

# *“The Ocean is our Farm”: Marine Conservation, Food Insecurity, and Social Suffering in Southeastern Tanzania*

Vinay R. Kamat

This paper examines the social impact of a large-scale marine conservation project (Marine Park) in the coastal region of Mtwara, southeastern Tanzania, following displacement and the enforcement of restrictions on fishing and extracting marine resources. Through an analysis of interviews and focus group discussions with residents in six villages, the paper illustrates how the undesired effects of the Marine Park have become part of people’s everyday discourse regarding hardships and their experiences of the violence of everyday life. Elicited narratives provide insights into how the Marine Park, in combination with a multiplicity of factors leading to displacement, dispossession, and social dislocation, has intensified hardships, especially among female-headed households, due to their increasing poverty, marginalization, and food-related insecurity. The narratives shed light on people’s lived experiences of disempowerment, feelings of humiliation, anger, despair, low self-esteem, and extreme resentment—in essence, their social suffering. The paper makes a case for addressing the human dimensions of marine biodiversity and conservation interventions as a key step in making them genuinely collaborative and sustainable in terms of social equity and ecological effectiveness.

**Key words:** Tanzania, marine conservation, food insecurity, structural violence, social suffering

Since the mid-1990s, the governments of Kenya, Tanzania, and Mozambique have actively established new Marine Protected Areas (MPAs) and Marine Parks along coastal East Africa as one of the optimum management strategies to protect and sustain marine biodiversity and also improve the livelihoods of coastal communities through ecotourism-related activities and alternative livelihood projects. The region’s rich and diverse marine ecosystem has attracted the attention of the international ecotourism industry and marine conservationists (Cinner 2010; Francis,

Nilsson, and Waruinge 2002; Machumu and Yakupitiyage 2013; Silva 2006; Tobey and Torell 2006; Wells, Burgess, and Ngusaru 2007). Tanzania established its first Marine Park in 1995: the Mafia Island Marine Park, in collaboration with the World Wildlife Fund for Nature (WWF), the World Bank, the United Nations Development Programme (UNDP), and various other conservation organizations (Julius 2005; Mwaipopo 2008; Walley 2004). In 2000, it established the country’s second Marine Park: The Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP) in coastal Mtwara, southeastern Tanzania, historically known as one of Tanzania’s poorest and most marginalized districts (Seppala 1998).

Proponents of MPAs and marine parks have argued that these initiatives represent a win-win opportunity for biodiversity conservation and poverty alleviation, that is, for both marine life and people (Aswani and Furusawa 2007; Laffoley, Gjerde, and Wood 2009; Leisher, van Beukering, and Scherl 2007; Noel and Weigel 2007; Weiant and Aswani 2006). Others have emphasized that MPAs and marine parks are “neither uniformly good nor uniformly bad for coastal communities; rather, the social impacts of MPAs vary within and among groups and subgroups and across different indicators of social well-being” (Mascia, Claus, and Naidoo 2010:1428; see also Mascia and Claus 2009). A growing body of critical academic literature, however, points to a lack of serious attention to the human dimensions of marine

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biodiversity conservation that has resulted in many failed projects (Benjaminsen and Bryceson 2012; Christie 2004; Christie et al. 2009; Jentoft, Cheunpagdee, and Fernandez 2011). Anthropologists in particular have argued for paying closer attention to the social and cultural dimensions of MPAs. They have demonstrated that inter-stakeholder conflicts are inevitable in the establishment and maintenance of MPAs and marine parks, especially when they are largely driven by non-local residents' expert knowledge and political-economic motives (Gray 2010; Levine 2004; McClanahan et al. 2009; Walley 2004). For example, Rosendo et al. (2011:64) argue that "presenting MPAs featuring no-take zones as win-win solutions for conservation and livelihoods may only serve to produce frustration and antagonism amongst local communities for being misled."

A number of anthropologists and marine biodiversity conservationists have argued that no MPA can succeed without the local communities' support (Blount and Pitchon 2007; Charles and Wilson 2009; Christie et al. 2004; Christie et al. 2009). Unless there is significant involvement of local marine resource users and communities in the choice of marine conservation tools, MPAs may alienate local communities, thereby failing to alleviate poverty and promote sustainable resource use (Rosendo et al. 2011; Voyer, Gladstone, and Goodall 2013).

This paper aims to draw attention to the human dimensions of the MBREMP (hereafter Marine Park) with particular reference to food security concerns among the residents of the villages located within the Marine Park's catchment area. I draw on ethnographic research conducted in the Rural Mtwara peninsula in 2010 and 2011, the site where the Marine Park has been established, and examine local perceptions of food availability, accessibility, changes in modes of food acquisition, experiences of food insecurity (food deprivation, insufficient food), and the potential health impact of food insecurity particularly on women and young children, since the Marine Park's implementation. I illustrate how some of the Marine Park's undesired effects have become part of people's everyday discourse regarding hardships, their experiences of the violence of everyday life, and social suffering. Social suffering represents the lived experience of the social damage inflicted by those in power on the least powerful—especially exclusion and the feelings this produces (Bourdieu 1999; Farmer 2004; Frost and Hoggett 2008; Kleinman, Das, and Lock 1997). While the ostensible and laudable goal of the Marine Park is to integrate conservation with development through community participation, without the necessary social safety nets in place, its goal can more appropriately be described as conservation through community compliance, which actually undermines economic and social development. The negligible capital and limited fishing gear and facilities needed to pursue environmentally and economically sustainable fishing have increased people's sense of social and economic vulnerability, dislocation, and dispossession. There is increasing cynicism, feelings of resentment, and hostility among the people, especially toward anyone connected with

the Marine Park. The implementation of "no-take zones" as a conservation tool has put the park managers in direct conflict with some of the indigenous fishers. Park officials are known to bring in military personnel to physically intimidate people who violate the Park's restrictions. The punishment for infractions of legitimate rules often includes the confiscation of nets and boats, leading to further impoverishment (Robinson, Albers, and Kirama 2012).

I argue that the top-down manner in which the Marine Park has been implemented in the Mtwara region is constitutive of structural violence. It has deepened structures of inequality and constrained agency, especially among those who are already impoverished and marginalized, such that their fundamental human needs, especially food security, are neglected. This structural violence has in turn intensified suffering, especially among female-headed households, due to their increasing poverty, marginalization, social disarticulation, and everyday food-related insecurity. The emphasis on food security concerns in this paper is significant because of the ethnographically visible impact that conservation projects have on people's access to food, following displacement and the enforcement of restrictions.

In the next section, I provide a brief description of the research setting and the people who live in the villages that come under the Marine Park's catchment area. This is followed by a description of the methods used to gather the data that form the basis of this paper. The paper's middle section focuses on narratives of food insecurity and local response to the Marine Park. Next, through a discussion of the key findings, I elaborate on the larger implications of the problem at hand for the Marine Park's sustainability and food security among those affected by the project. Finally, I point to some of the challenges that inhere in marine conservation and argue for making the Marine Park genuinely pro-people so that it is beneficial for local communities and for marine biodiversity.

## Research Context

The Mnazi Bay-Ruvuma Estuary Marine Park covers an area of approximately 650 km<sup>2</sup> of which approximately 430 km<sup>2</sup> is sea and 220 km<sup>2</sup> is terrestrial. It covers 45 km of coast, with reefs, dunes, mangroves, wetlands, coastal lagoons, three main islands, the Ruvuma River estuary, and encloses 15 villages with a total population of approximately 30,000. The majority of the people who live in these villages identify as the Makonde—the largest and dominant ethnic group in the Mtwara region. Most of them are bi-lingual; they speak KiMakonde and KiSwahili. Even by Tanzanian standards they are poor, disadvantaged, and heavily dependent on subsistence farming and marine-related and coastal activities, including fishing (Harrison 2005; Malleret 2004; Malleret and Simbua 2004). Most villagers live in thatched mud houses; none of the villages have been connected to the national electricity grid, although a few households have recently invested in solar panels. The sandy infertile soil and the government's decision to move people out of their farms along the coast

as part of the conservation (Marine Park) and development (expansion of the Mtwara Port) strategy have contributed to the lack of serious farming activities in these villages and intensified their dependence on the ocean.

The Marine Park's stated goal is to contribute to marine ecosystem sustainability while also improving the local communities' livelihoods through alternative livelihood projects and the promotion of ecotourism in the area (MNRT 2005). Thus, the Marine Park was established in this region not just to protect marine life but also as a development endeavor based on the principles of community participation.

Although the Marine Park's declared strategy is "collaborative management through community participation" (MNRT 2005:30), the project has created new physical boundaries and restricted people's access to the coastal waters, traditional fishing grounds, and in some cases, ancestral farming land. As I will show in the paper's middle section, the implementation of "no-take zones" and "buffer zones" as part of the conservation strategy has put the Marine Park managers in direct conflict with some of the purported beneficiaries, who believe that they are being unfairly prevented from accessing their traditional fishing waters (see also Gawler and Muhando 2004; Robinson, Albers, and Kirama 2012). Without alternative livelihood opportunities, both men and women experience the impact of restrictions placed on fishing and extracting marine resources. The region's growing poverty and limited access to fish and other marine resources has accentuated the involuntary out-migration of men, particularly artisanal fishers who have to go to other places, including Kilwa, Mafia, Dar es Salaam, Tanga, and Mozambique to fish as migrant fishers in search of a livelihood (Bunce, Brown, and Rosendo 2010). A vast majority of the households from all the villages where this study was conducted had at least one male person who had recently migrated elsewhere or was engaged in fishing or some other livelihood activity away from Mtwara. Women, especially single mothers, who are dependent on the ocean and harvest fish and other marine resources in the nearshore areas using small fine mesh nets and cloth for household food security and sale, are also affected by the restrictions, a point I will return to later in the paper.

In rural Mtwara, not all those who live within the Marine Park's catchment area have uniformly experienced its impact. This is because not all villages that come under the Park's catchment are "fishing villages"; some of the villages are located several kilometers away from the coast or the banks of the Ruvuma River. Households in these villages rely mostly on farming and only occasionally take to fishing. The Marine Park's impact is most directly and severely felt by households in villages that are close to the coast (sea bordering) and which are heavily dependent on fishing and marine-related activities as a means to earn their livelihood. Furthermore, there is significant variation within and among the different villages and local residents in terms of their dependence on the ocean as a source of livelihood. Additionally, the Marine Park has been implemented in a staggered

manner. At the time of this study, the project was still in the early stages of its implementation. Only Msimbati had a reasonably well-developed facility designated as a Marine Park, with a furnished office, a tollgate, and stipulated fees for visitors to enter the park and make use of the facilities. As such, it was a "showcase village" meant to impress visitors and international donors. While villages such as Msimbati, Nalingu, and Mkuburu have been affected by the restrictions, other slated villages are likely to be affected as they gradually get incorporated into the project's domain. Because of the strong and extended social and family networks among those living in different villages, however, discerning the net effect of the project on individual villages and households remains a challenge.

## Methods

Data were gathered in two stages using a combination of methods: participant observation, interviews, and focus group discussions (FGDs). During the June to August 2010 fieldwork phase, pilot research was conducted in three contiguous villages: Msangamkuu, Namera, and Sinda. Interviews were conducted with the *mwenyekiti* (village chairperson) and the *mtendaji* (village executive officer) in each of the three villages. This was followed by preliminary interviews with a convenience sample of 60 individuals in total who were purposively selected: 10 men and 10 women in each of the three villages and six focus group discussions (three women's groups and three men's groups, with a total of 36 participants in the discussions). This phase of the study focused on general questions pertaining to development issues and livelihood strategies; the opportunity was used to build rapport with the local leadership and the residents of the three villages. Given the sensitive nature of the research topic and the context of the local politics and violence associated with the Marine Park in some of the villages (see Malleret 2004), questions pertaining to the Marine Park were asked in general terms without going into the specifics of its impact on people's livelihood concerns.

During the July to September 2011 fieldwork phase, research was focused on six sea-bordering villages: (1) Msimbati (931 households), (2) Nalingu (921 households), (3) Namera (560 households), (4) Mkuburu (457 households), (5) Msangamkuu (680 households), and (6) Sinda (938 households) (total 4,487 households in 2011). This phase of the research specifically examined the perceived and observable impact of the Marine Park on people's livelihoods and food security. Interviews were first conducted with the village chairpersons and village executive officers in each of the six villages. Twelve village leaders were interviewed, followed by focus group discussions with six women's groups and six men's groups (six members in each focus group; total participants in the discussions = 72) in the six villages. Subsequently, interviews were conducted with 10 men and 10 women in each of the six villages (total interviewees = 120). Arrangements for the interviews and focus group discussions

were made in consultation with and full cooperation from the local leaders. They were asked to recommend the participants for the focus group discussion and also the interviews. This recruitment strategy was in acknowledgment of the local dynamics, especially the violence associated with the Marine Park, that would have made it impossible to interview villagers and to conduct focus group discussions in the affected villages without the local leaders' explicit support. None of the villagers would have come forward on their own to be interviewed unless they had received their leaders' permission. The recruitment process was conducted in good faith, and the study participants were fairly well represented in terms of their age, gender and socioeconomic status in the villages—from those who were relatively wealthy, to the very poor, including single mothers and widows.

### Changing Food Availability, Accessibility, and Utilization

*Ukame* (drought), *wasi wasi wa chakula* (food insecurity), and *maisha wa njaa* (life of hunger) are not a recent phenomenon in the rural Mtwara region. In Msangamkuu village, for example, a chart chronicling key memorable events in the villagers' collective memory, displayed inside the Village Executive Officer's office, indicates 1941 as the year of *njaa*—when many people died of hunger, starvation, and disease in the village. Even so, nearly all those who participated in this study repeatedly emphasized that until as recently as five years ago, food was sufficient, if not plentiful in their villages, and they were able to eat well.

When interviewees and participants in FGDs were asked about the number of *milo* (full meals) they normally ate daily, nearly 90 percent said that they eat only two (breakfast and an early dinner), instead of three meals: breakfast, lunch, and dinner. They usually eat *muhogo* (deep-fried cassava), *maharage mekundu* (boiled red kidney beans), chapatti, or *mandazi* or *vitumbua* (a sweet fried bun) as snack (breakfast) in the morning, along with *chai kavu* (black tea) or just *uji* (thin porridge) made from cornmeal. They chew on raw cassava in the afternoon and finish with an early dinner, which is usually regarded as the day's "real meal." This comprises *ugali* (thick porridge made from maize flour) and occasionally *ubwabwa* (cooked rice). Fish serves as a relish and not the main dish. A large majority of the people from all six villages were very concerned about their accessibility to food during the last five or six years. They asserted that, on one hand, there has been a precipitous decline in the availability of fish in their traditional fishing waters, and, on the other, crop yields have also worsened. This has led them to rely on store-bought food grains, cereals, and flour, which has accentuated their poverty. The need for cash to buy food has increased. They also claimed that in the past there was plenty of fish in the ocean, and the land was fertile and yielded sufficient crops; people would eat three times a day: breakfast, lunch, and dinner. But in the last five or six years, there has been a significant decline in crop yields. Because of the declining access to locally grown food, an increasing number of people have

been eating one or two instead of three meals a day (including breakfast), and their meals consist of mainly starchy food such as cassava. Given the changing food availability and accessibility in the region, people have adopted significant changes in their traditional diets and food consumption practices, including skipping meals because of lack of food in the household.

Although the pattern of food availability, accessibility, and utilization tends to vary across the seasons, the household's socioeconomic status, including whether the household is female headed or dual-headed and whether the household is predominantly reliant on fishing or farming, the most common response to questions regarding food security was that people are increasingly experiencing food insecurity and hunger, leading to chronic *utapiamlo* (malnutrition). None of this is to suggest that at the time of this study the people living inside the Marine Park's catchment area were experiencing chronic starvation. However, people were seriously concerned about their inability to ensure that they had sufficient *usalama ya chakula* (food security). As Amina, a 34-year-old single mother of three young children from Msangamkuu village put it: "Our children are used to it; if we tell them that there is nothing for dinner tonight, they don't complain, they understand. They just drink some water and go to sleep...they are used to it."

Respondents offered several possible reasons for the decline in crop yields in their respective villages. An oft-repeated comment was that *rutuba hamna* (the land has lost its fertility); *rutuba imepunga sana*, *ardhi haina mboleya* (the land is no longer fertile), or *ardhi imelala* (the land is sleeping). Mama Deo, a 51-year-old mother of nine children from Sinde village, articulated during a focus group discussion: "A few years ago, if we worked on two acres of land, we would get enough food to last us for six months, but now we get enough for maybe three months. So we have to rely on buying food from the grocery shops in the village or in Mtwara town. For that we need money, and we don't have money." According to Mama Deo, it was not the availability of food that was so much a concern for the people in her village, but its accessibility. Her narrative specifically points to the shifting patterns of, and reliance on, food that is not locally grown and hence the need for cash to buy food from grocery shops.

On a similar note, another male respondent, who was in his mid-50s and held a leadership position in the village, attributed the problem of *uhaba wa chakula* (food shortage) to land/soil degradation, poor fertility due to overuse, and the population increase in the villages. He explained:

These days we eat meals that are the size of a passport photo [i.e., small]. Compared to 5 or 10 years ago, today the land has lost its fertility. It's the same problem with the sea. A few years ago there were 30 fishermen, but now there are 130 fishers going to the sea. *Bahari imechoka*. *Bahari ikolikizo* (The ocean is tired. It's on leave). Everyone is fishing in the same area, and there are too many boats in the same area, so it is chaotic.

The above narrative segment highlights the interconnectedness between the land and the sea as far as people's

livelihoods are concerned. While on one hand the land has lost its fertility and people are squeezed into smaller plots of infertile land, the population has also increased. Simultaneously, fishermen are finding it difficult to catch sufficient fish in the sea for consumption and sale because the fishing grounds are overcrowded due to restrictions (no take zones) put by the Marine Park, the competition is intense, and the fish stocks have drastically depleted.

Nearly everyone who participated in the study was pessimistic about the food situation, emphasizing that it was going to worsen over the years. Not everyone, however, made a direct connection between the implementation of the Marine Park and their deteriorating food security. This was because, first, at the time of data collection, the Marine Park was not fully established in all the 15 villages that come under its catchment area; it had not affected all the sea bordering villages equally. Second, even within villages directly affected by the demarcation of the “no take zones” the surveillance activities of the Marine Park rangers, and the confiscation of illegal fishing gears and dugout canoes, a significant proportion of the people were subsistence farmers; they were not fishers who relied mostly on the sea for their livelihood. Those who were solely reliant on fishing and marine extraction activities for their livelihood saw a direct connection between the implementation of the Marine Park and their deteriorating food security. They explained that the Marine Park’s restrictions on their fishing and marine extraction activities had limited their access to cash because they could not catch fish and sell it, which in turn had limited their access to “food” (flour, oil, vegetables) and other necessities that they would normally buy from the shops. As one male leader from Msangamkuu village put it:

Majority of the people in this village rely on the sea, so if you prevent them from fishing, without giving them any other alternative means of livelihood, they’re going to be hungry; children are going to be malnourished, they are not going to go to school, they will not do well in their studies. They don’t get food in the afternoon. So what’s the use of saying that the *hifadhi* (conservation) has been successful when people here are hungry?

The lament that marine conservation had taken precedence over people’s food security was pervasive in people’s everyday discourse and in their interviews and focus group discussions. In elaborating on a similar concern, Asha, a 39-year-old mother of six children from Namera village who participated in a focus group discussion, highlighted the problems people in her village associate with the Marine Park:

These days, if we go to the sea, the Marine Park people chase us away, they take away our fish; and if we try to cultivate the land, the Mtwara Port people say that the land belongs to the government. People have become desperate. Some have even started stealing coconuts from other people’s farms because they are hungry; they don’t have anything else to eat. We have become like goats, chewing on what we get today because there’s no guarantee

that we will have enough food tomorrow... The Marine Park people have destroyed my husband’s *mtumbwi* (boat) and confiscated his net (*wamenyang’anya nyavu*). It’s the children who suffer; they don’t get enough food to eat so they become malnourished, and they don’t do well in school because they are hungry.

Asha’s comment that some people have taken to stealing coconuts in a land where they grow in abundance is a moral commentary on the consequences of hunger and desperation. Furthermore, her self-deprecating remark that “we have become like goats” also speaks to the abjection that people experience because of food insecurity. And many other people who participated in this study corroborated her statement, with similar stories, that the harassment from the Marine Park authorities has had a direct, negative impact on their well-being. The case of BiMkubwa, a 32-year-old woman from Namera village, is illustrative of the cumulative effects of external interventions on people’s well-being. At the time of the interview, she was living with her husband, their four children, and four of her younger siblings. Following her mother’s death, BiMkubwa had to take care of her four siblings. BiMkubwa was herself unwell at the time; she had been diagnosed with anxiety and hypertension and was on medications. BiMkubwa’s family had lost the ancestral agricultural land to the Mtwara Port and the Marine Park, and this had plunged her family into a spiral of vulnerability and suffering. She explained:

Before these projects, we used to eat three or even four times a day because we would plant a lot of vegetables and fruits in our farms. Now we eat only two times, including chai and some snack in the morning. My father lost all his land to these projects, and the Marine Park people confiscated all his boats and nets... It was a huge piece of land, with 200 coconut trees and 130 cashew trees. Now if I want to buy a small piece of land to build my own house, it’s going to cost me Tsh 200,000 (\$150). Where can I get that kind of money? I’m very worried. I’m suffering from BP (hypertension...shows tablets).

As with BiMkubwa, many other respondents who had lost their main source of livelihood and food security, conveyed a sense of hopelessness and desperation in their narratives.

More so than the other affected villages, the people of Nalingu are overwhelmingly dependent on the ocean for their livelihood, and only a few have taken to alternative sources of income generation. As such, they have adopted an openly confrontational stance against the Marine Park authorities since the project’s inception (cf. Malleret 2004; Robinson, Albers, and Kirama 2012). Following violent *mzozo* (confrontations) between the Marine Park authorities/security forces and the people of Nalingu, the local leadership resolved to disregard the Marine Park authorities’ restrictions. Many villagers see the Marine Park as a threat to their livelihood. As one 38-year-old participant from the women’s focus group discussion in Nalingu village stated:

They say that we the people of Nalingu are ignorant; we don't understand; we are recalcitrant, violent and dangerous; that we don't cooperate. That's not true. We have a school, a health center, a government office, a warehouse, so it's not true that we have not cooperated with the government. But we really don't want to have anything to do with the Marine Park or the people who work for the Marine Park because we don't like the project. *Bahari ni shamba letu ... kilimo chetu ni bahari tu.* (The ocean is our farm.) If we are not allowed to fish in the ocean, where will we get the money to buy food and send our children to school?

The above comment is offered as a corrective to the widely held perception that the people of Nalingu have a violent disposition toward the Marine Park. Instead, they are loath to comply with the Marine Park's restrictions because they have no other alternative but to rely on the ocean for their livelihood.

In condemning the Marine Park officers' truth claims and heavy-handedness in dealing with the people of Nalingu, one of the leaders had this to say:

The Marine Park people tell us that our fishing methods are not good; that we use nets that destroy corals and also small fish and eggs...but that's not true. They have only theoretical knowledge; they don't have practical knowledge like us.... We also use *tandilo* (beach seine) to catch fish. They say that it's *haramu* (illegal). We once asked the Marine Park people to go to the sea with us so that they see how we use the *tandilo*, but they refused and kept insisting that it is illegal. Because of all this misunderstanding, many people here are angry and have deliberately decided to use dynamite explosives for fishing.

The dissonance between the dominant, institutionalized discourse regarding the need to protect marine life from destructive fishing and marine extractive practices and the local discourse regarding the need to give credence to local knowledge and practices is hardly unique. It has also been observed and analyzed in the Mafia Island Marine Park's context and in the marine protected areas in Zanzibar (Levine 2007; Walley 2004). This is not to suggest that those who did not see a direct connection between the implementation of the Marine Park and their deteriorating food security were indifferent to the Marine Park. Significantly, the most prevailing response toward the Marine Park was one of negativity and cynicism, not only because it had brought them harm in the form of harassment and confiscation of their fishing gear, but more so because it had not brought them any tangible benefits or the promised *maendeleo* (development). Indeed, most of the respondents were unable to state or specify the ways in which the Marine Park had brought them any benefit. One male respondent in his late 60s from Mkubiru village explained:

The Marine Park project has been going on for a long time, but so far we haven't seen any development. On the contrary, the police have apprehended our people (mainly the youth) and sent them to jail. The *askari wa doria* (Marine Park patrol), have confiscated people's fishing nets

and their boats, so people are afraid. Many are in jail, and cases are still going on in the courts. People have become increasingly poor. They are not fishing; they don't know what else to do. What's the use of conservation if people are going to be hungry?

Such discourses were predominantly about how the Marine Park has disrupted people's livelihoods. The rhetorical question: "What's the use of conservation if it's going to make life more difficult for the local residents?" or "What's the use of conservation if it's going to make people hungry?" was a common refrain.

## Cultural Memory

The vast majority of the people in the six villages were generally aware of the Marine Park's overall goals and its emphasis on marine life conservation. However, relatively few of them were aware of the Marine Park's history, the process that was involved in the planning and implementation of the project, particularly during the initial stages. The chairman of one of the villages explained:

In 2006, they [a delegation from the Ministry of Natural Resources and Tourism or *Mali Asili*] came and explained to us that the government had decided to set up a Marine Park; the goal was to protect marine life. They tried to convince us, but we did not accept their proposal right away because we were not sufficiently "educated" about the project, and we were also not convinced that the project would bring us benefits. We had heard from our relatives and friends who live on Mafia Island or those who had visited the island that the Marine Park there had made life difficult for the local people. The leaders decided to cooperate, but the villagers have refused to cooperate with the Marine Park authorities because they do not see any benefits to them from the project.

Interviews and discussions with the villagers revealed that the majority of the villagers were not consulted, directly or indirectly, during the planning and implementation of the Marine Park. This could partly explain their indifference or the antagonistic stance against it. Respondents lamented the government's decision to "impose" the project on them, without "educating" them about the policy and the project's goals. Many also complained that their own leaders had let them down; they had "*waliiba iba sahihi na mihuri*" ("signed and stamped the acceptance papers") and had reported to the Marine Park authorities that the "village has accepted the project" when in fact they had not really consulted with the village residents. Some of the leaders expressed their own disappointment with the Marine Park authorities. For example, in expressing his concern, a senior leader of one of the villages said:

Initially they came and told us that they only wanted a small area along the coast to protect marine life and that they would mark that area with *maboya* (marker-buoys). They said that *watalii* (tourists) will come to watch fish,

and local fishers can go about their fishing activities a little further away. We thought it was a great idea so we welcomed them, but now they have taken most of Msimbati, all the way till Ruvula...our enthusiasm for the Marine Park has started to dissipate.

The absence of full consultation with the local residents, insufficient education about the Marine Park, and miscommunications about the project's scope, feelings of mistrust, exploitation, betrayal, and cheating, were some of the factors that had exacerbated people's negative disposition toward the Marine Park authorities.

When asked in what way the Marine Park had brought *faida* (benefits) or *hasara* (losses) to them, the vast majority of the respondents, including those who participated in focus group discussions, emphatically stated that they had not seen any tangible (economic) benefits in their individual lives or in their respective villages such as jobs and economic opportunities, better roads, better transportation, including a reliable ferry boat, and electricity. Some attributed it to the fact that the Marine Park was still in its initial stages, and if there were any benefits accrued, they would not see them in the immediate future. The most common response was that their lives were going to change for the worse over the next few years. This was because, on one hand, the Marine Park has put restrictions on people's access to ancestral fishing waters, and, on the other, the crop yield has precipitously declined, making farming as an "alternative" means of livelihood all the more difficult for many of the households primarily engaged in fishing and marine-extraction activities. A senior leader from Msimbati village explained:

In the beginning, there were many violent confrontations between government agents (patrols) and the villagers because the youth were using dynamites for fishing. But now people have started to understand the Marine Park's importance, and we [the local leaders] are also doing our best to educate them. But people here are poor, they have small nets, so they cannot go fishing in the deep ocean, they get only small fish...it has brought them hunger and also problems with sending children to school.... At first, we thought the Marine Park would give us modern seaworthy boats and nets, and we would go out into the sea and get lots of fish, money, and food, but nothing of that has happened; *maendeleo hamna* (there is no development) and people are hungry.... But the Marine Park has several benefits. For example, people used to eat turtles and turtle eggs, but after interactions with the Marine Park and WWF, we have given up eating the turtles and their eggs. But I am not sure what the future is going to look like; *hali itakua ngumu zaidi* (I think life is going to get harder).

Village leaders, such as the one quoted above, who had participated in meetings and workshops organized by the WWF were better informed about the Marine Park's goals and activities. They typically engaged in a double discourse of the kind embedded in the above quotes. They simultaneously emphasized that although the Marine Park had not brought any noticeable economic benefits to the local residents, individually

or at the household level, the project was having a significant impact on the conservation of marine life mainly because of the restrictions put on destructive fishing practices. They mentioned that the Marine Park had significantly reduced dynamite fishing and the use of destructive fishing gear, and the ocean and the beach also looked very clean and beautiful, and that fish stocks had also increased. Because of the exigencies of life and the immediacy of people's daily needs, however, frustration, feelings of persecution, and anger among the villagers had peaked, precisely at the time that the Marine Park authorities were intensifying their patrolling activities.

## Coastal Squeeze

Clearly, marine conservation projects and marine parks are designed to protect and replenish endangered/depleting fish stocks and other marine life because of destructive and unsustainable fishing and marine extraction practices. As an interim strategy, such projects are designed to offer local communities alternative livelihood strategies to enhance food security and economic empowerment. However, in rural Mtwara, as in many other parts of the world, the implementation of the Marine Park has thwarted the activities of fishers who are most dependent on the ocean as their source of livelihood. This has led to considerable frustration and anger among the people toward the project, threatening its success. People's attitudes toward this externally-imposed intervention have become increasingly negative because they feel that they have been exploited. They do not see how this project is likely to improve their livelihoods or bring in "development" when the Marine Park has expanded its boundaries and restricted their access to the ocean or their fishing practices. The Marine Park has led to a phenomenon that Bunce, Rosendo, and Brown (2010:422) have called "a coastal squeeze," leading to worsening food insecurity and the concomitant social suffering.

Despite the top-down manner in which the Marine Park has been implemented in the Mtwara region, the people who participated in this study were not lacking in resilience and both individual and collective agency in response to an externally imposed project such as the Marine Park. Both men and women do attempt to overcome overwhelming structural forces of domination and demonstrate their resistance and resilience by continuing to fish in prohibited waters, deliberately engaging in dynamite fishing in defiance of the restrictions, and even threatening violence against the Marine Park officers and NGO representatives if they enter their villages. However, there is a danger in overestimating the agency of the people who are systematically marginalized and subjected to structural violence, which manifests itself in various forms, including dispossession, worsening poverty, food insecurity, and deprivation of education and employment opportunities.

As in most of rural Tanzania, food insecurity is an important concern in rural Mtwara and one that has periodically compounded people's sense of vulnerability. Narratives of food insecurity and issues raised during the focus group discussions suggest that the problem of food insecurity in rural Mtwara

demands a more nuanced analysis and explanation rather than simply correlating the increasing food insecurity with the implementation of conservation and development projects. The Marine Park authorities' restrictions on fishing and marine extraction activities have undoubtedly contributed to some villagers' perceptions of their impoverishment, disempowerment, vulnerability, and further marginalization. At the same time, the confounding effects of factors such as the increase in the local population, faltering rains, and the excessive utilization of land, often without crop rotation or fertilizer, which have contributed to the land losing its fertility, poor crop yields, and diminishing access to food, cannot be overlooked. While issues of causality that might explain the prevalence of food insecurity in the study villages are important, in the present context, it is equally important to acknowledge people's subjective interpretations of their social condition in relation to the Marine Park. Ultimately, the local residents' cooperation and participation is fundamental to the project's success and sustainability.

Through narratives, people revealed their negative disposition toward the Marine Park because they had not experienced any tangible benefits from this endeavor. In villages where the Marine Park authorities have put restrictions on fishing and marine-extraction activities, fishing has become a dangerous activity for income generation and food acquisition. People are fearful of the Marine Park rangers who confiscate their fishing nets and boats and also use physical violence against them. Many villagers feel that they have been *tumebanwa* ("squeezed") by the Marine Park, making life all the more difficult -- *maisha magumu* (life is hard). The increasing out-migration of men has increased the vulnerabilities of women, children, and the elderly, not only in terms of the violence of everyday life in the form of physical insecurity and nutritional vulnerability, but also common emotional and mental health concerns such as insecurity-induced depression, stress, and anxiety.

In recent studies, the association between food insecurity and maternal anxiety/mental health/depression/distress has been strongly documented in rural Tanzania and Zambia, although the direction of the influence remains unclear (Cole and Tembo 2011; Hadley and Patil 2006, 2008; Pike and Patil 2006). As Jo Weaver and Hadley (2009:275) have observed, "Whether expressed as acute feelings of anguish and despair; as anxiety, resignation, hopelessness, and shame; or as embodied symptoms... food insecurity compromises mental health." Nutritional anthropologists have also explicated the processes of a household becoming food insecure, along with some food insecurity's nutritional sequelae, including nutritional stunting and growth faltering (Howard and Millard 1997). Additional longitudinal research is needed in the Marine Park villages to specifically examine inter and intra-village level differences in food insecurity-related health concerns and effects, over time, especially on pregnant and lactating women and young children in the school-going age group.

The success of conservation initiatives is contingent upon how people perceive the relevance and value of these initiatives to their own lives. The people of rural Mtwara have adopted an antagonistic stance toward the Marine Park because they believe that it has brought them more harm than good. There

is a palpable sense of dispossession, economic deprivation, insecurity, and powerlessness, especially among female-headed households, as male outmigration has increased. While the causal link between the implementation of the Marine Park and people's experiences of poverty, food shortages, and other hardships/vulnerability is mediated by other confounding factors, addressing people's resentment and hostility toward the project is crucial. In its present configuration, the Marine Park is likely to be a biological success (for marine life) but a social failure from a humanistic point of view. In other words, it is unlikely to result in the much emphasized "win-win" outcome. Therefore, a thorough understanding of people's subjective interpretations and experiences of acute negativity toward the Marine Park is crucial to the project's sustainability.

## Conclusion

This paper has highlighted the lived experiences of people in the southeastern region of rural Mtwara that has been designated a marine park. Despite the stated "good intentions" of the WWF, the Tanzanian government, the many international donors, scientists, and ecotourism operators involved in marine conservation (see MNRT 2005), the implementation of the Marine Park has resulted in considerable unpleasantness and violence executed through the state apparatuses. The pervasiveness of social misery and negative sentiments across the six villages that were studied were codified in the oft-repeated rhetorical question asked: "what's the use of conservation if people are going to be hungry?" In other words, the subjective experiences of social suffering continue to emanate from the on-going structural violence in the Mtwara region, which remains Tanzania's most neglected and underdeveloped region.

The privileging of truth discourses about destructive practices and their consequences for marine life as the basis for intervention in the form of a Marine Park, and the promise of ecotourism as an avenue to bring the people of rural Mtwara out of poverty, has not gone unchallenged. The people of Nalingu, for example, dismissed the Marine Park officers' truth claims about destructive fishing practices as only "theoretical" (i.e., wrong) and not practical (i.e., correct). Similarly, the people of Msimbati highlighted that the Marine Park officials had deceived them by making them cede large tracts of land along the coast and their traditional fishing grounds, and they had not received any economic benefits from the gate fees despite their cooperation. However, the Marine Park officials have assumed the privilege of being the competent authority to speak "the truth" about what is good and bad for marine life and by extension for the people who live in the Park's catchment area. The regulatory controls implemented "in the name of life and health" represent a biopolitics of the population "practices of intervention that are desirable, legitimate, and efficacious" (Rabinow and Rose 2006:197).

In the Marine Park's catchment area, only a small fraction of those directly affected by the project have benefitted from alternative income-generating projects such as fish farming, bee keeping, goat rearing, and fish gear exchanges, including larger

boats and nets. Thus, the Marine Park represents an excellent example of how the global drive to establish MPAs and marine parks based on biological, scientific, and political-economic goals can potentially lead to unfeasible and poorly designed management interventions that fail to consider inter-stakeholder conflict, local ecological knowledge, and institutional constraints as integral to the planning process (Christie et al. 2009; Rosendo et al. 2011; Voyer, Gladstone, and Goodall 2013). For that reason, more consideration must be given to the unanticipated effects of these externally designed and externally funded conservation interventions. Given that the Marine Park is still in its early stages, there is scope for remedying the widespread disenchantment among the people living within the project's catchment area. Local stakeholders must be provided with a greater sense of ownership. They must be convinced that their well-being is constitutive of the Marine Park's policies; that their concerns will be respectfully remedied through conflict-resolution mechanisms, and greater investment in successful alternative income-generating activities to alleviate poverty, food insecurity, and promote sustainable resource use, including better gear exchange programs. Unless these concerns are promptly and effectively addressed, rather than being a "win-win" project, the Marine Park will predictably join the heap of failed conservation and development projects in East Africa.

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