



MENAI BAY GOVERNANCE BASELINE



Elin Torell, Aviti Mmochi, and Karen Palmigiano



This publication is available electronically on the Coastal Resources Center's website at www.crc.uri.edu. It is also available on the Western Indian Ocean Marine Science Organization's website: www.wiomsa.org. For more information contact: Coastal Resources Center, University of Rhode Island, Narragansett Bay Campus, South Ferry Road, Narragansett, Rhode Island 02882, USA. Tel: 401) 874-6224; Fax: 401) 789-4670; Email: elin@crc.uri.edu

Citation: Torell, Elin, Aviti Mmochi, and Karen Palmigiano, 2006, *Menai Bay Governance Baseline* Coastal Resources Center, University of Rhode Island. pp. 18

Disclaimer: This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government. Cooperative agreement # EPP-A-00-04-00014-00

Cover Photo: Turtle in the Menai Bay area

Photo Credit: Menai Bay Conservation Area Project, Zanzibar/WWF

Introduction

Menai Bay Conservation Area (MBCA) is situated in the southwest of Unguja, the main island of the Zanzibar Archipelago, and covers an area of 467 km² including 6 islets, with a seaward boundary close to 61 km offshore. It is the largest marine conservation area in Zanzibar, managed locally by the community and government officials with technical assistance by the World Wild Fund (WWF). The area is extensively covered with coral reefs, sea grass beds, and mangrove forest. The average water depth is 10 meters at high tide. The area had remained relatively undisturbed until the mid-1990s, when uncontrolled fishing pressures combined with destructive fishing techniques became a serious environmental concern.

SOCIO-ECONOMIC PROFILE

There are seventeen villages in the MBCA with a population of about 16,000. Most of the villages are situated within the coral rag area, which is a land area that is made up by coral rock and is characterized by poor soil conditions. The main economic activity for men living in the villages surrounding Menai Bay is fishing followed by agriculture, livestock keeping, carpentry and petty trade. Women are primarily engaged in seaweed farming, agriculture, firewood collection, and coconut-husk weaving for rope making and other related products. Both men and women also take part in the growing tourism industry, which every year brings 15-20,000 tourists to the area for whale and dolphin watching and snorkeling on the reefs.

Table 1. Population of Menai Bay

Ward	Male Population	Female Population	Total Population	No of Households	Household Size
Fumba	485	424	909	186	4.9
Bweleo	426	416	842	185	4.6
Dimani	823	737	1560	343	4.5
Kombeni	1628	1432	3060	649	4.7
Mtende	667	764	1431	342	4.2
Kizimkazi Dimbani	645	715	1360	321	4.2
Kizimkazi Mkunguni	918	930	1848	399	4.6
Muyuni A	478	457	935	194	4.8
Muyuni B	421	432	853	184	4.6
Muyuni C	415	373	788	168	4.7
Muongoni	658	662	1320	286	4.6
Bungi	1019	1001	2020	401	5.0
Unguja Ukuu Kaepwani	1143	1042	2185	429	5.1
Unguja Ukuu Kaebona	569	528	1097	211	5.2
Kikungwi	325	306	631	140	4.5
Uzi	1039	991	2030	422	4.8
Ng'amb'wa	396	358	754	153	4.9

Source 2002 National population census



Source: Menai Bay Conservation Area project/WWF

Figure 1. Menai Bay Conservation Area

Two private seaweed farming companies started seaweed culture on a commercial scale on the east coast of Zanzibar in 1989 and seaweed now accounts for 20 percent of the Islands' export earnings. Women in particular have benefited from seaweed farming, as it provides an opportunity to earn cash income. Between 20,000 and 25,000 people (mostly women) are believed to be engaged in seaweed farming in Tanzania.

In Menai Bay villagers mainly grow *E. spinosum* and to a smaller extent *E. cottonii*. In 2004 the frequency of growing these species in Menai Bay was much higher than in most other parts of the Zanzibar Archipelago and mainland Tanzania. At present, there less than a hand full of companies that buy seaweed from the producers. When they start working in a village, they provide materials such as lines and seaweed seedlings to the producers. This arrangement means that growers have negligible initial capital costs for seaweed production. However, the buyers usually claim the purchase rights for all seaweed that is then produced in a village. In a monopsony¹ arrangement, all village growers are then forced to sell their seaweed to one buyer at the price that the buyer sets and controls. This arrangement tends to keep the price of seaweed low.

BIVALVE CULTIVATION

In the villages of Zanzibar, collection of mollusks demands intense physical labor among women. The wild harvest is currently unsustainable because the catch is unregulated and reportedly harvests are declining. Bivalves are collected from the intertidal zone by different methods depending on the kind of substrate on which they are found. If they live under a muddy and sandy sea bottom, they must be dug up by hand. If they are attached to rocks or coral rags, they must be pried off. Women do this by standing with their legs straight and their torsos bent at the hips. In two Zanzibar villages within the Menai Bay Conservation Area, women questioned regarding their collection of bivalves report that they collect during every spring tide (i.e. twice per month). These women also said that most of what they collected was consumed within the household and was not sold commercially.

Zanzibari women collect over twenty-one species of bivalves, but out of these species some are more prevalent and favored than others. Women tend to collect mostly cockles (*Anadara antiquata*), giant murexes (*Chicoreus ramosus*), conchs (*Pleuroploca trapezium*), and oysters (*Pinctada margaritifera*). These species are also the most valuable, providing between TSH 825-1250 for about 20 specimens. The abundance of these species varies by area and season, which makes the price swing throughout the year. The foot of the mollusk, or operculum, particularly in regard to *Chicoreus ramosus* and *Pleuroploca trapezium*, have been known to be sold for up to TSH 20,000/kilo. Hence, bivalve collection can be relatively profitable, providing cash for women who have few other income generating options.

As near-shore stocks have been depleted, women are forced to collect mollusks further off shore. The fact that women now have to walk further in order to collect enough bivalves indicates that slowly, the collection of wild bivalves may be dangerously depleting the populations. Thus, if collecting continues without some form of management through a conservation or zoning policy, the stocks will continue to decline.

¹ A market situation in which the product or service of several sellers is sought by only one buyer.

TOURISM

Although tourism is growing rapidly on Zanzibar, most of the growth is restricted to the East Coast of Unguja Island. Traditionally there has been minimal tourism development in Menai Bay. The poor roads and difficult access to Menai Bay continues to hinder the growth of tourism that has been seen in Stone Town and the northern tip of Zanzibar near Nungwi and Kendwa. It is difficult to get transportation to the area and tourist accommodations are not well developed. Currently less than a dozen hotels can be found in the towns lying just within the boundaries of the MBCA. Most of the tourism revenue that is currently supported by the park comes from day-trippers, snorkeling and scuba diving within the park's reefs. However, recent years have seen an increase in tourism in MBCA. It is estimated that in 2000 about 12,000 tourists visited the conservation area. Some community members in Ng'ambwa have invested in small restaurants that cater to tourists. Local residents in the Menai Bay area have also taken part in the tourism industry by providing goods and services for tourists. The market for bivalves could possibly grow and the potential exists for farmers and collectors to increase their profits by selling bivalves to tourists either directly or through a tourism establishment. However, increased demand may lead to more rapid decline of stocks, unless the development is managed and the park rules are enforced.

TRAJECTORY OF ICM IN MENAI BAY

In 1992 the villagers of Fumba, Bweleo, Kisakasaka (Kombeni) and Dimani and Nyamanzi (Dimani), the Commission of Fisheries and Department of Environment began working together to stop bad fisheries practices and introduce management plans. The villagers initially volunteered to manage the program through for example watching out for culprits and taking them to the responsible lawful authorities. But they did not have the necessary powers to take action nor the necessary knowledge. There were also no policies or bylaws at the village level to back them up.

In 1994, at the invitation of the Commission of Natural Resources, WWF began to provide support to enhance management measures originally initiated by the local communities on the Fumba Peninsula. This was instrumental to having the area designated a conservation area. The government of Zanzibar officially designated Menai Bay as a conservation area in August 1997. Designation of the bay as a conservation area was received with mixed feelings. Visiting fishermen, especially those from Dar es Salaam, condemned the move outright as an act intended to discriminate against them. Local communities, however, applauded the decision.

The Department of Fisheries and Marine Products and the WWF provide technical and financial support to the MBCA. The main goal of MBCA is to conserve the natural resources of the area for sustainable use with active community participation. The objectives of the project are to:

- Protect the marine ecosystem and improve resource yields through management systems that include active local community participation
- Involve local communities in planning, implementation and monitoring of the natural resources of Menai Bay

FIRST ORDER OUTCOME ASSESSMENT

The Orders of Coastal Governance Outcomes Framework (Olsen 2003) groups outcomes of coastal management along a trajectory that traces the advance to more sustainable forms of coastal development. The framework emphasizes that the first threshold is creating the enabling conditions that make integrated forms of coastal management feasible. These “First Order Outcomes” are: constituencies that actively support an ICM initiative, a formal governmental mandate for the program along with the authority necessary to implement a course of action, resources (including sustained funding) clear unambiguous goals, and institutional capacity. The second threshold is to gauge the success of implementing an ICM program in terms of the changes in behavior that are required to meet its goals. Only after the requisite changes in behavior (Second Order Outcomes) have been practiced for a sufficient period can improvements be expected in the environment and in the social benefits (Third Order Outcomes) that may be attributable to a coastal management program.

The table below gives an overview of the first order outcome assessment for Menai Bay Conservation Area, where the SUCCESS pilot project (the gray shaded line) on the Fumba Peninsula is providing selected interventions that contribute to the overall management of the area.

Table 3. First Order Outcome Assessment

A. UNAMBIGUOUS GOALS	YES	NO	SUPPORTING NOTES
1. Have goals been defined as 3d Order Outcomes?	X		The goal is to conserve the natural resources of the area for sustainable use with active community participation.
	X		To improve income generation and conservation.
2. Are the goals time bounded and quantitative (how much by when)?		X	
		X	
3. Do the goals reflect a science-based understanding of the ecosystem?	X		Yes, because science was conducted before establishing the conservation area.
	X		The project is managed by scientists and a major goal is to reduce pressure on resources.
4. Do the goals reflect an understanding of the institutional dimensions of the challenge?		X	One problem is that mangroves are under forestry while the department of fisheries lead Menai. There is no integration.
		X	
B. CONSTITUENCIES			
1. Do the user groups who will be affected by the program's actions understand and actively support its agenda?	P		There will always be some culprits, but there is overall support from the users.
	X		
2. Is there public support for the program?	X		
	X		Without the support there would be no program, they are the leaders.

