

Bikirin Island Management Plan

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Prepared by:

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With technical assistance from MIMRA and CMAC**

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1. Title of the Management Plan
 - a. This Management Plan shall be referred to as the “Bikirin Island Conservation and Restoration Plan”.

2. Designated areas and species for the Management Plan
 - a. Area – Designated areas include both marine and terrestrial environments of Bikirin Island, Majuro Atoll.
 - b. Species – Designated species in this plan include the marine and terrestrial flora and fauna of Bikirin Island, Majuro Atoll.

3. Background

Bikirin Island is a small island located on the northern side of Majuro Atoll in the Republic of the Marshall Islands. Starting in 2009, the landowners of Bikirin began to develop the island and surrounding waters as a protected area. This action was taken both in response to increasing threats to Bikirin’s natural environment and as a way to model sustainable resource management to other landowners in north Majuro. Management actions since the establishment of the protected area have sought to lessen the threats to the islands’ environment while also establishing Bikirin as a living lab and demonstration tool for students and landowners on Majuro.

4. Vision Statement
 - a. We envision an abundance of flora and fauna in both marine and terrestrial environments, a healthy ecosystem, and a happy community living in a healthy environment. We envision Bikirin to have a pristine and lush environment with an abundance of both marine and terrestrial resources for the sustainable livelihood of the community.

5. Stakeholder Analysis

Stakeholder	Interest in the area	Importance of their interest	Importance to the planning process	How will they be involved?
ELEFA/landowners	<ul style="list-style-type: none"> • clan ownership of resources • need for sustainable livelihood 	High	Very Important	<ul style="list-style-type: none"> • planning team • monthly meetings
MIVA	<ul style="list-style-type: none"> • promoting Bikirin for tourists – diving, bird watching 	Medium	Important – lobby for financing	<ul style="list-style-type: none"> • Ask for inputs in the process • Inform of management decisions
Aquarium industry	<ul style="list-style-type: none"> • harvest of clams and fish for export 	Low	Not Important	<ul style="list-style-type: none"> • Ask for inputs • Inform of

	<ul style="list-style-type: none"> • profits 			decisions
Fishermen	<ul style="list-style-type: none"> • Fishing location 	Medium	Low Importance	<ul style="list-style-type: none"> • Inform of the rules for the MPA – fishermen must ask permission to fish at Bikirin
Recreational users	<ul style="list-style-type: none"> • Picnics • Diving • Bird watching 	Medium	Important	<ul style="list-style-type: none"> • Ensure that visitors learn about the MPA and terrestrial conservation measures
Enforcement Agencies (MICS, HPO, MIMRA, EPA, etc.)	<ul style="list-style-type: none"> • Mandated to enforce the rules • Raising awareness • Assisting in surveys and work with tourists 	High	Medium Importance	<ul style="list-style-type: none"> • Need early input and assistance in the planning process

6. Prioritized Natural Resource Targets

Fish	Coral	Birds	Crabs	Inverts
1. Mole (rabbit fish)	1. Pinnacles	1. Mule (Micronesian pigeon)	1. Wor (lobster)	1. Pearl oyster
2. Bajrok (blue sea chub)	2. Other coral	2. Pejwak	2. Chaninway (coconut crab)	2. Giant clams
3. Iol (finglip mullet)			3. Aten	3. Aorak
4. Jato (humpback red snapper)			4. Limalap	4. Loked
5. Aker (squaretail mullet)				5. Kweet (lobster)
6. Jalia (emperor)				
7. Majani (humpnose big-				

eye bream)
8. Momo
9. Kuro (brown-marble grouper
10. Jo (goatfish)
11. Dijin (orange-striped emperor)
12. Poniej (goatfish)
10. Tiebedo (surgeon fish)
11. Kelimij (surgeonfish)
12. Jeblo
13. Ek mooj (parrotfish)
14. Kuor (big-eye soldier fish)
15. Emium (emperor)
16. Ael (wahoo/barracuda)
17. Kuban (surgeonfish)

6. Problems and Causes

Problem	Cause
1. Decline of fish	<ul style="list-style-type: none"> • Overfishing • Destructive fishing • Erosion (coral sedimentation)
2. Decline of birds	<ul style="list-style-type: none"> • Hunting for food • Clearing of land • Capture for pets • Recreational activities
3. Decline of crabs	<ul style="list-style-type: none"> • Overconsumption • Clearing of land
4. Decline of clams	<ul style="list-style-type: none"> • Overconsumption • Erosion • Destructive Fishing

Threat	Targets	Area	Intensity	Urgency	Total Score	Priority
Decline of fish	17	3	2	2	24	1
Decline of birds	2	3	2	2	9	3
Decline of crabs	4	3	1	1	9	4
Decline of clams	3	2	2	3	10	2

Solutions	Short-term outcomes	Long-term outcomes
Regulations and ordinances	<ul style="list-style-type: none"> • Identify needs for regulations/ordinances • Identify partner organizations • Marine protection initiated 	<ul style="list-style-type: none"> • Regulatory framework in place with enforcement measures for protected areas • Strong partnership established with relevant agencies • Resource users understand and abide by rules and laws
Coastal management	<ul style="list-style-type: none"> • Stop further decline of resources • Destructive activities identified • Determine baseline populations • Awareness programs conducted 	<ul style="list-style-type: none"> • Populations stabilized • Habitats restored • Monitoring program initiated • Trainings completed • The community and public change their behavior based on what they have learned
Coastal replanting	<ul style="list-style-type: none"> • Determine baseline populations • Develop funding strategy • Conduct awareness programs • Work with MIVA • Complete trainings 	<ul style="list-style-type: none"> • Sustainable funding obtained • Monitoring program initiated • Trainings completed • Increase in tourism • The community and public change their behavior based on what they have learned

7. Threat Analysis

Threat	Solutions	Outcomes
Overfishing	Regulations	<ul style="list-style-type: none"> • Regulatory framework in place with enforcement measures for protected areas
	Awareness	<ul style="list-style-type: none"> • Knowledge of protected area and change in behavior

Hunting	Awareness	<ul style="list-style-type: none"> • Knowledge and change in behavior reduces hunting • Habitat restoration
Erosion	Coastal management	<ul style="list-style-type: none"> • Coastal management plan endorsed and implemented
	Replanting	<ul style="list-style-type: none"> • Coastal habitat restored to prevent erosion

8. Objectives

Objective	Management actions	Who	Indicators
1. By end of 2014(?) Bikirin community and stakeholders will have identified a process of regulation with enforcement measures for mo and protected areas.	1. Community meetings 2. Surveys 3. Draft Regulations	ELEFA MIMRA, HPO, other ELEFA, MALGOV	Number of meetings held Survey results Regulations completed and enacted
2. By 2015 Bikirin community and stakeholders will have increased knowledge of regulations and enforcement measures by 20%.	1. Awareness campaigns 2. Surveys 3. Consultations	MALGOV, ELEFA, CMAC CMI/LandGrant, MIMRA, HPO, MALGOV **KUMIT BOBRAE All stakeholders	Number of people attending awareness campaigns/news ads Number of surveys Number of consultations and number of attendees
3. By end of 2013 Bikirin community and stakeholders will have endorsed and implemented the coastal management plan to prevent erosion.	1. Coastal survey 2. Meetings for endorsement and implementation	CMI/LandGrant, MIMRA, HPO ELEFA stakeholders	Survey results Number of meetings, completion and endorsement of plan
4. By end of 2015 Bikirin community and stakeholders will	1. Funding received	GEF Small Grants	Approval of grant and receipt of funding

replant 80% of the Bikirin coastline.	2.Seedlings obtained	R&D, Taiwan	Number of seedlings obtained
	3.Seedlings planted	ELEFA stakeholders	Number of seedlings planted