilience through protection from coastal inundation for a further 25 years, enabling communities to continue with their livelihoods as present day yet “buy” sufficient time for the State of Kosrae to construct sufficient infrastructure inland to cater for population migration away from coastal risk areas.(as stated in the latest SMP for Kosrae – 2013).

The proposed intervention is set out below for the new capital coast protection scheme between Mosral and Pal:

Pal	160 m 175 yards	New rock revetment from the southern end of the exiting rock armour along the section where the road is critically exposed. Existing dumped concrete rubble will need to be removed. The revetment should be to the same profile as the upgraded sections to the north with a 1:3 slope, double layer of rock armour, average rock size of 0.66 m (2 feet), and a crest 3 rocks wide. Given the proximity of the road a mass concrete wave upstand wall at the landward edge of revetment crest may also be required to ensure wave overtopping is minimised, either now or sometime in the future. The new revetment will need to extend behind the existing shoreline at the southern end to prevent outflanking and further downdrift erosion. However, further retreat of the shoreline will occur at the southern end and some form of additional low reef flat breakwater may also be required to ‘stabilise’ the shoreline at the southern end of the revetment to prevent further exposure of the road.
Mosral	110 m 120 yards	New rock revetment from the outlet of Infal Mosral tideflex structure along the section where the road is critically exposed. The existing mass concrete bags can be retained with the revetment constructed seaward of them. The revetment should be at a 1:2 to 1:3 slope, double layer of rock armour, average rock size of 0.66 m (2 feet), and a crest 3 rocks wide. Given the relatively low- level of the road a mass concrete wave upstand wall at the landward edge of revetment crest may also be required to ensure wave overtopping is minimised, either now or sometime in the future. Outflanking and further downdrift erosion will occur at the southern end of the revetment and some form of additional low reef flat

breakwater may also be required to 'stabilise' the shoreline at the southern end of the revetment to prevent further exposure of the road.

Activity 3.4 *Community engagement and flood resilience programmes for Kosrae villages*

This activity shall ensure that the community feel part of the intervention measures and are made very aware of the expected outcomes and limitations of the interventions in relation to protection against typhoon and extreme weather events. Community programmes shall be designed for each intervention measure undertaken.

Activity 3.5 *Education and awareness training programmes on "Living with the Sea" principles*

This project Activity, and set tasks under it, intends to ensure that the adaptation benefits will be maintained within the project target areas beyond the project cycle. In particular, it will enhance the framework and capacity within local communities to maintain and monitor the investments delivered, especially under Activity 2.2 and mirror the approaches and tasks set out in Activity 2.4.

Given the challenges for Kosrae State Government to provide sufficient livelihood security to coastal communities, it is crucial that community involvement be encouraged and their capacity enhanced to minimize the gap between the actual and desired service delivery. Also community engagement is one of the key elements of the "Living with the Sea" principle. In particular, the capacity building sessions will be organized and offered to community groups and members that are relevant for the maintenance of the soft engineering shoreline management schemes implemented under Activity 2.2.

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.

In total, the project shall benefit (both directly and indirectly) all coastal communities in FSM. This calculates to a gross population of over 100,000 (based on 2012 population statistics). For Kosrae, all 6616 inhabitants would benefit from the interventions proposed in Component 3. In the outer atolls where intervention proposals are put forward, over 1800 isolated atoll inhabitants would benefit directly from the project (see Appendix H for Proposed project areas for intervention).

It is anticipated that the livelihood benefits shall include the creation of over 450 employment opportunities across these communities on mangrove planting schemes, coastal protection engineering support and monitoring, community engagement/business diversity opportunities. Overall, the population will become less vulnerable to the effects of climate change shocks e.g. flooding and coastal erosion, and thus livelihood security is improved. By enhancing overall coastal resilience, coastal production systems will be more sustainable and will be supporting livelihoods into the future. Households will additionally find immediate protection against coastal erosion and flood risk through improved sea and river defence risk management and through the opportunity for communities to relocate inland (through new road construction schemes) in present day and coming generations.

The project shall also take on board the following basic assumptions and interpretations with regard to gender:

- Interventions shall be assessed based on an appreciation of the extent by which the livelihood of people working along the coastal strip is negatively affected by the coastal erosion/accretion within the stipulated time horizon of the study shall be ascertained.
- Mitigating measures are to be formulated with monitoring plans put in place only in those areas where people's livelihood is presently threatened now or during the next 20 years.

For the purpose of the project the term "gender" will focus on women and children living in and deriving an income from the strip of land along the coastal zone.

Component 1 is focusing on developing the necessary Institutional Capacity for each FSM State to take forward the lessons learned from Kosrae. Component 2 is designed to support the design of an appropriate framework for taking for climate resilient coastal management, including a series of 6 adaptation measures proposed for the most vulnerable atoll communities in 3 FSM states of Chuuk, Yap and Pohnpei. Component 3 is designed to support the Kosrae State Government to implement the revised Shoreline Management Plan (2013 under review) and to ensure the new Climate Change Act and the Kosrae State Development Plan (2014-2013) are implemented effectively with the preparation of suitable regulatory support, capacity building and on the ground engineering interventions.

Socio-economic benefits are introduced through all 3 Components, however, Components 2 (intervention measures for vulnerable atoll outer islands in Yap, Chuuk and Pohnpei) and Component 3 (specific interventions for Kosrae) shall focus on deliverable and tangible "on the ground" measures which maybe used as example of best practice for later replication around the States (see Table 6 for a list of benefit types and expected outcomes as a consequence of this Living with the Sea proposal). Over 6600 inhabitants of Kosrae are likely to benefit from the intervention measures proposed (direct or indirect benefits).

Type of Benefits	Baseline	After the Project
Social benefits	• Lack of mechanism to alert deteriorating quality of beach condition and marine resources • Limited awareness about low-cost, feasible shoreline management options • Subsistence-based farming becoming increasingly difficult along the ocean side of coastal zones due to salt sprays from heightened wave energy	• Prevented erosion and protected assets in Kosrae for the next 50 years, benefitting over 6000 island inhabitants in Kosrae. • Heightened awareness and enhanced technical capacity to implement and maintain community-based shoreline management techniques • Feasibility of coastal schemes maintained/promoted through demonstration of coastal vegetation to specifically address climate resilience.
Economic benefits	• The government's tendency to opt for myopic coastal protection measures for high risk areas resulting in counter-cost-effective, suboptimal performance and maladaptation • Conventional government or community response to increasing erosion/inundation problem has been either high-cost seawall construction or low-cost but long-term mangrove plantation • Eroding/disappearing beaches negatively affects tourism potential	• 2 km of road and 1.37 km of sea defence upgraded/rebuilt on Kosrae. • 4 new soft engineering schemes set up and implemented on 4 outer atoll islands in 2 States benefitting almost 1800 inhabitants. • Increased knowledge on, and capacity to implement, a suit of soft engineering shoreline management techniques • Tourism potential promoted in those areas where beaches are nourished or artificial coral reefs are promoted
Environmental benefits	• Conventional hard engineering solutions for shoreline management are often associated with negative environmental side effects such as scouring of adjacent seabed and increased erosion in adjacent lengths of coast due to prevented surface runoff	• Soft engineering options demonstrated within this project, in particular artificial coral reefs, coastal vegetation and artificial beach recharge, are likely to improve coastal marine ecosystems and species abundance and diversity

Table 6: List of Benefits accruing from the Proposal

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

The cost effectiveness of this proposal is demonstrated through the continuity link with the PACC Pilot project being completed for Kosrae. The PACC project in FSM Kosrae has been the most ambitious and probably the most effective in pursuing a broad agenda for climate adaptation, not only in Kosrae State, but nationally in FSM and more broadly in Micronesia and the Pacific. Cost effectiveness will also be achieved through keep the professional experience of the PACC Kosrae Coordinator as a project "lead" as his close engagement of the PACC EA, KIRMA, and its Director, appear to be major factors

contributing to this success. The design of the Project Implementation Unit (PIU) in Part 4 demonstrates this link clearly. Cost effectiveness is to be achieved also through the lessons learnt that Kosrae has experienced during the challenging work packages of getting institutional and legal change initiated within the State.

The PACC project to date, in Kosrae, has not simply contributed to a series of policy drafting exercises, but has also actively facilitated collaborative programming, institutional strengthening and technical assistance work among a variety of other programs and projects concerned directly and indirectly with climate change, in FSM or more broadly. This has led to a number of important potential and actual partnerships for PACC and related climate adaptation initiatives. This work is of particular significance and relevance with regards to replicating processes to other States because of the abundance of developing programs with climate adaptation-related objectives that in taking place at the same time (e.g: PPCR work and new UNDP R2R proposals etc).

Cost savings are likely to be achieved if the same robust approaches and team ethic, that the PACC team demonstrated, is taken forward for this “Living with the Sea” proposal. The actions from Kosrae have taken the PACC project furthest towards the concept of forming a framework for climate adaptation programming in the sub-region of Micronesia, and provides a good model for the other States to follow.

The strategic approach to encourage a clear State Plan to be established, prior to any hard engineering intervention being made, is a cost effective strategy and also a sustainable one for FSM. There is no incentive to spend large sums of donor money on projects that are unsustainable (i.e.: building new seawalls to protect vulnerable atoll communities or building / upgrading an existing coast road if it is likely to be inundated by tides on an annual basis. The encouragement to support atoll communities to consider low cost soft engineering solutions, to help “buy time” for longer term transition to higher land or higher islands in FSM is understandably a sensitive issue, but one that FSM State Governors are currently discussing and planning for the longer term.

The cost-effectiveness of the Programme will be reflected at the operational level through the following approaches:

- Throughout the Programme, AF resources will be aligned with the financing and delivery of programme outputs that have competitive procurement components to ensure best value for money. In this regard, the programme will apply best practices in coastal engineering and adaptation identified by other, ongoing climate change adaptation projects in the country and the Pacific region. SPREP procurement procedures will be followed.
- This Programme will utilize existing government structures and processes for implementation. By building on existing government and institutional structures, the Programme will also harness in-kind support and contributions from offices at the national and State levels (office space, staff time, communications, etc.)
- Through the existing network of stakeholders, the results framework of the Programme, will be able to utilize existing baseline surveys of line agencies and harness existing delivery mechanisms if applicable. This will further expand the reach and replicability of outputs.
- The bulk of the Programmes funds will be directed to community-level activities and hence brings opportunities for local procurement of goods and services with it.

Indeed, the term “cost-effective” for technologies improving coastal resilience in the context of climate changes, means optimum value for money invested over the long term. Coastal defence measure options are meant to be designed for a lifespan of up to 50 years and thus this is an appropriate financial investment horizon to consider in a cost-benefit estimate. The lowest cost of m^3 or per unit length of defence measure is not always the most cost-effective over a climate-relevant planning horizon due to on-going repair or periodic replacement, particularly if construction quality is compromised to save money. In addition, with decaying defences there is some loss of protection function which can be caused by overtopping in specific locations, thus a reduced initial cost may lead to a reduction in coastal resilience.

It is important to stress that cheaper and less robust engineering techniques, poor construction quality and poor material use (e.g.: currently seen used in Kosrae) can lead to premature failure of defences very quickly. Coastal defence structures (soft or hard) that are subsequently abandoned by the users after only a few years of operation are clearly not cost-effective. Cost-effectiveness of such defence types entails the transport distance of materials between the home and the source, the protection of the source from wave inundation, the cost of maintenance of the infrastructures and all these costs are difficult to apprehend without an evaluation of all the option and the environment in which they will be build and they will operate. Thus, the costs effectiveness of the options will be guaranteed during the Programme implementation by ensuring that the building of the coastal protection techniques proposed will take in account the expectations and principles of cost-effectiveness to allow an economical and sustainable protection from beach erosion, sea level rise and increase storm inundation impacts.

The proposed investment budget outlined above will also support the acquisition of the best technical expertise to help towards full implementation, with the involvement of proven coastal engineers, coastal planners, drainage experts and supporting community stakeholders that will guide all future sea defence management in FSM. All Government staff involvement in the programme will be an “in-kind” contribution. The cost-effectiveness analysis of these options will be improved as more data become available during project implementation before the building of these technologies.

Appendix H identifies the proposed intervention areas for the programme. These were selected based on detailed consultation with National and State level stakeholders. Decisions were then taken based on a rapid assessment of options through a Multi-criteria approach mechanism. Decisions were therefore primarily made on the proposed technology options on the basis of financial effectiveness of the investment at that particular site in addition to clear recommendations as set out by the Kosrae Shoreline Management Plan (2013). However, additional factors were considered in order to make the final justification: (i) stakeholder views and perception were taken into account (see Appendix H) in terms of the local and community desires for the target areas, (ii) additional benefits (financial and social) above coastal protection / damage prevention were also considered such as stabilising and establishing livelihoods and provision of new productive resources.

Thus, cost effectiveness tailored to the local stakeholder situation was used to define the proposed areas, islands and technologies. The specific amount of damages that might be avoided by any one option will be dependent on how and where the proposed intervention measures are actually implemented, as well as the characteristics of any particular storm event that is being designed for. It cannot be assumed at this time, that all options are equally effective in damage avoidance as some options rely on physical processes that are known to be less effective at dispersing wave energy. Some of the less expensive options (e.g., mangrove replanting) would most likely avoid less than 10% of damages, while the more expensive options (e.g.rock revetment work at Lelu Island, Kosrae) could potentially avoid more than 25% of damages.

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.

The proposal is fully compliant with the newly endorsed Policy on Disaster Risk management and Climate Change Adaptation (2013). This supersedes the 2009 Climate Change Policy which needed updating to reflect the importance of DRM, as Micronesia is one of the nations’ most vulnerable to climate change and sea-level rise. Scientific experts believe that the impacts of climate change have already begun with rising sea levels and more extreme weather events. These impacts have damaged and sometimes destroyed crops, homes, roads and other infrastructure. The FSM Government anticipates that these impacts of climate change will even require relocation of Micronesians living on outer islands. Further, through consultations during development of the State-wide Assessment and Resource Strategy

2010-2015, all four States identified climate change as posing a threat to food security, especially as a result of sea level rise. Agroforestry was suggested as a way to maintain ecosystem integrity while producing food, while preserving agro-biodiversity (the species and sub-specific varieties of traditional crops) could provide genetic resilience in the face of climate change. However, the vulnerability of outer islands to sea level rise makes this a significant challenge to implement; for example, mapping shows that Yap's most fertile alluvial soils are all vulnerable to salt water inundation.

FSM signed the Hyogo Treaty on 17 March 1998, though this has yet to be formally ratified by the Secretariat. FSM has, however, ratified the UN Framework Convention on Climate Change (UNFCCC) on 18 November 1993, and has submitted its Initial National Communication (INC) to the UNFCCC on 02 October 1997 and an addendum on 22 February 2000. The country has also initiated efforts to create an institutional set-up that seeks to mainstream climate change issues into the national legal frameworks. The project is fully aligned with FSM Strategic Development Plan, specifically to "protect, conserve, and sustainably manage a full and functional representation of marine, freshwater and terrestrial ecosystems".

To this end, the Kosrae State Government has recently passed a Climate Change Act that seeks to address the issue in a long term manner. With regard to Kosrae, the work proposed in Component 3 is consistent with the States new Strategic Development Plan (2014-2023). In particular, Chapter 3 (Development Strategies) includes a specific sub section on the "Environment". Result 1 of that sub-section is that the "impact of coastal erosion is minimised". The objectively verifiable indicator (OVI) for that result is that "By 2023, coastal erosion is adequately addressed, through promotion of community resilient and relocation strategies and with enhanced awareness of underlying issues and causes of increasing hazards". A series of costed activities are presented, one of which states that "climate proof measures integrated in the Coastal Management Plan are implemented". Component 3 addresses this issue specifically for Kosrae.

The project is also well aligned with the GEF's Programme Framework Document for the regional programme "Pacific Islands Ridge-to-Reef National Priorities – Integrated Water, Land, Forest and Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods". This project is to focus specifically on "high islands" whereas the "Living with the Sea" proposal coves national institutional improvements and pilot site interventions using soft low cost coastal engineering techniques (see Appendix E) on 6 low lying atoll islands.

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.

The project reflects the strategic goals of the 2004 National Strategic Development Plan (SDP) with regards to the Environment namely to *"develop and implement integrated coastal environmental and resource management plans to enhance resilience of coastal and other ecosystems to extreme hazards exacerbated by climate variability and sea level rise"*. With the exception of Kosrae, other States have not yet adopted coastal resource management plans to assure coordination and successful resource management. The SDP states the requirement for *"coastal management plans developed for four state centres by 2008"*. This has not been achieved as yet, though this project shall help to deliver its expected output. In addition, the NSD Plan states the request to *"Integrate considerations of climate change and sea-level rise in strategic and operational (e.g. land use) planning for future development, including that related to structures, infrastructure, and critical assets supporting social and other services"*. The main focus of the project is to build resilience into national and State wide planning and development through "climate proofing" existing investment/infrastructures as stated in the SDP. The AF funds will be sought to implement the CC proofing investment required and its added cost.

National technical or engineering build standards for the coast are not established for FSM. However, the national commitment to climate change adaptation is declared through the supporting work of PACC on Kosrae which is planned to be up-scaled for the other 3 States in Component 1. Introducing a series of new building technical standards for FSM, coupled with a Guidance Manual on the construction of

Ecosystem Based Adaption (EBA) measures for the coast is identified as a core activity in Component 2 (plus the recommendation for State specific Shoreline Management Plans to be produced for each State).

In order to address the above, each State shall take forward and be encouraged to replicate the procedures and standards set by Kosrae in terms of setting new climate resilient EIA regulations. This shall help to deliver (at a national level) the expectation to deliver and implement long-term plans for dealing with the impacts of climate change, including the development of integrated environmental and resource management objectives that enhance resilience of coastal and other ecosystems to natural hazards; identification of structures, infrastructure, and ecosystems at risk and explore opportunities to protect critical assets; "climate proofing". Outputs shall include existing facilities and infrastructure "climate-proofing" assessments and improvement plans developed for all States.

Through the PACC Kosrae initiative, this proposal shall be able to build on the leadership already demonstrated through the facilitation of new policy: following an intense 2-year process the Kosrae State Code was amended with ratification of the Kosrae Climate Change Act 2011, under which all new infrastructure developments, especially roads and buildings, are required by law to take climate change into consideration, in design and construction. Through the recently updated and “climate proofed” Shoreline Management Plan (2013), Kosrae intends to use this proposal to apply and implement the new State legislation in Kosrae; and also to use the Kosrae legislation as a “model” for the other three FSM States, and also more widely in the region. Also under the 2011 Act, Kosrae State, guided by the PACC project, has opted to regulate climate change adaptation by means of modifying their Environmental Impact Assessment (EIA) system. EIA experts from SPREP conducted workshops in FSM, in 2011 and 2012, for the SLM and PACC projects; with the objective of designing the EIA regulations.

Regarding environmental standards, the National and State governments have all enacted legislation requiring Environmental Impact Assessments (EIA) for development activities. However, EIA legislation is only randomly enforced, and in some cases, especially for large government projects, has been waived or ignored in the past. Often the cost of doing a development project the right way costs more than the government has available for the project. This situation frequently leads to decisions to go ahead with projects anyway, leading to unacceptable negative impacts on natural ecosystems and loss of ecosystem benefits to local communities in the vicinity of development projects. The real costs of environmental impact shall therefore be fully assessed for all pilot projects proposed and decisions made shall be based on the real costs of the development, both current and future, in terms of its impact on the natural environment.

The Kosrae State EIA process shall be adhered to for the remaining 3 States. Specific EIAs for each proposed intervention shall be undertaken in year 1 of the programme prior to the commencement of any engineering works (identified in Component 3). The EIA shall ensure compliance to the two new guidance standards for roads and coastal protection measures (see Appendices C and D) and a clear report identifying the implications of different climate change scenarios for specific development purposes shall be included...

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

All efforts have been made to ensure that existing or pending project/programmes offer complementarity and additionality is offered through this proposal. The project will ensure coordination with the initiatives under the SPCR, PPCR, GCCA, PACC (due to be complete by end of 2014) and GEF-SPA projects. Given Kosrae as the pilot site for the current PACC project, the AF proposal will be complementary to other donor initiatives as it represents a State (Kosrae) initial baseline pilot which can then be used to replicate to the islands in FSM. SPCR PPCR Regional Track has recently (January 2014) concluded its Inception Meeting and a “Situation Analysis for Kosrae” assessment shall be undertaken from March 2014 onwards. The intention is to identify existing and planned CCA and DRR activities in Kosrae with the view to complementing and not duplicating those activities identified within this AF proposal. The format and content of the PPCR knowledge and information system is yet to be

defined and an opportunity is presented to work together with this project in the development of the system (as part of Activity 1.5).

SPCR and PPCR projects will in the context of the Situation Analysis be closely aware of and communicating with the PACC and OEEM, members of each will be on the national steering committee for SPCR (hence close synergy between the projects ensured). There will thus be no overlap, but rather excellent opportunities for maximum synergies and also development of complementary additional activities. New GCCA activities for FSM will be discussed in a June 2014 meeting, and regional coordinator will be informed of SPCR and AF proposed activities so as to form partnerships and avoid overlap. SPREP will have a GCCA funded adviser who will be appraised of the issues. Therefore, the "Living with the Sea" project (this project) differs significantly in that it shall provide valuable coastal process related information and vulnerability analyses to help prioritise the precise locations for coastal protection intervention (Component 2 – Activity 2.1). With regards to Components 2 and 3, the pilot intervention areas for this project shall align well with the outcomes of the PACC project which has focused primarily on seeking to put forward clear demonstrable climate change adaptation programmes, such as the Tafunsak road realignment programme on Kosrae (2011-2014). FSM shall make good use of AF funds to "climate proof" investments in infrastructure (i.e.: *full costs of adaptation as additional resources required to build climate change resilience)*, in a complementary way to that being adhered to within the existing PACC project for the State of Kosrae. It shall therefore be used to fund the added cost of "climate proofing" infrastructures in the three remaining States of FSM in addition to the new proposed adaptation measures proposed in Component 3 (specific for Kosrae).

The recent ADB funded initiative entitled "Implementation of the Strategic Program for Climate Resilience: Pacific Region – SPCR" is a parallel initiative whereby Kosrae is selected as a pilot example of climate resilience. The Pacific has been invited as one of two vulnerable regions (the Caribbean being the other) to participate in the Pilot Program for Climate Resilience (PPCR) under the Strategic Climate Fund, a multi-donor trust fund within the Climate Investment Funds. The PPCR aims to help countries transform to a climate-resilient development path, consistent with national poverty reduction and sustainable development goals. This regional capacity development technical assistance (TA) is intended to support implementation in FSM during 2014 onwards. The regional component of PPCR shall complement the work to be completed through the Living with the Sea project as it is comprises a pilot project to support the mainstreaming of climate change adaptation in national development plans. It is anticipated that the good work being proposed using AF resources shall feed directly into the regional mainstreaming work being taken forward under PPCR (i.e.: Guidance manuals – see Appendices C and D).The Secretariat of the Pacific Regional Environment Programme (SPREP) will be engaged by ADB, through single source selection, to manage the program. As such, SPREP will have responsibility for the daily management of program implementation and for providing the required technical advice for CCA and DRR mainstreaming. With SPREP proposed as RIE for this AF project, the risk of duplication of effort is clearly mitigated against.

GCCA Pacific Small Islands Stes (funded by the EU) "Increasing Coastal Food and Water Security for Climate Change in Selected FSM Islands is a key relevant project. This project has yet to start in earnest, though an initial workshop was held on 24 October 2013 to identify areas if intervention (finalise the log frame etc). In addition, one of the significant partnerships formed by the PACC project (through the Kosrae) Coordinator is with the SPC-GIZ CCCPIR project, with the objective of updating and up-grading Kosrae's 2000 Shoreline Management Plan, including advice and guidelines on coastal adaptation actions for Kosrae. This has been completed, and the lessons learned from that exercise shall be instilled into this project to help in the production of future SMPs for the remaining 3 States.

Under the Infrastructure Development Plan (2004-2023), prepared by the Dept. of Transport, Communications & Infrastructure, the Kosrae Circumferential Road was identified as a national priority and investment needs and options were presented. The Compact of Free Association provides for investment in road infrastructure under the Infrastructure Sector Grant. The State of Kosrae has identified the circumferential road as one of the projects to be funded under the Infrastructure Sector Grant. However, the Joint Economic Management Committee (JEMCO) consisting of three representatives of the US Government and two representatives of the FSM Government which overseas the management and utilization of sector grants under the Compact of Free Association prioritizes

education and health infrastructure projects. With the exception of the road project in Weno, Chuuk, which was prioritized because it includes replacing the aging water and sewer systems, other road infrastructure projects in the FSM that have been submitted for consideration by JEMCO have been placed on the "back burner". The current priority focus for JEMCO for the use of the Infrastructure Sector Grant is on education and health infrastructures such as schools, education centres, hospitals, community health centres, dispensaries, and anything related to social infrastructures

Finally, UNDP are in the preliminary stages of setting up a Project Preparation Grant (PPG) for the "Implementing an integrated 'Ridge to Reef' approach to enhance ecosystem services, to conserve globally important biodiversity and to sustain local livelihoods in FSM". The objective of this project is to strengthen local, State and National capacities and actions to implement an integrated ecosystems management through "ridge to reef" approach on the High Islands of the four States of the FSM. This is a multi-focal area proposal which is focused on biodiversity conservation initiatives commencing from FSM's ridge to its surrounding reef. It also cuts across the focal areas of sustainable land management (SLM) and international waters. The objective of the project is to conserve biodiversity, enhance ecosystem services, improve climate resilience and sustain livelihoods in the FSM using a ridge-to-reef approach. It has two components namely: (i) Integrated ecosystems management and rehabilitation on the High Islands of FSM to enhance ridge to reef connectivity; and (ii) Management Effectiveness enhanced within new and existing Protected Areas on the High Islands of FSM as part of R2R approach (both marine and terrestrial). This work will complement the work proposed in this AF proposal especially when considering ecosystem based shoreline management practices in the 4 States. This is important as marine and terrestrial biodiversity and ecosystem services underpin the economy of the Federated States of Micronesia and are vital to food security. However, these resources and services are currently being undermined by unsustainable resource use practices and overharvesting of resources, spread of invasive alien species and the impacts of climate change.

The holistic "ridge to reef" management approach, is adopted to complement the "Living with Rivers and the Sea" concept (which focuses directly on risk management from coastal and river flooding, erosion and inundation). The UNDP project will promote an integrated approach towards fostering sustainable land management and biodiversity conservation – seeking to balance environmental management with development needs and seek to reduce conflicting land-uses and improve the sustainability of upland and mangrove forest and wetlands management so as to maintain the flow of vital ecosystem services and sustain the livelihoods of local communities.

Other initiatives or programmes of relevance in FSM are included in Appendix G.

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

The Nationwide Climate Change Policy (2009) (now superseded with the latest FSM 2013 Climate and Disaster Management Policy) sets out both mitigation and adaptation strategies. It commits to address adaptation needs through a framework in which "all development activities in FSM take into account projected climatic changes in the design and implementation as stipulated in the FSM Strategic Development Plan/Infrastructure Development Plan." It advocates use of an ecosystem-based approach where applicable; strengthening the application of traditional knowledge in conservation practices; and the development and implementation of appropriate strategies to improve food production. It also calls for the integration of climate change into other policies and strategies, including those related to disaster preparedness.

Likewise, the State-wide Assessment and Resource Strategy 2010-2015 promotes food security through agroforestry, and coastal stabilisation as specific responses to climate change. It requires strategies be developed to address sea level rise in the outer islets.

The PACC project in Kosrae has completed a thorough knowledge management and learning programme to communicate the findings of the project thus far. Through a range of techniques, and presented clearly within the PACC Project Communications Plan, there has been success in raising the visibility of the PACC project to key supporting partners, key Gov., NGOs and CBOs in Kosrae and

promoting the understanding of the role of PACC in Kosrae and the FSM. The communications plan has also:

1. Integrated PACC with other climate-related programs and projects in FSM;
2. Enhanced collaboration and partnerships with key stakeholders in Kosrae;
3. Raised interest of media in reporting on PACC-related issues (i.e. climate change issues);
4. Changed attitudes/behaviour toward use of resources and infrastructure planning (i.e. cutting of mangroves, placement of homes, building infrastructure) as it relates to climate change.

The programme proposes a series of complementary capacity building activities that help to improve knowledge management and to capture/disseminate lessons learned as follows:

a) Output 1.4: specific training support to help implement the "Living with the Sea" Climate Resilient Coastal Protection Manual for each State. Particular focus on implementers of environmental regulation/land use regulations in each State (see Appendix D).
b) Output 2.3: specific training support to help implement the new Roads Standard within each State. Particular focus on engineers and contractors who are responsible for the delivery of climate resilient road schemes on the ground in addition to planners and decision makers within each State (see Appendix C)
c) Output 2.4: Education and awareness programmes on "Living with the Sea" principles for all 4 FSM States will involve a more "community focused" series of awareness and training events that shall be focused on different gender and community aspects. Simple self help and support programmes shall be designed including localised monitoring approaches and "cash for work" support programmes as appropriate.

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 approach to consultation shall mirror the effective work undertaken by the PACC team in Kosrae. Regarding community engagement a different approach has been taken: rather than engaging people only in the immediate issues at the selected pilot site, the PACC Kosrae project team has organised briefings, seminars and activities for the whole of the island State community, targeting schools, leaders, men and women's groups, and covering the broader issue of Kosrae's climate change vulnerabilities and strategies for adaptation and building resilience. This approach seems to be working well and provides a good foundation for an inclusive longer-term adaptation & resilience program or campaign. To this end, it is proposed that this proposal undertakes a similar approach, designed clearly through a project specific Communications Plan that shall be prepared within the first month of the project. The experience from the PACC Kosrae coordinator is planned for this initiative to ensure continuity of message across all States of FSM.

Table 7 below outlines the names of key stakeholders consulted with during December 2013 (see also Appendix A) and their likely role in the implementation of the project.

Stakeholders	**Project Implementation Role**
Office of Environment and Emergency Management (OEEM)	This Office will facilitate functioning of the Project Implementation Unit (PIU), especially in regard to liaison with government authorities from different sectors.
Department of Resources and Development Division of Resource and Development, Agriculture Program and Marine Program	This department will take the lead coordinating role in the development of the Shoreline Management Plans in the 4 States ensuring standardization and quality. It will also take the lead in the coordination of the development of a standardized reporting and monitoring system, as well as in the development of a national Living with the Sea management information system.

State Government Departments including Chuuk State: Department of Agriculture, Department of Marine Resources; Pohnpei State: Department of Land and Natural Resources, Department of Public Safety; Kosrae State: Kosrae Island Resource Management Authority; and Yap State: Department of Resources and Development	These State Government Departments will take the lead developing the Shoreline Management Plans for the individual States. They will also be responsible for the establishment of land use planning areas and undertake, with the assistance of the NGOs, the consultations with the communities required in the process. The soft engineering Pilot Projects will be overseen by these departments and some pending availability of manpower even undertaken by the departments. These departments will participate in capacity development exercises, both in terms of developing the capacity in consultative processes. They will also play an important coordinating and implementing role in the monitoring and information gathering regarding sustainable coastal management practices
State Agencies responsible for Environmental Quality: Environmental Protection Agencies of Chuuk, Yap and Pohnpei and the Kosrae Island Resource Management Authority	These agencies have 4 main areas of responsibility: Pollution Control, Pesticides and hazardous chemicals, Public education and awareness; and Water Quality. Their involvement with the project includes interaction with the land owners, mainly through awareness raising and education of the coastal hazards caused by current practices and they will also be involved in the shoreline monitoring of lagoon water around the atoll islands.
Chuuk Conservation Society (CCS)	The mission of CCS is to 'preserve and protect Chuuk's natural resources to sustain community livelihoods by working with community partners'. It will participate in the capacity development for coordinated SMP actions on the outer atoll islands. The CCS will be involved in the community consultation in the selection and implementation of the soft coastal engineering techniques in Chuuk, partnering with communities and the Chuuk State, and undertaking ecosystem restoration activities on the main islands of Chuuk. CCS will also participate in the capacity development programme.
Conservation Society of Pohnpei (CSP)	The CSP was founded in 1998 by a group of concerned citizens and is the premier conservation organization in the FSM. CSP aims to increase community involvement in the conservation and management of Pohnpei natural resources; to build local capacity through public and private partnerships; to develop alternatives to unsustainable practices; and to promote law and policies that support these objectives. CSP will form part of the Multi-sector planning committee that will collaborate in developing the integrated land use plan for the main islands of Pohnpei. It will participate in the capacity development for coordinated SMP actions. CSP will be involved in the community consultation in the selection and implementation of the soft coastal engineering techniques in Pohnpei, partnering with communities and the Pohnpei State, and undertaking ecosystem restoration activities on the main islands of Pohnpei. CSP will also participate in the capacity development programme.
The Micronesia Conservation Trust (MCT)	The MCT is a regional organization chartered under FSM law to support biodiversity conservation and related sustainable development for the people of Micronesia. The MCT is set up as a private cooperation with a governing board of 9 members, including members from national, State, and municipal governments, NGOs, business, and academic institutions. The Board members represent the two major eco-regions of the Micronesia – the low islands (coral atolls) and the high islands (volcanic islands). The MCT is working to mobilise funding from a variety of public and private sources to build an endowment of US$ 20 million to provide long-term support for sustainable biodiversity resource management in Micronesia. The MCT will be involved in providing long-term grants and ensuring

	sustainability of funding for soft coastal engineering schemes and ecosystems restoration.
Yap Community Action Program (YapCAP)	The YapCAP helps ensure that development and infrastructure projects at the community level are consistent with the State's overall development goals and policies. Their power includes (i) promoting, encouraging and implementing development projects at the community level; (ii) adopting and enforcing rules and regulations; and (iii) receiving, coordinating and administrating grants and funds on behalf of the Yap State. YapCAP will form part of the Multi-sector planning committee that will collaborate in developing the integrated land use plan for the main islands of Yap. It will participate in the capacity development for coordinated SMP action. The YapCAP will be involved in the community consultation in soft coastal engineering scheme establishment, partnering with communities and the Yap State, and undertaking ecosystem restoration activities on the main islands of Yap. YapCAP will also participate in the capacity development programme.
Kosrae Conservation and Safety Organization (KCSO)	KCSO's mission is to sustainably manage and protect Kosrae's biodiversity and natural heritage through community engagement. KCSO will form part of the Multi-sector planning committee that will collaborate in developing the integrated land use plan for the Kosrae Island. It will participate in the capacity development for coordinated SLM action. The KCSO will be involved in the community consultation, partnering with communities and the Kosrae State, and undertaking ecosystem restoration activities on the Kosrae Island.
Local Community Groups	Local communities will be the primary agents to manage community protected areas and also in local agro-ecosystems management. Local leaders (both formal and traditionally) will play key roles in ensuring local protected area declaration, whilst local farmers groups/fishers groups, women's groups, youth groups etc. will also play key roles in different aspects of conservation planning, implementation and also in landscape management. Community Groups will form part of the Multi-sector planning committees that will collaborate in developing the integrated land use plans for the High Islands of the FSM. Local communities will be directly involved in the management and rehabilitation of critical habitats.

Table 7 Stakeholders Relevant to the Proposed Project

The proposal is also aware of the need for gender integration which must be inculcated into any future engineering related projects in FSM. The approach is designed to ensure that it takes on board the following basic assumptions and interpretations with regard to gender:

- Interventions shall be assessed based on an appreciation of the extent by which the livelihood of people working along the coastal strip (or watershed flood risk area) is negatively affected by the coastal erosion/accretion within the stipulated time horizon of the study shall be ascertained.
- Mitigating measures proposed shall be formulated and monitoring plans put in place only in those areas where people's livelihood is presently threatened now or during the next 20 years.

For the purpose of this proposal, the term "gender" shall focus on women and children living in and deriving an income from the strip of land along the coastal zone.

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

US$9,380,000 is requested for this proposal. This amount is justified for the following reasons. The relevance and effectiveness of the PACC project in Kosrae have been limited by the early decision to "climate proof" new sections of the island's coastal road, rather than develop a broader strategy to plan and demonstrate effective climate adaptation measures in coastal zone management. Consequently, the lessons learnt from Kosrae are clearly reflected in the design of the 3 project components for this "Living with the Sea" proposal. There is a strong incentive for the States of Pohnpei, Yap and Chuuk to adopted the model approach taken by Kosrae, to ensure that all necessary legislative and regulatory support work is undertaken, coupled with the production of a "climate proofed" Shoreline Management Plan for the State, prior to any major investment programmes. In Kosrae, "climate proofing" roads has taken place and some very useful experiences and capacities are being developed in the process. Road design is taking into consideration new meteorological data sets on climate precipitation and extreme flash flood expectations on Kosrae. This has required larger drainage culverts and a raised road base to be specified. Despite this, there now needs to be a period of "standard setting" as there is no overall design guidance manual for these works and no available documentation of how climate change modelling statistics and data can be applied, plus what engineering standards need to be used to determine culvert specifications, etc.

Budgets are assigned (Component 3) for Kosrae to take forward key actions as defined in the SMP. This (importantly) defers the decisions originally considered in terms of constructing a complete circumferential road around Kosrae. Instead, focused attention is placed on providing improvements to road systems inland to help enable long term transition movements of coastal communities to higher ground. This reflects the requirements set out in the Kosrae SDP (2013-2024) and the updated SMP (2013). As no other State has similar documents in place, no budget is assigned to major schemes until such documents (supported by new State wide legislation is formulated and put into place).

Despite this, the proposal does propose short term intervention advice for 6 outer island atoll communities in the States of Yap and Chuuk where immediate support and advice is needed to help enable the "transition" from immediate self-help to long term relocation to higher islands. The proposal is very cognisant of the logistical challenges and costs associated with travel to outer islands (based on lessons learned from SPC and GCCA projects). Therefore, a suitable budget is allocated to Component 2 that ensures that fall back measures (such as chartering survey ships in the region) could be used to help ensure delivery of the intended soft engineering projects proposed (NB: at the tie of writing this proposal the Yap State boat that was scheduled to travel to outer islands on a typhoon Haiyan reconnaissance mission was cancelled due to ship maintenance needs).

Kosrae now needs to have its SMP implemented building on the approaches adopted by the PACC project. The proposal is designed to help communicate the experience and knowledge gained from Kosrae (PACC) to formulation of a comprehensive long-term climate adaptation strategy for FSM (each of the four States), as a framework within which multiple agencies and projects can work efficiently and effectively, subsidiary to the National Climate Change Policy (2009).

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

Generic Sustainability

Sustainability is an integrated part of the project design, although it is not intended that the project, in and by itself will establish a sustainable climate resilient risk management framework. Regarding political and institutional sustainability, the project has strong government support at national and State levels. Various stakeholders from the government and civil society were involved in the initial consultation process and (see Appendix A), and several of those agencies are keen in carrying forward the implementation of the top identified priorities (i.e.: coastal erosion).

The long-term viability and sustainability of the project will also depend greatly on the extent to which national institutional capacities can be built through the implementation of the engineering pilot activities (Component 2). This will be achieved through capacity building at all levels (see Activities 2.3 and 2.4)

and climate resilient development rather than viewing the project as a short term activity. Institutional linkages will be strengthened (Component 1) and community based adaptation measures will include innovative mechanisms for sustainable livelihoods, which in turn will enhance the sustainability of project outcomes (Activity 2.2). The capacity building components of the project will empower stakeholders at all levels, from community members to State policymakers, all with a greater understanding of climate change risks, adaptation options and enhanced adaptive capacity. A number of measures are planned, to set the grounds for ensuring long-term institutional, political and financial sustainability. A phased approach will enable interventions to be scheduled within the absorptive capacities of existing institutions.

A key strategy of the project in engendering institutional sustainability is to create partnerships at State levels and between national institutions. The strategy is expected to greatly enhance prospects for assuring institutional sustainability, building on existing regional competencies. Training at the community level will be supplemented through participation in workshops, information exchange between communities and institutions, to be facilitated by the project management unit. The cultural sustainability of the project activities will also be ensured through community participation in the design and implementation of atoll island specific interventions bespoke coastal defence structures using local materials and other livelihood activities. During consultations with local FSM coastal communities, community members expressed strong interest in climate resilient livelihoods and measures to reduce vulnerability from increasingly frequent extreme climate events.

Institutional Sustainability

This is important at local, State and national levels. At local levels, the main measures in the project design to achieve this are: training for local island communities; supporting existing agencies and experts; empowering communities and decision-makers; and; strengthening existing consultation and decision-making structures. AF resources will build on existing organisations (local governments) and processes. At the national level, although the stakeholders and issues are different, the approach to assure institutional sustainability is the same. Awareness raising initiatives to secure political commitment, and the direct involvement of several Ministries can help ensure that commitment as will the dedication of the OEEM. The involvement of OEEM shall give the political robustness it deserves for successful implementation.

Financial/Economic Sustainability

This is a particular challenge. Although many coastal protection measures are low cost or no-cost, many others are high to medium cost. Moreover, many coastal protection measures require ongoing maintenance, which can only be achieved if there is sufficient local organisational capacity.
The project takes many steps to achieve financial and economic sustainability. First, the measures to be demonstrated are to be achieved at costs which are largely affordable in FSM (and use local materials where possible). By building capacity to undertake all steps in constructing these measures locally, this will further lower the cost of these measures – all capacity will be available locally. Further, the project will build local organisational capacity to demonstrate that, in the complex FSM context, communities can maintain the physical constructions.

Another step taken by the project is to build capacity in FSM to mobilise financial resources to coastal protection. Elements of this include (i) strengthening data and information management capacity, so that future designs can be improved and better targeted; and (ii) developing capacity to prepare proposals and designs, notably economic analysis capacity. It is important to note that the 'demonstration' aspect of the project has implications for sustainability. In part, the project aims to demonstrate innovation, and to capture lessons learnt. Both of these are processes which require ongoing financing. Once something has been 'demonstrated', it does not require demonstrating again, so the costs associated with demonstration can be one-off (and do not need to be recovered).

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

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	The Project is in compliance with all applicable FSM and international law
Access and Equity	X	Any new coastal protection schemes need to ensure through the EIA process that it does not impede access to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, and land rights
Marginalized and Vulnerable Groups	X	The interventions proposed do avoid imposing any disproportionate impact on marginalized and vulnerable groups including children; women and girls; the elderly; disabled people;
Human Rights	X	The proposed interventions l respect and where applicable promote international human rights
Gender Equity and Women's Empowerment	X	Training events are designed to ensure that both men and women shall equally be able to participate and be rewarded with equal benefits
Core Labour Rights	X	Core labour standards shall be applied to when appropriate as identified by the International Labour Organization
Indigenous Peoples	X	All applicable international instruments relating to indigenous peoples shall be adhered to with regard to any coastal protection scheme developed.
Involuntary Resettlement	X	Should coastal village relocation be implemented, displaced persons shall be informed of their rights, consulted on their options, and offered technically and economically feasible resettlement alternatives or fair and adequate compensation
Protection of Natural Habitats	X	Habitat protection is at the forefront of the programme (reef/seagrass/mangrove/wetland etc).
Conservation of Biological Diversity	X	The programme is designed to avoid any significant reduction or loss of biological diversity or the introduction of known invasive species
Climate Change	X	The programme is designed to ensure there is no significant increase in greenhouse gas emissions or other drivers of climate change
Pollution Prevention and Resource Efficiency	X	The programme is designed to ensure that it is designed and implemented in a way that meets applicable international standards for maximizing energy efficiency and minimizing material resource use, the production of wastes, and the release of pollutants
Public Health	X	The programme shall be designed to ensure it avoids significant negative impacts to public health
Physical and Cultural Heritage	X	Compliance to the current EIA process shall

		ensure there is no alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level
Lands and Soil Conservation	X	Compliance to the current EIA process shall ensure that the programme promotes soil conservation and avoids degradation or conversion of productive agricultural lands

Table 8: Checklist of Environmental and Socaial Principles as set by the Adaptation Fund ("X" denotes that no further assessment or management input required)

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

The Project implementation arrangements are set out in Figure 5 below.

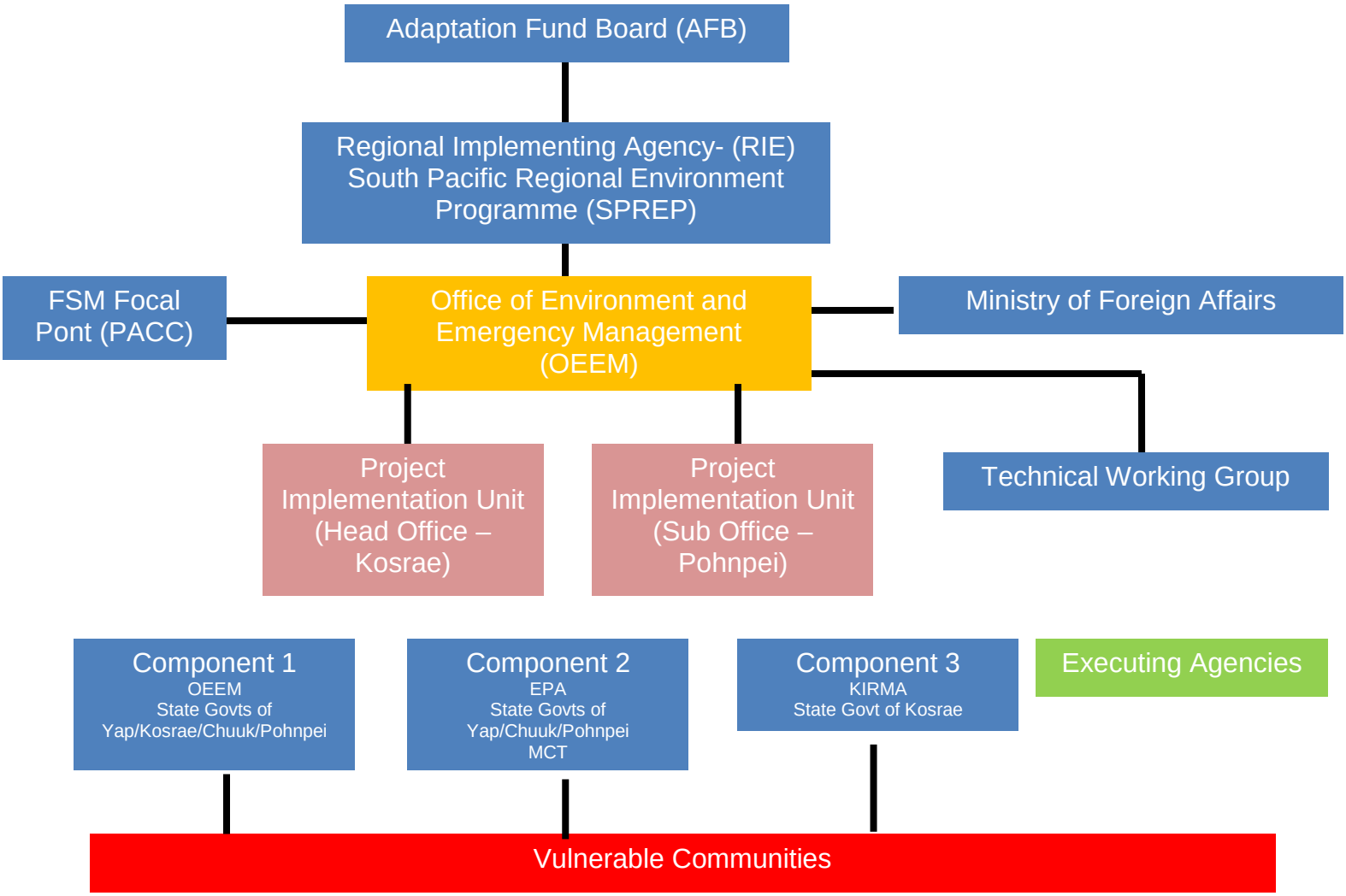

Figure 5: Indicative Organizational Outline

It will be implemented through SPREP (being a Regional Implementing Entity for AF), with the Office of Environment and Emergency Management (OEEM being the central coordinating body for climate change activities in FSM) serving as the designated national executing agency ("*Implementing Partner*") of the project. OEEM will have the technical and administrative responsibility for applying AF inputs in order to reach the expected Outcomes/Outputs as defined in this project document. OEEM is responsible for the timely delivery of project inputs and outputs, allocating resources in an effective and efficient manner, and in this context, for the coordination of all other responsible parties, including other line ministries, local government authorities and/or agencies.

Upon the request of the Government of FSM, SPREP will serve as the Regional Implementing Agency (RIE) for this project. Services that SPREP will provide to the Implementing Partner in support of achieving project Outcomes are outlined in Appendix G. SPREPs services will be provided by staff in the Multi-Country Office (Samoa).

A **Project Board** (PB), responsible for approving key management decisions of the project and will play a critical role in assuring the technical quality, financial transparency and overall development impact of the project, will be established as soon as this project is approved. The PB will be composed of designated senior-level representatives of the OEEM, State Government representatives and other key stakeholders as outlined in Part II/Section H of this project document. A complete list of PB members and their designated alternates will be provided in the initial project inception report.

The CEO of OEEM will be appointed as the **National Project Director (NPD)** and will be responsible for ensuring the overall smooth implementation of the project in line with planned project objectives and outcomes as identified in this project document. The NPD will provide strategic support as needed to the project, particularly to ensure strong engagement from key national and local stakeholders and ensure that members of National Environment Coordinating Committee (NECC), comprised of CEOs of line Ministries/Departments, are fully informed of the high-level policy objectives of the project. The costs of the NPD role will be borne by the Government of FSM as in-kind contribution to the project.

National Project Manager (NPM) will be a dedicated professional designated for the duration of the project and report to NPD. The NPM's prime responsibility is to ensure, under the overall guidance from the PB, that the project produces the results specified in the project document to the required standard of quality and within the specified constraints of time and cost.

The NPM will be supported by a core team of technical and support staff forming the **Project Implementation Unit** (PIU) located within the OEREM to execute project activities, including day-to-day operations of the project, and the overall operational and financial management and reporting. PMU will comprise a full-time island coordinator, initially based in Kosrae and an administrative/financial assistant. A "satellite" support office shall be set up within the office of SPC in Pohnpei with a separate administrative assistant based there for national coordination purposes. The PIU will work closely with the State Governments of all 4 States in FSM, to ensure that the coordination with other donor or publicly funded initiatives toward achieving national priorities is ensured (eg: direct links with the EU-GCCA and PPCR projects to be based in Pohnpei). A local coordinator will be recruited as a full time staff to oversee progress of technical project components under the guidance of the NPM. Following the project start in Pohnpei/Kosrae, a **Technical Working Group (TWG)** will be formulated for the duration of this project, comprising of national experts from different States and Departments (e.g.: Dept of Public Works and EPA), to assist the PIU on the technical dimensions of the project execution. The TWG shall be chaired by the NPM and shall meet on a fortnightly basis. The National Climate Change Committee (NCC) represented by State Governors and of key line ministries will be kept abreast of project progress and challenges through the representation of CEO in the NCC as well as vertical reporting from respective officers in TWG.

Project assurance: A Country Development Manager (CDM) located in Pohnpei, FSM and Multi-Country Office located in Pohnpei, will support project implementation by assisting in the monitoring of project budgets and expenditures, contracting project personnel and consultancy services, and subcontracting and procuring equipment at the request of the FSM Government. On the technical side, the CDM and SPREP will monitor progress of project implementation and achievement of project outcomes/outputs as per the endorsed project document. A designated Programme Officer will be assigned in the MCO to provide financial and technical monitoring and implementation support services.

The proposal seeks to be submitted through SPREP, who is now a Regional Implementing Entity (RIE) of the Adaptation Fund Board. Therefore, it can be proposed as a suitable MIE (similar to UNDP). The Government of FSM will ultimately decide whether to go with UNDP, SPC or SPREP, through a couple of options are proposed for this proposal.

The existing PACC Project Management Unit (PMU) shall be in operation up to the time of PACC funding termination (December 2014). It is proposed that the same structure of PMU is proposed for the project, adding to it with staffs as required.

The Government of the FSM has requested SPREP (now a RIE) assistance in designing and implementing this project, due to SPREPs track record in FSM through the recent PACC project whose funding expires in December 2014. SPREP has well-developed working relationships with the key stakeholders. It counts on the CDM exclusively dedicated to FSM's affairs. This officer is supported by other programme, operations and Senior Management staff at SPREPs Multi-country Coordinating Office's. Moreover, the project will benefit from the presence of a dedicated project officer currently in the new PACC offices in Kosrae plus also the SPC-GCCA offices in Pohnpei. SPREP also has extensive experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation.

SPREP will be engaged, through single source selection, to manage the program. As such, SPREP will have responsibility for the daily management of program implementation and for providing the required technical advice for the project. SPREP will also manage and administer studies and surveys, training programs, workshops, and conferences, including subcontracting service providers such as academic and training institutions, NGOs, and community-based organizations as necessary.

SPREP shall, early on in the project, decide on the need for engagement of specialist advice from CROP agencies (most likely as part of the inception work for the AF project).

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

No	Type	Description	Comments/Mitigation Measures	Rating
1	Institutional	Lack of manpower within executing agencies cause delay or insufficient level of implementation	The project will be designed with a particular attention on the manpower constraints in State Government departments. The project will therefore place a strong emphasis on community, CSO and the private sector engagement to the extent possible and the implementation plan will be designed accordingly.	Medium
2	Environmental	Extreme natural disasters affect the implementation of climate change adaptation measures on the ground	Tropical cyclones are becoming more frequent and intense. In the last three decades, FSM received on average around 1.5 cyclones per year. If a large-scale tropical cyclone hits the country, some of the government functions will be diverted to emergency response measures. While the project cannot directly control the occurrence of cyclones, the project work plan is set to provide sufficient time buffer to catch up with potential delay. Further, the designs of equipment installed in the project will take into consideration intensifying natural disasters to withstand such events.	Medium
3	Environmental / Social	Adaptation measures increase inequity	The project will ensure that the adaptation measures are gender sensitive and demonstration at the local level that they do not limit the participation of women and the disabled as beneficiaries. In addition, lessons learned from the three target islands will be accumulated and disseminated throughout the project cycle so that other islands that are not covered in this project will see benefits of learning from earlier experience.	Low

4	Financial	State Governments are not able to mobilize sufficient resources to replenish the small grant mechanism	SPREP will provide assistance in approaching potential donors, combining, sequencing and ultimately mobilizing additional climate change financing	Low-Medium
5	Social	Community acceptance of soft engineering shoreline protection measures proposed by the project	During the consultations that took place in FSM States in December 2013, the discussions resulted in high level political support if any help could be given to the outer island atoll communities of Yap, Chuuk and Pohnpei. Communities are acutely aware of both on-the-ground actions needed and of the financing constraints the government is facing. So it is likely that the acceptance by communities of concrete interventions proposed under Component 2 is high. The inception phase of the project will involve a series of awareness raising activities about proposed measures, which will also contribute to smooth acceptance of these measures for the selected States in FSM.	Low
6	Capacity Risks	Weak coordination within and between State and national government and other stakeholder institutions responsible for land/coastal management; limited capacity (especially at lower levels) to interact with land users	The project will support and facilitate activities to ensure improved institutional coordination, capacity building and awareness-raising at the national, State and municipal levels. Where possible, formal agreements will be used to define roles and responsibilities. Training will be provided to stakeholders on conflict resolution. Activities will be designed and implemented in a win-win manner, beneficial to all, as far as possible. The sustainable development of the landscape will be emphasized with arguments that are supported with long-term economic forecasts.	Medium
7	Transportation Risks	State run ships to outer islands are unreliable and very slow to get to many outer islands, and only stay on island for half a day (on average).	A budget is included in Component 2 to ensure that the possibility of chartering a survey vessel is an option to ensure that the best possible opportunities are provided to set up and implement meaningful and tangible soft coastal engineering schemes on outer atoll islands.	High

Table 9: Risk Management Measures

In addition to those identified in Table 9, the main risks for the implementation of the project are:(a) Conflict between stakeholder groups/land owners with different political agendas results in an inability of sectors and/or States to cooperate at the level needed to achieve results.; (b) Pressing domestic economic and social issues such as poverty and human health issues imply that regional climate change and sea level rise impacts on coastal communities receive sub-optimal attention and investment; (c) There is sufficient numbers of regionally based experts (especially coastal engineers) to fulfil

implementation needs of the project including building individual capacities in the region; (d) Participating communities in each State will not be able to agree on the mechanisms necessary to achieve sustainability; and(e) Important local level stakeholders (communities, planners, tourism industry stakeholders) will see ecosystem based management efforts as being detrimental or unaffordable given their interests.

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

The key measures being proposed to address and manage environmental and social risk, in line with the AF Environmental and Social Policy include the following:

SPREP shall consider and manage environmental and social risks (as presented by the project) by integrating risk assessment procedures and management processes into day to day procedures. The initial screening for environmental and social risks shall therefore be included in the project/programme proposal document and Inception Report (the Work Plan). There will be particular attention towards ensuring that vulnerable groups, including gender considerations are inculcated into the working procedures of SPREP, OEEM and any supporting consultancy that the project requires."

The scope of any environmental and social assessment shall be commensurate with the scope and severity of potential risks (identified in "G" above). If an environmental and social assessment is required, the assessment shall assess all potential environmental and social risks and include a proposed risk management plan.

SPREP shall ensure that the latest AF Environmental and Social Policy document (approved in November 2013) shall be closely adhered to throughout. Screening exercises and policy delivery shall be important components of the project delivery mechanism. Environmental and Social Management Plans, clear monitoring, reporting and evaluation programmes coupled with appropriate grievance mechanisms and public disclosure consultations are key measures to ensure this happens.

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

A Technical Working Group (TWG) will be established that ensembles technical experts on climate change, coastal management and ecosystem conservation and all the related projects in FSM will be represented on this group. This shall use the structure already established as part of the PACC Project Management Unit currently based in Kosrae. Regular meetings will be held between the different projects to leverage synergies and ensure efficiency in implementing the projects. The studies conducted and information gathered under the other projects will be integrated into project development and implementation.

The monitoring and evaluation (M&E) scheme will be applied in accordance with the established SPREP procedures throughout the project lifetime. This shall ensure the timeliness and quality of the project implementation. The M&E plan will be implemented as proposed in Table 9. Technical guidance and oversight will be also provided from SPC (as a collaborative partner from its base in Pohnpei) and SPREP based in Samoa, as well as the Project Board (PB).

Project start: A Project Inception Workshop (IW) will be held within the first 2 months of project start with those with assigned roles in the project management, AF, SPREP and where appropriate/feasible, regional technical advisors as well as other stakeholders. The IW is crucial to building ownership for the project results and to plan the first year annual work plan.

Annual Progress Report. An Annual Progress Report (APR) shall be prepared by the National Project Manager, shared with the Project Board and submitted to the Donor. The APR will be prepared

with progresses against set goals, objectives and targets, lessons learned, risk management and detailed financial disbursements.

Mid-term of the project cycle: The project will undergo an independent Mid-Term Evaluation (MTE) at the mid-point (24 months) of project implementation. The MTE will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term.

Periodic Monitoring through site visits: SPREP (or nominated collaborative parties) will conduct visits to project sites based on the agreed schedule in the project's Annual Work Plan to assess, at first hand, project progress. Other members of the PB may also join these visits.

Project Closure: An independent Final Evaluation will take place 3 months prior to the final PB meeting. The final evaluation will focus on the delivery of the project's results as initially planned and as corrected after the mid-term evaluation, if any such correction takes place. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals.

The M&E plan outline is as follows (see Table 10):

Type of M&E activity	Responsible Parties	Time frame
Inception Workshop (IW)	▪ Project Manager ▪ UNDP CO	Within first four months of project start up
Inception Report	▪ Project Team ▪ UNDP CO	Within one month from IW
Measurement of Means of Verification for Project Progress on *output and implementation*	▪ Oversight by Project Manager ▪ Project team	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	▪ Project manager and team ▪ UNDP CO ▪ UNDP RBAP (First PIR only)	Annually
Periodic status/ progress reports	▪ Project manager and team	Quarterly/ Annually
Mid-term Evaluation	▪ Project manager and team ▪ UNDP CO ▪ UNDP RBAP ▪ External Consultants (i.e. evaluation team)	At the mid-point of project implementation.
Final Evaluation	▪ Project team, ▪ UNDP CO ▪ External Consultants (i.e. evaluation team)	At least one month before the end of project implementation
NEX Audit	▪ UNDP CO ▪ Project manager and team	Following UNDP finance regulations and rules

Visits to field sites	▪ Project staff ▪ Government representatives	At all stages of project implementation

Table 10: M&E Plan outline.

Components 2 and 3 both include a series of monitoring and evaluation programmes for each State, also training and capacity building activities on ecosystem based adaptation work and training for communities and State Officers to help implement the Climate Resilient Coastal Protection Guidance Manual for all FSM States.

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

A fully stakeholder endorsed results framework for the project proposal, including milestones, targets and indicators will be prepared for the final AF project proposal. Gender-specific indicators will be contemplated to enable monitoring of relevant gender aspects. Consequently, a fully endorsed results framework with stakeholder accepted SMART indicators, their baseline and targets will be prepared during the preparation of the full Project Proposal Document to be submitted to the AF for approval. In the interim, a first version results framework is presented in Table 11 below.

Project Objective(s)[1]	Project Objective Indicators	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1. Prepare the necessary institutional and regulatory frameworks, policies and guidance to help deliver the "Living with the Sea" climate resilient approach for all FSM States.	Climate risk management, coastal management and technical capacity in relevant national and State government institutions is increased and measurable through improved national key performance indicators (see Activity 1.6). Coastal monitoring and evaluation procedures designed and undertaken, collated in database and accessible to support future decision-making.	Donor and FSM national contributory investment level reaches an additional USD $15m for coastal resiliency which is closely allied to risk reduction policies and approaches. Guide Manuals for Climate Resilient Coastal Protection and Climate Resilient Roads Standards are developed and adapted for inclusion for each State	Capacity to implement climate risk management in national institutions and target State Governments is increased. 25 Technicians trained in total (10 technical staff drawn from national departments; 20 extension staff drawn from relevant State engineering, planning and fisheries organisations. Monitoring data collected and stored in structured and accessible database.	**1,155,000**
2. Implement the "Living with the Sea" approach through building long-term coastal community relocation planning into State wide land use and marine management policies and information systems that emphasize climate risk management and adaptation on the coastal zone.	Production of Shoreline Management Plans for Yap, Chuuk and Pohnpei that are endorsed by the State Governors and inculcated into State regulations and land use planning decision making by the end of the project.	Shoreline Management Plans (SMPs); Guide Manuals for Climate Resilient Coastal Protection and Climate Resilient Roads Standards are developed and adapted for inclusion for each State	1,500 families in all 4 FSM States will directly benefit directly from coastal protection planning measures proposed in the SMPs.	**600,000**
3.Introduce "transitional" livelihood security measures (including the integration of marine management with soft coastal engineering techniques, climate resilient protection techniques) to help 6 outer atoll islands implement the long term delivery of the "Living with the Sea" approach within the States of Yap, Chuuk and Pohnpei.	Number of hard and soft coastal protection schemes implemented to reduce erosion risks to vulnerable atoll and high island communities in FSM. Number of vulnerable people / atoll communities with enhanced living conditions and sustainable livelihood options in the future.	All target FSM States and remote atoll communities / wards experience positive improvements with regard to sustainable livelihood security.	6 atoll coastal adaptation schemes are designed and constructed within budget by the end of the project.	**3,075,000**
4. Implement necessary "Living with the Sea" transitional planning projects on Kosrae to help deliver the Kosrae SDP and SMP (2013) to provide communities with the infrastructure to migrate away from high risk coastal inundation regions. Implement the "Living with the Sea"	Number of families in Kosrae benefiting from AF resources used for design and build structures across FSM.	3 coastal adaptation schemes (from the Kosrae SMP – 2013) are designed and constructed by the end of the project.	Successful construction of 3 schemes on Kosrae on time and within budget.	**3,545,000**

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

approach through building long-term coastal community relocation planning into State wide land use and marine management policies and information systems that emphasize climate risk management and adaptation on the coastal zone.				
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
1) National and state institutions, regulations and capacity are strengthened to deliver climate resilient policies and actions for the coastal zones of all FSM states	Implementable law and regulatory enforcement support for climate resilient coastal and marine management for each FSM State. Institutional reform and capacity development to improve coordination for future Living with the Sea policy compliance (for each FSM State)	Tangible new legislation, regulation and guidance that is managed and enforced via robust policy as set by national Government (OEEM) for each State. State Government "Living with the Sea" "performance measure procedures for key staff/departments are established.	Coastal Development and Environmental Policy Guidelines for each State prepared and linked to new regulatory coastal planning policy for the each State. Road and building standards and protocols for the each FSM State ratified and inculcated into policy. National knowledge and information system for "Living with the Sea" is set up and working at national and State levels to help monitor and evaluate policy progress.	**1,155,000**
2) Vulnerability of coastal communities and infrastructure investments to climate risks is reduced through production of new state wide shoreline planning, engineering standard setting and risk reduction adaptation measures	Shoreline Management Plans prepared for Yap, Chuuk and Pohnpei States Training programmes on the implementation of coastal development and environmental policy guidance (Activity 1.2) and the State specific Roads and Building standard (Activity 1.3) for each 3 States (linking to Activity 2.2). Education and awareness programmes on "Living with the Sea" principles for all 4 FSM States are run and executed to over 100 FSM island individuals.	SMP identified coastal defence maintenance targets and recurrent and capital expenditures are integrated into national fiscal budgets. Pilot sustainable "low cost" soft coastal adaptation pilot intervention options (incorporating food security and water /marine resource management) on 6 atoll islands in Yap, Chuuk and Pohnpei States are implemented.	6 pilot schemes (soft engineering) are designed and constructed on 6 islands on time and within budget.	**3,675,000**

3) Increased climate resilience of Kosraen coastal communities through the effective delivery of "climate proof measures" through the implementation of relevant activities set out in the Kosrae SDP (2014-2023) and Kosrae Shoreline Management Plan (SMP).	Maintenance coastal protection projects (Lelu Island as defined in the SMP for Kosrae and SDP 2013-2014). New road section construction (Malem to Yeseng) plus access routes to the two villages New capital coast protection schemes (Mosral and Pal). Community engagement and flood resilience programmes for Kosrae villages.	Education and awareness of climate resilience is improved on Kosrae and replication strategies for all States in FSM are clearly identified	Over 6,000 inhabitants of Kosrae receive added value benefit from the AF budget intervention programme.	3,545,000
TOTAL				**8,375,000**

Table 11: Initial Result Framework for the Project

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

The programme, as set out in Table 11, aligns with the updated AF Result Framework. Clear project objectives and outcomes are presented which have been accepted and endorsed by all key FSM stakeholders consulted upon in Appendix As stated in J. To this end, a fully endorsed results framework with stakeholder accepted SMART indicators (following completion of a preparatory workshop event in Pohnpei, their baseline and targets will be prepared during the preparation of the full Project Proposal Document to be submitted to the Adaptation Fund for approval.

L. 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.

A detailed budget with associate budget notes (that has stakeholder acceptance) shall be finalised at a specific project workshop event in Pohnpei. The breakdown of the execution costs are set out in Table 4, though variations in these are likely to be altered during preparation of the full Project Proposal Document to be submitted to the Adaptation Fund for approval. Table 12a outlines the key aspects that shall be developed in during the PPG phase. Table 12b demonstrates the division between Local (FSM) and International Consultant technical support services that are costed for.

Budget Note Number	Supporting Note Explanations
a	Local Consultants shall be based on monthly rates and be calculated per local expert for each agreed Outcome (see Table 12b - to be accepted and determined during the PPG phase)
b	Local Travel shall be estimated based on fuel/flight/car/transport costs for local and international staff around FSM (estimates per outcome using current local transport costs (2014).
c	Int. Consultants - (see breakdown in Table 12b below for monthly rates and calculated inputs per international expert for each Outcome)
d	Inter. Travel estimated based on airline transport costs for local and international staff to travel to FSM or from FSM on project business (economy class fares only) based on 2014 airfare rates (average USD1000/air fare).
e	Contract. Services (survey/engineering design and construction etc). Including services for staff training on engineering monitoring and design (etc) equipment; Expert studies to advisory support group.
f	Office Supplies - estimate for office equipment as required (Pohnpei and in State offices).
g	Project Equipment - Printing of awareness raising and training tools, Project Vehicles (eg: USD5000/motorcycle)
h	Miscellaneous / contingency - (1) Contingency is higher than other Outcomes as this represents international best practice with respect to engineering bill of quantity estimations. Full time Secretary at USD10,000/year if required. Vehicle for Project Manager, maintenance of vehicles + fuel; production of communication material etc

INTERNATIONAL CONSULTANTS	***MONTHLY RATE (US$)***	***PROPOSED BUDGET (US$)***	***COMPONENT 1***	***COMPONENT 2)***	***COMPONENT 3***
Climate Change Adaptation Expert (18mm)	*13,000*	*234,000*	*93,600 (40%)*	*93,600 (40%)*	*46,800 (20%)*
Coastal Engineering Expert (18mm)	*15,000*	*180,000*	*18,000 (10%)*	*36,000 (20%)*	*126,000 (70%)*
Coastal Zone Planner/land Use Zoning Expert (12mm);	*15,000*	*180,000*	*18,000 (10%)*	*162,000 (90%)*	*0*
Monitoring and Evaluation Expert (12mm);	*13,000*	*156,000*	*52,000 (33.3%)*	*52,000 (33.3%)*	*52,000 (33.3%)*
TOTALS		***750,000***	***181,600***	***343,600***	***224,800***

LOCAL CONSULTANTS	***MONTHLY RATE (US$)***	***PROPOSED BUDGET***	***OUTCOME 1***	***OUTCOME 2)***	***OUTCOME 3***
Climate Resilient Livelihood Expert (12mm)	*6500*	*78,000*	*15,600 (20%)*	*31,200 (40%)*	*31,200 (40%)*
Policy and Institutional Expert (8mm)	*6500*	*52,000*	*36,400 (70%)*	*0*	*15,600 (30%)*
Communication & Gender Specialist(8mm)	*6500*	*52,000*	*5,200 (10%)*	*23,400 (45%)*	*23,400 (45%)*
State Community Liaison Advisors (x4; Kosrae, Yap, Chuuk and Pohnpei - 24 months each.	*5000*	*480,000*	*0*	*312,000 (65%)*	*168,000 (35%)*
TOTALS		***662,000***	***57,200***	***366,600***	***238,200***

Table 12b – Proposed Consultant Inputs (international and local)

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

Table 13 presents the proposed disbursement matrix for the project. At this Concept Proposal time, a simple 20% split of funds is allocated per year (plus upon agreement signature). This shall be reviewed and potentially updated during the inception phase of the project.

	Upon Agreement signature	**One Year after Project Start**	**Year 2[b/]**	**Year 3**	**Year 4[c/]**	**Total**
Scheduled Date	December 2014	January 2016	January 2017	January 2018	January 2018	N/A
Project Funds ***(including Project Cycle Management Fee charged by National Govt)***	1,733,625	1,733,625	1,733,625	1,733,625	1,733,625	**8,668,125**
Implementing Entity Fee	142,375	142,375	142,375	142,375	142,375	**711,875**
Total	**1,876,000**	**1,876,000**	**1,876,000**	**1,876,000**	**1,876,000**	**9,380,000**

Table 13 (based on initial figures presented on Table 4 financial figures)

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

A. Record of endorsement on behalf of the government[2] *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, Department of Foreign Affairs	Date*: January 6, 2014*

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 (……list here…..) 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.	
Name & Signature Implementing Entity Coordinator	
Date: *10 February 2014, 2014*	Tel. and email:
Project Contact Person: Andrew Yatilman	
Tel. And Email:	

[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.