

Rapid Assessment Report – Community Engagement Component
USP-EU Global Climate Change Alliance (GCCA) Project
Pacific Centre for Environment and Sustainable Development (PACE-SD)
University of the South Pacific (USP)

Country:	Federated States of Micronesia (FSM)
In-Country Coordinator:	Micronesia Conservation Trust (MCT) (Assigned personnel: Betty Sigrah)
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REPORT SUMMARY

Rapid assessments (using the PACE-SD 2012 manual) were carried out in six potential sites identified by the National Planning Advisory Committee (NPAC). The potential sites for which rapid assessments were carried out included:

1. Piis (State: Chuuk) (14th February 2013);
2. Sapuk (State: Chuuk) (14th February 2013);
3. Parem (State: Pohnpei) (14th February 2013);
4. Pakin (State: Pohnpei) (14th February 2013);
5. Walung (State: Kosrae) (15th February 2013); and
6. Malem (State: Kosrae) (15th February 2013).

Based on the rapid assessments for each of the six sites, the final USP-EU GCCA project demonstration sites for FSM include:

1. Piis (State: Chuuk);
2. Pakin (State: Pohnpei); and
3. Walung (State: Kosrae).

The following report provides a more in-depth look into the reasons for this final site selection.

INTRODUCTION

The USP-EU GCCA project is a four-year project. It focuses on capacity building (through formal and informal training), community engagement (across 15 Pacific countries and 40 communities) and applied research. In the Federated States of Micronesia (FSM), an NPAC (National Project Advisory Committee) has been established and the Micronesia Conservation Trust (MCT) has been appointed as the project implementing body. USP has signed an MOU with the Micronesia Conservation Trust (MCT) to implement this climate change adaptation project in FSM. Rapid assessments were undertaken in November 2012 for six sites across FSM, the findings of which are detailed in this report. A selection of three sites for demonstration climate change adaptation initiatives has resulted from the rapid assessments, which has been endorsed by the NPAC in FSM.

METHODOLOGY

To conduct the rapid assessments for each of the six communities, a meeting was held with the representatives from the State representatives where the communities are situated.

The community representatives present were invited to participate in an open discussion for the rapid assessment, which was developed by PACE-SD under the leadership of Leone Limalevu (PACE-SD Fellow). The rapid assessment asked communities to consider a series of criteria that related to levels of livelihood vulnerability (of water resources, health and sanitation, food resources and energy resources), community adaptive capacity, community need, level of community interest, project feasibility and levels of vulnerability to coastal or riverbank erosion and inundation.

(a)



(b)



Figure 1: USP EU-GCCA Project Rapid Assessments in FSM – (a) Rapid Assessment team discussing the assessment details for communities at Chuuk (Piis and Sapuk); (b) Chuuk community representatives.

(a)



(b)



Figure 2: USP EU-GCCA Project Rapid Assessments in FSM - (a) Pohnpei State representatives, MCT and PACE-SD staff at the Pakin and Parem Rapid Assessment; (b) Kosrae State representatives, MCT and PACE-SD staff at the Walung and Malem Rapid Assessment.

RAPID ASSESSMENT FINDINGS

Criteria 1: Current Level of Vulnerability Related to Livelihood Sectors

The below criteria explores water resources, health and sanitation, food resources, and security and energy resources and security. The community nominated a number that was collectively decided upon, according to the following scale: highest level of vulnerability = 'number 5' to lowest level of vulnerability = 'number 1'.

Water Resources

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Estimated rain-months per year that occur in the area	4	3	1	1	3	3
Presence of water sources	5	5	5	5	2	2
Discharge rates of springs	5	5	5	5	3	3
TOTAL	14	13	11	11	8	8
AVERAGE	4.67	4.33	3.67	3.67	2.67	2.67

The Pohnpei communities get a lot of rain and are dependent on rainwater for most of their water needs including water for drinking and washing. Rain is less frequent in Chuuk and Kosrae; hence both these communities are deprived of rainwater for drinking and other uses. All communities also have wells and small creeks to supplement their water needs. The communities in Kosrae highlighted that the water discharge rate would differ when there is rain versus when there is no rain.

Health and Sanitation

	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Dengue	1	1	1	1	1	2
Malaria	1	1	1	1	1	1
Diarrhea	5	4	3	3	5	5
Skin diseases	4	3	4	2	5	5
Typhoid	1	1	1	1	1	1
Cholera	4	3	1	1	1	1
TOTAL	16	13	11	9	14	15
AVERAGE	2.67	2.17	1.83	1.50	2.33	2.50

All communities have high cases of diarrhea and skin diseases. These are common among adults and children. Piis and Sapuk also have cases of Cholera.

Food Resources and Security

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Basic subsistence sources of food	3	3	2	1	2	3
Total land area per person	5	4	5	5	5	5
Relative soil fertility	5	4	1	3	2	2
Relative productivity of marine resources	4	3	3	1	2	2
TOTAL	17	14	11	10	11	12
AVERAGE	4.25	3.5	2.75	2.5	2.75	3

The fishing products are used both for subsistence and commercial purposes. Walung usually fish in Malem waters and sell them at the local markets. The income from these sales is used to purchase imported goods.

Energy Resources and Security

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Basic energy sources for lighting	1	2	1	1	4	2
Basic energy sources for cooking	3	2	3	2	3	2
Total	4	4	4	3	7	4
Average	2	2	2	1.5	3.5	2

Most of the communities have multiple sources for lighting and cooking energy, including gas, kerosene and solar. However, there is no power grid.

Criteria 2: Current Level of Adaptive Capacity Related to Livelihood Sectors

Drawing on average household incomes and levels of commercialisation, community members reflected on their adaptive capacity, using the following scale: lowest adaptive capacity = 'number 1' to highest adaptive capacity = 'number 5'.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Level of income per household	1	2	3	1	1	2
Predominant type of economic system	1	1	4	1	2	2
Total	2	3	7	2	3	4
Average	1	1.5	3.5	1	1.5	2

Criteria 3: Level of Community Need

Community members considered how the impacts of climate change might affect their livelihoods and local environment. Based on this reflection, the community considered the level of need for climate change adaptation related initiatives, drawing on a scale of: Highest community need = 'number 5' to lowest community need = 'number 1'.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Level of community need	4	5	4	4	4	4
Total	4	5	4	4	4	4
Average	4	5	4	4	4	4

Criteria 4: Level of Community Interest

The level of community interest in the proposed project was ascertained, using a scale of: Highest community interest = 'number 5' to lowest community interest = 'number 1'.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Level of interest shown for the proposed project	5	5	4	5	5	5
Total	5	5	4	5	5	5
Average	5	5	4	5	5	5

Although the communities are interested and need projects to be carried out, they would prefer to be consulted before the project can implemented in their communities.

Criteria 5: Feasibility of the Project

Community members were asked to consider the feasibility of such a proposed project in their community to address one or two livelihood concerns that will bolster climate change adaptive capacity overall, especially in light of the project budget and scope. This was gauged using a scale of: Highest feasibility to address concerns = 'number 3' to lowest feasibility in addressing concerns interest = 'number 1'.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Approximate cost of funding a livelihood adaptation project	1	1	4	5	1	1
Total	1	1	4	5	1	1
Average	1	1	4	5	1	1

As per the community needs they would require the maximum amount of funds they can access, however, they also welcome projects with small grants and cost effective methods of adaptation.

Additional Criteria – Criteria 6: Level of Vulnerability of a Community to the Impacts of Cyclones

Housing structure types were used to estimate the vulnerability of the communities to cyclones. This was gauged using a scale of: Highest level of vulnerability to cyclones ($\leq 20\%$ of the houses in the community are of modern cement or properly constructed wooden houses) = 'number 5' to lowest level of vulnerability to cyclones ($\geq 80\%$ are of modern cement or properly constructed wooden houses) = 'number 1'.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Categorisation of the types of housing structures in the community	5	4	2	5	5	4
Total	5	4	2	5	5	4
Average	5	4	2	5	5	4

Most communities have very few to no modern constructed houses. In Parem most homes are built on stilts over water in coastal areas; families with punts usually anchor it against the stilts of their homes.

Additional Criteria – Criteria 7(a): Level of Vulnerability of Coastal Communities to Inundation, Storm Surges and Projected Sea Level

The assessment team decided to ask each community additional criteria about the vulnerability of coastal communities to inundation, storm surges and project sea level, based on a scale of: Highest level of vulnerability = ‘number 5’ to lowest level of vulnerability = ‘number 1’. This criterion was relevant for four sites, as illustrated below.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Foreshore elevation	5	4	4	5	5	5
Village elevation	5	4	2	5	4	4
Reef system	1	3	1	1	3	3
Mangrove protection	5	4	3	5	3	3
Average distance of shoreline to nearest first row of houses along the shore	5	4	5	5	5	5
Ease of relocation to higher ground without socio-economic and cultural constraints	5	2	1	4	4	4
Total	26	21	16	25	24	24
Average	4.33	3.50	2.67	4.17	4.00	4.00

Additional Criteria – Criteria 7(b): Level of Vulnerability of Inland Communities to Riverbank Erosion, Inundation and Flooding

For those sites that are not coastal-based, this additional criterion was used. It questioned the vulnerability of inland communities to riverbank erosion, inundation and flooding, based on a scale of: Highest level of vulnerability = ‘number 5’ to lowest level of vulnerability = ‘number 1’. This criterion was relevant for the two remaining sites, as illustrated below.

Factors	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
Foreshore elevation	-	-	-	-	4	5
Village elevation	-	-	-	-	4	5
Location of river system	-	-	-	-	3	3
Average distance of river bank to nearest first row of houses along the river	-	-	-	-	1	3
Drainage	-	-	-	-	5	5
Ease of relocation to higher ground without socio-economic and cultural constraints	-	-	-	-	4	4
Total	-	-	-	-	21	25
Average	-	-	-	-	3.50	4.17

Only two of the communities are situated close to rivers, Walung and Malem (Kosrae). Malem is located closer to the river system.

SUMMARY AND FINAL RECOMMENDATIONS

The final decisions on the demonstration sites were made using a color key; the darkest blue was used for the highest ranked community and the lightest blue for the lowest ranked, as per the relative criteria. Once all the ranked points had been assigned a color, the darkest shade of blue in each community was tallied. The community with the highest count of the darkest blue shade was selected as the demonstration site while the other communities were considered for a second round of counts. In the second round of counts, a count for the second darkest shade of blue was made. Similarly, a third count was made to select the third demonstration site.



Summary of Scores							
Criteria	Description	Piis (Chuuk)	Sapuk (Chuuk)	Parem (Pohnpei)	Pakin (Pohnpei)	Walung (Kosrae)	Malem (Kosrae)
1	Current level of vulnerability	3.40	3.00	2.56	2.29	2.81	2.54
2	Current level of adaptive capacity	1.00	1.50	3.50	1.00	1.50	2.00
3	Level of community need	4.00	5.00	4.00	4.00	4.00	4.00
4	Level of community interest	5.00	5.00	4.00	5.00	5.00	5.00
5	Feasibility of the project	1.00	1.00	4.00	5.00	1.00	1.00
6	Level of vulnerability to the impacts of cyclones	5.00	4.00	2.00	5.00	5.00	4.00
7a	Level of vulnerability of coastal communities to inundation, storm surges and projected sea level	4.33	3.50	2.67	4.17	4.00	4.00
7b	Level of vulnerability of inland communities to riverbank erosion, inundation and flooding	-	-	-	-	3.5	4.17
		5	2	0	4	2	2
			3			3	2
			1			2	
	Demonstration Sites	Piis (Chuuk)			Pakin (Pohnpei)	Walung (Kosrae)	

As indicated in the above table, the demonstration sites selected as per the designed color key were:

1. **Piis (Chuuk)**
2. **Pakin (Pohnpei)**
3. **Walung (Kosrae)**

CONCLUDING REMARKS

Betty, I will leave this for you to complete – make sure you include feedback/comments from NPAC meeting in here! Thanks a bunch!