

Adapting to a Changing Climate Workshop Report

**Republic of the Marshall Islands
August 22-26, 2011**



Background

In 2010, The Micronesia Conservation Trust (MCT) supported the development of community based climate change adaptation tools for the Micronesia region. To design the most appropriate and useable products, consultants reviewed existing CC adaptation materials, spoke with various climate experts, and held a regional workshop with regional natural resource managers, community members, and climate change experts. Based on input at this workshop, the following products were developed:

Adapting to a Changing Climate Outreach Toolkit - which is designed to provide community members and stakeholders with an understanding of climate change concepts and adaptation strategies. This toolkit consists of:

- Large flipcharts visually depicting climate change concepts and actions that can be carried out to prepare and adapt to CC impacts.
- Facilitators guide to accompany the flipcharts, which include page-by-page notes on things to point out on the flipchart and concepts to explain.
- Booklets that provide the same visual content as the flipchart but offer more verbal description and explanations. These are to be used by community members and other stakeholders both during presentation of the flip chart material and afterward as they work on their adaptation projects.

Revised PIMPAC management planning guidance, which now includes a climate change lens through:

- Revised steps that ensure important stakeholders are involved and key questions are answered to address climate change in the planning process
- New steps including historical timeline, seasonal calendar, strength/weakness analysis, and vulnerability assessment to help understand the social and biological resource vulnerability to the impacts of climate change.

Upon completing these tools, a year-long training program concept was put together to identify funds that could support training on these new tools in the Micronesia region. Funding was secured through AusAid, and the U.S. State Department to begin this training program, which included the development of a training design, and one workshop per jurisdiction in the Freely Associated States (i.e. Marshall Islands, Palau, Kosrae, Pohnpei, Chuuk, and Yap). The workshop in the Marshall Islands summarized in this document was the first in this workshop series.

Workshop Objectives

From August 22-26, 2011 The Micronesia Conservation Trust (MCT) and its Micronesia Challenge partners launched the training program in Majuro, Republic of the Marshall Islands on the use of new tools to support community-based climate adaptation in Micronesia.

The objectives of the week-long training were:

- To provide a team of community leaders and practitioners from various sectors in RMI with the necessary skills to effectively communicate climate change concepts and foster vulnerability assessments and adaptation planning.
- To provide practitioners who carry out community management and adaptation planning processes in RMI with the necessary skills to develop or revise at least one community-based management and adaptation plan within one year of the training program.
- To identify a local process for using the Outreach Toolkit and PIMPAC Management and Adaptation Planning Guidance that supports existing community outreach and planning efforts.
- To identify and build the skills of 1-2 in-region managers to become on-going trainers of community-based management and adaptation planning.

Workshop Participation

The training was attended by approximately 20 people (participants and trainers). Trainees were present from various agencies within the Marshall Islands including Marshall Islands Conservation Society (MICS), Marshall Islands Environmental Protection Agency (EPA), Marshall Islands Marine Resource Authority (MIMRA), Marshall Islands Land Grant, Youth to Youth, the College of Marshall Islands (CMI), Office of Environmental Planning and Policy Coordination (OEPPC), Marshall Islands Visitors Authority, Woman United Together Marshall Islands (WUTMI), Rongelap Local Government. Two independent consultants led the training; Meghan Gombos and Scott Atkinson.

In addition to the RMI participants, there were an additional four participants from the region who attended as “regional mentors in training”. The role of these participants was to begin to learn the training materials to eventually become trainings and technical support for climate change adaptation in the region. They include Liz Terk and Frank Isao from the Micronesia Conservation Trust in Pohnpei, Berna Gerong from Yap (working as a PIMPAC regional mentor), and Wayne Andrew from Palau, (working as a PIMPAC regional mentor). These mentors will help to facilitate future trainings in the region.

Finally, Ricky Carl and Robyn James from The Nature Conservancy (TNC) attended the training to coordinate TNC support and efforts to the Micronesia region with these trainings.

Workshop Approach & Outputs

The workshop was carried out in two sections around two new tools:

Session One: Adapting to a Changing Climate Outreach materials

Session Two: PIMPAC Management and Adaptation Planning guidance

Session One:

The first session focused on using the new CC outreach materials including the flipchart and facilitators notes to understand climate change concepts and develop locally appropriate ways to communicate key messages about these concepts. The RMI team developed communication methods that could be used to help convey sections of the flipchart in creative and interactive ways. The output of this session was the development of a basic communication plan for RMI for climate change adaptation efforts. This included translation of key concepts into Marshallese. This CC communication plan can be found in Appendix B.

Session Two:

The second half of the workshop was focused on learning new steps within a management planning process that can be used to carry out a vulnerability assessment through the use of participatory exercises. These new steps can help community members and managers understand how their natural and social target resources might be impacted by climate change. Throughout this session, participants practiced using new exercises in the process such as a historical timeline, seasonal calendar, and vulnerability matrix and discussed how these new exercises could be integrated into existing planning processes. Some of the outputs from this session can be found in Appendix B. Additionally, these new exercises were included in the RMI “Cookbook” for implementing their Reimaanlok Process – a framework for carrying out community based planning and implementation for resource management and implementation in the Marshall Islands

APPENDIX A



Climate Change Adaptation Outreach and Planning Training Agenda Republic of Marshall Islands August 22-26, 2011

Training Objectives:

1. To provide a team of community leaders and practitioners from various sectors in RMI with the necessary skills to effectively communicate climate change concepts and foster adaptation planning.
2. To provide practitioners who carry out community management planning processes in RMI with the necessary skills to develop or revise at least one community-based management and adaptation plans within one year of the training program.
3. Development of a timeline and commitment for the RMI team to carry out the management and adaptation process at least one site within one year.

Training Program Approach

Session One: Outreach (Days 1-3)

The first session will be three days and focus on the understanding and effectively communications using the CC adaptation outreach materials. This session is aimed at community leaders, practitioners from various agencies and sectors and resources managers. It will be emphasized that participants should be able to commit to using the tools within their current workload upon completing the training. Therefore, priority will be given to those participants who already supporting outreach and planning with communities (either assisting or leading) and/or community leaders who have actively been carrying out planning processes.

Target Audience: Community leaders and Practitioners from various sectors whose existing job includes working directly with communities to carry out outreach and/or planning activities. Sectors can include natural resource management, health, hazard management, food security, water resources.

Session Two: Planning (Days 4-5)

Session Two will be two days and will focus on reviewing existing management planning processes and practicing new tools to help understand vulnerability. While all are welcome, this session will be aimed at practitioners who are more experienced in carrying out the management planning process since full training on management planning will not be feasible.

Target Audience: Practitioners whose existing job includes working directly with communities to lead or support planning activities and who are familiar with the management planning process.

5-day Agenda

Day 1-3	Communicating Climate Change Concepts to Communities
	<ul style="list-style-type: none">○ Introductions/Protocol○ Review of the MCT CC Toolkit background and process○ Discussion/Decision on basic timing for using outreach materials
	Entry point to the community:

	<ul style="list-style-type: none"> ○ Problem/solution tree – develop issue statements/situation analysis ○ Climate situation (observations)
	<p>Basic Communications:</p> <ul style="list-style-type: none"> ○ What makes a good presentation vs bad? ○ How can communications be more effective in Micronesia?
	<p>Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool</p> <ol style="list-style-type: none"> 1. Understanding healthy vs threatened Micronesian Community
	<p>Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool</p> <ol style="list-style-type: none"> 2. Understanding Climate Change <ol style="list-style-type: none"> a. Causes b. El nino c. What changes can be expected?
	<p>Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool</p> <ol style="list-style-type: none"> 3. What does this mean for the community? <ol style="list-style-type: none"> a. Possible and Existing Impacts b. How will these changes impact our Community c. Cumulative Impacts
	<p>Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool</p> <ol style="list-style-type: none"> 4. Is there Anything we Can do? <ol style="list-style-type: none"> a. What are other communities doing b. Adaptation Strategies c. Adaptation Strategies d. Adaptation Strategies
	<p>Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool</p> <ol style="list-style-type: none"> 5. Community Management and Adaptation Planning <ol style="list-style-type: none"> a. How can we understand what will happen to our community b. What Can we do in our community to prepare for these changes? c. Vulnerability Assessment d. Taking action: A community plan to build resilience

	Flipchart Discussion and Delivery – developing appropriate delivery mechanism for each section of the flipchart tool 6. The Bigger Picture a. How can we work together to be more resilience? b. Is there any help for our community to adapt to climate change?
	Additional Activity to help community understand potential impacts from Sea Level Rise 7. Carrying out a Blue-Line Activity
Day 4-5	Carrying Out Management and Adaptation Planning
	Review of local management planning process <ul style="list-style-type: none"> ○ Review the planning process used in the jurisdiction with specific emphasis on the conceptual model process ○ Participants review planning steps and results from an existing site
	Review of Climate Change Adaptation <ul style="list-style-type: none"> ○ CC adaptation includes other sectors beyond natural resource management (e.g. water resources, food security, hazards, etc). ○ Develop a plan for incorporating other sectors into planning process in the jurisdiction.
	Review and discuss revisions to PIMPAC Guidance <ul style="list-style-type: none"> ○ Review CC as another threat / impacts to fit into conceptual model ○ Review changes to each step and new steps ○ Review process for vulnerability assessment.
	Go through all new or revised tools: <ul style="list-style-type: none"> ○ Providing awareness on climate change (from Day 1-3) ○ Mapping the Community and its Resources (social and biological) ○ Carrying out Biological and Social Baseline Assessments ○ Carrying out a Historical and Projected Timeline ○ Developing a Seasonal Calendar ○ Carrying out a Transect Walk ○ Conceptual Model <ul style="list-style-type: none"> ○ Identifying, Prioritizing, and Mapping Natural and Social Resource Targets ○ Identifying the Threats and their Impacts (including climate and non-climate)

Go through all new or revised tools:

- Providing awareness on climate change (from Day 1-3)
- Mapping the Community and its Resources (social and biological)
- Carrying out Biological and Social Baseline Assessments
- Carrying out a Historical and Projected Timeline
- Developing a Seasonal Calendar
- Carrying out a Transect Walk
- Conceptual Model
 - Identifying, Prioritizing, and Mapping Natural and Social Resource Targets

APPENDIX B

RMI Climate Change Adaptation Communication Plan

Climate Change Outreach and Communication Tools Available:

MCT CC Flipchart and Booklets

MCT CC Video

RMI water video

RMI CC video

Target Audience:

Community leaders and community members

Timing for Outreach:

Outlined in the Reimaanalok Process

GOOD PRESENTATIONS ARE:	POOR PRESENTATIONS ARE:
Short and precise	Just reading off the slides
Simple and Straight to the point	Too much information
Full of information	No/ wrong information
Pictures	Boring – no practice
Engaging	Too long
Fun	Repetitious
Visuals	Too wordy –too much terminology
Interactive	No pictures
	Fails to understand the audience -Preaching to the choir
	Presenter not understanding the materials
	Improper body language

Communication Approaches

COMMUNICATION APPROACHES	
Use of posters & visual aids	Having people speak about experience – learning exchanges
Power point	Participatory video
Show examples	Using youth in video
Asking questions	Sharing ways that can make a difference
Use demonstrations – hands on	Story telling
Participatory tools	Community leader consultations
Small group discussions	Role play
Use of radio/ media/ video	Contest
Success Stories	

Entry Point for Discussing Climate Change with Community Leaders and Members:

The 8 step Reimonolok process which has been successfully used in RMI to carry out bio-diversity and resource conservation planning in outer islands has recently been modified to include climate change adaptation which is listed clearly in the new Reimonolok Cookbook.

This process defines a clear entry point for RMI agencies and NGO's to work collectively to support natural resource management and CC adaptation. The process is initiated when an agency is approached by community leaders (elected and traditional) and there are discussions about community concerns and what they want to do. Therefore, the community initiates the discussion and interest. At that point CMAC agencies, will meet with leaders to understand the scope of work to be done, capacity available, and budget. This steps helps all parties to identify what can be done based on local capacity and commitment. There must be commitment by leaders at this step to move ahead. At this point a trip to the outer island is carried out with a team of resource agency members to carry out awareness on several topics including general resource management and climate change. This step can begin to introduce some of the CC outreach information. The following several steps are focused on the planning process and can also include CC awareness throughout the process. One specific exercise that was agreed upon as a useful starting point when beginning to discuss CC was the Historical timeline which could be used to gather information about what climate events and

impacts the community has experience in the past and what is being noticed presently, then to discuss how things might change in the future.

Flipchart Section	Key Message	Key Message in Marshallese	Communication Approach & Materials Needed	Time Needed
Understanding healthy vs threatened Micronesian Community	<ol style="list-style-type: none"> 1. Healthy resources = health community 2. There are many local threats that negatively impact a communities health 	<ol style="list-style-type: none"> 1. Jukjuk im bed eo ewamurur 2. Juon jukjuk im bed eo ejab wamurur 	<ul style="list-style-type: none"> • Have ten minutes of story telling <ol style="list-style-type: none"> a. Have elders in the group tell what they have noticed overtime • Use small groups if not everyone is participating • Start by asking the community to define a healthy and threatened community – then use the flipchart to review how their answers relate to the pictures • Talk about causes of threats (Ask the communities, see how there are no trees here.. What caused this to happen? Better leading questions) • Capture notes on flipchart 	30 to 45 minutes
Understanding Climate Change	<ol style="list-style-type: none"> 1. Human activities have caused climate change 2. EN/LN events have caused significant social and biological impacts in Micronesia 3. We don't know how CC will affect ENSO events. When events are predicted, it's important for communities to prepare for likely impacts. 4. CC predictions: 	<ol style="list-style-type: none"> 1. Jerbal ko itok jen armej rej komman bwe en walok climate change. 2. EN/LN rej koman bwe en walok joran koi lo jukjuk in bed ko kajojo im ilo belaak ko belaakid. 3. Jejab jela ewi wawein an CC naj jelet EN/LN. 4. Ne EN/LN ej jino walok aurok bwe jen bojak. 	<ul style="list-style-type: none"> • Utilize historical timeline activity to get people to relate EN/LN to significant social and biological impacts they have experienced/ hear about • Each community will be affected differently. We need to make this clear. CC change is not one size fits all. We need communities to have all the info, so that they can make the right decision. • Use extreme events as an entry point. 	1 hour

	<ul style="list-style-type: none"> • SLR • Inc. SST • Inc Air Temp • Inc. Ocean Acidity • Change in Weather Patterns 		<ul style="list-style-type: none"> • Data, makers, paper, flip chart 	
What does this mean for the community?	<ol style="list-style-type: none"> 1. Community should care because potential impacts to food, culture, health, natural resources, etc. 2. Communities in Micronesia already noticing changes 3. Protecting resources now =increased chance of survival and ability to meet our community needs now and in the future 4. More threats to resources = less ability to survive changes over time 	<ol style="list-style-type: none"> 1. Jukjuk in bed ko rej aikuj in jela im ekatak kin joran koi m rejelet mona ko, manit, ejmour, im menin jeramon ko ad. 2. Jukjuk in bed ko ebelaak in Micronesia rej enjaake oktak ko. 3. Kojparok menin jeramon ko= elaplok an naaj jukjuk in bed eo lo menin jeramon ko kio im ilju im jeklaj 4. Elak laplok joran nan menin jeramon ko,= edriklok ad maron jelmae joran ko nae jukjuk in bed ko. 	<ul style="list-style-type: none"> • Name 3 most valuable things to you • Identify threats • Existing impacts being noticed • Potential Impacts from climate change • Focus on valuable resources and prioritize threats w/ poster • Have good examples of ecosystem services and how they are further impacted by CC 	<p>Time: 45min to hour</p> <p>Video on ecosystem services, flip charts, markers</p>
Is there Anything we Can do?	<ol style="list-style-type: none"> 1. There are things your community can do to cope with climate change 2. Communities around the Pacific are already taking action! 	<ol style="list-style-type: none"> 1. Elon jet bunton ne ko jemaron kommane nan ad driklok joran ko jen CC. 2. Elon jukjuk in bed ko ebelaak in Pacific in rej bok bunton ne ko. 	<ul style="list-style-type: none"> • Give examples of adaptation strategies already taken place • List organization that does the specific activity 	1 hour
Community Management and Adaptation Planning	<ol style="list-style-type: none"> 1. Understanding our vulnerability to CC impacts helps us better prepare 2. Healthy community = More resilience/ Less vulnerable 		<ul style="list-style-type: none"> • Engaging small groups with story telling using examples of traditional knowledge and practices – for example traditionally not cutting vegetation on the ocean side to block salt spray and surges. 	

	<p>3. Threatened community = Less resilient/ more vulnerable</p> <p>4. Making a plan can help your community be effective in taking action</p>		<ul style="list-style-type: none"> • Community participation (ask the community members to compare the two pictures on flipchart) <ol style="list-style-type: none"> 1. Understanding the terms is most important 2. Use traditional knowledge example (might be an issue while addressing chiefs) 3. Example of what you can see in the site <ol style="list-style-type: none"> a. Reef protecting shoreline from waves 4. Story telling approach to make it relevant to the community 	
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APPENDIX C

Local organizations that can potentially provide technical support for adaptation strategies

Marine Strategies:

- Fisheries: NGO's, Marine resource agencies
- FADs – MIMRA
 - MIMRA is developing low costs FAD's using coconut fronds weighed down
- Alternative Livelihood
 - Handicraft org (wutmi)

Costal Strategies

- Replanting: R&D/ WUTMI/ MICS/ UFS? EPA/ MIMRA
- Establish ordnances: Local government, IA, CMAC
- Costal Protection: EPA
- Infrastructure: EPA, PBIV, IA, LG, PA
- Relocating
- Floating Islands

Water Strategies:

- Education and awareness about water conservation
 - Education on treatment and maintenance of catchment
 - Land grant MICS
- Solar Distillation demonstration projects in 4 outer atolls

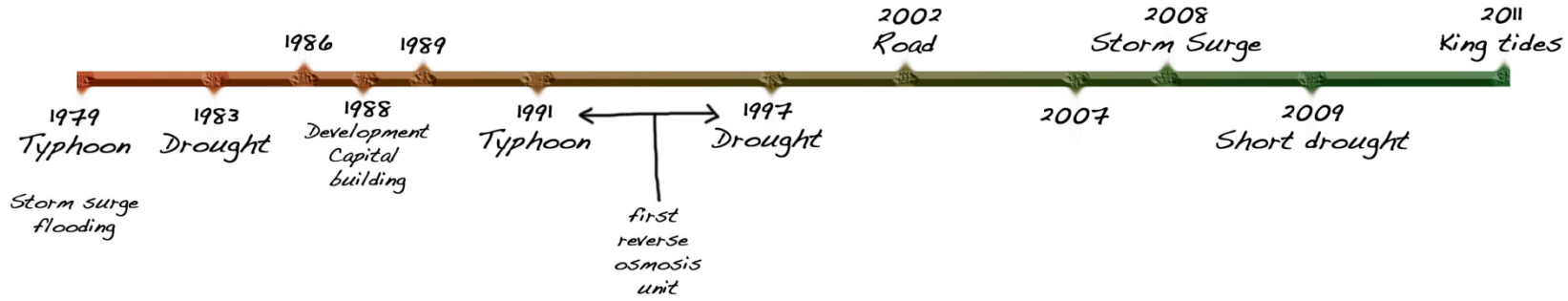
Agriculture Strategies

- R&D, TTM, CMAC
- Food security and livelihood project
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Community Well Being Strategies:

- Eg. Relocation of hospital to centralize emergency facilities
- Community resource management course on Majuro for community members from outer islands

Historical Timeline Example



Hazards: Drought Surges, King tides ⇒ (more frequency / more intense)

IMPACTS

Storm Surge →
 -flooding
 -property damage
 -evacuation to higher buildigs

Drought
 -people H₂O catchments severely impacted
 -passive on social services for water and medicine
 -pink eye epidemic
 schools closed
 -coral bleaching

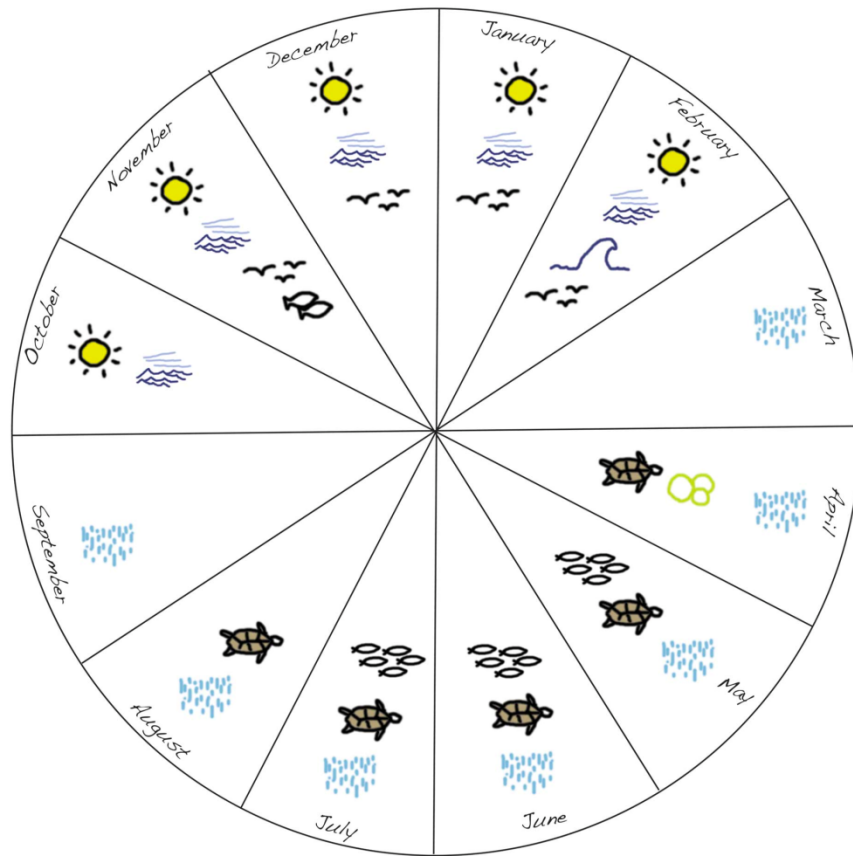
COPING MECHANISMS

-reliance on family members not impacted

Assistance from:
 FEMA - water
 community groups
 churches
 gov't agencies
 shelter
 clean-up
 food
 H₂O

HAZARDS OF MOST CONCERN TO MAJURO, RM1 ⇒ 1) DROUGHT
 2) STORM SURGES

Seasonal Calendar Example



Normal Year
Wind direction East to West

Dry Wet
80° Less than 80°
harvest

Changes

- Longer dry season
- Later fruiting and shorter periods
- Past ten years
- Getting drier
- Likely to get hotter in future maybe more drier
- Storm events happen in dry seasons

KEY

	sun - dry season
	turtle nesting
	rain season
	tuna migration
	storms
	grouper spawning
	king tides
	breadfruit season
	bird migration

CC impacts of most concern ⇒ Potential for longer dry season which also includes storm surges