



**USAID**  
FROM THE AMERICAN PEOPLE

**Ecotourism in Menai Bay Conservation Area, Zanzibar  
Recommendations for Improvement in the Dolphin Tourism Industry**



**Amy Gautam, Ph.D.**  
May 2010



**COASTAL RESOURCES CENTER**  
*University of Rhode Island*



This publication is available electronically on the Coastal Resources Center's website at [www.crc.uri.edu](http://www.crc.uri.edu). 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](mailto:elin@crc.uri.edu)

**Citation:** Gautam, A., 2010. Ecotourism in Menai Bay Conservation Area, Zanzibar: Recommendations for Improvement in the Dolphin Tourism Industry. Coastal Resources Center, University of Rhode Island. Narragansett. pp. 32.

**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 # 621-A-00-10-00012-00

**Cover Photo:** Dolphin Tourism Sign in Kizimkazi, Zanzibar

**Photo Credit:** Amy Gautam

## Table of Contents

<b>Introduction .....</b>	<b>4</b>
<i>Tourism in Zanzibar .....</i>	<i>4</i>
<b>Menai Bay Conservation Area and the Dolphin Tourism Industry .....</b>	<b>7</b>
<i>Menai Bay Conservation Area .....</i>	<i>7</i>
<i>History and Current Status of Dolphin Tourism in MBCA .....</i>	<i>8</i>
<i>Revenues and Costs in the Dolphin Tourism Industry .....</i>	<i>12</i>
<b>Assessment of Key Challenges in the Dolphin Tourism Industry in MBCA .....</b>	<b>14</b>
<b>Recommendations.....</b>	<b>17</b>
<i>Other Ecotourism Opportunities in the Kizimkazi Area.....</i>	<i>21</i>
<i>Role of Pwani Project.....</i>	<i>22</i>
<b>Appendix 1. Selected Excerpts from Draft General Management Plan: Menai Bay Conservation Area.....</b>	<b>24</b>
<b>Appendix 2. Recommendations for Improvements on Dolphin Trips.....</b>	<b>25</b>
<b>Appendix 3. Example of Gorilla Tracking Permit Booking Procedures from Uganda Wildlife Authority.....</b>	<b>26</b>
<b>Appendix 4. Examples of Wildlife Permits and Willingness to Pay for Wildlife Viewing ....</b>	<b>28</b>
<b>Appendix 5. Example: TUI Guidelines for Dolphin/Whale Interactions .....</b>	<b>29</b>
<b>References.....</b>	<b>31</b>

## **Introduction**

The USAID-supported *Pwani* project works with stakeholder groups in Menai Bay, Zanzibar, to identify and develop expanded cultural and ecotourism opportunities in the coastal zone. In the Menai Bay seascape, tourism based on nature is growing and it is expected that this growth will continue. *Pwani* looks for opportunities to facilitate and catalyze private sector initiatives and small scale entrepreneurs that can increase environmentally sustainable tourism. Priority is given for developing and strengthening low impact ecotourism that is dependent on maintaining and preserving coastal and marine environmental assets, such as coral reefs, mangroves, fish resources (including marine mammals), beaches, scenic landscapes and protected areas.

This report examines one aspect of ecotourism in the Menai Bay Conservation Area (MBCA), namely the dolphin tourism sector. The existence of a resident population of dolphins in the MBCA has the potential to provide a significant ecotourism experience for visitors, as well as generate a substantial amount of revenue to the villages from where dolphin viewing trips originate. Currently, however, this potential is not being fully met, and the existing mode of operation in this sector violates almost every principle of sustainable ecotourism.

In this report, the current status and trends in the dolphin tourism sector are described. Based on interviews and meetings held in April 2010 with stakeholders from the government, tour operators, tour guides, hotel owners/operators, tourism investors, dolphin tour captains, and marine mammal scientists, the main challenges to improvement in the sector are identified. A series of recommendations for change are provided to address these key issues. If these recommendations are implemented successfully, the dolphin tourism sector of MBCA could be marketed as a unique Zanzibar experience, one that: (1) generates sustainable benefits to the local community as well as to the larger revenue base; (2) aids in the conservation and management of dolphins and corals; and (3) provides a model for community-based resource management around the world.

## **Tourism in Zanzibar**

Tourism generates a substantial amount of revenue in Zanzibar. The Minister of State in the President's Office (Finance and Economy), Dr Mwinyihaji Makame Mwadini recently stated that "The sector contributes about 22 per cent of GDP and about 80 per cent in government revenue. The overall growth of the sector, estimated at 9-10 per cent, has outpaced that of agriculture."<sup>1</sup>

A Tanzania-wide exit survey of international visitors estimates that 100,221 visitors came to Zanzibar in 2007, or approximately 14% of the 719,000 tourists who visited Tanzania in that year. Only Serengeti and Ngorongoro had higher visitation rates (21.3% and 19.5%, respectively). Expenditures earned in Zanzibar from international tourism increased from \$71.3 million USD to \$164.5 million USD between 2004 and 2007.<sup>2</sup> The breakdown of visitors by nationality, with the average length of stay for visitors on package and non-package holidays, is seen in Table 1.

---

<sup>1</sup> Sebastian, C. March 2, 2010.

<sup>2</sup> MNRT, 2009.

**Table 1: Nationality and Duration of Stay of Visitors to Zanzibar in 2007**

<b>Country of Residence</b>	<b>% of Total</b>	<b>Ave. Length of Stay: Non-Package Visitors</b>	<b>Ave. Length of Stay: Package Visitors</b>
Italy	23.8	9	10
U.K.	17.4	11	8
South Africa	14.6	7	7
Germany	6.4	10	8
Spain	4.1	7	7
U.S.A.	3.9	8	8
France	3.9	7	8
Kenya	2.7	6	4
Netherlands	2.4	6	7
Belgium	2.3	6	7
Australia	1.9	8	7
Sweden	1.7	7	6
Canada	1.6	7	5
Portugal	1.4	7	6
Norway	1.2	7	7
Others	10.8	n/a	n/a
Total	100.0	Ave=6	Ave=7

Source: MNRT, 2009.

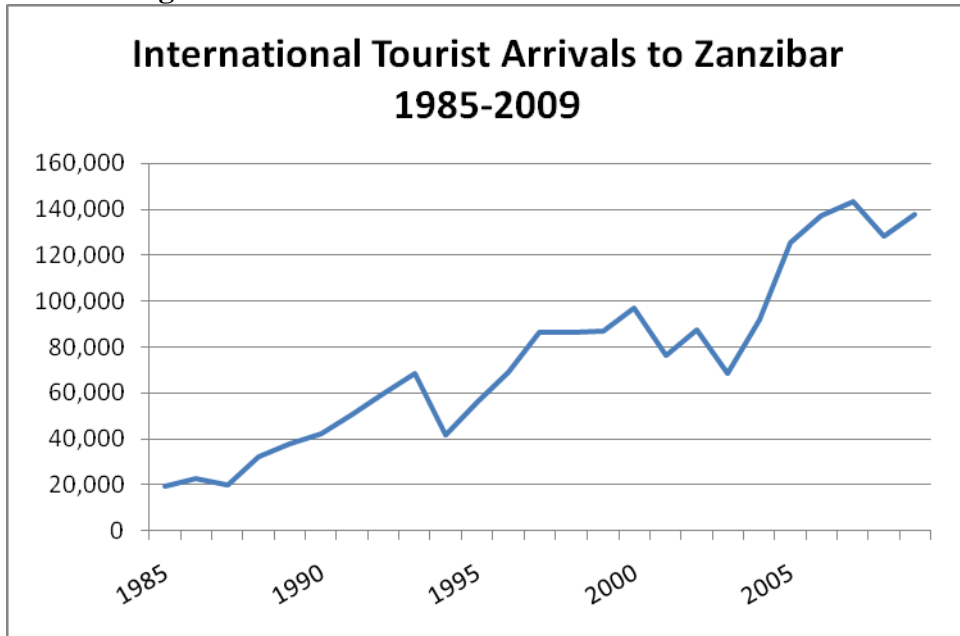
The predominance of Italian visitors is largely explained by: (1) an increase in foreign investment in accommodation establishments owned by Italians (from 10 to 30 establishments in Zanzibar between 2001 and 2007); and (2) an increase in charter flights from Italy from two to five times per week, for a weekly capacity of 250-300 passengers.<sup>3</sup>

The Zanzibar Commission for Tourism maintains its own statistics on visitor arrivals via air and sea. Figure 1 shows the steady increase in tourists from 1985-2009. In 2009, Italian tourists represented 33% of the total tourists to Zanzibar, consistent with the trend seen in the national survey through 2007.

---

<sup>3</sup> Source: MNRT, 2009.

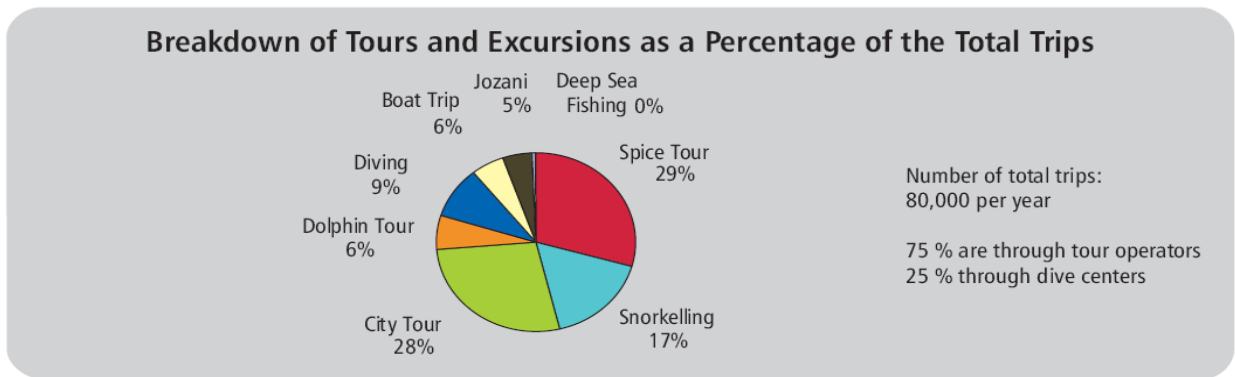
**Figure 1: International Tourist Arrivals to Zanzibar**



Source: Zanzibar Commission for Tourism, 2009.

A recent study by the Zanzibar Association of Tourism Investors (ZATI) estimated that dolphin trips account for 6% of all excursions taken by tourists in Zanzibar (see Figure 2). Out of an estimated 80,000 total trips, this suggests that approximately 4,800 trips per year are taken for dolphin viewing and swimming. Based on Menai Bay Conservation Area data (see below), this is probably an underestimate.

**Figure 2: Dolphin Tours as a Percentage of Total Trips Taken in Zanzibar**



Source: Steck, Wood, and Bishop. 2010.

The need to focus on ecotourism is recognized by the government and industry alike. The 2007 document “The Strategy of Half Million Tourists in Zanzibar (2007-2013)” produced by the Ministry of Tourism, Investment and Trade and the Zanzibar Commission for Tourism includes “Ecotourism: focus on ecotourism (as a niche market) with recommendations on developing an

ecotourism product in Zanzibar” as one of its six sections.<sup>4</sup> ZATI itself is committed to responsible tourism, and is currently working with the Zanzibar Commission for Tourism on implementing guidelines whereby “tourism businesses in Zanzibar will soon be able to be assessed on their social and environmental responsible behaviour.”<sup>5</sup> In a personal interview, the ZATI Director stated that reforming the dolphin tourism sector would be her number one recommendation for tourism improvement in Zanzibar.<sup>6</sup>

Given the magnitude of the tourism industry in Zanzibar, the worldwide trend towards increased ecotourism, and industry support for enhanced ecotourism opportunities within Zanzibar, establishment of a well-managed, sustainable dolphin-viewing experience would seem to be in the best interest of most stakeholders involved.

## **Menai Bay Conservation Area and the Dolphin Tourism Industry**

### **Menai Bay Conservation Area**

The Menai Bay Conservation Area (MBCA) is shown in Figure 3. Situated in the southwest of Unguja, the main island of the Zanzibar Archipelago, it covers an area of 467 km<sup>2</sup> including 6 islets, with a seaward boundary close to 61 km offshore. The area is extensively covered with coral reefs, sea grass beds, and mangrove forest.<sup>7</sup> Two species of dolphin are resident in the MBCA, the bottlenose dolphin (*Tursiops truncatus*) and the humpbacked dolphin (*Sousa chinensis*), and at least six other species have been identified in the area. Resident populations in 2005 were estimated to be between 136-179 bottlenose dolphins and between 58-63 humpbacked dolphins. Median group size of the bottlenose dolphins was between 8 and 21, and between 5 and 9 for the humpbacked dolphins. Scientists encountered dolphins on 254 out of 270 days at sea, or 94% of the time.<sup>8</sup> Dolphin tours currently encounter dolphins at least 75% of the time.<sup>9</sup>

The MBCA was gazetted in 1995 and became a conserved area in 1997. Although a final management plan is still awaiting approval, a draft management plan is in place for the MBCA. According to the draft plan, the main mission of the management area “...is to provide regionally significant opportunities for public enrichment through recreational activity, education and scenic enjoyment while conserving the areas marine resources and other natural and cultural resources.”<sup>10</sup> The draft management plan also identifies several aspects of management and regulation of dolphin ecotourism (see Appendix 1 for selected excerpts).<sup>11</sup>

---

<sup>4</sup> ZATI, 2009.

<sup>5</sup> ZATI, 2009.

<sup>6</sup> Julia Bishop, personal communication, April 30, 2010.

<sup>7</sup> Torrell et al, 2006.

<sup>8</sup> Berggren et al, 2005.

<sup>9</sup> Personal communication with Mr. Hamisi Ali (April 28, 2010) and Dr. Omar Amir (April 29, 2010).

<sup>10</sup> Ministry of Agriculture, Livestock and Environment, 2010.

<sup>11</sup> Ministry of Agriculture, Livestock and Environment, 2010.

**Figure 3. Unguja Island and Menai Bay Conservation Area**



Source: Menai Bay Conservation Unit

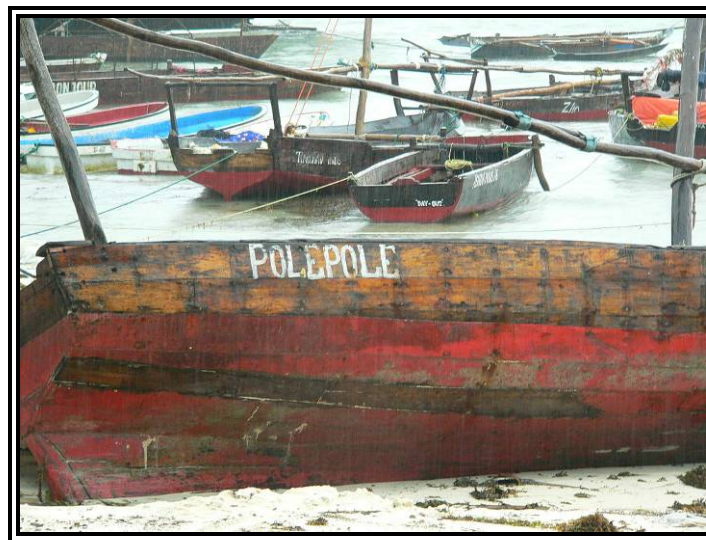
### History and Current Status of Dolphin Tourism in MBCA

Dolphin tourism started in 1992, roughly concurrent with the development of tourism in Zanzibar in general, when fishermen began taking tourists out to see the dolphins. There were initially two boats providing dolphin tours; in 2010, there are approximately 45 boats. From the beginning, the industry has been located in Kizimkazi, on the southwest end of Unguja (Zanzibar) island, about



40 kilometers from Stonetown, and within the lower end of the MBCA. Within Kizimkazi, there are two villages in particular associated with the dolphin tourism industry: Kizimkazi Dimbani and Kizimkazi Mkunguni, which are approximately 3 kilometers apart. While geographically close, there are few similarities in the operation of dolphin tours in the two villages.

By all accounts, the industry in Kizimkazi Dimbani is much more organized than in Kizimkazi Mkunguni. In Kizimkazi Dimbani, there are two hotels and one restaurant which together own almost all of the approximately 20 boats used for dolphin tours. Some boats are leased by individuals from the hotels/restaurant. The hotels/restaurant are responsible for selling and managing all of the dolphin trips from Kizimkazi Dimbani. The hotels/restaurant provide visitors with life jackets, and often give a short briefing on the dolphins and appropriate behavior at sea before departing.



**Dolphin Tour Vessel in Kizimkazi Dimbani<sup>12</sup>**

In Kizimkazi Mkunguni, there are more hotels and tourist amenities, but they are not involved directly in the dolphin tour operation. The approximately 25 boats operating from Kizimkazi Mkunguni are owned by individuals (some villagers, some people living in Stonetown) and trips are sold by ‘papasis,’ or ‘beach boys,’ who swarm visitors’ cars, competing to offer a trip at the lowest price. Only two boats in Kizimkazi Mkunguni have life jackets available, and none of the operators offers a tourist briefing. In the high season, it is reported that these captains often rush the trip so that they can return and take out the next set of visitors.

Tour companies from Stonetown sell dolphin trips to tourists and then organize the trip in either village by paying either the papasis in Kizimkazi Mkunguni or the hotels/restaurant in Kizimkazi Dimbani. Some tour companies have standing agreements with specific boat operators and will arrange trips only with those operators.

---

<sup>12</sup> All photos taken by Amy Gautam unless otherwise indicated.

The fleet itself is fairly homogenous: the ~45 boats are approximately the same size and quality of construction. The stated maximum capacity is eight passengers (not including the captain and one crew member). The high season corresponds to the high season for Zanzibar tourism, not necessarily the times most likely to see dolphins. In high season, as many as 25 boats may operate in the same area at the same time. In some cases, 10-15 boats will chase one pod of dolphins.



**Dolphin Tour Fleet in Kizimkazi**

A socio-economic profile of the dolphin tour industry in Kizimkazi was done in 2005 (see Berggren et al, 2007) and provides a general description of the industry at that time. It would appear that very little has changed since then; the number of boats currently operating (~45) is similar to that in 2005 (~50) and the structure and organization of the industry remains essentially the same. The 2005 study found that increased competition and lack of regulation had eroded the original minimum price of \$30 USD per trip, with many boat operators willing to provide a trip for less.

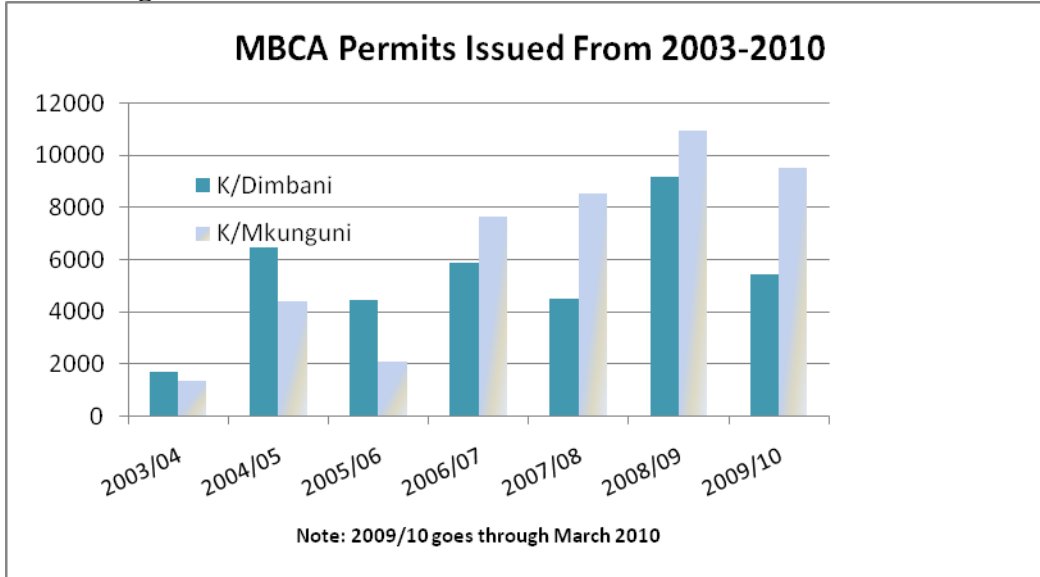
In part to address this problem, and to generate funds for conservation, management, and community development programs, the MBCA project began collecting an entry fee for the conservation area in June 2004. Initially slated to be \$5 USD per person (children under 10 years free), the Department of Fisheries and Marine Resources reduced it to \$3 USD, where it remains in 2010. Thirty percent of the funds collected are intended to go directly back to the 19 villages in the MBCA; fishermen, who are seen as the primary stakeholders in the area, are the main beneficiaries.<sup>13</sup>

Tourism visitation rates for dolphin trips can be approximated from the MBCA receipts and records. There are two collection points for the \$3 USD permit fee in Kizimkazi, and it is assumed that all visitors to these two villages are there for the dolphin trip. Figure 4 shows the total number of permits issued in each village from the first year of inception (2004) through March 2010.

---

<sup>13</sup> Berggren et al, 2005.

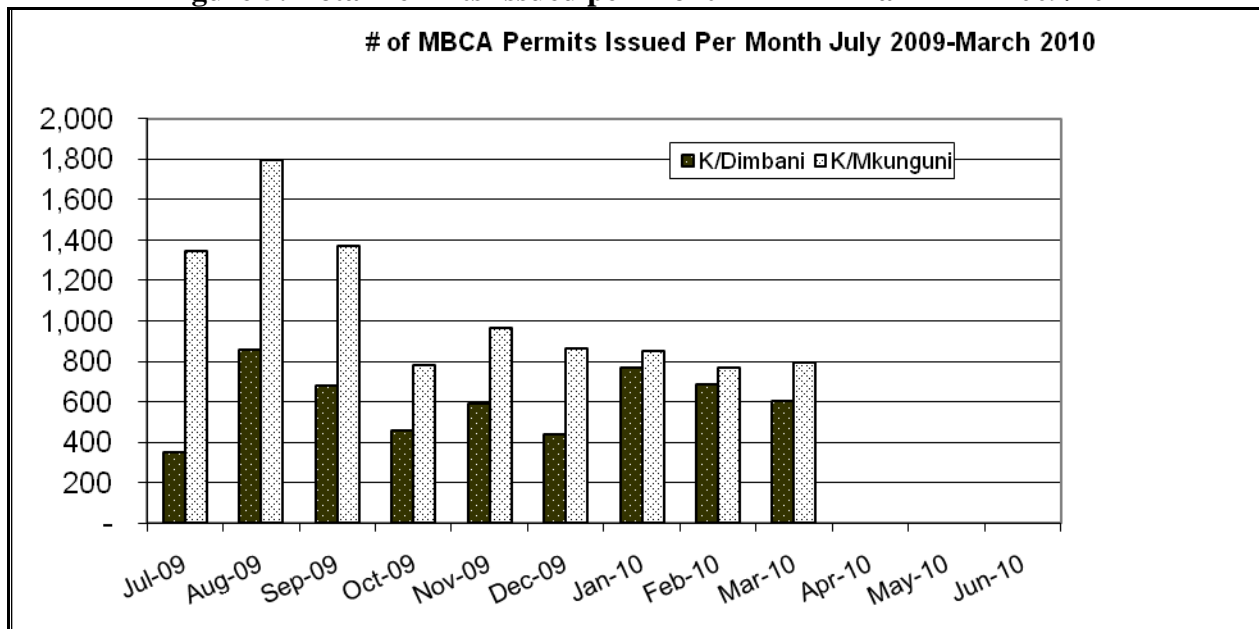
**Figure 4: Total Permits Issued in Kizimkazi From 2003-2010**



Source: Menai Bay Conservation Unit

Figures 5 and 6 show the trend in permits issued monthly from July 2008 through March 2010. Total permits sold in financial year 2008-09 at these two entry points was 20,092; from July 2009 – March 2010, 14,981 permits were sold.

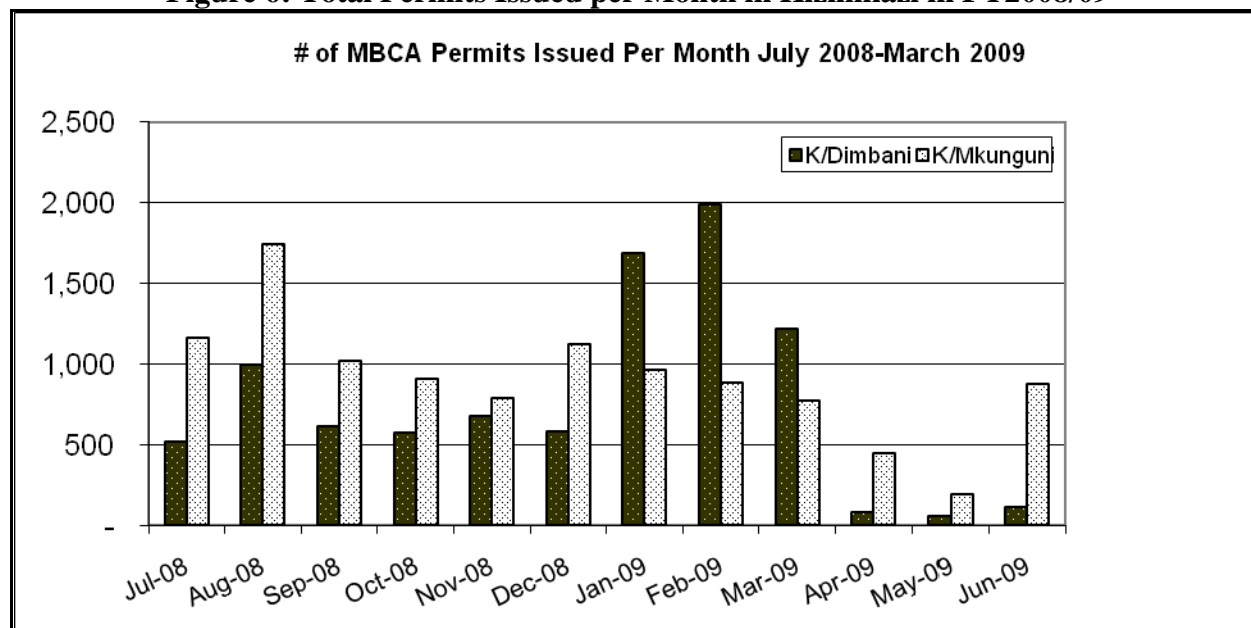
**Figure 5: Total Permits Issued per Month in Kizimkazi in FY2009/10**



Source: Menai Bay Conservation Unit

Revenues collected by the Menai Bay Conservation Unit in these two villages were 47,422,000 Tsh (~\$34,600 USD) between July 2009 and March 2010.<sup>14</sup>

**Figure 6: Total Permits Issued per Month in Kizimkazi in FY2008/09**



Source: Menai Bay Conservation Unit

### Revenues and Costs in the Dolphin Tourism Industry

An analysis of the revenues and costs in the dolphin tourism industry reveals that very little profit is currently being returned to Kizimkazi. The standard cost charged by a dolphin tour boat operator is 40,000 Tsh. That is the 'rental' fee for carrying up to eight passengers, and covers fuel (10-20 liters: 15,000-30,000 Tsh), payment to the captain and crew (2,500-5,000 Tsh each), and returns to capital (<=10,000 Tsh).

Generation and distribution of any additional profit depends on how the trip is organized and by whom. For example, a papasi may sell a trip to a group of visitors for 45,000 Tsh and earn 5,000 after paying 40,000 Tsh to the boat operator. A hotel may charge its visitors 25,000 Tsh per person, minimum two people, and thereby earn 10,000 Tsh. The real profits are earned by tour guides and tour companies in Stonetown who charge visitors significantly more to organize a trip from Stonetown, and by hotels (not in Kizimkazi) with travel/tour desks. For example, in April 2010, tour companies were charging as much as \$99 USD for a single person dolphin tour (or \$77 USD for 2-3 people); a 'shared' trip of two or more strangers (i.e., not a 'private' trip) cost \$39 USD. These trips include transport from Stonetown, a guide, the boat fees, the MBCA entry fee of \$3 USD (or 3,500 Tsh), and sometimes lunch.

<sup>14</sup> Menai Bay Conservation Unit, 2010.

Even at the lowest package price possible, it is clear that profits are being made by the vendors selling these packages. For example, two visitors sharing a trip at \$39 USD each (~53,000 Tsh) provide the vendor with 106,000 Tsh. Once the 40,000 boat fee and 7,000 Tsh (2 persons) MBCA fee is subtracted, the vendor remains with 59,000 Tsh with which to pay for transport, guide fees and lunch.

In any of the cases above, however, the only benefits to Kizimkazi villagers are the payments to captain and crew, and the returns to boat owners (hotels, restaurants and individuals). Additionally, as described above, \$1 of every \$3 USD collected by MBCA is supposed to be given back to the 19 villages in the conservation area, including Kizimkazi.

Other direct and indirect benefits from dolphin tourism are realized via employment in the hospitality sector (e.g., waiters/waitresses, hotel cleaning staff, gardeners, etc.) and via purchases of local goods (e.g., fruits, vegetables, fish, etc.) by the hotels/restaurants. The 2005 survey found that more than 165 jobs were associated with the dolphin tour industry in Kizimkazi; of these, 87 individuals were directly involved either as captain or crew. The rest were associated with the hotels, restaurants, and snorkel/dive gear hire. Only 3.1% of tourists who came for dolphin watching stayed in Kizimkazi, again suggesting that most of the benefits of tourism are being captured elsewhere in Zanzibar.<sup>15</sup>

#### *Current Management of Dolphin Tourism Industry in MBCA*

As stewards of the resources within the MBCA, the Menai Bay Conservation Unit, part of the Department of Fisheries and Marine Resources, has regulatory authority over the dolphin tour industry. The draft management plan for MBCA indicates that the Department of Fisheries and Marine Resources has issuing authority for local resident licenses, while the Menai Bay Conservation Unit has issuing authority for permits associated with water sports "...issued to any person entering the Conservation area for recreational purposes..."<sup>16</sup>

However, in 2010, the industry can be characterized as essentially unregulated. As indicated earlier, there is no price regulation for dolphin trips (despite a \$30 USD minimum price previously established by the government). Boat captains are not licensed or certified. Vessels are not registered with any entity. There are no minimum safety requirements for vessels. There are no limits on the number of boats that operate at any given time; no limits on the number of boats that can approach a dolphin pod at one time; and no limits on safe distances for vessels to maintain from the dolphins or from each other.

While guidelines for dolphin tourism in Zanzibar were published in leaflet form several years ago, the original printed copies are finished, and only poor quality black and white photocopies remain (and are not widely available). Further, the 2005 socio-economic study found that only 60% of operators followed the code of conduct for dolphin tourism outlined in the guidelines (provided by the Marine Mammal Education and Research Group).<sup>17</sup>

---

<sup>15</sup> Berggren et al, 2005.

<sup>16</sup> Ministry of Agriculture, Livestock and Environment, 2010.

<sup>17</sup> Berggren et al, 2005.

The draft management plan for MBCA identifies many of the current problems and challenges for management in the area as a whole, and with the dolphin tour sector specifically. Appendix 1 contains selected excerpts from the draft management plan that are relevant to this issue.

The MBCA does have two patrol vessels in Kizimkazi and there is at least one Coast Guard vessel operating in the area. These vessels are involved more with fisheries patrol and enforcement than with the dolphin tourism industry, however. Bycatch of dolphin in the fishing industry is a problem, and the MBCA does regulate this aspect of dolphin management and conservation.



**Fisheries Patrol Vessel in Kizimkazi Dimbani**

Although not a regulatory authority, Kizimkazi Dolphin Tourism Operators Association (KIDOTOA) was registered in 2005 as a non-governmental organization dedicated to sustainable development of the dolphin tourism industry in Menai Bay. As such, it provides nominal community oversight into the general management of the industry. KIDOTOA currently has approximately 50 members, comprised of: villagers (~30 individuals); government officials from the Department of Fisheries and Marine Resources, Department of the Environment, Zanzibar Commission for Tourism, and others; and research scientists from the Institute of Marine Science. While KIDOTOA has the trust and respect of the Kizimkazi community, it has not been as active as planned, partially because there is no dedicated source of funding. The association has conducted training workshops for guides and boat operators on dolphin behavior and tourist management in the past, but not with the depth and frequency it recommends.

### **Assessment of Key Challenges in the Dolphin Tourism Industry in MBCA**

A series of informal interviews was conducted in April 2010 with stakeholders including: government officials (Menai Bay Conservation Unit; Zanzibar Commission for Tourism); tour operators as represented by the Zanzibar Association of Tour Operators (ZATO); tour guides as represented by Zanzibar Tour Guide Operators Association (ZATOGA); hotel/restaurant owners/operators (CABS Restaurant; Fumba Bay Lodge); the investment community as represented by Zanzibar Association of Tourism Investors (ZATI); dolphin tour captains in

Kizimkazi Dimbani and Mkunguni; KIDOTOA members; and marine mammal scientists (Institute of Marine Science; Menai Bay Conservation Unit).<sup>18</sup> The general consensus is that there are a number of problems in the dolphin tourism industry as it currently operates, and that significant benefits could be achieved with implementation of some regulation. The key issues identified by stakeholders are:

*Safety of tourists:* A number of deficiencies in basic safety were identified: insufficient life jackets; lack of first aid kits onboard vessels; unsafe vessel operation while tourists are swimming with the dolphins; and lack of education of tourists regarding safe interactions with the dolphins. While the villagers who were interviewed claimed that no tourist accidents have occurred, the ZATI director was aware of at least three incidents of tourists being cut by propellers while in the water with the dolphins.



**Life Jackets at CABS Restaurant**

*Congestion:* Lack of limits on the number of vessels operating in one place at one time decreases the quality of the viewing/swimming experience and also increases the probability of accidents. Congestion may also contribute to negative impacts on the dolphins' behavior and long-term health.

*Lack of training:* There is no requirement for captains and/or guides to be trained in dolphin behavior/ecology, tourist management, or first aid. Likewise, tourists are not always educated before or during the trip about dolphin behavior/ecology.

*Lack of enforcement on the water:* Despite the existence of guidelines for appropriate behavior with the dolphins, these are not generally followed and there are no penalties for violation of the guidelines. There is not a strong enforcement presence for violation of other regulations.

---

<sup>18</sup> Due to heavy rains and a storm that damaged several of the dolphin tour boats during the period of this study, no tourists were available for interview. However, the recommendations of tourists made in the 2005 survey are presented in Appendix 2.

*Disorganized process for paying for and organizing trips:* Lack of a central point for purchase and coordination of trips, especially in Kizimkazi Mkunguni, has led to a chaotic process that delays tourists and can border on harassment of tourists. Trips not organized and paid for via tour operators, guides, or hotels are generally unreceipted and therefore are not taxable, leading to unfair competition and loss of tax revenues.

*Lack of minimum price:* Inability to maintain a reasonable minimum price for a trip has resulted in dissipation of profits to boat owners/operators.

*Dissipation of resource rents:* disorganization and lack of regulation in payment for dolphin trips and lack of a regulated minimum price has resulted in inequity in the distribution of resource rents. The current system generates significant profits to tour companies and guides from Stonetown and hotels, but returns little to the local community.

*Lack of trust in Menai Bay Conservation Unit:* The process for distributing 30% of the MBCA fee to the villages is not transparent, which has led to mistrust in the community for the Conservation Unit.

*Harassment of dolphins:* Tour companies, tour guides, ZATI, and marine mammal scientists expressed concern that the current operation of vessels, whereby dolphin pods are often chased, may have negative effects on the long-term health and residency of the dolphins.



Tourists snorkeling with dolphins<sup>19</sup>

*Damage to coral reefs:* vessels currently anchor on coral reef either during a dolphin trip or on snorkeling stops after dolphin viewing. Boat captains are aware of the damage being done, but say they have no alternative for mooring.

---

<sup>19</sup> Photo downloaded from Tabasam Tours and Travel website ([http://www.tabasamzanzibar.com/zanzibar\\_dolphin\\_tours.htm](http://www.tabasamzanzibar.com/zanzibar_dolphin_tours.htm))



## Recommendations

A number of actions can be taken to improve the current situation in the dolphin tourism industry in Kizimkazi. The ones presented here address the concerns identified in April 2010 as just described, and are consistent with those made by others in the past (e.g., Berggren et al, 2005; Revolutionary Government of Zanzibar, 2005; Amir and Jiddawi, undated; Ministry of Agriculture, Livestock and Fisheries, 2010).

***Establish a tourist information center:*** KIDOTOA already has a plot of land identified and granted to them by the community for development of a tourist information center, located just before the road which leads to Kizimkazi Dimbani and Kizimkazi Mkunguni on the main road. There are also two existing MBCA offices in Kizimkazi (funded by the World Bank's Marine and Coastal Environment Management Project (MACEMP)) that could be developed further. In either case, the center could be a joint venture between KIDOTOA and the MBCA. The center would be a required stop for tourists before taking a dolphin trip. The center could include a café, toilet facilities, and a handicraft/gift store with dolphin-related items for tourists to purchase. All staff at the center, and preferably all captains/crew/guides, would have a uniform that links them to the center: a t-shirt with a logo, a cap with a logo, etc. A visible ID badge should be required for all staff.

The center would be responsible for:

- (1) Tourist management, education and safety
  - Briefing tourists before their trip on dolphin behavior, and the do's and don'ts of behavior in the vessels (and in the water). Staff would answer any questions tourists might have regarding logistics, local information, concerns, etc.
  - Guiding the group of tourists to the launch site and introducing them to their captain/crew.
  - Ensuring that all passengers have life jackets available to them.
  - Developing and providing informational brochures for tourists and/or laminated cards with guidelines that can be kept in each vessel.
- (2) Trip management and scheduling
  - Scheduling and booking trips in a sustainable, controlled fashion (e.g., 5 vessels at 8 a.m., maximum of forty tourists to receive, process, brief, and escort to launch site).
  - Organizing which vessels, captains, and crew members are operating at any given time, and maintaining records on such information. Scheduling could include rotating through registered captains to ensure equitable distribution of trips and income.
- (3) Financial management
  - Coordinating and collecting payment for all relevant fees. This includes the \$3 USD MBCA fee, the dolphin access permit (if implemented; see below), and the established fixed price for the trip itself (currently ~40,000 Tsh but negotiable). A streamlined process is necessary to ensure that tourists are not kept waiting. Proper receipts need to be maintained for transparency and accuracy. The two-receipt system used in Jozani Forest (whereby the payments to the local community are collected and receipted separately from the payments to the Department of Forestry) has been suggested as an effective model for replication. While MBCA does not favor this for its fee, the dolphin access permit could be structured this way.

- Ensuring payment of captain/crew/guides upon completion of each trip and maintaining records of such payments. Payments to factors of production (fuel, capital) also need to be recorded and paid appropriately (though not necessarily on a per trip basis).
- Providing periodic (e.g., daily, weekly, or monthly) reports on visitation rates and payment collected, backed up with receipts.

The distribution of these activities between center (KIDOTOA) staff and MBCA staff needs to be established in a way that is legal (e.g., Menai Bay Conservation Unit has the authority to collect MBCA and a dolphin access permit fees while KIDOTOA does not), transparent, and efficient. Collection of significant revenues in one place necessitates that clear procedures are implemented with checks and balances to minimize the potential for misuse or misplacement of funds.

***Establish a dolphin access permit:*** Creation of dolphin access permit (DAP), issued to and paid for by each tourist, would provide a powerful incentive mechanism for conservation of dolphins and could generate a significant amount of revenue for management and enforcement of this industry. Properly designed and implemented, a DAP would provide a legal, credible way to retain and return the benefits of dolphin tourism to the villagers of Kizimkazi while still allowing tour operators/guides/hotels in Stonetown to earn profits.

The essential features of a DAP system include (but may not be limited to):

1. The DAP is issued on a per-person basis. The DAP allows the individual to access the dolphins only via a registered dolphin tour operator from Kizimkazi.
2. DAPs are issued for a specific date and time (e.g., 8 a.m., 10 a.m., etc.). There are a limited number of permits for each time slot. The optimal number needs to be established in consultation with marine mammal scientists and other stakeholders.
3. DAPs are issued from one central office. This could be the tourist information center jointly managed by KIDOTOA and MBCA.
4. DAPs may only be bought by certified/registered tour companies/guides (e.g., from ZATO or ZATOGA members). See Appendix 3 for information on how Uganda Wildlife Authority regulates who/how/when gorilla tracking permits are sold. Limits on the number of DAPs bought per day per operator may need to be established so that one tour operator does not control the market. Rules on how unsold permits can be bought may need to be established (e.g., an individual tourist can purchase a DAP from the central office on the day of the trip). Similarly, rules about refunds could be established (e.g., office could offer a refund or reschedule if the dolphins are not viewed or if the trip is canceled (e.g., due to bad weather)).
5. The sale of each DAP must be attributed to a specific tour company/guide via recording of an official registration number (unless bought by an individual tourist at the central office).
6. Establishment of the initial DAP price may require a study of tourists' willingness to pay for such a permit. The 2005 socioeconomic survey found that 78% of visitors were willing to spend

more than what they had paid to ensure sustainable dolphin watching.<sup>20</sup> The average willingness to pay to ensure future sustainable dolphin watching was estimated to be \$31 USD.<sup>21</sup> While there are problems with the survey question and its interpretation, it provides one data point for considering an initial DAP price. A review of studies from around the world could suggest a range of prices for marine mammal viewing/conservation if a study of willingness to pay is not feasible. Appendix 4 shows three recent, relevant examples of marine mammal valuation.

Once a starting DAP price is determined, implementation could be staggered over a period of years. For example, the permit could be \$10 USD in the first year, \$20 USD in the second year, and \$30 USD in the third year, where it could remain for some time. The permit price could be subject to change depending on demand. For example, the Tanzania National Parks raised the entry fees in Ngorongoro Crater to \$200 per car and \$50 USD per person in 2008 (from \$100 USD per car and \$30 USD per person previously) to reduce congestion while simultaneously raising total revenues.

7. The total revenues earned annually from a DAP system could be substantial. Assuming the number of visitors remains constant (~20,000 MBCA-receipted visitors to Kizimkazi in 2008/09) and the initial DAP price is \$10 USD, revenue could be as much as \$200,000 USD per year. Therefore, the allocation and process for distribution of revenues collected from the sale of DAPs needs to be agreed upon by all stakeholders before implementation of the system. For example, the community might decide that the five broad objectives of enforcement, management/conservation, education, training, and contribution to a Kizimkazi community economic development fund will each receive 20% of the revenues. While the specific objectives/activities to be funded and the percentages allocated to each will have to be negotiated carefully by all partners involved, it is critical that the final agreement be transparent, formalized, and enforced.

8. Measures to ensure accountability can include: (1) a 2-part receipt system, similar to the one used in management of the Jozani Forest, as described previously; and (2) production, distribution and village review of an annual report on the distribution and use of the revenues.

9. Enforcement measures need to be developed to ensure that no boat operators take clients on the water without purchase of a DAP; education and community-based enforcement systems can be used to help eliminate violations. It should be understood that failure to comply will undermine the entire effort to return revenues to Kizimkazi.

10. A significant advertising campaign will be needed to educate tourists that dolphin permits can be bought only from certified, registered tour companies/guides. The ZATO, ZATOGA and ZATI can assist with this effort. Boat operators in Kizimkazi must refuse to take out individuals who have not bought a DAP either from registered operators or directly from the central office. While there may be disappointed, angry tourists initially, strict adherence to these rules over time will

---

<sup>20</sup> Specifically, visitors were asked: "I am now trying to find out what value you place on being able to see dolphin/whale in Zanzibar in future. To do this imagine that you had to pay a monthly fee so that dolphin/whales habitats are conserved so that cetaceans are protected against stresses and negatives impacts are taken care of. What then would be the maximum amount that you would be willing to pay for a monthly fee ticket to ensure sustainable dolphin watching considering current situation in Kizimkazi, Zanzibar? ...Tshs/US\$"

<sup>21</sup> Berggren et al, 2005.

create a more stable, controlled market. The advantage to all stakeholders is the elimination of the papasis, who corrode profits and do not contribute to the tax base.

All aspects of the features of a DAP system need to be discussed thoroughly with all stakeholders; the ideas presented in this report are presented as a starting point for those discussions. *However, all stakeholders interviewed in April 2010 agreed with the conceptual features and benefits of such a system and many provided specific recommendations for implementation that are incorporated above.*

***Establish timed and limited entry of vessels:*** As with many other recreational activities, staggered timings and limits on the number of vessels operating at any given time should be established to ease congestion and improve safety. For example, tours can be offered at 8 a.m., 10 a.m., noon, 2 p.m. and 4 p.m. Tourists are familiar with this concept (e.g., sailing/dhow trips, snorkel/dive trips, guided tours, etc. generally follow fixed timings). The optimal number of vessels allowed to go at each time needs to be determined, and a rotation schedule for vessels/captains established.

***Evaluate the shift to dolphin viewing only:*** For both the safety of tourists and the dolphins, the costs and benefits of eliminating the option to swim with the dolphins should be evaluated. In many parts of the world, direct interaction with marine mammals is not allowed. The analogy to land-based safaris can be made: one does not get out of the safari vehicle to touch wild animals. Scientific research on the long-term effects of human contact with the dolphins should be analyzed to guide this recommendation.

***Strengthen and enforce current guidelines for dolphin trips:*** Guidelines for appropriate behavior exist but are not currently well-known or enforced. In the 2005 survey, captains self-reported a compliance rate with the guidelines of 60%.<sup>22</sup> The proposed management plan for MBCA in 2005 cited disturbance from dolphin tourism as a crucial issue, with evidence from earlier studies already showing changes in dolphin behavior as a results of interactions with tourists and boat activity.<sup>23</sup> A 2010 study in Menai Bay by the University of Newcastle that has gotten significant attention in the international media stated:

“Watching the dolphins over a period of 40 days, the research team found that in the presence of the tourist boats, the time the dolphins spent resting dropped from 38 per cent of the time to 10 per cent while the time they spent foraging and socialising dropped from 19 and 10 per cent to just 10 and 4 per cent, respectively. Meanwhile, travelling behaviour more than doubled in proportion, from 33 to 77 per cent, becoming by far the most dominant activity state during interactions with tourist boats.”<sup>24</sup>

Limits on acceptable distances between vessels and dolphins, length of time spent near the dolphins, and rules regarding chasing or approaching dolphins should be considered and incorporated into the existing guidelines as necessary (see Appendix 5 for an example of whale/dolphin viewing guidelines issued by TUI, a leading European travel company).

---

<sup>22</sup> Berggren et al, 2005.

<sup>23</sup> Berggren et al, 2005.

<sup>24</sup> Christiansen et al, 2010.

Appropriate mechanisms for penalizing violators (both tourists and captains) need to be established and enforced.

***Establish a vessel registration system:*** With only 45 vessels operating dolphin trips in Kizimkazi in 2010, establishment of a registration system, whereby each vessel has a unique alpha-numeric identifier, should be relatively straightforward. Vessels should meet minimum safety standards to become registered. Vessels on the water for dolphin trips would be recorded by the management at the tourist information center. Registration will help with maintenance of records for payment to boat owners as well as provide documentation for enforcement purposes.

***Establish a certification/license program for captains:*** Captains should be required to undergo training in first aid, tourist management, and dolphin behavior/ecology before receiving a license to operate. Annual refresher courses could be required as a condition of re-certification. Training in multiple languages (English and Italian, especially) has also been suggested. A food vendor certification process for Forodhani Park in Stonetown was recently implemented successfully and could provide a local model to follow.

***Establish fixed buoys in MBCA:*** To reduce damage to coral reefs from vessels' anchors, fixed buoys are needed at strategic, known locations. This is an issue also identified in the draft management plan for MBCA.<sup>25</sup>

***Strengthen the reputation of the Menai Bay Conservation Unit:*** Current mistrust in the Conservation Unit's management of the MBCA fee has the potential to undermine the future credibility of the DAP system and joint management of a tourist center. At a minimum, the Unit should be required to publish an annual report on the distribution of MBCA fees collected. Other checks and balances in the collection of fees onsite at the four collection points may need to be established to increase transparency and reduce the potential for misplacement of funds.

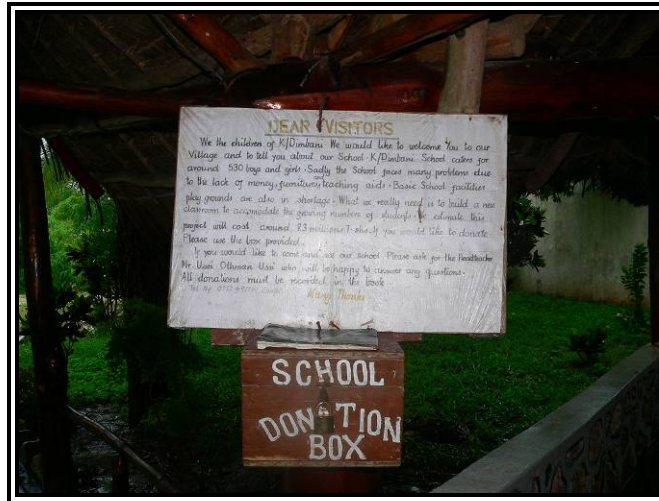
## **Other Ecotourism Opportunities in the Kizimkazi Area**

While dolphin viewing is the main tourist activity in Kizimkazi, there are other attractions in the area that could be developed to lengthen and enrich a visitor's stay in the area. These include:

- An historic 12<sup>th</sup> century mosque, recently renovated and still in use, near the entrance to Kizimkazi Dimbani
- Historic caves
- Colobus monkeys on nearby Pungume Island
- A large sandbank for beach/snorkeling trips (some dolphin trips continue there already)
- Handicrafts and ropes made by villagers
- Village walks/tours through Kizimkazi Dimbani and Kizimkazi Mkunguni

---

<sup>25</sup> Ministry of Agriculture, Livestock and Fisheries, 2010.



Collection for School Children in Kizimkazi Dimbani

### Role of Pwani Project

*Pwani* staff in Zanzibar and in the head office in Bagamoyo can play a key role in implementing the recommendations for improvement in the dolphin tourism industry. A well-managed dolphin tour industry that: provides economic benefits to the local community and an increased revenue base for taxation; protects and conserves dolphins and corals; and supports a viable ecotourism experience to visitors could be a world-wide model for emulation. Done properly, it could take a multi-year, multi-partner effort to fully implement these reforms. *Pwani* is well positioned to take the lead in organizing the effort.

With its emphasis on community-based development and resource conservation, *Pwani* staff should be responsible for planning, organizing and facilitating the numerous stakeholder meetings that will be necessary to initiate and carry these reforms forward, in collaboration with KIDOTOA and the Marine Conservation Unit (MCU) of the Fisheries Department. *Pwani* should be the first point of contact and primary organizer of the effort.

*Pwani*, through TCMP, the Institute of Marine Science, and the MCU, can enhance its strong track record of coordination to develop strategic partnerships with other interested, well-funded partners such as MACEMP, WWF, CARE, and others to create synergy for the reforms, as well as to leverage additional financing for some of the higher cost activities.

*Pwani* staff have experience with tourist information/resource center development as well as tour guide training (e.g., in Pangani and Bagamoyo Districts) that can be transferred to the KIDOTOA tourist center proposed for Kizimkazi.

*Pwani*'s strong alliance with WIOMSA, the Institute of Marine Science, and the MCU should be utilized and strengthened to ensure that institutional support for the reforms is formalized, documented, and maintained even in the event of changes in specific personnel in any of the key organizations.

*Pwani*'s association with the University of Rhode Island's Coastal Resource Center and the University of Newcastle UK with their respective links to the marine sciences academic community at large should be exploited to locate and procure appropriate outside expertise as needed (e.g., graduate students, marine mammal scientists, natural resources management experts, etc.).

*Pwani*'s own in-house expertise on community-based management and enforcement (Dr. Brian Crawford) and marine protected area management (Jairos Mahenge) should be tapped into to ensure that best practices in current resource management are incorporated into the reform process in a culturally and economically appropriate manner. This should be done in collaboration with the MCU and KIDOTOA.

*Pwani* staff have extensive experience in training that can be combined with the experience of KIDOTOA, the Coast Guard, and marine science/dolphin experts in Zanzibar. Collectively, these partners should work together to hold training workshops for captains, tour guides, and others in dolphin behavior/ecology, first aid, responsible tourist management, and vessel operation/maintenance.

*Pwani* may need to introduce the idea of the dolphin access permit (DAP) as this a new concept never been tried before in MBCA. Familiarization and education could be done in collaboration with MCU, IMS, KIDOTOA, ZATI, and the Commission for Tourism.

It is recommended that *Pwani* oversee the formation of a steering committee which would be given overall responsibility for coordination, management and decision-making as well oversight for appropriate management of revenues generated from a DAP. The steering committee could have executive members from relevant stakeholder groups such as the Fisheries Department, MCU, the Commission for Tourism, IMS, ZATI, and KIDOTOA, among others.

## **Appendix 1. Selected Excerpts from Draft General Management Plan: Menai Bay Conservation Area**

“Marine tourism however has great potential to be ecologically sustainable. More and more individuals and organizations are coming to the conclusion that the industry could be better managed. In many parts of the world, this sort of tourism is promoted as an environmentally sustainable industry which can replace extractive industries while at the same time providing financial support for local economies...” (p. 31)

“Over utilization of resources as there has been no system of controlling entry into and activities in particular environments in the conservation areas. Too many tourists are taken to one area at one time; some for Dolphin watching, some for snorkeling and others for scuba diving... This situation is neither conducive to environmental conservation nor attractive to sustainable tourism...” (p. 38)

“Absence of Dolphin viewing regulations as at present, dolphin viewing is done haphazardly such that the practice may on the long run scare away the animals to some distant places. A number of tourists are taken to dolphin sites and on sighting them they surround them with their boats to block their movements. The tourist then dive to view them. The animals are frightened.” (p. 38)

“Lack of planning for Dolphin watching has resulted into haphazardly watching. There is not timetable to guide the process. Tourists are taken at any time to the site by tourist guides who have low tour guide knowledge. At the beginning only 3 boats were allowed in at a time, but at present the case is different. Communities feel that this could be dangerous to tourists and scare dolphins. Decrease in number of dolphins and shortage in number of boats, machines and diving equipment leads to chaos in tourism areas. If this process is not contained, it could develop into over population of tourists as is the case at Punguume islet.” (p. 40)

“Existing communication gap between tour operators and tourists constrain information transfer from the former to the latter on what to and what not do during the tour operations.” (p. 41)

Listed as ‘high threat’ to MENAI:

- Destruction of corals by fishers and tour operators (p. 46)
- Lacking code of conduct to guide tourists and tour operators (p. 46)
- Lack of planning for Dolphin watching (p. 47)

Lack of sustainable finance is listed as a ‘significant high threat’ to management (p. 48)

“A precautionary approach is to be adopted to balance conservation needs and promotion of tourism to avoid alteration of the fundamental character of the reserve. Tourism should be regulated to avoid overloading of reserves.” (p. 50)

“The Environment Act establishes a National Fund for Protected Areas Management, which once implemented will receive government subventions, donations, entrance fees and permits, and fines for violations of the Act. The 1999 supplement allows for the establishment of a Nature Conservation Development Fund that will help to support the work of the Nature Conservation Areas Management Unit. Neither of these Funds is operational and currently revenue from entrance fees is managed at MBCA under separate arrangements.” (p. 50)

“Without sufficient, sustainable finance, MBCA is at risk of becoming a ‘paper conservation area’ where management agreements for the area marine resources may turn out to be little more than statements of good intentions. The establishment of sustainable fees system has already been investigated with a literature study, information sharing with Department of Fisheries and Marine Resource and the Conservation Areas Management Team. There is an urgent need to establish a sustainable financing mechanism for MBCA...” (p. 63)

Source: Ministry of Agriculture, Livestock and Environment, 2010.



**Appendix 2. Recommendations for Improvements on Dolphin Trips  
As Made by Tourists in 2005<sup>26</sup>**

**Table 19: A summary of recommendations provided by tourists to make the dolphin trip much better**

**Recommendations provided by tourists:**

- Limit number of boats going to watch dolphins at the same time
- There should be information boards/brochures
- Teach the operators and boat captains how to approach the dolphins
- Allow dolphins to rest during some days: i.e., no boats should be allowed
- More education and information on dolphins among the boat operators
- Use less noisy engines e.g. solar powered operated boats or sails
- There should be some sort of shade on the boat
- Introduce glass bottomed boats
- Regulations are required on the dolphin tourism activity to control the number of boats and how close they can go to the dolphins
- Establish a small dolphin museum or a resource centre
- The dolphin guides and boat boys should wear a uniform or a badge
- Let us feed them
- There should be safety rules on board and life jackets should be compulsory
- A jetty should be built to avoid sea urchins especially during low spring tides
- Better snorkels should be offered, or disposable ones
- Seasick tablets if sea is rough should be available
- There should be towels on board, and pillows for sitting
- More observations should be allowed than jumping and swimming with them
- Give dolphins a holiday from tourists

---

<sup>26</sup> Berggren et al, 2005.

## **Appendix 3. Example of Gorilla Tracking Permit Booking Procedures from Uganda Wildlife Authority<sup>27</sup>**

### **Booking Procedure:**

#### **1. Booking Office**

- Booking for all gorilla permits in Bwindi and Mgahinga is done at UWA Headquarters in Kampala. For permit fee information please check on the tariffs section.

#### **2. Long Term (Two Years in Advance) Booking Allocations**

- Advance booking shall be allowed up to two years as long as a deposit of 30% is made and the balance shall be paid 91 days to the tracking date. Late topup of 70% is not permitted but may be considered 7 days, and will attract a Surcharge of 20% beyond which deposit is forfeited without refund.
- 80% of all the gorilla permits in each month can be booked for two years in advance by the Association of Uganda Tour Operations (AUTO) members only. Foreign tour operators will book through local tour operators.
- Each tour operator (AUTO) shall book up to only 20 permits for that particular month on the day the booking opens, which is the first working day (Monday to Friday) of the month.

#### **3. Short time booking (three months in advance)**

- Individual trackers can buy from Uganda Wildlife Authority not more than 2 permits for the month. There is no guarantee, which dates or how many per day will be available. Booking can be done on the day the booking opens, which is the first working day of the month.

#### **4. Permit Limits**

- Permits not sold on the day the booking opens will be open for sale the following day with no limits on the number each tour operator would buy.

#### **6. Refunds/Cancellation Guidelines**

- UWA shall refund 50% tracking fee, if the visitor fails to track due to illness, this will be at recommendation of the Warden in Charge and this clause only applies to visitors who have already tracked BINP or MGNP.
- Visitors who fail to track the gorillas (MGNP) as a result of their movement to the neighboring country shall receive a full refund on their permits. However, those who would have tracked the whole day and failed to view the gorillas for one reason or another will be refunded 75% of the tracking fee. All refunds shall be effected through the Reservation Office at UWA Headquarters in Kampala.

---

<sup>27</sup> Uganda Wildlife Authority website (<http://www.uwa.or.ug/gorilla.html#2>), May 6, 2010.

UWA will retain the following percentages upon cancellations:

0 - 8 days to tracking date - no refund

9 - 45 days to tracking date - 75% (25% refund to client)

46-90 days to tracking date - 50%

91 days and above to tracking date - 25% (75% refund to client)

**7. Any refund to be made on the 30% deposit shall be at the value of the permit.**

**8. Permits must be sold at face value, whoever sells at higher value will be penalized.**

**9. Primary sale of permits by individuals or tour companies anywhere is illegal.**

All permits MUST be sold by Uganda Wildlife Authority only.

**10. Payment for gorilla permits must be made directly to Uganda Wildlife Authority.**

### **11. Reschedules of Permit Reservations**

- Reschedules of Permit reservations are not permitted, except if it is more than 91 days to tracking date and is within (7) seven days of rescheduled date.
- This will attract a reschedule fee of 20%. Any other charges of the date will be considered as a cancellation and a re-booking. A cancellation policy will therefore apply and re-booking a new date at the full cost of a permit.

### **12. Payment Terms:**

The acceptable payment methods are:

- Cash (Uganda Shillings, US dollars, GB Pounds, Euros). **Note:** US\$ notes below \$100 should be 1990 & above. US\$100 notes should be 1997 & above
- Bank Transfers (net of the bank charges)
- Traveler's Cheques (Present receipt of purchase at point of sale & 1% charge)

### **13. Time Limit**

- The tracking time is limited from 8:30 a.m. to 7:00 p.m. All visitors are expected back at the campground by 7:00 p.m.

## **Appendix 4. Examples of Wildlife Permits and Willingness to Pay for Wildlife Viewing**

### **From Alaska Fish & Wildlife Department**

([http://www.wildlife.alaska.gov/index.cfm?adfg=wildlife\\_news.view\\_article&issue\\_id=36&articles\\_id=202](http://www.wildlife.alaska.gov/index.cfm?adfg=wildlife_news.view_article&issue_id=36&articles_id=202))

Wildlife viewing permit applications are now available on-line for the Walrus Islands State Game Sanctuaries at [www.wildlife.alaska.gov](http://www.wildlife.alaska.gov). On-line applications to visit Round Island, within the Walrus Islands State Game Sanctuary, and to view walrus are now available and require a user fee of \$50. Permits are issued on a first-come, first-served basis.

### **From “The State of Whale Watching in Latin America” by Erich Hoyt and Miguel Iñíguez**

([http://www.wdcs.org/submissions\\_bin/WW\\_Latinamerica\\_English.pdf](http://www.wdcs.org/submissions_bin/WW_Latinamerica_English.pdf))

“At Laguna San Ignacio, for example, whale watchers said they were willing to pay USD \$100 for a tour that only cost them USD \$40, giving a substantial consumer surplus of USD \$60 per whale watcher. A consumer surplus of more than twice the actual cost of a whale watch trip was also found in Massachusetts, USA, in 1996.”

### **From “Economic Values of Dolphin Excursions in Hawaii: A Stated Choice Analysis” by Hu et al, 2009.**

“Swimming with dolphins is attractive to all individuals who are 25 years old, whether or not they are Hawaii residents. Visitors are willing to pay \$41 more to swim with dolphins as compared to viewing alone, while Hawaii residents would be willing to pay \$20 for the same activity. Swimming with dolphins becomes insignificant for residents who are 45 years of age, while visitors of the same age would be willing to pay \$24 additional for this opportunity. Finally, when they reach 65 years of age, neither marginal value is significant, indicating that regardless of whether they are visitors or residents, respondents no longer value swimming with dolphins as an attractive activity compared to viewing them from the boat.”

## **Appendix 5. Example: TUI Guidelines for Dolphin/Whale Interactions**

**For the protection of whales and dolphins, and for the long term sustainability of the whale and dolphin watching industry, it is important that whale and dolphin watching operations are performed in a manner that ensures that these animals and their environment are not harmed, and that encourages a safe, enjoyable and educational experience for the guests.**

### **General**

1. The local and national rules and restrictions applicable to the area and the species in addition to the guidelines below are followed.
2. The operation is accredited by the relevant environmental management authority.
3. Swimming with whales and dolphins in the wild is forbidden.

### **Communications**

4. A marine biologist is on board to provide information.
5. An educational program is provided (on board), including:
  - a. The existing guidelines and regulations, including the TUI Guidelines.
  - b. Appropriate environmental behaviour:
    - Not feeding, touching or throwing objects at whales and dolphins.
    - Not disposing rubbish, litter or contaminants in the water.
    - Making as little noise as possible.
  - c. The biology and natural history of whales and dolphins and their marine ecosystem applicable to the area.
6. Educational information is available to guests and staff.

### **Vessel management**

7. The no approach zone is within 100m of a whale; 50m of a dolphin, except when the animal approaches by itself.
8. The caution zone is the area within 100-300m either side of the whale; the zone for dolphins is 50-150m.
9. The no approach zone is within 500m for an animal or group of animals that seem to be motionless, resting or giving birth.
10. The no approach zone is within 300m of mothers and calves. Vessels take extra care.
11. No more than three vessels are allowed within the caution zone at one time.
12. The maximum time of observation is 15 minutes per vessel. When more vessels are present, the maximum time of observation is 30 minutes in total. This time is evenly distributed among the number of boats present.
13. Vessels can only approach and leave whales and dolphins slightly to the rear of the animal in a 60o angle, not head-on or directly from behind.
14. Vessels cease the activity when the whale or dolphin shows signs of avoidance or disturbance.
15. Vessels never pursue, overtake, move between, encircle or separate whales and dolphins intentionally.
16. Vessels approach whales and dolphins at no wake speed (2 knots) and avoid sudden changes.

17. Vessels do not attract whales and dolphins intentionally by e.g. reproducing whale and dolphin sounds or song.
18. Vessels do not encourage animals to bow ride.
19. Vessel and engine design should minimize the risk of injury of whales and dolphins.

**Environmental management**

20. The operation reduces and manages water, sound, energy and waste in an environmentally friendly manner in vessels and offices.

## References

- Amir, O.A. and Jiddawi, N.S. Undated. "Dolphin tourism and community participation in Kizimkazi village, Zanzibar." Pp. 551-560.
- Berggren, P., Amir, O.A., Guissamulo, A., Jiddawi, N.S., Ngazy, Z., Stensland, E., Sarnblad, A., and Cockroft, V.G. 2007. Sustainable Dolphin Tourism in East Africa. MASMA Technical Report. WIOMSA Book Series No. 7, ix+72pp.
- Christiansen, F., Lusseau, D., Stensland, E., and Berggren, P. 2010. "Effects of tourist boats on the behaviour of Indo-Pacific bottlenose dolphins off the south coast of Zanzibar." *Endangered Species Research*. Vol. 11:91-99.
- Curran, S. Undated. "Menai Bay Conservation Area Guide Book." Published by Africa Vision, Dar es Salaam, Tanzania.
- Hoyt, E. and Iñíguez, M. 2008. The State of Whale Watching in Latin America. WDCS, Chippenham, UK; IFAW, Yarmouth Port, USA; and Global Ocean, London, 60pp.
- Hu, W., Boehle, K., Cox, L., and Pan, M. 2009. "Economic Values of Dolphin Excursions in Hawaii: A Stated Choice Analysis." *Marine Resource Economics*. Volume 24, pp. 61-76.
- Ministry of Agriculture, Livestock and Environment. March 2010. "Draft General Management Plan: Menai Bay Conservation Area."
- Ministry of Natural Resources and Tourism (MNRT), Bank of Tanzania (BoT), Zanzibar Commission for Tourism, Tanzania National Bureau of Statistics (NBS), and Immigration Department. December 2009. "Tanzania Tourism Sector Survey: The 2007 International Visitors' Exit Survey Report."
- Revolutionary Government of Zanzibar. Ministry of Agriculture, Natural Resources, Environment, and Cooperatives. Department of Fisheries and Marine Resources. 2005. "Menai Bay Conservation Area. General Management Plan (Draft)."
- Sebastian, C. March 2, 2010. Editorial in *The Citizen*. Dar es Salaam, Tanzania. "Minister - Tourism Accounts for 80% of Zanzibar Revenue."
- Steck, B.; Wood, K.; and Bishop, J. February 2010. "Tourism: More Value for Zanzibar. Value Chain Analysis. Summary Report."
- Torell, E.; Mmochi, A.; and Palmigiano, K.. 2006. "Menai Bay Governance Baseline." Coastal Resources Center, University of Rhode Island. pp. 18.
- Zanzibar Association of Tourism Investors. 2008. "Tourism Industry Growth Strategic Plan: A Study on Tourism Development in Zanzibar for Zanzibar Association of Tourism Investors by Acorn Consulting Partnership Ltd."

Zanzibar Association of Tourism Investors. 2009. "ZATI Progress Report: 2009-2010." Prepared for the ZATI Annual General Meeting, December 2009.

Zanzibar Hotel and Tourism Institute. November 2006. "Zanzibar Ecotourism Study." Ed. ZHTI and Match Maker Associates Limited.