







SEA-PACC Training Report

Coastal Zone Management



Date: October 20, 2010

To: Taito Nakalevu, Regional Coordinator, Pacific Adaptation to Climate Change (PACC),
Secretariat of Pacific Regional Environment Programme (SPREP)

From: Supin Wongbusarakum, Conservation Methods and Learning, Central Science, The Nature Conservancy, Worldwide Office

Re: Report and Recommendations, Socioeconomic Assessment for Pacific Adaptation to Climate Change (SEA-PACC) Training Workshop, Kosrae, September 20-23, 2010

Objectives

The objectives of the above training workshop were to help the workshop participants:

- 1. To understand how to use SEA-PACC to conduct climate-related socioeconomic assessments that support adaptation planning and the evaluation of adaptation projects;
- 2. To understand and gain experiences in all steps of conducting a SEA-PACC;
- 3. To be able to collect data using household surveys and key informant interviews;
- 4. To be able to interpret and make use of data for adaptation planning and strategy development;
- 5. And, after the workshop, to be able to guide others in using SEA-PACC guidelines and conducting SEA-PACC assessments.

Specific training topics were prepared prior to the workshop, and then revised and adjusted as the workshop went along in order to reflect needs identified by the workshop participants. Each of the participants was asked on the first morning to list one thing they would like to learn and take away from this workshop. Most of the answers fell into one of the following categories:

- Understanding the importance and purposes of socioeconomic assessment in climate adaptation
- Knowing how to do a socioeconomic assessment based on SEA-PACC
- Being able to develop a survey questionnaire
- Learning methods to collect data
- Knowing how to analyze data
- Understanding how to use the data to make decisions
- Being able to communicate the results

On the last morning of the training workshop, all the identified needs and workshop objectives were revisited and discussed to ascertain whether they were sufficiently covered. An evaluation (see Appendix B for evaluation form and Appendix C for results) was also filled out. The input of the participants was positive. Most of the topics were sufficiently covered and the participants felt that they were able to meet the needs they had identified at the beginning of the workshop. The topics that needed more time

for the participants to work on include: using other data collecting methods (beyond household survey), data analysis, and interpretation of results in relation to climate adaptation planning.

Workshop Schedule

The following schedule reflects the activities that took place during the 4-day training workshop.

Date	Activities
Monday,	Opening
September 20	Introducing participants and PACC project sites in FSM, Cooks, and Samoa
8:30 – 4:30	Training objectives and workshop schedule
	PPT presentation, SEA-PACC, Modules 1-2
	Group exercises
	SEA-PACC Worksheets 2.1 (Climate context of project site)
	and 2.2b (Climate impacts on coastal management)
	Group report on results of worksheets
	Lunch
	SEA-PACC, Module 3
	 Group exercises: SEA-PACC Worksheet 3.1 (Prioritizing local climate hazards) SEA-PACC, pages 22-23 (Setting scope of assessment) Defining assessment objectives
	Homework for participants: Review SEA-PACC guidelines
Tuesday,	Day 1 recap by FSM participants
September 21	Presentation/discussion on assessment objectives of each country
8:30 – 5:30	Group exercise: Selecting indicators: SEA-PACC, Appendix 3a
	PPT Presentation (Module 3-continued) on data collecting methods
	Group exercise: Selecting data collecting methods
	Group presentation on indicators and methods
	Lunch

	Group exercise:					
	Developing household survey questionnaire					
	Pre-test and revise questionnaire					
	Translate questionnaire from English into Kosraean					
	Practicing introducing yourself to the interviewee					
Wednesday,	Day 2 recap by Cook Island participants					
September 22	Field exercise: Collecting data using household survey in Tafuksak					
8:30 – 5:00	Lunch					
	Discussion/reflection on field exercise					
	Data entering and analysis by PSPP program					
Thursday,	Day 3 recap by Samoa participants					
September 23	Revisit vulnerability assessment, indicators and evaluation of adaptation options					
8:30 – 4:00	Developing work plan of participating countries					
	Lunch					
	Data entering and analysis (continued)					
	PPT Presentation SEA-PACC, Module 4					
	PPT Presentation, Sampling design					
	Data interpretation					
	Wrap up and workshop evaluation					

Workshop Participants

Except for Vanuatu, whose representatives were not able to travel to the workshop due to a visa problem, there were representatives from each of the PACC countries that focus their activities on coastal management. Cook Islands and Samoa each had 2 PACC project team members while Kosrae had several participants working in different agencies related to climate adaptation. Five of the local participants attended all 4 days of the workshop. The list of the workshop participants, work/affiliation, and their attendance can be found in Appendix A.

Workshop Format

The workshop used 3 different approaches to train the participants.

- 1. Presentations followed by question and answer sessions;
- 2. Facilitated small group exercises;
- 3. Field exercise at the PACC project site, Tafunsak.

1. Presentation

Presentations with and without Powerpoint slides, followed by question and answer sessions were used to cover the following subjects:

- 1.1 Overview of PACC project sites by PACC country teams: Tafitoala in Samoa, Avarua Harbour in Mangaia, Cook Islands, and Tafunsak in Kosrae
- 1.2 Concept of climate vulnerability assessment and it main components, including exposure, sensitivity and adaptive capacity
- 1.3 Summary of main points of all 4 modules in the SEA-PACC guidelines including:
 - **MODULE 1: Introduction**
 - MODULE 2: Climate Context for the Socioeconomic Assessment
 - MODULE 3: Phases of the Socioeconomic Assessment
 - MODULE 4: Integrating Scenarios to Support Decision-Making in Climate Adaptation
- 1.4 Data entry and analysis using PSPP program
- 1.5 Sampling design
- 1.6 Example of assessment objectives and related indicators for vulnerability assessments

2. Small group exercises

Small group exercises took place daily, immediately after a related presentation, to allow the participants to apply the concepts and procedures featured in the presentation on PACC sites in their own countries. The exercises were used for the following activities, and the group usually shared their results with the rest of the participants.

- Climate context of the PACC sites, using worksheets in 2.1 of SEA-PACC
- Climate impacts on coastal management, using worksheet 2.2 b in SEA-PACC
- Prioritizing local climate hazards (Worksheet 3.1 in SEA-PACC)
- Setting scope of assessment (pages 22-23 in SEA-PACC)
- Defining assessment objectives, guided and facilitated by workshop trainer
- Selecting/Developing indicators (Appendix 3a in SEA-PACC)
- Selecting data collecting methods (Table 3.9 in SEA-PACC)
- Developing household survey questionnaire, guided and facilitated by workshop trainer
- Pre-test and revise questionnaire
- Translate questionnaire and interview questions, facilitated by selected Kosraean participants

3. Field exercise in Tafunsak

All the participants practiced using a questionnaire (Appendix D) to collect data from households in Tafunsak. The assessment exercise objectives include: 1) better understanding the genderspecific livelihood activities of the households; 2) examining the perceived impact of sea level rise on the main livelihood activities; and 3) investigating adaptation options that are recommended by household leaders and their perceptions of these options levels of environmental soundness, their capacities for meeting the needs of the community, and their likelihood of being locally feasible.

The participants were broken up into pairs, with one person speaking Kosraean. Each pair interviewed up to 4 households. The practice started in the class room where the participants had an opportunity to introduce the questionnaire and the project, and ask for permission to collect data. In the village, the participants practiced interviewing and taking notes for the questionnaire. The completed questionnaires were reviewed and feedback provided by the trainer. The data from 13 out of the 16 completed household questionnaires were used in a presentation elaborating how data could be entered and analyzed by PSSS, a free on-line basic statistical software program. The data sheet and frequency results of selected variables can be seen in Appendix E.

Workshop Results

The workshop seems to have accomplished most of the objectives. Most participants rated the training high in helping them to understand concepts of vulnerability to climate change impacts. The training augmented the understanding of the participants on how a socioeconomic assessment can be used to assess vulnerability to climate change based on the understanding of the 3 main vulnerability elements (exposure, sensitivity, and adaptive capacity of a community). Most participants also felt this workshop very highly helped them to better understand how to use socioeconomic assessment to support good adaptation planning. The participants gained understanding of the different steps required in conducting a socioeconomic assessment and all rated at least themselves to be 'moderately comfortable' or 'highly comfortable' in all assessment steps. All the participants who attended the workshop regularly felt that they were able to learn the most important thing they mentioned on the first day of the workshop. The training was rated 'high' and 'very high' in helping the participants to understand the SEA-PACC guidelines. More than half of the workshop participants felt that after this workshop they could design and run a survey fully, and the rest said they could participate under someone else's supervision. Among those who planned to train people to do socioeconomic assessment to support climate adaptation, they now felt either 'confident' or 'somewhat confident' that they could do it based on the SEA-PACC guidelines and what they learned from this workshop.

Recommendations for Future workshops and SEA-PACC

In this workshop, SEA-PACC was used for the first time among the PACC country teams. During the workshop and small group exercises, some revision points emerged. The rating of comfort levels in different assessment steps show that the participants are not as comfortable with identifying indicators, data analysis, and applying assessment results to adaptation planning. Half of the participants suggested more time be added to the workshop. The trainer herself believed that at least one additional day was needed for this type of workshop, in which the participants are given an opportunity to practice collecting data in the field and then analyzing the data. With additional day(s), the participants also would be able to practice other types of data collecting methods, such as key informant interviews, focus group discussion, or participatory mapping. Additional time would also help the participants to have hands-on experience in entering data and running analyses by themselves.

In relation to indicators, having a smaller and generally applicable set of indicators that adequately addresses key dimensions of climate impacts might be more helpful than a more exhaustive list. Despite the fact that SEA-PACC provided a list of possible indicators, it was difficult for the participants to select indicators that match assessment objectives as this matching process requires technical support and practice. The problem was discussed, and on the last day the trainer tried to address it by giving examples of narrower sets of indicators that can be used to measure the exposure of the community to climate events, its sensitivity, and different types of adaptive capacity. It seemed that once more definite and smaller sets of indicators for each of components were provided, it was easier for the participants to understand the connection between indicators and vulnerability factors.

In terms of data analysis, as some participants did not have any spreadsheet or social science data analysis background, it was difficult for them to follow. Data analysis training required more time and practice and it might be more useful to have a separate training on the topic, or to include people who are able to do data analysis as a part of the SEA-PACC assessment team.

It became clear in this workshop that socioeconomic assessment to support vulnerability assessment and adaptation decision-making should be conducted in the early stage of the PACC project. In this group, some of the adaptation decisions had already been taken prior to the assessment, and without information from local communities that would have helped determine which of the adaptation options would be locally appropriate, beneficial for the communities and help sustain their natural and physical environments. It was obvious during the household survey exercise that community members are able to provide data that would be useful for decision makers on the types and level of impacts they are facing, and that they are capable of making good suggestions on adaptation activities that address the impacts of changing climate.

Lastly, SEA-PACC should be revised with the input from this and the next 2 training workshops where the guidelines are used to by the country teams in all focal areas of coastal management, food security, and water resources.

Appendix A: List of workshop participants and their attendance

Name	Position/Work Affiliation		Atte	ndance	
		Mon	Tues	Wed	Thurs
		9/20	9/21	9/22	9/23
Taito Nakalevu	PACC Regional Coordinator	Х	Х	Х	Х
Peleti Salauoa	MNRE, Samoa	Х	Х	Х	Х
Moira Faletutulu	PACC, Samoa	Х	Х	Х	Х
Vaipo Mataora	PACC, Cook Islands	Х	Х	Х	Х
Keu Mataroa	PACC, Cook Islands	Х	Х	Х	Х
Simpson Abraham	PACC, FSM	Х	Х	Х	Х
Presley Abraham	KIRMA	Х	Х	Х	Χ
Robert H. Jackson	KIRMA, Director	Х	Х	Х	Χ
Steven Palik	KIRMA	Х	Х	Х	Х
Leonard Sigrah	KIRMA	Х	Х	Х	Х
Tara Charley	MMG		Х	Х	Х
Johnson Taulung	Mayor, Tafunsak Municipal	Х	Х	Х	
	Government				
Betty Sigrah	KIRMA		Х	Х	Χ
Ruthey Luckymis	KIRMA		Х	Х	Χ
Erick E. Waguk	KIRMA		Х	Х	
Lazarus Jilpas	TMG		Х		
Mufanel Tolenna	DREA		Х		
Tim Fenlon	LAWESS			Х	
Tholman Alik	YELA				Х
Larson Lwae	KIRMA	Х			
John Martin	Kosrae state legislature, Senator	Х			
Maheta Kuaemasru	Kosrae Government	Х			
Aik Luvaie	Utwa Government	Х			
Thansley R. Kinere	Transportation & infrastructure	Х			

Appendix B: Post-Workshop Evaluation Form

Post-Workshop Survey SEA-PACC Training, Kosrae, September 20-23, 2010

1.	Were you able to learn in this workshop the most important thing you mentioned on the first day of the workshop?						
	□ yes	\square no	□ not sure				
2.	To what extent did this	workshop hel	p you to understand h	ow to use the Si	EA-PACC?		
	□ very high	\Box high	\square moderate	\Box low	\Box very low		
3.	To what extent did the climate change impacts		you to understand m	ain concepts of	vulnerability to		
	□ very high	\Box high	\square moderate	\Box low	\Box very low		
4.	To what extent did this assessment to support g	-	- ·	tand how to use	e socioeconomic		
	□ very high	\Box high	□ moderate	\Box low	\Box very low		
	To what extent you nov sessment based on the Si	-	=	nate-related soci	<u>oeconomic</u>		
	Fully - You could design Partially - You could pa No		•	rvision			
If :	your answer was no, ple	ase tell us why	7.				
•••	•••						
coı	If you plan to train peop nfident you now feel that we learned from this won	t you could do					
	very confident confident somewhat confident not very confident not at all confident						

7. Please rate your level of comfort now after participating in the training workshop in conducting a climate-related socioeconomic assessment and monitoring program in your home site:

	Very low comfort 1	Low comfort 2	Medium comfort	High comfort	Very high comfort 5
7.1 Designing a socioeconomic assessment					
7.2 Linking socioeconomic assessment to prioritized climate events					
7.3 Defining assessment objectives					
7.4 Developing indicators related to the assessment objectives					
7.5 Determining appropriate data collection methods (e.g., surveys, informant interviews, focus groups)					
7.6 Collecting data in the field using household survey					
7.7 Understanding principles of data analysis					
7.9 Understanding principles of communicating assessment results					
7.10 Applying assessment results to planning adaptation					

8.	What did you like best about this training?
9.	In what ways could this training be improved?
• • •	
10	Other comments and/or suggestions?
Y	our name: (ontional)

Appendix C: Post-Workshop Evaluation Results (red represents the participants' answers)

1.	Were you able to let the workshop?	earn in this works	shop the most in	nportant thing you me	ntioned on the first day of
	9 yes	0 no		0 not sure	
2.	To what extent did	this workshop h	elp you to under	stand how to use the	SEA-PACC?
	3 very high	6 high	0 moderate	0 low	0 very low
3.	To what extent did change impacts?	the workshop he	elp you to under	stand main concepts o	f vulnerability to climate
	3 very high	4 high	2 moderate	0 low	0 very low
4.	To what extent did assessment to supp	•		r understand how to u	se socioeconomic
	5 very high	3 high	1 moderate	0 low	0 very low
	To what extent you led on the SEA-PACC	-	u could carry out	: a climate-related soci	ioeconomic assessment
	6 Fully - You could3 Partially - You co0 No			lse's supervision	
If y	our answer was no,	please tell us wh	y.		
•••••					
con				sment to support clima e SEA-PACC guidelines	ate adaptation, how and what you have learned
5 c 4 s 0 n	ery confident onfident omewhat confident oot very confident oot at all confident				

7. Please rate your level of comfort now after participating in the training workshop in conducting a climate-related socioeconomic assessment and monitoring program in your home site:

	Very low comfort 1	Low comfort 2	Medium comfort	High comfort 4	Very high comfort 5	Total number respondents
		To	otal numbe	r (percenta	age)	•
7.1 Designing a socioeconomic assessment	0	0	1 (11)	6 (67)	2 (22)	9 (100)
7.2 Linking socioeconomic assessment to prioritized climate events	0	0	1 (11)	6 (67)	2 (22)	9 (100)
7.3 Defining assessment objectives	0	0	3 (43)	1 (14)	3 (43)	7 (100)
7.4 Developing indicators related to the assessment objectives	0	0	4 (50)	2 (25)	2 (25)	8 (100)
7.5 Determining appropriate data collection methods (e.g., surveys, informant interviews, focus groups)	0	0	1 (11)	3 (33)	5 (56)	9 (100)
7.6 Collecting data in the field using household survey	0	0	1 (13)	3 (38)	4 (50)	8 (100)
7.7 Understanding principles of data analysis	0	0	4 (44)	3 (33)	2 (22)	9 (100)
7.9 Understanding principles of communicating assessment results	0	0	2 (29)	3 (29)	2 (43)	7 (100)
7.10 Applying assessment results to planning adaptation	0	0	4 (44)	2 (22)	3 (33)	9 (100)

8. What did you like best about this training?

- Data gathering
- Exercise in which we work with community
- Data analysis and interpretation
- The process of socioeconomic and climate change
- The opportunity to do a hands-on activity to practice how to design, plan, structure, and carry out a SEA-PACC
- Analyze data and how to use results
- Data collection and analysis
- Training was well organized. Instruction was well instructed and understood.
- The whole process and the fundamental of carrying out a socioeconomic survey in regards to climate change
- Assessment/analysis
- How to apply SEA-PACC to influence decision makers and for people to understand
- Understanding the process

9. In what ways could this training be improved?

- Longer training
- More exercise on household survey or other method
- More time on analysis and preparing reports

Appendix D: Household Survey Developed by Participants for Field Exercise in Tafunsak

Interviewer:	Survey Number:
Note taker:	Date:
Household Livelihoods	
<u>Household Livelihoods</u>	
 How many members are there in yo How many members of your housel and income? 	our household?hold are involved in activities that provide you sources of food
3. Please list the role of each	4. What is/are the livelihood activities each
household members who	member is involved in?
contribute to the household	
livelihood	
3.1 Interviewee:	4.1
3.2	4.2
3.3	4.3
3.4	4.4
3.5	4.5
3.6	4.6
3.7	4.7
3.8	4.8
5. Which of the above livelihood activities	is <u>most</u> important to your household?
5.1 For subsistence	
5.2 For cash income generation	
3.2 Tor cash income generation	

Sea Level Impacts

6. From the livelihood activities listed below, please rate the level of impact of sea level rise on each of the activities (using no impact, low impact, medium or high impact)

Livelihood Activities	w would you rate the level of sea level rise impact on each activity?
	- no impact
	- low
	- medium
	- high
6.1 Fisheries	
6.2 Farming	
6.3 Tourism	
6.4 Fuel wood harvesting	
6.5 Others (please specify	
)	

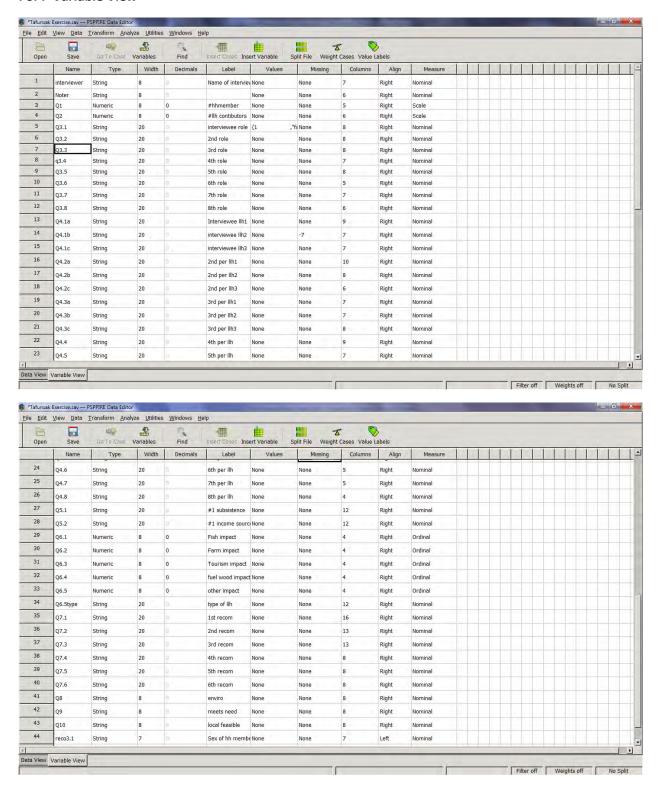
Adaptation options

7. What would be your recommendations to help prepare for, prevent and protect your household from the impacts of sea level rise? If respondent only mentioned one recommendation, ask: "Are there any other Options?"	8. Which one is most environmentally sound? Check one	9. Which one best meets the needs of the Community? Check one	10. Which options are locally feasible? Check one

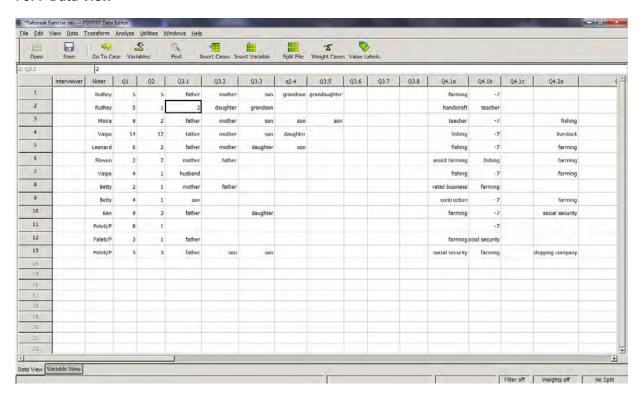
Appendix E: Data from Tafunsak Household survey

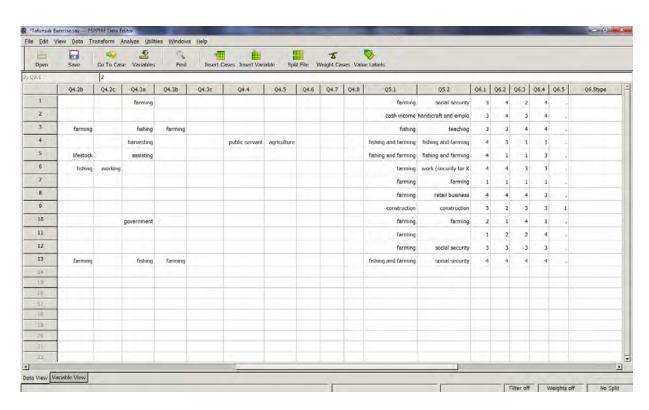
(Note: Raw data were not cleaned in all the tables shown in Appendix E)

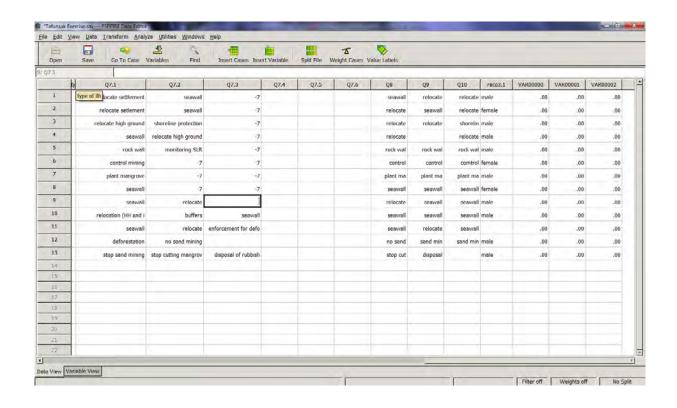
PSPP Variable View



PSPP Data View







PSPP Frequency Tables

Q1 (Number of household members)

Q2 (number of household members who contribute to livelihoods)

FREQUENCIES

/VARIABLES= Q1 Q2

/FORMAT=AVALUE TABLE

/MISSING=INCLUDE.

#hhmember

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	2	2	15.38	15.38	15.38
	3	1	7.69		
	4	2	15.38	15.38	38.46
	5	3	23.08	23.08	61.54
	6	1	7.69	7.69	
	8	1	7.69	7.69	76.92
	9	2	15.38	15.38	92.31
	14	1	7.69		100.00
	Total	13	100.0	100.0	

#hhmember

N Valid	13
Missing	0
Mean	5.85
Std Dev	3.39
Minimum	2.00
Maximum	14.00

#llh contibutors

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	6	46.15	46.15	46.15
	2	3	23.08	23.08	69.23
	3	2	15.38	15.38	84.62
	5	1	7.69	7.69	92.31
	12	1	7.69	7.69	100.00
	Total	13	100.0	100.0	

#llh contibutors

N	Valid	13
	Missing	0
Mean		2.69
Std Dev	- 1	3.04
Minimu	m	1.00
Maxim	ım	12,00

Q 5.1 Most important subsistence activities in households

Q5.2 Most important cash income generating activities in households

FREQUENCIES

/VARIABLES= Q5.1 Q5.2

/FORMAT=AVALUE TABLE.

#1 subsistence

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
		1	7.69	7.69	7.69
	construction	1	7.69	7.69	15.38
	farming	7	53.85	53.85	69.23
	fishing	1	7.69	7.69	76.92
	fishing and farming	3	23.08	23.08	100.00
	Total	13	100.0	100.0	

#1 income source

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
		1	7.69	7.69	7.69
	construction	1	7.69	7.69	15.38
	farming	2	15.38	15.38	30.77
	fishing and farming	2	15.38	15.38	46.15
	handicraft and emplo	1	7.69	7.69	53.85
	retail business	1	7.69	7.69	61.54
	social security	3	23.08	23.08	84.62
	teaching	1	7.69	7.69	92.31
	work (security for K	1	7.69	7.69	100.00
	Total	13	100.0	100.0	

Q 6.1 Perceived level of impact of sea level rise on farming

Q 6.2 Perceived level of impact of sea level rise on fishing

(1 – no impact, 2 – low impact, 3 – medium impact, 4 – high impact)

FREQUENCIES

/VARIABLES= Q6.1 Q6.2

/FORMAT=AVALUE TABLE.

Fish impact

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	2	15.38	15.38	15.38
	2	1	7.69	7.69	23.08
	3	5	38,46	38,46	61.54
	4	.5	38.46	38.46	100.00
	Total	13	100.0	100.0	

Fish impact

N	Valid	13
4	Missing	0
Mean		3.00
Std Dev	0 1 4	1.08
Minimun	1	1.00
Maximun	n	4.00

Farm impact

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	3	23.08	23.08	23.08
	2	2	15.38	15.38	38.46
	3	3	23.08	23.08	61.54
	4	.5	38.46	38.46	100.00
	Total	13	100.0	100.0	1-

Farm impact

	-
Valid	13
Missing	0
	2.77
	1.24
	1.00
	4.00
	Missing

Q 7. First 3 respondents' recommendations to help prepare for, prevent and protect their household from the impacts of sea level rise

FREQUENCIES

/VARIABLES= Q7.1 Q7.2 Q7.3

 $/ FORMAT = AVALUE\ TABLE.$

${\rm 1st\ recom}$

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	control mining	1	7.69	7.69	7.69
	deforestation	1	7.69	7.69	15.38
	plant mangrove	1	7.69	7.69	23.08
	relocate high ground	1	7.69	7.69	30.77
	relocate setlement	1	7.69	7.69	38.46
	relocate settlement	1	7.69	7.69	46.15
	relocation (HH and i	1	7.69	7.69	53.85
	rock wall	1	7.69	7.69	61.54
	seawall	4	30.77	30.77	92.31
	stop sand mining	1	7.69	7.69	100.00
	Total	13	100.0	100.0	

2nd recom

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	buffers	1	7.69	10.00	10.00
	monitoring SLR	1	7.69	10.00	20.00
	no sand mining	1	7.69	10.00	30.00
	relocate	2	15.38	20.00	50.00
	relocate high ground	1	7.69	10.00	60.00
	seawall	2	15.38	20.00	80.00
	shoreline protection	1	7.69	10.00	90.00
	stop cutting mangrov	1	7.69	10.00	100.00
	- 7	3	23.08	Missing	
	Total	13	100.0	100.0	

3rd recom

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
		2	15.38	40.00	40.00
	disposal of rubbish	1	7.69	20.00	60.00
	enforcement for defo	1	7.69	20.00	80.00
	seawall	1	7.69	20.00	100.00
	-7	8	61.54	Missing	
	Total	13	100.0	100.0	