

The Boabeng-Fiema Monkey Sanctuary, Ghana: A Case for Blending Traditional and Introduced Wildlife Conservation Systems

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Abstract

The introduction of nationally-managed “western”-style protected area systems in Africa often led to antagonism between government authorities and local communities, because rural communities, which were largely excluded and displaced, often resorted to unsustainable activities like encroachment for settlement, illegal hunting and farming. It is the view of most biodiversity conservationists, however, that the management of natural resources must take into consideration both the introduced “western” model and traditional or local knowledge. The study aimed at assessing the Boabeng-Fiema Monkey Sanctuary in Ghana, as an example of blending traditional and introduced wildlife conservation systems, using interviews and questionnaire to obtain information from a cross-section of inhabitants of the area. The results indicated that the dual management system in operation at present has been largely successful, as the inhabitants appear to support the mechanisms put in place to manage the Sanctuary. Policy recommendations proposed to further enhance this success are in the areas of research and monitoring, education and awareness, tourism improvement, and introduction of community incentive schemes.

Introduction

Before the advent of modern or “introduced” biodiversity conservation methods, traditional African societies operated complex religio-cultural belief systems that used traditional norms, myths, taboos, totems and closed seasons to preserve certain critical natural resources (Ntiamoa-Baidu, 1995; Abayie-Boaten, 1998; Attuquayefio & Fobil, 2005). There is, however, a school of thought which suggests that such traditional edicts only inadvertently promoted natural resource conservation but were strictly adhered to, in order not to incur the wrath of deities or ancestral spirits. It is, however, generally agreed that no matter the original intention of such belief systems, their influence on natural resource management is enormous (Amanor, 1994; Gyasi, 1997; Arhin, 2008).

Undesirable factors like deforestation, natural resource over-exploitation, pollution, introduction of exotic species, population increase, poverty, urbanization, and weak legislative, or institutional structures have greatly threatened the conservation of natural resources (Attuquayefio & Fobil, 2005). This is a direct consequence of increasing non-adherence to long-held traditional beliefs, due to the advent of western technology, growing influence of foreign religions and beliefs, lack of modern regulations to enforce traditional rules, and problems of migration, urbanization and resettlement (Ntiamoa-Baidu, 1995).

The rapid decline in wild animal populations in Africa led to the introduction of nationally-managed “western”-style protected area systems (forest reserves and wildlife conservation areas), which often

excluded and displaced rural communities from traditionally-owned lands. As far back as the 1900s, the British colonial government passed legislation to establish protected areas in its colonies. Unfortunately, the enforcement of this legislation deprived the indigenous people of their perceived God-given rights to their livelihoods (hunting, fishing, farming, etc.) (Corbin, 1999). The resulting antagonism between government authorities and local communities, as well as problems of encroachment for farming, illegal hunting and human-wildlife conflict rendered such *in situ* conservation approaches largely ineffective (Kiss, 1990; Hanson & Tchamba, 1993). In Uganda, a project to establish a national park (Lake Mburo) without consultation with the local people collapsed after a few years when the locals, out of frustration, invaded and settled the park, destroyed all wildlife and chased out the park staff. It was only after extensive negotiations that the park was re-established with local participation (Ntiemoa-Baidu *et al.*, 2000).

The Boabeng-Fiema Monkey Sanctuary (BFMS) provides habitat for two monkey species, the black-and-white colobus (*Colobus vellerosus*), and mona monkey (*Cercopithecus campbelli*), which co-exist with the inhabitants of the twin villages of Boabeng and Fiema (Densu, 2003). The monkeys are protected and revered as “children of the gods” by traditional taboos and historic cultural beliefs. Over many generations a harmonious relationship has existed between human and monkey to the extent that dead monkeys are buried in special cemeteries with elaborate rituals akin to those of humans (Densu, 2003; Pleydell & Nuhu, 2005). This harmonious co-existence began to crumble in the early 1970s

when members of a zealous religious sect, the Saviour Church, came to settle in the area and started disregarding the age-old taboos. Members of this sect simply had no respect for local traditions (Fargey, 1991; Falconer, 1992; Ntiemoa-Baidu, 1995).

Indiscriminate killing of the monkeys drastically reduced their numbers, and rampant illegal logging and encroachment of forest habitats for farming prompted the traditional authorities to seek help from the then Department of Game and Wildlife (now Wildlife Division of the Forestry Commission) to designate the area as national Wildlife Sanctuary with accompanying bye-laws to protect the monkeys (Akowuah *et al.*, 1975; Fargey, 1991). A Community Management Committee, comprising traditional elders and wildlife staff, was established. Ownership and management of the Sanctuary were vested in the traditional authorities, while the Wildlife Division assumed supervisory and advisory roles, making the BFMS a model for blending traditional African wildlife conservation with “introduced” or classical *in situ* conservation (Fargey, 1991; Densu, 2003).

A previous study (Kwarteng, 2004) revealed that the sanctuary faced several problems, notably (i) a rapidly-increasing monkey population in the sanctuary, (ii) possibility of dilution of the traditions and culture of the people through eco-tourism, (iii) increasing industrialization and migration, and (iv) escalating human-wildlife conflict with potential negative impacts on conservation initiatives in the area. The objectives of the study were, therefore, to (i) investigate the perceptions and attitudes of the local communities towards the two species and the sanctuary, (ii) identify any

possible threats to the existence of the two monkey species and the sanctuary itself (iii) identify any possible sources of human-wildlife conflict resulting from the increased monkey populations, and (iv) assess the success, or otherwise, of the blend of traditional and introduced wildlife conservation in the study area.

Materials and methods

Study area

The Boabeng-Fiema Monkey Sanctuary (BMFS) (7° 43' N, 1° 42' W) is an 192-ha area within a 4.5-km² sacred grove, situated around the twin villages Buabeng and Fiema in the Nkoranza District of the Brong-Ahafo Region of Ghana (Asamoah, 1990; Wong & Sicotte, 2007) (Fig. 1). The area lies within southern rain forest-dry northern grassland transition zone with mean annual temperature and rainfall of 26 °C and 1,250 mm, respectively (Fargey, 1991). There is a long rainy season from March to June, and a shorter one in September. A short dry season occurs in August, followed by a longer one from November to February. The vegetation comprises a mosaic of original forest, degraded forest, woodland and savanna (White, 1983; Fargey, 1991). The majority of inhabitants are Christians, including satellite settlements of Saviour Church members, but there are also sizeable populations of Traditionalists and Moslems.

An assessment of the BFMS, as an example of blending traditional and introduced wildlife conservation systems, was conducted. The perceptions and attitudes of the local communities towards the monkeys and the sanctuary, and any possible sources of human-wildlife conflict were investigated, using questionnaires and interviews to obtain information from

respondents in the twin villages of Buabeng, Fiema, and the Saviour Church community, as well as traditional authorities and wildlife officials. A total of 137 questionnaires were administered randomly to respondents in the villages of Buabeng, Fiema, and the satellite community of the Saviour Church over a 5-day period. For each selected household, one or two individuals were administered with the questionnaire. Unstructured interviews were conducted with the chiefs, elders and traditional priests of the villages, and wildlife officials.

Results

Of the total of 137 respondents, 55% were males (Table 1). There were, however, more female respondents from the Saviour Church community, while both the Boabeng and Fiema villages had more male respondents. Respondents from Fiema, Boabeng and Saviour Church communities constituted 48.9%, 40.9% and 10.2%, respectively. The age-group with the highest percentage of respondents (29.2%) was 45 years and above, while that with the lowest was between 20 and 25 years. The majority of respondents (55.5%) had only primary education, while those with education higher than primary constituted 11.2%. Respondents with no formal education made up the remaining 33.3%. Christianity was the dominant religion and comprised 80.4% of the respondents. Both Muslims and Traditionalists made up 7.3% each, while 5.0% were atheist. Most of the respondents (43.8%) were farmers.

Generally, majority of respondents (78.1%), including adherents of the Saviour Church, expressed positive sentiments about the presence of monkeys in the community, reasons being their touristic value (53%),



Fig. 1. Map of Ghana showing the Boabeng-Fiema Monkey Sanctuary in the Brong-Ahafo Region

cultural importance/traditional heritage (20%), spiritual significance (representatives of the gods) (17%), and being fun to be with (10%). Some respondents thought the monkeys were destructive (45%) and also competed with them for food (55%). More respondents (62%) would ignore the monkeys which entered their homes than drive them away (38%). Respect for taboos (21 %) or adherence to existing wildlife laws (79%) were the reasons for such actions. Infrastructural development (42%), fuelwood harvesting (10%), access to water (5.1%), and harvesting of medicinal plants (0.7%) were some of the reasons why respondents said they needed the Sanctuary resources (Table2).

Respondents who were in favour of maintaining the current restrictions of access to the Sanctuary thought that the monkeys needed to be protected (26%), the forest needed to be conserved (24%), both the monkeys and the Sanctuary need to be conserved (35.8%). Traditional edicts (39%) and wildlife regulations (39%) were thought by respondents to be the reasons why restrictions of access were being enforced. The remaining 22% of respondents were not sure. The Sanctuary has benefited some respondents financially (69%) through tourism (45%), community development projects (32%), increased commercial activity (trading) (14%), and other benefits (9%).

Discussion

It appeared that the presence of the Saviour Church, or the advent of Christianity in the area, has done little to change the people's attitudes and perceptions towards the monkeys over the years. This could be because, although the majority of inhabitants in the two villages are Christians, the status of the monkeys as "untouchable children of

the gods" is still very much respected, as a high percentage of respondents were not interested in killing the monkeys. Fargey (1991) also reported in a survey that almost all respondents would not kill the monkeys under any circumstances. He also noted that, apart from the Saviour Church members, 75% of the respondents were also Christians. In this study 85% of respondents were Christians, including the Saviour Church members, who constituted only 9.5% of respondents. Asamoah (1990) reported that only 1.3% of locals admitted killing the monkeys when they trespassed on their property. A combination of "western" *in situ* conservation and taboos appeared to have succeeded in deterring the locals from killing the monkeys. Indeed, *C. vellerosus* populations have increased steadily from 128 individuals in 1991 to about 241 in 2006 (Wong & Sicotte, 2006).

Kiss (1990) stated that rural communities tolerate and co-exist with wildlife only if they derive sufficient benefits, despite the destructive activities of the animals on their farms. Ntiamoa-Baidu (1995) reports a similar situation with Ghana's protected areas. In the case of BMFS, gains from tourism, like development projects and increased commercial activity, are touted to be the main reasons for tolerating the presence of the monkeys. The few respondents, who did not welcome the presence of the monkeys in the area, gave reasons suggesting that they were interested in short-term gains rather than long-term conservation for posterity. The fact that most respondents supported the restrictions on the use of the Sanctuary resources, and actually wanted the restrictions maintained, makes a strong case for the blending of the two conservation systems.

TABLE 1
Respondent profile

<i>Parameter</i>	<i>Respondents %</i>
<i>Gender</i>	
Male	55.0
Female	5.0
<i>Community of residence</i>	
Boabeng	40.9
Fiema	48.9
Saviour Church	10.2
<i>Age-group</i>	
12–19	27.7
20–25	12.4
26–35	16.8
36–45	13.9
46+	29.2
<i>Occupation</i>	
Farming	43.8
Student	30.0
Trading	11.0
Artisanship	9.0
Teaching	2.2
Unemployed	4.0
<i>Religion</i>	
Christianity	85.4
Islam	7.3
Traditional	7.3
Atheist	5.0
<i>Education</i>	
Basic/Primary	55.5
Illiterate	33.3
Other	11.2

TABLE 2
Respondents' perceptions of monkeys and the sanctuary

<i>Parameter</i>	<i>Respondents %</i>
<i>Perceptions of monkeys</i>	
Positive	78.1
Negative	21.2
Indifferent	0.7

<i>Reasons for positive perceptions of monkeys</i>	
Tourist attraction	53
Cultural (Part of heritage)	20
Spiritual (Represent gods)	17
Recreational (Fun to be with)	10
<i>Reasons for negative perceptions of monkeys</i>	
Destructive (stealing)	55
Need to acquire land /resources	45
<i>Reaction to monkey presence in household</i>	
Driving them away	38
Leaving them alone	62
<i>Reasons for leaving the monkeys alone</i>	
Existing wildlife laws	78.9
Respect for taboos	21.1
<i>Reasons for needing sanctuary resources</i>	
Land for farming/infrastructure	41.6
Fuelwood harvesting	10.2
Access to water	5.1
Medicinal plants	0.7
No particular reason	40.9
<i>Maintaining restriction of access to sanctuary Resources</i>	
Monkey and forest conservation	70.1
Conservation for posterity	19.7
<i>Reasons for restricted access to sanctuary</i>	
Traditional edicts	39.4
National wildlife laws	39.4
Other	22.2
<i>Continued maintenance of restricted access</i>	
Yes	86.1
No	13.9
<i>Reasons for non-encroachment</i>	
Respect for laws	41.6
Destruction of farms by monkeys	29.2
Other	29.2
<i>Benefits from sanctuary</i>	
Yes	69.3
No	30.7
<i>Benefits gained from sanctuary as tourist site</i>	
Financial	45.0
Development projects	32.0
Increased trade	14.0
Other	9.0

According to Ntiamoa-Baidu *et al.* (2000), policies are frameworks for deciding how people should interact with one another and with the environment. Biodiversity conservation projects must, thus, necessarily be guided by a set of policies that determine accessibility to resources in a given area, and guidelines for the sustainable use of such resources. Policy formulation involves a reconciliation of the trade-off between resource exploitation for short-term economic gain, and the irreplaceable loss of biodiversity, since different stakeholders differ in their philosophies concerning natural resource conservation policy (Ntiamoa-Baidu *et al.*, 2000). Thus, while local communities largely expect short-term economic gain from natural resource exploitation, nations and global organizations tend to favour a broader and longer-term perspective.

Generally, local communities largely expect short-term economic gain from natural resource exploitation, while nations and global organizations tend to favour a broader and longer-term perspective. According to Arhin (2008), Africa's wildlife laws are largely inadequate and ineffective to address wildlife conservation, and, therefore, require a back-up from the plethora of cultural values and practices. Ntiamoa-Baidu *et al.* (2000) indicated that projects established on purely external values require investment and time/resources on conservation education and awareness programmes to elicit community support.

The continued existence of the BFMS as a protected area has been largely the result of the integration of the introduced "western" approach into a traditional biodiversity conservation approach. The challenge is to aim at a compromise that

would satisfy all stakeholders. This is not different from the CAMPFIRE project in Zimbabwe, where policy reforms that permitted shared ownership and co-management of wildlife and other resources between traditional and state authorities were adopted. Ghana is considered a global partner in primate conservation for two main reasons. The country is home to locally and globally endangered primates like the olive colobus (*Procolobus verus*), white-naped mangabey, diana monkey (*Cercopithecus diana*), and chimpanzee (*Pan troglodytes*). Miss Waldron's red colobus (*Piliocolobus badius waldroni*) has been declared extinct in the country (Oates *et al.*, 2000; Densu, 2003). The BMFS is certainly playing a part in this global effort to save endangered primates.

In the light of the findings of this study, the following are recommended:

1. Funding of integrated social and biological research by government and non-governmental organizations to promote a better understanding of traditional management practices and their role in biodiversity conservation should be pursued (Sarfo-Mensah & Oduro, 2007).
2. Collaborative research involving anthropologists and natural scientists should be encouraged as this would help elucidate the scientific and social values of beliefs related to traditional natural resource management in order to enhance the acceptability of traditional biodiversity conservation. Academic and research institutions in Africa and elsewhere could also give greater prominence to ethnobiology (a multidisciplinary discipline which uses modern science to study and validate the knowledge systems of indigenous people) as an important

component of natural resource management.

3. The tourism industry at BFMS must be better-managed to generate more income, ensure equitable distribution and to erase suspicions of impropriety. In Namibia, management of the Caprivi Strip Wetlands under the Living in a Finite Environment (LIFE) project introduced a levy of US\$ 1.50 per visitor per night at the park lodge. This money was returned to the neighbouring communities which must decide whether to distribute it directly to households or to initiate community projects with it (Ntiamoa-Baidu *et al.*, 2000).
4. Arrangements could be made to ensure that regulations regarding the behavior of tourists toward the monkeys were more strictly enforced. For example, illegally feeding the monkeys makes them less fearful of taking anything from humans, and encourages rampant monkey invasions into the domestic environment to feed on prepared food and stored farm products, and also destroy property.
5. Biodiversity projects, which encourage local communities to take initiatives to help themselves with funding from external sources, must be vigorously pursued, as these are more sustainable than those which merely provide food and other hand-outs (Ntiamoa-Baidu *et al.*, 2000). Initiation of alternative livelihood programmes (e.g. domestication of snails, grasscutters, giant rats, etc.) and beekeeping/ for indigenous people, may prevent or limit encroachment into protected areas for crop farming, hunting, etc. The success of such programmes has, however, not been firmly established.

A craft-making programme initiated at BFMS was very successful because it generated income for the local artisans who produced various artifacts for sale to tourists (Huffman, 1999). To reduce hunting pressure on wildlife in the Tai National Park in La Cote d'Ivoire, a national NGO, Vie et Foret, introduced fish, snail, and grasscutter farming projects which were largely successful, except that conflicts arose when some locals felt discriminated against in the provision of funding for the various activities (Ntiamoa-Baidu *et al.*, 2000).

6. Provide direct incentives by employing some community members as Community Game Guards (CGGs) as a way of ensuring community participation in biodiversity conservation projects. While acknowledging that the operating environments may be different, this initiative has been successfully implemented in Namibia, where the employment of CGGs fostered a sense of ownership of wildlife resources in the area and elicited more commitment than from government-employed wildlife officers. The locals also had more confidence in the CGGs since they saw them as one of their own (Ntiamoa-Baidu *et al.*, 2000).

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