

Materials for Conducting a Workshop on Mariculture Development Issues

Agenda Session Plan Mariculture Role Play Guidance

Based on a Workshop held in Majuro, RMI
February 24, 2004

Convened by the Marshall Islands Mariculture Development and
Management Planning Team

With the assistance of:
Karl Fellenius, College of Marshall Islands
Nicole Baker, RMI Environment Protection Authority
Jim Tobey, Coastal Resources Center, URI

And the support of the USDA/IFAFS project “Bridging Gaps to Insure
Long-term Viability of Small Tropical Mariculture Ventures in Hawai'i
and the U.S.-affiliated Islands”

Mariculture Workshop

Agenda



8:30 am Prayer

Welcome by Minister John Silk

Introductions and Agenda

What is Mariculture?- quick description

***Background to this planning process and IFAFS-
Jim Tobey***

***Background and History of Mariculture in the RMI-
Karl Fellenius/ Terry Keju***

Mariculture for Restocking in RMI- John Bungitak

Brainstorm Issues

10:30 am Morning Break

Review Issues and begin Case Study

12:00 pm LUNCH

SWOT Analysis

2:30 pm *Afternoon Break*

Continue Case Study

Develop List of Priority Issues

5:00 pm Thanks and Close



Workshop Session Plan

February 2004

Objectives:

Content Objective:

- identify the major issues / priorities that should be addressed in a National Mariculture Policy

Process Objectives:

- engage a broad group of people in a highly participatory process
- increase the participants' overall understanding of mariculture activities
- generate ideas and discussion
- have FUN!!!

8:00 am	Breakfast	
8:30am Terry	Prayer and Welcome from the Minister	
8:45 am Nicole	Introduction and Agenda Introduce myself Talk through agenda Housekeeping, be on time to sessions Morning tea, Lunch, Afternoon tea	Write agenda on flipchart and handouts
	What is Mariculture?	Brainstorm key elements of mariculture
9:00 am Karl Jim John	Background to Mariculture in the RMI Jim- USDA/IFAFS project, broader regional/ international process Karl/ Terry- brief history of RMI policy development and history of mariculture activities John Bungitek - using mariculture for restocking, conservation purposes	Powerpoint presentation
10:00 am Nicole	Brainstorm Issues around the value/ supply chain framework <i>Write up model on flipcharts</i>	Nicole will talk through the supply chain model- how we will use it as a basis for discussion and ideas. Group brainstorm using nominal group technique. Post-it notes; participants spend several minutes writing down 5 concerns/ issues and then attach them to the diagram of supply chain on the wall or flipchart paper.
10:30 am	Break	Ideas are sorted by participants during break
10:50 am Nicole	Review Issues	Nicole will review and summarize the groupings of issues that arose from the brainstorming and clarify through brief

		discussion with the group.
11:30 Nicole	<p>Role Play/ Case Study</p> <p>Small groups are assigned different roles along the supply chain. They go through a process of establishing the business and then operating it. The groups identify:</p> <ul style="list-style-type: none"> • resources they will need-materials/ skills/ labour • what barriers they might face • what risks are present- economic/ environmental/ social • environmental impact assessment • customer demands/ market. <p><i>(note: case study is on ornamental clams but can mention other types of mariculture in your discussion)</i></p>	<p>On flip chart, draw diagram of value chain functions and talk to this when assigning groups.</p> <p>Assign group leader – facilitator Ask that the facilitator actively try to get discussion and agreement in the group before writing things down.</p>
	<p>SWOT analysis</p> <p>Strengths SWOT analysis What are the things we do well? What are the things the Marshalls has going for it that we can build on?</p> <p>Weaknesses What are the things we don't do so well? What are the barriers to mariculture development with respect to your group? What could we do better?</p> <p>Opportunities What could we take advantage of? What trends could work in our favour?</p> <p>Threats What external forces could impact negatively on RMI mariculture?</p>	<p>Briefly read through the different function/ groups and assign people to their groups. Read through each so that the whole group understands the other groups' roles.</p> <p>Describe a SWOT analysis and handout flipchart- each group to begin by doing a SWOT analysis- focus on their own function/ group. Can also consider linkages with other groups.</p>
12:30 pm	Lunch	
1:15 pm	Report back to whole group on the SWOT analysis of each group.	
1:45 pm	Continue work on Case Study	Answer the questions on the Case Study sheets and develop strategies to respond to SWOT analysis- how will we build on our strengths? Adapt our weaknesses? Take

		advantage of our opportunities?
2:45 pm	Afternoon Break	
3:00 pm	Case Study report back and discuss	Each group presents their discussion and the entire group can make comment.
3:45 pm Nicole	Develop list of priority issues What are the key things we need to put in place to ensure aquaculture thrives in the RMI?- in all areas of the supply chain. What are this group's recommendations for that?	Facilitated large group discussion- take points from the case study and issues brainstormed in the morning session.
5:00 pm	Close and Thanks	

February 17, 2004

TO: Distribution List

FR: Honorable John Silk
Minister of Resources and Development & Chairman of MIMRA Board
Ministry of Resources and Development
Majuro, MH 96960
Tel: (692) 625-8262/5632
Fax: (692) 625-5447
Email mimra@ntamar.com

RE: **Invitation to Attend National Mariculture Planning Workshop**
Date: Tuesday February 24, 2004
Time: 8 am - 5 pm

Place: Melele Room, Outrigger Hotel, Delap

I am pleased to invite you to the above mentioned workshop as part of the continuing effort to develop mariculture as a source of alternative income for both the private and public sector in the Marshall Islands. Mariculture is also an important means of restocking in depleted areas. The purpose of the workshop is to share our collective knowledge and ideas about how to move this process forward.

Activities will include discussions on outer island mariculture development and associated product delivery to international customers. Your views will be important because each step in the supply side chain may have a number of barriers and opportunities related to your particular field of expertise that will only become apparent through constructive discussion.

It is expected that this workshop will provide the necessary elements to proceed to more detailed work on specific issues over time.

Your cooperation and support in this endeavor is highly appreciated.

Sincerely,

John M. Silk
Minister of Resources and Development

National Mariculture Planning Workshop—February 24, 2004 Opening Speech by Hon. John Silk

Ladies and Gentlemen:

On behalf of the Marshall Islands Marine Resources Authority I would like to welcome all the participants to this National Mariculture Planning Workshop. I would like to recognize several people in particular: Iriojlaplap Imata Kabua; Senator Michael Kabua, Mayors Jewajidrik Anton from Arno, James Capelle from Likiep, Antari Jason from Jaluit, Len Lenja from Mili, James Matayoshi from Rongelap, and Amos McQuinn from Namdrik.

Mariculture in the Marshall Islands is in its infancy. Several successful projects have already been developed here but there is much potential for expansion. The outer islands need to find supplemental income generating activities and mariculture is an opportunity to provide this. Furthermore, mariculture can be used for restocking of near-depleted species.

As of now, there is no national development plan nor significant policies in effect that would help the growth of this industry. The overall purpose of this workshop is to identify the issues that need to be addressed in developing mariculture for the RMI. In so doing, we will all gain an appreciation for the complexities as well as the opportunities involved. It is important that this process incorporate the views of all stakeholders and that is why we have invited you here today. It is my hope that we can all work together and share our collective knowledge to gain an understanding of mariculture and work towards a national development plan.

In conclusion I would like to thank the organizers of this workshop – Terry Keju from MIMRA, Karl Fellenius from the College of the Marshall Islands, Nicole Baker from RMI – EPA and Matang Ueanimatang, CMI aquaculture extension agent. I would also like to recognize our off island participants – Jim Tobey from the University of Rhode Island and C.L. Cheshire from UH Monoa Pacific Business Center.

Mariculture Role Play

In order to gain a deeper understanding of the issues in Mariculture development in the Marshall Islands we will establish several groups, representing the key functions involved in successful mariculture development.

Groups

1. ***Production*** (hatcheries and farms) - Majuro and outer islands
2. ***Product Development, Marketing and Export Group***
3. ***Transport*** - air and sea, domestic and international
4. ***Customer*** - wholesale, retail, consumer - quality, live arrival, filling of orders
5. ***Government Facilitator / Business Development Office***
6. ***Environment / Biodiversity Conservation Office***

Production Group

You have been given the task of managing production facilities for clam farms in the RMI. Your group may comprise of linked businesses, hatcheries, farms, larger companies and small locally based companies. Ownership of your business may be public, private or mixed.

You must work closely with the Marketing, Export and Product Development Group to understand what the requirements for the customer are and how to run your production to meet these requirements, in terms of quality, product range, live shipments, amount of product required.

If you decide to continue to operate production facilities (hatcheries or farms) on the outer islands, or establish new production facilities, you must work with the Transport Group to ensure adequate and reliable transportation of product within the RMI. (the Export Group will consider issues with export transportation).

You must also work closely with the Government Facilitator/ Business Development Office to gain their assistance in removing barriers to developing your businesses.
(consider permit processes, (EIA), business setup)

You will also need to work with the Environment Biodiversity Conservation Group to ensure that the production facility has minimum environmental impact and to carry out Environmental Impact Assessment and monitoring.

Consider other issues such as:

- whether we want competition in production facilities in the RMI- may lead to overcapacity for the market and a drop in prices
- the potential positive benefits to local communities of mariculture production, and some of the risks of establishing mariculture production
- how production facilities can work together to benefit all
- location of production facilities and the pros and cons of these locations

Other questions to consider:

What principles will guide your business?

Economic (consider financial viability, local economic development for your atoll)

Environmental (consider impacts on the environment, positive and negative)

Social (consider local employment, positive impacts on the local community)

How will you determine location of production facilities? (what things will affect your decisions?)

What existing infrastructure can be used? How will you make full use of existing facilities and infrastructure?

How will you ensure the RMI meets customer needs in terms of product?

What considerations are there for economic development?

What skills do you need to start-up the operation? How will you get these?

What materials/ resources do you need to start-up the operation? How will you get these?

What skills do you need to operate the business? How will you get these?

What materials do you need to operate the business? How will you get these?

How will you improve transport to your customer to ensure the product arrives safe and healthy?

What sorts of things do you need from the Government Facilitator/ Business Development Office?

Marketing, Export and Product Development

You, as a group, are concerned with Marketing the RMI product internationally, identifying customers and forming business relationships, exporting the product and establishing product development in order to meet the customer requirements in the future.

You will need to work closely with the Production Group to assist in ensuring that the production meets customer requirements in terms of - quality, product range, live shipments, amount of product required.

You will need to work with the Government Facilitator/ Business Development Office in order to gain assistance in developing the business, and with the Transport group to ensure reliability and timeliness of transport services, both from the outer islands to Majuro, and then particularly for your exported products.

In addition, you will be working very closely with your international customers to understand their needs and any trends occurring in the Market that will affect the RMI's business.

Questions to consider:

What are the primary needs of the customer? What are the key aspects to customer relations in this kind of market that the RMI needs to build and preserve for long-term benefit?

What are trends with either the wholesale market or the consumer market that may affect RMI in terms of production and/or transport?

What sorts of things do you need from the Government Facilitator/ Business Development Office?

Transport

You are responsible for transport between the outer islands and the main production facility on Majuro, and also for transport from Majuro to the international markets of USA, and to a lesser extent, Europe and Japan.

You are aware that timeliness and reliability of service are the most important issues for all your customers to ensure that live product

You also have some concerns about transporting this kind of product.

You will need to work closely with the Production and Export groups to come up with what the major issues are and how they might be resolved.

Questions to consider:

What sorts of things do you need from the Government Facilitator/ Business Development Office?

How will you work with the production and export sectors of the business?

Government Facilitator/ Business Development Office

You are a representative of the government- your role is to assist Mariculture business development in the RMI by facilitating processes such as:

- investment/ funding/ loans;
- facilitating any permits required;
- assistance with taxes and charges;
- coordinating discussion between parties involved;
- removing barriers to development;
- providing or coordinating Technical Assistance/
- ensuring that the developments are in the overall interest of the RMI- that is that benefits are shared equitably.

You need to work closely with all other groups- Production, Transport, Marketing, Export and Product Development and Environment Group- in order to assist in facilitating communication and processes between and within these groups.

Consider the different aspects of the business such as:

- Production- Majuro and outer islands
- Marketing- developing and maintaining a customer base
- Product Development (usually is a medium to long-term investment with little or no immediate return)
- Transport

Other questions to consider:

Are you looking for foreign investment? How will you market investment in RMI mariculture to foreign investors?

How will you provide assistance to RMI business in business development? What skills or resources do you need? Where will you get these?

What barriers are there currently to business development and how could you assist in lowering these barriers?

How can you help ensure the benefits of Mariculture development are shared equitably?

Environment and Biodiversity Conservation Office

You are concerned with:

- the impacts on the natural environment of mariculture operations
- the restocking potential of the aquaculture industry in RMI

1. You deal mainly with the Production Group to ensure protection of the environment and of biodiversity. Your policy tools include regulations, including some form of environmental impact assessment. In addition, you work closely with the Government Facilitator to assist businesses to do the right thing regarding protection of environment and biodiversity.

2. You understand that mariculture has the potential to positively impact the environment through providing stock to replenish depleted populations such as the *Tridacna Gigus* (true giant clam). You are looking for a way to develop this aspect of mariculture.

Other questions to consider:

What are the primary issues to be considered in EIA?

What kind of process will you use to assess developments / operations?

How will you balance social and economic issues against environmental issues?

How will you implement this?

What are the barriers?

What skills and resources are required? Where will these come from? Who can / will pay?

What kind of ongoing monitoring will you use?

Examples of things to consider in an EIA:

- The general character of the existing site in terms of flora and fauna; landscape and features of the underwater environment
- The natural history of the site; the importance of the area in national, regional and local terms
- Consistency of the proposed development with any relevant statutory instruments, planning policies, heritage orders, international conventions (say, protecting threatened species) EPAs and MIMRAs other conservation initiatives
- Alternative sites for the proposed development, or alternative designs or techniques, which might pose reduced ecological risks. Reasons why this site is clearly preferable to all others
- An ecological inventory of at least the most prominent and common species with major plant and animal habitats, particularly habitats critical to the preservation of threatened or endangered species or biodiversity in general
- Artificial features of the site- existing infrastructure
- A history of community activity on the site
- Present use of the area by communities, tourists, visitors

- Plants or animals that could be pest or nuisance populations; populations that might expand dramatically. consider exotics
- Possible effects of the proposed development on aquatic species (fauna, fish and coral, algae); on habitats; on the aesthetics of the site
- Primary and secondary impacts, temporary and long-term, unavoidable impacts and risks; transboundary effects; possible irreversible changes
- What about bringing specimens from other atolls? We don't yet know the genetic variation between atolls
- What about bringing in non-indigenous species from other countries?
- Restocking issues
- The possibility of upsetting the species composition by excessive harvesting/ placement of fish, molluscs, crustaceans, seaweed and other creatures and organisms

References: *Environmental Impact Assessment* by Alan Gilpin, 1995

Customer

You are a major wholesaler of aquarium clams in the United States. Your primary concerns are that the product coming from your supplier in the Marshalls:

- Has good, deep rich colour that is attractive to aquarium owners;
- Arrives in good condition at your warehouse and survives repacking and shipment to your customers;
- Is consistent in supply and your orders are filled in consistent manner.

Other things that concern you are:

- your supplier's dealings with any of your competitors;
- broadening your product offerings with other good quality aquarium products and where you will reliably source these.

You will work closely with the Marshall Island Marketing, Export and Product Development Group to ensure they are meeting your needs now and in the future.