

WHAT ROLE SHOULD CONSERVATION AREAS PLAY IN PROVIDING LIVELIHOOD OPPORTUNITIES TO ADJACENT COMMUNITIES?

¹Von Maltitz, G.P. and ²Mazibuko, S
¹CSIR Pretoria. ²HSRC. Pretoria.

Abstract

In the past conservation management was relatively simple. A fence was erected around reserves and animals and plants were managed within the fenced off area. Management was restricted to managing the resources and, to a lesser extent, managing tourists. By the 1980s this view of conservation was beginning to be questioned, and there was a worldwide call for greater community involvement in conservation management. In addition new ideas were being proposed that suggested that there should be resource sharing with communities adjacent to conservation areas. A number of factors led to this change, key to these being a belief that long term sustainability will only be achieved through community involvement and benefit sharing. Two KwaZulu Natal reserves, Tembe and Royal Natal are investigated to ascertain what degree of resource sharing takes place with adjacent communities, what benefits the communities gain and how the community members views toward the reserves have changed. These results are considered in relation to different models for benefit sharing between reserves and communities.

1. Introduction

South Africa boasts of an extensive and proud conservation history starting in 1898 with the proclamation of the Sabi Game Reserve, which later became the Kruger National Park in 1926. This was followed with extensive areas being proclaimed as reserves, state forests and catchment management areas. In almost all cases this proclamation of reserves resulted in the relocation of people resident or using the land at the time of proclamation to areas outside of the reserve. In most instances physical barriers in the form of fences were erected to separate the reserve from surrounding areas. This had the dual function of ensuring that animals remained in the reserve, whilst ensuring that the communities adjacent to the reserve remained outside of the reserve. This management style has been dubbed 'fortress management' or the fences and fines approach (Wells & Brandon 1992; Neuman, 1998; Brockington, 2002). As a nation South Africa developed an international reputation for superb and scientifically based management of the reserves. The management paradigm was based on the notion that the reserve should be managed to a pristine condition that is assumed to have been present prior to recent human interventions, i.e. with the exception of tourism, the area was managed for the wildlife. No provision was made for inclusion of adjacent communities, either in policy development, management or access to resources. This approach to management was maintained in the traditional reserves into the mid 1990's. In line with changing international trends new approaches to conservation were starting to emerge, largely within the so called homeland areas. In these regions new forms of management were piloted where models of co-management and/or resource sharing were undertaken with adjacent communities.

In line with policy changes brought about through the post apartheid restructuring of the South African policy framework, there have been extensive activities within South Africa to ensure greater engagement between parks and local communities. A number of models have been proposed as to how communities adjacent to conservation areas can benefit from the conservation area. These range from simply allowing communities to collect specified resources in a controlled manner, through co-ownership and/or co-management models to full community ownership.

Recently, however, there has been an international trend back to more traditional conservation models as a consequence of a perceived failure of the co-management approach (Hutton, 2005). It is important that we ask the question. "has co-management as an approach failed as a conservation strategy, or are we failing to properly implement co-management"

This study investigates the current status of community interactions in two KwaZulu-Natal reserves. The Tembe reserve originated as a joint venture between the Tembe Tribal authority and the then KwaZulu Bureau of Natural Resources and Royal Natal National Park is one of the provinces oldest reserves.

1.1 Background to Royal Natal

The Royal Natal Reserve is nestled in the Drakensberg Mountains in the corner where KwaZulu Natal, the Free State and Lesotho meet. This 7400 ha reserve was formally proclaimed on 19 September 1916 on what was designated as commercial farming land. It is bordered on its southern side by the amaZizi tribal authority and on its north by what used to be the Qwaqwa homeland. To the west is Lesotho and to the east commercial farms, many of which are now developed for ecotourism.

The Royal Natal Reserve is a popular tourist destination, and it is not uncommon for the Tendele hutted camp and Mahai campsite to be fully booked out during holidays and weekends. Even during the off-peak periods Tendele has high occupancy rates and there are almost always some people in the campsite. The reserve is also popular to day visitors. It is estimated that at least 71 000 visitors pass through the reserve per year (based on visitor number from August and September 2005). Over 17 000 of these visitors are over-night visitors.

1.2 Background to the amaZizi community adjacent to Royal Natal

The amaZizi, though regarded as Zulu, have an independent history. They were a tribe of the Embo Nguni group that entered southern Africa around 1200 AD and have lived in the foothills of the Drakensberg since at least the 1700 AD (Pearse 1973), but were originally far further south of where they are currently located. During the period of the Mfecane they were displaced northwards, first through interactions with the AmaNdwane as they fled from Shaka and then Shaka's army as they perused the AmaNdwane. It is estimated that they arrived in their current location in the late 1800s and the land is registered as grant number 4798 of 1886 indicating that they were established in that area by then. Their arrival was at much the same time as Boer settlers were settling in the area. Though no formal land claim has been laid against the Royal Natal Park, Chief Miya clearly considers the area of the park to have been part of their traditional area and claims that there are amaZizi graves within the park to substantiate this. It's likely that the gazetting of the land as white farmland prior to it being declared a park was before 1913, the legal cut off date for land claims.

The land of the amaZizi underwent betterment planning in approximately 1960. Prior to betterment the communities lived on the ridge tops. After betterment the communities were clustered into rural villages at the base of the hill slopes and the entire area was divided into three distinct land use areas, villages, fields (in the valley bottoms) and grazing areas (on the hills). This change in settlement patterns is clearly visible from early aerial photographs. Though the area appears agrarian in character, livelihoods are only in part dependant on local primary production.

1.3 Background to Tembe

The 30 013ha Tembe Elephant Reserve is a relatively recent reserve and was proclaimed on 21 October 1983 as a sanctuary for the elephant populations found in the area and to conserve the rare sand forest vegetation. Tembe is located on the Maputaland plain on the border with Mozambique and is completely surrounded by the Tembe tribal authority.

Tembe is on the flat coastal plain and has a mean altitude of only about 100m above sea level. The climate is tropical with summers being very hot and winters warm. Rainfall is relatively low at about 700 mm per year and though predominantly a summer rainfall area rain can be experienced throughout the year. Tourism to Tembe is minimal. A single, privately run tented camp is located within the reserve with a total capacity of about 20 people per night. In addition there are about 40 cars of day visitors per month. Based on these figures we estimate the reserve gets no more than 500 visitors per year, and this is likely to be an optimistic estimate. There is very limited tourism infrastructure other than a road network (that requires 4x4 in places) and a hide at a waterhole.

The Tembe Park was set up as a joint venture between the tribal authority and the KwaZulu Bureau of Natural Resources. A number of environmental imperatives made the park an important area from a conservation perspective. It is the only substantial area of conserved sand forest in south Africa, and is an important area for the remaining Tembe elephants. Formalising and fencing the park would ensure that the community members were protected from the destructive crop damage by elephants, a key reason why the community were in favour of the reserve at its formation. The agreement with the Tembe Tribal Authority was that there would be a 50/50 revenue sharing with the tribal authority on profit from the park. In real terms the park has never shown a profit, but the community has received a proportion of revenue turnover.

A number of individual households were relocated from within the area proclaimed for the park to areas outside of the park during the park establishment. This relocation was approved by the tribal authority. It is not clear as to what level of consultation was undertaken with the relocated families and how willing they

were to move (see Box 1 below). A number of compensations were promised including the provision of water, meat from culled game and access to the reed beds within the reserve.

When the park was fenced the boundaries that had been agreed with community were not adhered to. This increased the number of people that needed re-location. A humorous anecdote that we heard more than once was that the chief was taken up in a helicopter to be shown where the boundaries were. The people interviewed suggest that he was too busy enjoying the flight to pay proper attention to what area was being delineated.

The Ezemvelo KZN Wildlife does not provide any accommodation in the park. Instead a private company has the rights to run a lodge. The lodge is a joint venture between a white entrepreneur and a select few local individuals from the ruling clans family. We could find no evidence that there is a true agreement with the broader local community, though the tribal authority is involved to some extent.

1.4 Background the Tembe community

The Mabudu-Tembe, though forced to be part of the Zulu nation as a consequence of inclusion in KwaZulu during the formation of the South African homeland system, were traditionally a separate group from the Zulu and more aligned to the Tsonga. Historically the tribe resided in both South Africa and Mozambique with the artificially imposed colonial borders dividing the tribe between the two nations. There is evidence that they were resident in the area since at least the 1750's though possibly earlier (Kloppers, 2003).

The Tembe area has poor crop potential due to the sandy soils and low rainfall and consequently most of the area is used for extensive grazing, despite it's relatively low suitability for livestock. Limited vegetable gardening takes place in the river floodplain. Tapping of the ilala palms (*Hyphaene coriacea*) for the production of palm wine is an important economic activity.

Most of the population clusters around the town of Manguzi, but homesteads are scattered in the region, some being extremely isolated and with no service provision. The area of the Tembe reserve had a very low human population density at the time of proclamation. Access to water is a key issue and wells are still common, though some hand pumps and power pumps are to be found.

Box 1.

Mr X recalls that he was away in Jozini where he was worked at that time. When he returned he found that his family had been moved. He found his family under a tree. He says he received no compensation although some families received two bags of cement and some logs. He moved his family to Mbokodo (across the Umfuzi River) but was removed from there to Mbonisweni without any explanation (it is not clear if this second move was to do with nature conservation). He was very resentful of this move as he had to abandon a 6 room cement brick house. He worked in the park in 1983 doing fencing and earned R40-60 per day. At that stage each individual worked for a 20 day period then the job was reassigned to a new member of the community. Earning were reduced to R35 per day as the community requested that more individuals received jobs and it was agreed that this would be achieved by paying each individual less. Mr X says he would like compensation, but he would not like to see the closure of the reserve.

2. Method

Data was collected from 107 household questionnaires administered to members of the AmaZizi community and 75 questionnaires in the Tembe region. The questionnaires consisted of a mix of quantitative questions and open-ended questions. Numerous interviews were conducted with key informants in the area and with Ezemvelo KZN Wildlife staff. In addition we relied on our team's long term research and implementation experience from both locations.

3. Results

We identified a number of ways in which community members gained benefit from the reserves. These include the following:

- Job opportunities

Table 1 summarises the job opportunities at the two parks. In Royal Natal the Parks Board provides both tourism and conservation job opportunities, whilst at Tembe tourism opportunities are linked to the privately owned tented camp. In addition to formal full time employment there is part time poverty alleviation labour. In Royal Natal there are also a few opportunities for entrepreneurial individuals to earn income through acting as car guards and trail guides. In Tembe a troop of dancers entertain guests at the lodge. Individuals engaged in these opportunities are reliant on tips and guiding fees to earn income. Some outsourced services such as the provision of security in Royal Natal relies mostly on labour from the local community. We were not able to ascertain exactly how many individuals were involved.

Table 1. The number of job opportunities provided by Tembe and Royal Natal. Note this includes managers and employees who do not come from adjacent communities

Type of employment	Royal Natal	Tembe
Conservation	21	51
Tourism	30	17
Jobs per tourist	0.0004	0.004
Temporary (poverty alleviation) jobs	97	200
Independent job opportunities	2 guards 2 guides ±60 weavers	±30 entertainers ±1 crafter
Total permanent jobs	51	68
Total Jobs	212	299
Jobs per 1000ha	28.6	9.9

- The community levy

Ezemvelo KZN Wildlife has a novel approach of charging visitors a community levy as a component of the gate fee for all individuals entering the reserve. This is set as R1 for day visitors, R5 for camper and R10 for lodge/hotel residents per visit. For the Royal Natal Park this represents a substantial generator of income, and at the time of research, June 2005, there was R1 094 783.03 available in the fund. The limited visitors to Tembe means that this fund is quite small. The combined amount available for the joint Ndumo and Tembe reserves was R29 662,26. Money from the fund is accessed by the communities through the community presenting of proposals for projects that will be of community benefit. It appears that insufficient facilitation is in place to aid community members to develop proposals. Only one project, a cattle fencing project in the Okhombe ward of the amaZizi was identified by the 107 community members interviewed as having been established. The author had helped facilitate the development of this proposal and put the community and Ezemvelo in contact. The author was not involved in the interviewing process. The interviews in the Tembe region did not pick up any awareness of this fund from the community members interviewed.

- Access to resources

Both parks make provision for limited access to plant material. In the case of the Royal Natal Park this is in the form of access to thatching and weaving grass. Table 2 gives data on the quantities of grass harvested during 2004 from Royal Natal. Community members (predominantly women) are allowed to enter the park to collect grass during 10 days in May. A permit is required, but is free. In the past women had to work in the park on a day per day basis for each day they harvested grass. Some woman complained about this practice, but the parks board says it is not longer implemented.

In the case of Tembe it is Phragmites reeds that the community is allowed to harvest. To ensure controlled movement within the Park, only 35 persons were allowed to harvest in any single day. There was no limit to what people can harvest, but they were only limited by the fact that they had to carry the reeds on their heads home. They are also restricted to one area of the reed bed, due to the constant harvesting this area now has poorer quality reeds than other areas. By May 2005, the amount of reeds and thatch grass that the local people had harvested was 7500 head bundles of reeds and 200 head bundles of thatch grass. Meat from culled animals is also occasionally given to the community, but not as frequently as they would like or expected from the original agreement.

Table 2. Availability of craft material from the RNP

Species harvested	Number of bundles	Average bundle mass (kg)	R-value of bundle	Number of permits issued
Uhashu	581	32	45	580
Incema	125	28	40	395
Utswiri	400	35	60	217
Thatch grass	156	39	60	4
Firewood	9 loads	3 tons	120	9

Source: Ezemvelo KZN Wildlife, Ukhahlamba Region (RNNP), 2005 statistics.

- Access to markets (tourists)

In Royal Natal, community members are able to sell craftwork to tourists. Some of this is at the side of the road, with sales to tourists passing through the area. In addition a woman's group also runs a craft stand within the park. It proved very difficult to quantify profit from craft sales, but it seems that some individuals in good months will earn more than R600.

A craft stand exists in Tembe, but because of the low tourist volume it has little benefit and is often not manned. The lodge has an arrangement with a group of local dancers who are brought in to dance for tourists – their remuneration is the tips that they receive.

- Access to poverty alleviation funds

In both Tembe and Royal Natal, public works (poverty alleviation) funds have been accessed for the development of the reserves, particularly relating to the control of alien invasive vegetation, but also infrastructure development. These funds employ people from local communities to undertake labour intensive jobs. Though short term in nature, these funds have the potential to put large amounts of income back into the communities.

3.2 Community members perception of the park

The following tables provide information of community perceptions toward the park. Although the Tembe Park is supposedly a joint venture with the community, it is in Royal Natal where there seems to be a far higher awareness of the conservation objectives of the Park. In both cases the access to Job opportunities is seen as the biggest benefit from parks. Despite the amount of natural resources harvested from the parks, this rates as a very low priority in both areas.

Despite traditional claims to the land in both areas, there is a surprising amount of good will toward the parks. Most negative comments are not directed at the existence of the parks, but rather at aspects relating to the level of job opportunities created. In Royal Natal the poverty alleviation projects are restricted to the youth and this is an issue of discontent with some individuals. It is also clear that if poverty alleviation projects cease, that this will create an increased discontent with the parks.

Access to medicinal plants is an issue with about 20% of individuals. Unlike access to grass and reeds, access to medicinal plants would have biodiversity impacts. An alternative option where the park helps community members grow the plants is seen as a better strategy that both aids conservation and provides the needs of the community.

Table 3. Likes and dislikes about the Royal Natal Park

Things liked	%	Things disliked	%
Nature protection	35.5	None	63.5
Jobs	22.4	Few/ no jobs	9.3
None	22.4	Do not know	8.4
Do not know	10.2	Employ youngsters	7.4
Allowed to sell craft	6.5	Entry restrictions	5.6
Access to natural resources	6.5	Arrest livestock	1.8
Game	1.8	No firewood	0.9
Levy	0.9	No medicinal plants	0.9
Tourism	0.9	Shoot dogs	0.9
-		Destroyed forests	0.9

Table 4. Problems with the Royal Natal Park and what people would like to get from within it

Problems with Park	%	Problems people cause to Park	%	What people wish to get from Park	%
None	37.3	Do not know	45.7	Medicinal plants	20.5
Do not know	23.3	Hunting	19.6	Firewood	15.8
Entry restrictions in the past	16.8	Veld burning	16.8	Work/ jobs	7.4
Not allowed to harvest medicinal plants	7.4	Theft of property	7.4	Game	3.7
Few jobs	4.6	None	6.5	Thatch grass	0.9
Employ youngsters	3.7	Illegal harvesting of medicinal plants	6.5	Uhashu	0.9
Arrest livestock	1.8	Illegal firewood collection	5.6	None	49
Not allowed to collect firewood	1.8	Remove fence	2.8	Do not know	9.3
Cleared forests	0.9	Illegal grazing	0.9	-	
Not allowed to hunt	0.9	-		-	
Short work contracts	0.9	-		-	
Unrestricted baboons	0.9	-		-	

Table 5. Perceptions about T.E.P.

1. Importance of the Park	Number	%	2. Feelings about closure	Number	%
Keep wild animals away	30	39.4	Vulnerable to wild animals	29	38.1
Provides jobs	17	22.3	More land available	15	19.7
None	10	13.1	Indifferent	14	18.4
Do not know	9	11.8	Loss of jobs	9	11.8
Protects nature	5	6.5	Do not know	4	5.2
Educational	2	2.6	Free access to resources	3	3.9
Provides natural resources	1	1.3	Vulnerability to nature	2	2.6

4. Some conclusions from the data

Tembe and Royal Natal's management models differ in a number of ways. Royal Natal is fully state owned and run, and the park is managed to accommodate large numbers of tourists. Tembe is state run, but its accommodation is outsourced to a private company. The company running the accommodation is a joint venture with a few select community individuals from the ruling family. The tribal authority (TA) is also involved, though seems to have limited say, and receives limited benefits. We were not able to ascertain what the TA does with any monies received from Tembe, but it is clear that if they are doing anything, the fact that this is being funded from the park is not communicated to the community members.

Basically both parks still operate predominantly within the fences and fines paradigm, but with a number of new initiatives to allow greater engagement with the local communities. Although both parks have engaged the local TAs, it is clear that the message is not going down to the level of actual community members. The community levy seems to have the potential of being a powerful mechanism where there are sufficient tourists as in the Berg. Unfortunately, as yet it is not being implemented effectively in the sense that few projects have been funded. It also seems to be poorly promoted within the communities, with too much reliance on the chiefs.

The two parks contrast on the level of perceived community ownership of the land, and perceived level of loss due to reserve formation. In Royal Natal, with the exception of the chief, there was little local resentment to the land being a reserve. In Tembe a number of individuals felt personally disadvantaged whilst the chief and royal family appeared to be reaping benefits. This raises questions about the nature of communities, and if engaging with the chief is equivalent to engaging with communities,

Community members are clearly gaining a number of benefits from the park. Access to jobs is seen as a far more important contribution of parks than access to resources. Most community members are not aware that the community levy can be accessed for community level projects. Careful consideration will be needed where short term jobs are provided as this may result in increased resentment when the job opportunities cease.

In general individuals are not negative to conservation. It is clear that the new paradigms of co-management/resource sharing is poorly implemented in both parks, though a number of initiatives are in place that illustrate effort on the park's behalf to move to more community friendly practices. Current achievements are, however, way below their potential. Despite this the community still maintains a positive attitude toward the park. Communication between parks and communities is very poor.

A number of key questions emerge from this research. These include:

- 1) Is co-management failing, or as seen in the above examples, has it simply been poorly implemented.
- 2) Is co-management necessary or appropriate if the community has only weak ties to the conservation land (as in Royal Natal)? In such instances resource sharing and job provision may be more appropriate.
- 3) Do communities have rights to benefits from conservation land? If so is there a hierarchy of rights based on historic attachment to the land, and the manner in which individuals have been deprived of these rights
- 4) How do you compensate local individuals for the local costs of conservation if it exceeds local benefits
- 5) How do we ensure that those who lost benefits are the same people who get new benefits (does this matter?).
- 6) How can local benefits be increased.
- 7) How is ecological integrity ensured? Can and should there be trade offs between ecological integrity and local benefits. If ecological integrity must be maintained, are there alternatives that give equitable compensation. Related questions include:
 - a. Can and should there be local consumptive use?
 - b. If so what species (or parts of species)?
 - c. If so how is it controlled?
 - d. Where joint ventures are involved, should they be with individuals or community structures or both?
- 8) How should parks communicate with the community?
- 9) Do tribal authorities constitute legitimate structures?
- 10) How do you devolve benefits to community members, not just individuals?

References

- BROCKINGTON, D. (2002). *Fortress Conservation: the Preservation of the Mkomazi Game Reserve, Tanzania*. James Currey, Oxford.
- HUTTON, J., ADAMS, W.M. & MUROMBEDZI, J.C. (2005). Back to the Barriers? Changing Narratives in Biodiversity Conservation. *Forum for Development Studies*, No. 2-2005, Norsk Utenrikspolitisk Institutt, www.nupi.no
- KLOPPERS, R.J. (2003). *The history and representation of the history of the Mabudu-Tembe*. MA thesis University of Stellenbosch.
- NEUMANN, R.P. (1998) *Imposing Wilderness: Struggles Over Livelihood and Naturepreservation in Africa*. University of California Press, Berkeley, CA
- PEARSE, R.O. (1973). *Barrier of spears: drama of the Drakensberg*. Howard Timmins, Cape Town.
- WELLS, M. & BRANDON. K. (1992). *People and Parks: Linking Protected Areas with Local Communities*. World Bank, Washington DC.