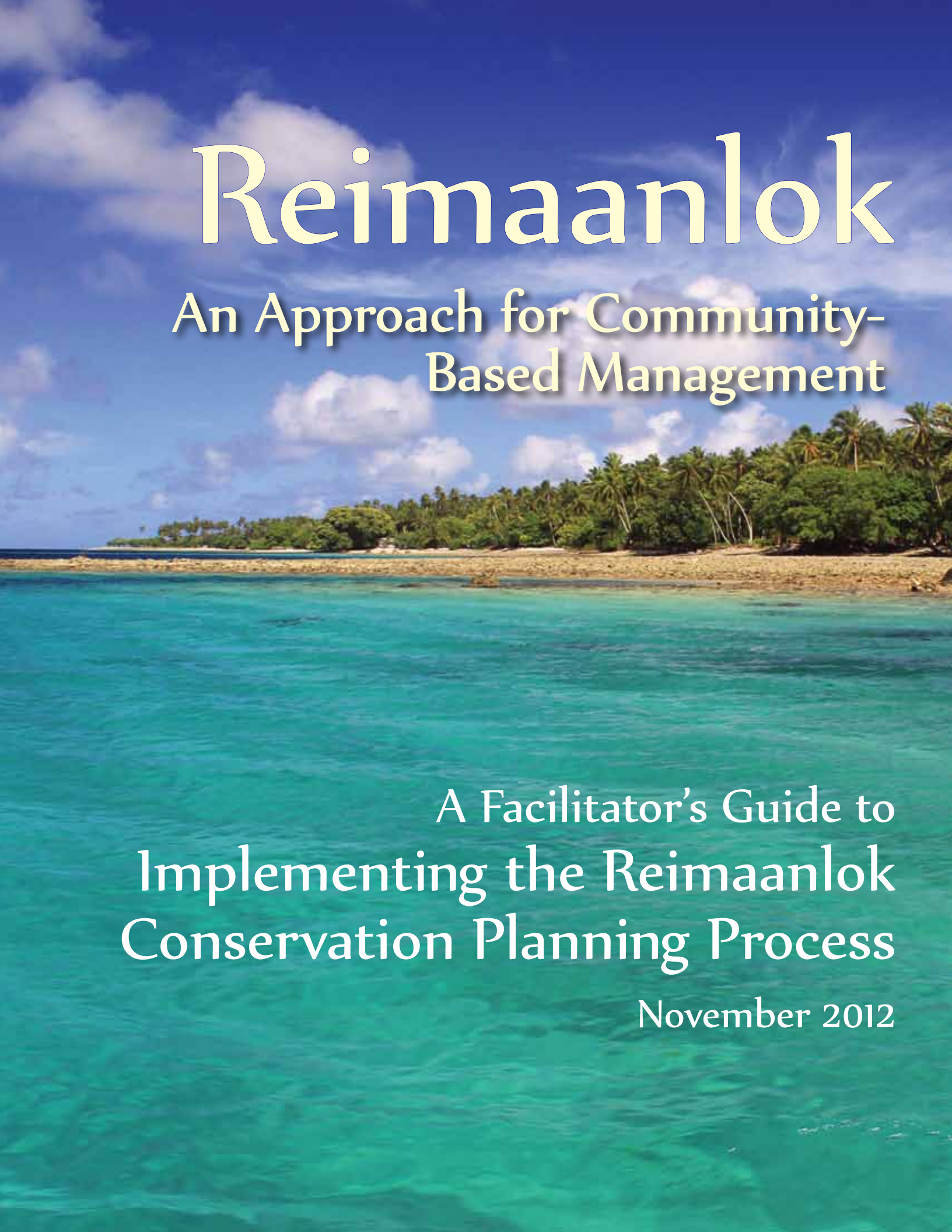

Reimaanlok

An Approach for Community-Based Management

A Facilitator's Guide to

Implementing the Reimaanlok Conservation Planning Process

November 2012

Acknowledgements

This field guide would not be possible without the contributions, editing and writing of the following people:

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Meghan Gombos – Sea Change Consulting LLC

UH Hilo Office of the Chancellor for providing copy editing services

Susan Enright, Public Information Specialist, UH Hilo Office of the Chancellor

We are grateful to all of the facilitators and community members who have engaged in *Reimaanlok* conservation plan activities over the past decade, whose efforts are captured in this guide. Thanks to all of you who have made this possible.

Table of Contents

List of Acronyms i

Foreward ii

Background 1

Engaging a Participatory Approach with Stakeholders 2

The Step-by-Step Process 3

Step 1 - Initiation of the Process to Establish Community-Based Management Plans 6

Step 2 - Project Scoping and Setup 9

Step 3 - Building Commitment 10

Step 4 - Collecting and Managing Information 12

Step 5 - Developing the Management Plan 14

Step 6 - Sign–Off 16

Step 7 - Monitoring, Evaluation, and Adaptive Management 17

Step 8 - Maintaining Commitment 19

Appendices (available at http://seagrant.soest.hawaii.edu/publications)

A-1 Pre-survey Questionnaire
A-2 Trip cost calculator
A-3 Project Plan Template – Namdrik example
A-4 Involving Stakeholders Community Awareness Checklist
A-5 Terms of Reference Template for Local Resources Committee Template
A-6 *Reimaanlok* Socio-Economic Survey
A-7 Draft Outline of Climate Change Indicators to use in *Reimaanlok* Plans and priority baseline needs
A-8 Guidelines for Collection of Local and Traditional Knowledge and *mo* in the Marshall Islands
A-9 Rapid Ecological Assessment, Participatory Aquatic Resource Transect
A-10 Baseline Rapid Assessment of the Natural Resources Methodology
A-11 Woja Reserve Example
A-12 Socio-Economic Baseline Assessment and Monitoring Plan Worksheet
A-13 Developing Benchmarks Relative to Sea Level
A-14 Surveying Island Height Procedures
A-15 Evaluating Flooding from Sea Level Rise – Case Study of Jabót
A-16 Identifying Natural Resource Targets
A-17 Prioritizing the Threats
A-18 Summary Matrix of Vulnerability Analysis – Namdrik Example
A-19 Creating a Community Vision and a Conceptual Model
A-20 Completing a SWOT Analysis
A-21 Crafting a Good Goals and SMART Objectives
A-22 Developing Management Actions to Achieve the Objectives
A-23 Developing Good Indicators
A-24 Prioritizing Management Actions
A-25 Action Plan Template – Namdrik Example
A-26 Marshall Islands Conservation Area Design Principles
A-27 Fisheries Management Ordinance Template
A-28 Fisheries Management Ordinance – Likiep Example
A-29 Implementation Guidelines – Likiep Example
A-30 Implementation Budget Template
A-31 Management Skill Set Assessment and Management Training Needs Analysis
A-32 Management Plan Example – Ailuk Example
A-33 Sign off document template
A-34 Annual Work Plan
A-35 Vulnerability Assessment and Local Early Action Plan (VA-LEAP)

List of Acronyms

CMAC	Coastal Management Advisory Council
CMI	College of the Marshall Islands
EPA	RMI Environmental Protection Authority
GIS	Geographical Information Systems
HPO	Historic Preservation Office
IA	Ministry of Internal Affairs
LEAP	Local Early Action Plan
LMMA	Locally Managed Marine Areas
LRC	Local Resources Committee
MICS	Marshall Islands Conservation Society
MIMRA	Marshall Islands Marine Resources Authority
MIVA	Marshall Islands Visitors Authority
NRAS	Natural Resource Assessment Surveys
NTC	National Training Council
OEPPC	Office of Environmental Policy and Planning Coordination
PIMPAC	Pacific Island Marine Protected Area Community
R & D	Ministry of Resources and Development
RMI	Republic of the Marshall Islands
SPC	Secretariat of the Pacific Community
WUTMI	Women United Together in the Marshall Islands

Foreword

Reimaanlok Looking to the Future: National Conservation Area Plan for the Marshall Islands 2007-2012[1] (referred to as *Reimaanlok*) was developed to fill the need for a conservation area planning framework, and "develop principles, process and guidelines for the design, establishment and management of conservation areas that are fully owned, led and endorsed by local communities based on their needs, values and cultural heritage."

This facilitator's guide is designed to be used in conjunction with *Reimaanlok.* It is strongly suggested that before embarking on this project one should have read the plan and be familiar with the *Reimaanlok* conservation planning process. This step-by-step guide includes management tools and examples that will help facilitators establish resource management plans and community-based conservation areas that consider current and future trends (including climate change), locally and globally, that affect the islands' resources and their sustainability.

Namdrik Wins Global Recognition

The Namdrik Atoll Local Resources Committee, a non-governmental organization, received global recognition for its outstanding efforts in sustainable development at the Rio +20 United Nation's Conference in Rio de Janeiro, Brazil.

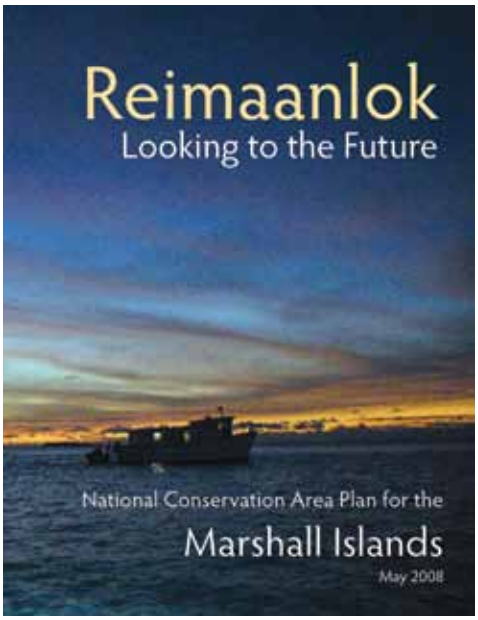
The Equator Prize award recognizes the successes of community-led initiatives in improving livelihoods, conserving biodiversity, developing sustainable natural resource management, and building community resilience. "This is a proud moment for Namdrik in particular and RMI in general," said Namdrik Senator Mattlan Zackhras. Mayor Clarence Luther was on hand to receive the award in Rio de Janeiro from UNDP Administrator Helen Clark, the former Prime Minister of New Zealand. "Serious coastal erosion caused by sea level rise is already occurring," said Mayor Luther. "We cannot afford to wait so community engagement is very important." The Namdrik Atoll Local Resource Committee has undertaken shoreline rehabilitation, rainwater harvesting, solar power provision and food security, and promoting community adaptation to climate change. "Namdrik demonstrates the power of local action," said Republic of the Marshall Islands President Christopher J. Loeak. "We're very proud of Namdrik's success. This goes to show that resilience starts at the grassroots." The Namdrik Atoll Local Resources Committee was one of 25 award winners selected from 812 nominations. In addition to winning the 2012 Equator Prize ($5,000), Namdrik also won a thematic award in community-based adaptation ($15,000). The thematic award winners were chosen from the 25 Equator Prize awardees.

RI Office of the President, excerpts from YokweOnline, June 26, 2012 and the *Marshall Islands Journal, June 29, 2012.*

[1]Reimaanlok National Planning Team. 2008. Reimaanlok: National Conservation Area Plan for the Marshall Islands 2007-2012. Published by: N. Baker: Melbourne

Background

"Conservation" and "sustainable resource management" are buzz words of the 21st century, but these life sustaining practices have always been a part of Marshallese traditional culture. In the face of global losses of biodiversity, the Marshall Islands retain some of the healthiest and most pristine coral reef systems anywhere in the world. In recent years, however, biodiversity in the Marshall Islands has become threatened by increased pressures on fisheries, increased urbanization and a loss of the traditional subsistence lifestyle, central to the identity and well-being of the Marshallese people. In addition to the above, climate change impacts from increased temperatures of land and water, increased sea level and storm activity threaten the islands' resources and people.



The 2008 document provides a roadmap for establishing and managing community-based conservation areas.

These trends have strengthened the commitment within the Marshall Islands government and island communities **to establish and manage community-based conservation areas** of land and sea, while building upon other resource conservation strategies. The aim is to revive the physical and spiritual connection of people to their environment, to ensure the sustainable use of resources and food security, and to conserve the remarkable biodiversity of the Marshall Islands.

This guide gives a step-by-step procedure for the *Reimaanlok* conservation planning process. The processes and tools presented in this guide have been developed over the past ten years and implemented by the partners engaged in the Coastal Management Advisory Council (CMAC). They build upon many approaches applied both locally and internationally (i.e., Pacific Island Marine Protected Area Community or PIMPAC and Socioeconomic Monitoring or SEM Pasifika). There were many lessons learned and mistakes made. Each time the process was used, it was improved. Although this guide does not claim to be the "be-all, end-all" guide, it has been tested and proven to be very effective in the Marshall Islands. It also integrates a climate change lens into community conservation planning.

The guide should not be used as a script but rather, as the title states, a guide as to how to achieve community-based conservation management plans. The guide is a living document that will be improved upon and adapted to different situations as they play out at the local level.

The Coastal Management Advisory Council is a cross-sectoral working group of people from a range of organizations in the Marshall Islands, all with a common interest in the conservation, development and management of coastal and marine resources. CMAC functions as an advisory and coordination body and all activities are carried out under the auspices of the member organizations. CMAC is an essential body to ensure the coordination and collaboration of national efforts in conservation.

There are many people involved in the development of these community-based plans. The guide is developed for use by a variety of stakeholders who are both facilitating and participating in the process.

Useful Resources:
***Reimaanlok*: A National Conservation Area Plan for the Marshall Islands 2007-2012**
http://www.kobedia.org/media/downloads/documents/Reimaanlok.pdf
Marshall Islands Conservation Society, Public Awareness and Education Program
http://www.kobedia.org/projects/programs.html#PublicAwarenessProgram
Pacific Islands Managed and Protected Area Community (PIMPAC)
http://pimpac.org/
SEM-Pasifika: Socio-economic Monitoring Guidelines for Coastal Managers in Pacific Island Countries
http://www.sprep.org/att/irc/ecopies/pacific_region/368.pdf
Adapting to Coastal Climate Change – A Guidebook for Development Planners
http://www.usaid.gov/our_work/cross-cutting_programs/water/news_announcements/coastal_climate_change_report.html
Guide to Vulnerability Assessment and Local Early Action Planning (VA-LEAP) Version 1: 2012
http://pimpac.org/images/file/VA_LEAP_FINAL.pdf

Engaging a Participatory Approach with Stakeholders

The *Reimaanlok* conservation planning process relies on a broad spectrum of expertise and community engagement, including from the following organizations and groups:

- Coastal Management Advisory Council
- Marshall Islands Marine Resources Authority
- Ministry of Resources and Development
- RMI Environmental Protection Authority
- College of the Marshall Islands
- Office of Environmental Policy and Planning Coordination
- Historic Preservation Office
- Ministry of Internal Affairs
- Marshall Islands Visitors Authority
- Marshall Islands Conservation Society
- Natural Resource Assessment Surveys
- Youth to Youth in Health

National Training Council Local government councils

Women's, men's, and youth groups

Churches

Teachers

Iroij (chiefs)

Alap (land managers)

Dri Jerbal (workers)

The Step-by-Step Process

The process of developing community-based management plans is outlined in an eight step approach, from Initiation to Maintaining Commitment. This process, outlined in the figure below, is from the original vision of the *Reimaanlok* conservation plan, frames this facilitator's guide. The following section presents each of these steps, with guidance, including the location of the intervention, the goals, activities, outputs, suggested tools and resources, and some insight related to critical success factors. Many of the tools and associated worksheets are contained in the Appendices of this guide. As described above, this guide is meant to be a living document, where new tools, resources, and worksheets can be added to each of these steps as experience is gained.

1	Initiation	A need to develop a community-based resource management plan is identified either at the local government level or at the national level.
2	Project Scoping and Setup	Establishment of a project workplan, a team of facilitators and identification of budget and resources.
3	Building Commitment	An initial visit is made by the national team to carry out education awareness about the benefits of conservation and resource management, and to build trust with the community
4	Collecting and Managing Information	Further visits focus on collection and documentation of local knowledge and use of resources, socio-economic information and baseline scientific information.
5	Developing the Management Plan	Several visits are made to the community to develop, draft, and revise a detailed management plan.
6	Sign Off	Achieve commitment to the to the plan through sign-off of management plan.
7	Monitoring, Evaluation, and Adaptive Management	Monitor achievement of the objectives - both biological and socio-economic. Adapt the management plan accordingly.
8	Maintaining Commitment	Ensure community has adequate support for ongoing management.

Summary of the Process for Community-Based Fisheries and Resource Management Planning, as outlined in the *Remaanlok* 2008 document.

Adding a Climate Lens to the Reimaanlok Conservation Planning Process

In efforts to address climate change issues of the communities and their resources, the guide has integrated tools and strategies within the conservation planning process, further supporting ecosystem-based adaptation. The process builds upon U.S. Agency for International Development's framework presented in *Adapting to Coastal Climate Change – A Guidebook for Development Planners*[1] *and the Guide to Vulnerability Assessment and Local Early Action Planning* (VA-LEAP)[2] of the Micronesia Conservation Trust and the U.S. Coral Triangle Initiative. The Coastal Management Advisory Council (CMAC) team participated in testing and applying these methods which are now being used in various regions of the world.

CMAC developed overarching objectives for incorporating climate change:

1. Increase capacity to understand climate change, impacts, and opportunities for adaptation… with a can do attitude
2. Build capacity (of community, agencies, and non-profits) for increased community resilience
3. Catalyze partnerships for demonstrating adaptation (revitalize/strengthen traditional methods)
4. Monitor climate impacts and effectiveness of adaptation
5. Incorporate strategies for adaptation (and adaptive management) within the *Reimaanlok* conservation plan's sustainable financing approaches

Step One: Initiation

- Initiate discussion on integrating climate change within the community-based fisheries and resource management plan
- Consider climate issues (i.e., urgency, vulnerability) as a criteria for engaging with communities Summarize climate change trends, projections and consequences in RMI

Step Two: Project Scoping and Setup

- Supplement the CMAC inter-disciplinary team with expertise in understanding and addressing climate change impacts on natural resources and communities
- Ensure the planning area is an appropriate scale to understand and address climate change
- Determine information needs from other sectors related to climate that can be gathered before and during community consultation (i.e., rainfall, drought, flood)
- Link national/local governance frameworks (decision-making bodies and processes) related to hazards, climate, and community development
- Include vulnerability analysis in the project scope

Step Three: Building Commitment

- Understand existing conditions: how climate variability affects the community and their assets
- Build local understanding of climate change, how climate variability and projected changes will impact key local resources, make linkages between conservation, public health/safety
- Identify initial climate change issues of concern and the community's attitudes to adaptation in general
- When evaluating stakeholders, identify how climate change affects different people/sectors and their interests

[1]U.S. Agency for International Development (USAID). 2009. Adapting to Coastal Climate Change: A Guidebook for Development Planners. http://www.usaid.gov/our_work/environment/climate/policies_prog/vulnerability.html

[2]Micronesia Conservation Trust and US Coral Triangle Initiative Support Program. 2012. Guide to Vulnerability Assessment and Local Early Action Planning (VA-LEAP). Pp 91. http://pimpac.org/images/file/VA_LEAP_FINAL.pdf

- Engage community to understanding their perceptions, awareness and attitudes related to climate variability and change
- Identification of threats can be revealed through participatory approaches: groups, interviews, and observation

Step Four: Collecting and Managing Information

- Determine the sensitivity and vulnerability of the community and environment to coastal climate change and variability
- Assess the community's ability and capabilities to adapt (adaptive capacity)
- Assess vulnerability Assessment of Targets and Assets by supplementing data collection to determine issues related to ecosystems, built environment, livelihoods, human health/safety, and governance. This can be accomplished through forums, socio-economic survey at household Level, environmental Visual Survey and Physical Measurements, and a built environment Visual Survey.
- Assess the community's adaptive capacity to address issues (strength-weakness-opportunity-threat) related to conservation and adaptation

Step Five: Developing the Management Plan

- Develop a vision and plan, based on an understanding of how climate change (over short and long term) will impact assets (i.e., natural resources, cultural resources, infrastructure) and the communities that are dependent upon them
- Commit to resource management actions that will be effective in light of climate change, by reducing sensitivity and/or increase adaptive capacity. Where feasible seek 'no regrets' actions – those that will benefit the community today as well as the future.
- Identify supporting activities in the community and with other sectors that complement the natural resources management strategy to support community well-being and sustainable development
- Build upon the community's adaptive capacity to implement actions
- Incorporate monitoring of indicators related to climate change (coral bleaching, water temperature, rain patterns, erosion, storm surge)

Step Six: Sign-Off

- Identify other leaders and sectors to support climate change issues and adaptations and ensure that these are mainstreamed into other sectors beyond conservation

Step Seven: Monitoring, Evaluation, and Adaptive Management

- Monitor indicators directly addressing anticipated changes in priority resources
- Ensure that community-based monitoring includes those key assets and climate impacts that the community cares about
- Identify ways to implement pilot adaptation projects that can be evaluated and communicated nationally
- Keep decision-makers and the community informed about climate change, tools and adaptation
- Incorporate new information/updates on climate projections as they become available

Step Eight: Maintaining Commitment

- Identify ways for community to access new tools and funding for climate adaptation
- Promote discussion across communities to share experiences and successes with adaptation

Step 1 – Initiation of the Process to Establish Community-Based Management Plans

To be done locally - the first trip to the atoll community

Goals

- Gain understanding of the key issues, concerns, and aspiration of the community
- Gauge the level of commitment of community leaders
- Build awareness on key themes related to resource management

Initiation is the first step in the development a community-based management plan. Projects can be initiated in three key ways:

1. A local government requests assistance from MIMRA or EPA
2. National agencies initiate process (such as EPA's coastal management plans)
3. International programs and funding allocated for conservation and management

Projects are often initiated for reasons such as:

1. In response to increased development or ongoing resource extraction and a perceived need to manage resources more effectively
2. For conservation of special areas, heritage and biodiversity
3. Because climate change is likely to accelerate resource degradation and thus reducing community resilience

Criteria for Initiating National Support for Community-Based Management
The decision to apply resources to a community-based management planning process is based on basic criteria where atolls are rated in terms of high, medium or low. If an atoll requests assistance to develop a fisheries and resource management plan, an assessment will be made of the situation against the following criteria to determine if it will be an effective use of scarce resources.

The timeframe for judging the impact of interventions should take into account the changing climate and if benefits are provided over the long–term.

Decisions for national support are based on discussion of the following elements:

Biodiversity Value and Natural Heritage Value

- Irreplaceability of the habitat and biodiversity
- Populations of threatened species
- Highest quality examples of special conservation targets
- Number of different conservation targets
- Health of the landscape/seascape (integrity, naturalness, low threat/pressure level)

Climate Change Vulnerability and Potential Impacts to Key Assets

- Problem/issues related to key community assets and resources
- Current threats and conditions
- Climate change impacts
- Vulnerability, current and future (including hazard, sensitivity, and adaptive capacity)
- Adaptation actions underway or planned

Level of Use, Pressures, and Economic Dependence on Resources

- Human population
- Presence of fish base
- Development activities
- Tourism
- Socio-economic trends
- Agriculture

Feasibility for Local Resource Management

- Level of leadership and political support
- Community-readiness
- Capacity and resources to implement plans
- Existing level of management
- Capacity to adapt to climate change

At initiation, dialogue is started with local government and traditional leaders, checking for support for the process and a commitment to enhance local leadership in managing the communities' resources.

Through community meetings, one-on-one survey and discussion, a boat tour and walk about, the National Project Team is able to become familiar with the community, its issues, and its aspirations. This is key to determine if it is appropriate to move ahead with the *Reimaanlok* conservation planning process, and if so, scope the initiative.

Suggested Activities

Activities	Suggested Tools/Resources
Before visit compile existing information on atoll	Fisheries information, RMI Conservation GIS, EPA management plans, climate information, etc.
Hold initial community consultations with the whole community led by local government and National Project Team to identify local and national issues and opportunities	Dialog with the community regarding national and regional initiatives (such as Micronesia Challenge and climate change)
Boat tour and walk about for the National Project Team to become oriented to the site and the issues	Key informant discussion about resources, issues, and opportunities
Link community to the environmental radio network and install equipment	MICS communication network
Identify individuals for solid and hazardous waste collection	Strategies for collection and removal from Atoll (MICS)
Deliver education and awareness material related to conservation, climate change and sustainable development	CMAC partner materials
Conduct a preliminary survey to establish level of commitment and awareness	Pre-survey Questionnaire (Appendix 1)

Critical Success Factors

Understanding the key issues and threats (climate and non-climate) related to natural resources and community well-being together with the level of commitment and leadership within community itself to plan and to implement a community-based management plan.

Outputs

- Document showing intention to develop a plan and an agreement between the lead agency and the local government
- Initial assessment of issues of concern, including those related to climate variability and change and how these can be captured within the community-based fisheries and resource management plan
- Trip report which includes the schedule, list of accomplishments and to-do list
- Presentations of awareness materials
- Initial list of proposed names of the LRC
- Results of the preliminary survey related to community commitment and awareness of key issues

Step 2: Project Scoping and Setup

To be done locally or in Majuro

- Form the National Project Team, determine the lead agencies for various projects, and define roles of each project member
- Scope the project and determine budget
- Continue to gauge support from traditional and local leaders

The planning process will commonly be led by MIMRA, EPA, or MICS, depending on the focal issues and scope of the plan (i.e., a fisheries focus or a coastal management focus) as well as their existing relationships with the community. Regardless of the lead, the *Reimaanlok* process will be followed and supported by the other organizations within the CMAC, whose roles will be determined during this time. The scope, work plan and timeline is very dependent on the existing budget, which is often a combination of agency, cabinet approved funding and grant funding from international programs and donors.

Suggested Activities

Activities	Suggested Tools/Resources
Determine scope of project	Review contents of request from local government and community Review community issues and opportunities, trip report and outcomes of survey from Step 1
Determine budget	Trip cost calculator (Appendix 2)
Develop project work plan and timeline	Project Plan Template – Namdrik example (Appendix 3)
Organizing the team and the planning process	Getting Organized (Appendix 35 LEAP Step 1) Get Organized for Action Planning Checklist (Appendix 35 LEAP Worksheet #2)

Critical Success Factors

- It is essential to ensure that the time, financial and human resources committed to the project are adequate for the achievement of successful outcomes, based on lessons learned from the past.
- Successful management and climate adaptation requires setting clear geographic boundaries to focus both assessment and actions. Carefully define the project area; consider matching boundaries to issues of concern. If issues are rooted in the larger lagoon (i.e., erosion due to mining in another part of the shoreline), the analysis and possibly the implementation must be broader, but avoid overextending the scope of the effort.
- Partnerships with other agencies or NGOs can help provide information and assistance for outreach, education and adaptation in the community level (i.e., meteorologist, WUTMI, Health, Education, World Teach).
- Linking with the National Hazards Plan, the Coastal Management Framework and the OEPPC climate change initiatives will help to mainstream and can likely provide additional funding and technical assistance.
- Identify external financial and/or technical assistance needs, such as developing climate change scenarios, vulnerability assessment, and implementing adaptation actions.

Outputs

- Project Plan, work plan and timeline agreed upon by the National Project Team and the community
- Commitments from agencies for staff and resources
- Proposals for additional expertise or financial resources, if needed, to complete the planning effort

Step 3: Building Commitment

To be done locally

Goals

- Build commitment of community members and leaders to engage fully in the process
- Gain a mutual understanding of the issues and concerns of the community and its various stakeholders
- Build a relationship of trust between the National Project Team and the community

This entire step has been identified as an important precursor to developing the actual management plan. It provides necessary awareness-building for the community, and time for the community to consider the possibilities and implications of resource management and conservation. The National Project Team will visit the community, primarily to commence a dialogue with the community and to raise awareness of the benefits of resource management and conservation. It is critical for the National Project Team to:

− understand the local interests and relationships
− understand the degree of readiness within the community to develop a resource management plan, and
− build a relationship of trust with the community

Towards the end of the visit, it is recommended that Local Resources Committee be established. It is also possible during this time that collection and mapping of local knowledge can be started.

Preparation for this trip requires the following:

- Maps of atoll
- Basic information concerning the atoll
- History of atoll
- Atoll profile (MIMRA)
- Statistics concerning activities and landmarks
- Previous reports
- Previous surveys
- Published literature about the atoll

Suggested Activities

Activities	Suggested Tools/Resources
Presentations to schools, community groups, council members	Presentations on marine protected areas, management plans, climate change and other examples in RMI Posters and education materials such as *Adapting to Changing Climate Posters and Booklet* http://www.cakex.org/sites/default/files/SMALL%20Booklet%20FINAL.pdf Activities for schools and groups, such as snorkeling
Informal *bwebwenato* with community	RMI context for community engagement
Stakeholder Analysis	Involving Stakeholders (Appendix 4: PIMPAC Guidelines, or Appendix 35 LEAP Worksheet #3) Community Awareness Checklist (Appendix 35 LEAP Worksheet #5)
Establish Local Resources Committee for planning and management	Terms of Reference Template for Local Resources Committee Template (Appendix 5)
Initial survey questionnaire to assess status and use of marine and terrestrial resources, climate change impacts	*Reimaanlok* Socio-Economic Survey (Appendix 6)

Critical Success Factors

- Most importantly, a successful outcome depends very much on a relationship of trust between the National Project Team and the local community. A further critical success factor in Building Commitment has been identified; if commitments are made to the community, then it is vitally important that the National Project Team keep those promises and do what they say they will do and when they will do it.
- The Local Resources Committee membership is critical to the success of this process. They must be people who are both accessible to, and respected by the community.
- Consistent communication between the National Project Team and the local team.

Outputs

- Stakeholder analysis that identifies different groups and their interests
- Terms of Reference for the Local Resources Committee
- Plan for National Project Team visit to the community
- Survey results that provides a preliminary overview of the community's profile and issues of the community

Step 4: Collecting and Managing Information

To be done locally in two or more trips

Goals

- Collect information as input to the management plan
- Engage community to enhance the quality of the information and to continue to build local capacity and buy-in for management
- Identify issues related to climate change and the local impacts

This phase of work is primarily about collection of information that forms the basis for the development of the management plan. This involves collection of local and traditional knowledge and use of resources to obtain information about resource health and status. If not done in the previous visit, the Local Resources Committee (at community or at atoll level) is established prior to detailed collection of information as they are keys to the coordination of interviews and meetings.

Suggested Activities

Activities	Suggested Tools/Resources
Initial assessment of climate impacts and discussion of indicators	Draft Outline of Climate Change Indicators to use in Reimaanlok Plans and priority baseline needs (Appendix 7)
Community mapping of resource and use	Guidelines for Collection of Local and Traditional Knowledge and *mo* in the Marshall Islands (Appendix 8) Assessing Non-climate Threats, Map the Community (Appendix 35 LEAP Step 3 -Worksheet #6)
Qualitative survey by members of National Project Team combined with local knowledge: quick survey of key locations with simple methods and low logistical complexity	Rapid Ecological Assessment, Participatory Aquatic Resource Transect (Appendix 9) Baseline Rapid Assessment of the Natural Resources Methodology (Appendix 10) and Woja Reserve Example (Appendix 11) *Socio-Economic Fisheries Surveys in Pacific Islands: A Manual for Collection of a Minimum Dataset* *Survey Methods* http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Kronen_07_SocioFishSurveys.pdf
Quantitative survey by experts, volunteer scientists and staff of National Project Team combined with local knowledge	Standardized international survey protocols for marine and terrestrial resource assessments Marine: SPC protocols Marine protected areas effectiveness: Palau International Coral Reef Center and Micronesia Challenge Protocols
Develop Local Climate Story as it relates to resource management	Local Climate Story (Appendix 35 LEAP Worksheet #14) Historical Timeline (Appendix 35 LEAP Worksheet #10) Seasonal Calendar (Appendix 35 LEAP Worksheet #11) Community Walk (Appendix 35 LEAP Worksheet #12)
Socio-economic survey	Socio-Economic Baseline Assessment and Monitoring Plan Worksheet (Appendix 12, SEM-Pasifika, SPC, Coral Triangle Initiative)
Assemble maps and incorporate on to RMI Conservation GIS	RMI Conservation GIS, Government agencies (i.e., MIMRA, EPA), CMI, and internet sites such as Google Earth

Field survey to determine island height and determine flooding risks	Developing Benchmarks Relative to Sea Level (Appendix 13) Surveying Island Height Procedures (Appendix 14) Evaluating Flooding from Sea Level Rise – Case Study of Jabót (Appendix 15)

All relevant knowledge to be collected is entered into the RMI Conservation GIS database. If required, a high-quality satellite image should be acquired for the atoll.

Baseline Survey of Natural Resources
At some stage during the management planning process, it is useful to have a baseline survey of resources – i.e., what is there and how healthy is it? Scientific data are useful to establish a baseline by which future impacts of resource management can be gauged through a standardized monitoring procedure. It is also very useful for education and awareness of the community, particularly where there are special biodiversity areas of national or international significance.

Because better management decisions can be made based on up-to-date information about the health and status of the natural resources to be managed, it is beneficial (although not essential) to get this information before final management decisions are made. Several options are available; the choice of method should be made based on the degree of reliability required and the resources available for the survey.

Socio-Economic Survey
Collection of socio-economic information is important for understanding the degree of dependence of the local community on the natural resources for both subsistence and income-generation. Socio-economic information should be collected in a standardized way for both baseline information and ongoing monitoring.

Scoping Community Resources and Vulnerability
To begin to assess the potential vulnerability of a community on an island to environmental change it is important to start with a base map. From this information you can begin to build layers of information about community assets and resources, the island topography and through talking with people and field observation begin to identify potential sites of vulnerability. By spending time talking with community on the first day and throughout the assessment it is possible to improve some understanding of community concerns and the impacts that past events have had on buildings and resources. This information can then be supported by surveys of land height to identify areas of land that have a higher likelihood of being flooded by waves or rainwater.

Critical Success Factors

- When the community is actively engaged in the collection of information, the management plan issues and actions will be those that the community cares about. They will have "buy-in" to the management.
- Initial data and information in this phase will provide a baseline for management and help to identify the gaps and needs for future, more detailed studies.

Outputs

- Spatial and descriptive information of critical resources and their use
- Socio-economic information on the community
- Updated RMI Conservation GIS database
- Data and graphs on island elevation to help assess vulnerability
- Preliminary assessment of flooding risks
- A Local Climate Story summarizing climate change issues

Step 5: Developing the Management Plan

To be done locally in several trips

Goals

- Identify and prioritize resource management targets and threats
- Develop the Management Plan

The development of the management plan is to be primarily done through the Local Resources Committee. This process will be staged across several visits, with small gaps of time between each.

Suggested Activities

Activities	Suggested Tools/Resources
Identify and prioritize Natural Resource Targets	Identifying Natural Resource Targets (Appendix 16 PIMPAC Guidelines)
Community mapping of natural resource targets, threats, resource use, currents, *mo* and description of rules around *mo*	Guidelines for Collection of Local and Traditional Knowledge and *mo* in the Marshall Islands (Appendix 8)

Identify and prioritize threats	Prioritizing the Threats (Appendix 17 PIMPAC Guidelines) Assessing Non-Climate Threats (Appendix 35 LEAP Step #3, Threat/Action Model Example) Identify and Map Target Resources (Appendix 35 LEAP Worksheet #7) Identify and Map Threats and Impacts & Identify Causes of Threats (Appendix 35 LEAP Worksheet #8) Identify potential early actions to address threats and/ or better manage target resources (Appendix 35 LEAP Worksheet #9)
Identify how climate change affects different people and their interests	Vulnerability Assessment (Appendix 35 LEAP Worksheet #15) Summary Matrix of Vulnerability Analysis - Namdrik Example (Appendix 18)
Community visioning – determine development aspirations	Creating a Community Vision and a Conceptual Model, (Appendix 19 PIMPAC Guidelines)
Understand the community strengths, weakness, opportunities, and threats	Completing a SWOT (strength, weakness, opportunity, threat) Analysis (Appendix 20 PIMPAC Guidelines)
Develop objectives for management	Crafting a Good Goals and SMART Objectives (Appendix 21, PIMPAC Guidelines or Appendix 35 LEAP Worksheet #18)
Identify management actions to achieve objectives	Developing Management Actions to Achieve the Objectives (Appendix 22 PIMPAC Guidelines) Management Plan Example (Appendix 30)
Develop indicators: process (milestones), biological and socio-economic	Developing Good Indicators (Appendix 23 PIMPAC Guidelines)
Prioritize management actions	Prioritizing Management Actions (Appendix 24 PIMPAC Guidelines or Appendix 35 LEAP Worksheet #17)
Develop an action plan with tasks, timelines, and responsibilities	Action Plan Template – Namdrik Example (Appendix 25, or Appendix 35 LEAP Worksheet #19)
Select and design conservation areas and management zones	Marshall Islands Conservation Area Design Principles (Appendix 26) Complement this with voluntary advice from conservation planners via email or Skype.
Develop an incentive plan/enforcement plan	In development
Present draft ordinances	Fisheries Management Ordinance template (Appendix 27) Fisheries Management Ordinance Likiep Example (Appendix 28)
Determine authority and responsibility	Local Resources Committee Terms of Reference (Appendix 5) Implementation Guidelines – Likiep Example (Appendix 29)
Develop a budget for implementation of the plan and how to finance it	Implementation Budget Template (Appendix 30)
Determine a capacity building plan	Management Skill Set Assessment and Management Training Needs Analysis (Appendix 31)
Present the draft plan and get comments and feedback from the community	Example Management Plan – Ailuk Example (Appendix 32)

Critical Success Factors

- It is essential that consultations are held with all the influential groups and people such as but not limited to the local government council, the mayor, the *Iroij, Alap* and *Dri Jerbal* (land owners), church groups, etc.
- Ensure that the members of the Local Resources Committee are reporting back to the groups that they represent and to their communities as a whole.
- It is also important that the representative has the appropriate level of authority to be able to act on behalf of the group they are representing.
- It is critical that the community, together with the CMAC resource agencies, has the capacity and resources to achieve actions described in the management plan.

Outputs

- Maps and datasheets of natural resource and conservation targets and uses
- Draft management plan, with goals, actions, timelines, and budget
- Draft management plan ordinances
- Management needs assessment

Step 6: Sign–Off

To be done locally or in Majuro

Goal

- Sign off of the management plan to set it up for implementation

  Sign-off is an important step in finalizing the management plan, and ensuring the community and the leaders are ready to implement the plan, including enforcement of rules and regulations. The sign-off process here refers to signing off on the management plan and agreeing to move forward in its implementation. There may be various ways to do this, depending on the particular circumstances. Some local governments may decide to pass an ordinance immediately, while other communities may indicate their intent to implement management strategies and develop local laws at a later date. It is important to note that ordinances do not have to be in place for the management plan to be signed and implemented.

Suggested Activities

Activities	Suggested Tools/Resources
Establish a sign-off procedure and dispute resolution process	Sign off document (Appendix 33)
Determine the process for signing	The LRC determines if there will be a formal or informal ceremony.
Finalize all documents to be included in the sign-off process	Statement from *Iroij* (to be included in the Foreword of the Management Plan) Resolution passed by Local Council endorsing the Management Plan Implementation strategy (which may include: funding access or opportunities) (Appendix 29) Ordinance passed by Local Council identifying regulations and penalties (may come later, after the signing) (Appendix 27, 28)

The management plan should be agreed to and signed by the following:

- Chairman, Local Resources Committee (with approval by the committee) – mandatory
- *Iroij* - mandatory
- Directors/managers of lead agencies – mandatory depending on the agency
- Attorney General – mandatory for ordinances
- Mayor/Local Council – optional depending on involvement
- *Alap* - optional
- *Dri Jerbal* – optional
- Senators from atoll – optional

Success Factors

- Buy-in and broad community support. The more people signing the document, both the mandatory and the optional (i.e., Mayor or Local council, *Alap, Dri Jerbal,* and Senators) will help likely improve the chances of successful implementation.
- Short time between the completion of the management and the sign-off will reinforce the success and help insure that the positive momentum for action is maintained.

Outputs

- Signed management plan, with authority, ordinances and implementation actions

Step 7: Monitoring, Evaluation, and Adaptive Management

To be done locally

Goals

- Management actions are implemented to achieve desired result
- Evaluation supports adaptive management to address climate and non-climate stressors
- Maintain engagement of the National Project Team to support to the community
- Continue to build capacity of the community

National agencies remain involved in the community-based resource management and conservation with each atoll on an ongoing basis to support the community in adapting the plan and to ensure that the actions are achieving their desired result. Adapting the plan is critical for resource management especially when considering changing climate conditions and the implications on resource management. These agencies should

lead the community in establishing a monitoring program, including building community capacity in monitoring techniques.

Once indicators have been identified for socio-economic and biodiversity factors, monitoring is then conducted at regular intervals and analyzed in comparison to the baseline data. Results from this analysis show the effects the management regime is having. This information is made available for review and outreach to the LRC, the community members, and the national agencies.

Management plans should be reviewed and evaluated in a participatory manner every *three to five years* to see if the management objectives are being achieved, and if they are not, adjustments should be made to the plan or to the management implementation. In the early stages of implementation, the National Project Team should visit the atoll every six months to review and monitor the implementation of the management plan and ensure that the community has adequate support. This will reinforce the importance of the plan's implementation to the community. In addition, the National Project Team should focus on ensuring buy-in from traditional leaders in encouraging people to adhere to the plan.

Suggested Activities

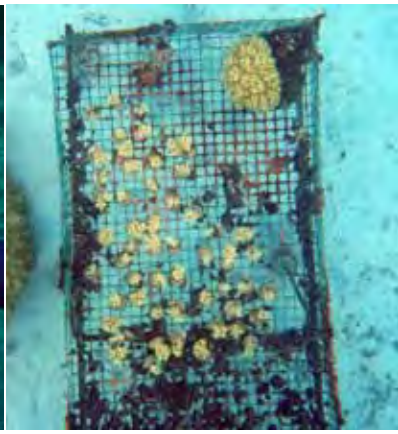
Activities	Suggested Tools/Resources
National Project Team to visit the atoll every six months for the first two years	Local Action Plan
Community-based monitoring of proposed indicators	Local Action Plan
Conduct an annual participatory, community-led evaluation (supported from national level)	MICS, CMAC

Critical Success Factors

- Participatory monitoring supports community buy-in to management. Actions must be achievable and successes celebrated.
- Management actions/strategies are adapted as natural or social conditions change or if the objectives are not being achieved.
- Leadership of the community actively supports the ongoing implementation and compliance with the management plan.

Outputs

- Report from annual trip to the atoll
- Monitoring data on selected indicators
- Recommendations stemming from monitoring and evaluation
- Updated/revised action plan
- Renewed commitment from resource agencies
- Atoll community members trained annually



Step 8: Maintaining Commitment

To be done locally and in other atolls

Goal

- To maintain active engagement of the community in effectively managing their resources

This stage will involve ongoing education and awareness and capacity-building for the community and should continue for many years after the initial plan has been developed. Community members provide experience and motivation to other communities through learning exchanges and training events. These activities support the Local Resources Committee's initiatives within the action plan. For example, the training that takes place at the College of the Marshall Islands helps build capacity of different members of the community, and provides a venue for participants to assist in the implementation of the action plan.

Suggested Activities

Activities	Suggested Tools/Resources
Continuous communication (i.e., education, resource management, King Tide and other phenomena)	HF radio network
Learning exchanges with communities	Community exchange
Annual training is provided to at least one member of the community on an ongoing basis (fisheries officer, conservation officer, leadership)	CMI Marine Science Certificate Program, trainings provided by PIMPAC and LMMA and other relevant entities that support community-based management and climate change
Annual work plans developed by community members and conservation officers	Annual Work Plan – Namdrik Example (Appendix 34)
Conduct an annual visit by an environmental education and awareness program	MICS, CMAC
Update information on key issues related to resource management and climate change	CMAC
Identify access to additional projects and resources to support the management plan actions	CMAC

Critical Success Factors

- Ongoing support from local elected and traditional leaders
- Ensure that if further support is required from national level, then it is forthcoming
- Updated information (i.e., climate change impacts, science, adaptive management) is provided to the community
- Sustainable funding options are developed

Outputs

- Annual work plan
- Resource management and adaptation actions implemented (depending on support)
- Report from annual trip to the atoll
- Renewed commitment from resource agencies
- Atoll community members trained annually

Disclaimer

This guide is made possible by the generous support of the American people through the United States Agency for International Development (USAID). Cooperative Agreement No. EPP-A-00-04-00014-00.

This guide is also funded in part by a grant/cooperative agreement from the National Oceanic and Atmospheric Administration, Project C/CC-1, which is sponsored by the University of Hawai'i Sea Grant College Program, SOEST, under Institutional Grant No. NA09OAR4170060 from NOAA Office of Sea Grant, Department of Commerce. UNIHI-SEAGRANT-BB-12-01.

The views expressed herein are those of the author(s) and do not necessarily reflect the views of USAID and NOAA or any of its subagencies.

Published by the University of Hawai'i Sea Grant College Program