© Kamla-Raj 2012

The Role of Traditional Laws and Taboos in Wildlife Conservation in the Oban Hill Sector of Cross River National Park (CRNP), Nigeria

Saka Oladunni Jimoh^{*}, Emmanuel Tertsea Ikyaagba^{*}, Abideen Abiodun Alarape^{**} Emeka E. Obioha^{***} and Adesoji Akinwumi Adeyemi^{*}

*Department of Forest Resources Management, University of Ibadan, Ibadan, Nigeria. **Department of Wildlife and Fisheries Management, University of Ibadan, Ibadan, Nigeria ***Department of Safety and Security Management, Tshwane University of Technology, Pretoria, South Africa

KEYWORDS Traditional Laws and Taboos. Wildlife Conservation. Sustainability. Nigeria

ABSTRACT Efforts to integrate rural people into biodiversity conservation through community-based conservation programs is an old tradition. These efforts were largely based on economic incentives, with little or no attention given to the role of culture and traditions in building support for conservation. Although these strategies are useful in promoting conservation and local empowerment, they are still fragile. Scholars suggest that incorporation of traditional values which reflect locally important cultural practices of the people into the management of conservation areas in Africa will help in their successful conservation. There is a strong need to assess cultural practices; traditional laws and taboos of the people in protected areas, and how they have assisted conservation in the past. To understand how such practices could be strengthened and incorporated into natural resources management and conservation strategies, there is a need to have a general overview of existing practices. The study analyzes the ways in which cultural practices and value systems of the people of Oban Sector of Cross River National Park Nigeria, have aided conservation in the past and how such practices can be encouraged, strengthened and replicated for sustainable natural resources management in the study area and possibly proposed for adoption elsewhere. Ten cultural institutions and seven laws and taboos which regulate the use of resources were recorded in the area. These laws and taboos were respected by all indigenes. Eleven animal species were found to be forbidden by the people. Some of the tabooed animals were for spiritual reasons while some were for medicinal purposes. Every community had sacred forests, called *Mgbe* forest (*Eten Mgbe*). The social organizations in the area ensured that these taboos are obeyed. Presence of other tribes, new religions/westernization, use of modern hunting equipments and poverty pose a threat to the effectiveness of these taboos as a conservation tool. Adaptation of some aspects of these taboos may be valuable for wildlife conservation, particularly in protected areas.

INTRODUCTION

Efforts to integrate rural people into biodiversity conservation programs have been in place for quite some time (Hulme and Murphree 1999;). However, these efforts were largely based on economic incentives (Hulme and Murphree 1999; Infield and Adams 1999; Infield 2002), with little or no attention paid to the role of culture and traditions in building support for conservation, even though such roles are recognized (Negi 2010). According to Infield (2002), this is rather surprising; because in the Western world, so much has been given to the relationship between culture and history; and conservation of protected areas.

The emphasis on economic incentives for conservation stems in part, from the linking of conservation and development. Integrated conservation and development projects attempt to reduce pressures on protected areas by supporting local economic development (Hackel 1999). Calculation of the monetary worth of wildlife, nature, and landscape through contingent valuation methods also contributes to the commercialization of conservation and the relegation of cultural values (Infield 2002).

Infield and Adams (1999) caution about the use of this approach, which though is useful in promoting conservation and local empowerment, but considered weak. This is because relying solely on economic incentives will create new relationship of complete economic dependency and unmet expectations for compensation. This creates additional economic burden to protected areas in Africa, because most of these protected areas do not realize sufficient revenue to offset the costs to communities.

There are many studies in Africa which suggest that incorporating cultural norms and taboos into conservation programs may provide incentives to communities to conserve natural resources. For instance, in Madagascar, Lingard et al. (2003), Schachenmann (2006), Tengo et al.(2007), Jones et al. (2008) and Rabearivony et al. (2008) reported the relevance of taboos and cultural laws in the continued existence of forest biodiversity. Also in Ghana, studies have shown how clans protect their natural resources through the use of taboos (Abayie- Boaten 1998; Hens 2006; Saj et al. 2006; Sarfo-Mensah and Oduro 2007; Kobina and Kofi 2009; Nganje 2009). Similar cases were also recorded in Nigeria (Bassey and Kanung 1996a; Bassey and Kanung 1996b; Anoliefo et al. 2003; Banjo et al. 2006; Obasohan 2008; Akindele 2010).

East Africa also has a good record of effectiveness of taboo and social norms in wild life conservation (Mwihomeke et al. 1998; Kweka 2004; Kideghesho 2008; Kassilly and Tsingalia 2009). There are also records of efficacious use of traditional norms and taboos in wildlife conservation in other parts of the world (Gadil et al. 1993; Horowitz 1998; Berkes et al. 2000; Colding and Folke 2001; Berkes 2003; Becker and Ghimire 2003; Moller et al. 2004; Peterson et al. 2007). These were based on the fact that these practices control human behaviours (Saj et al. 2006; Kobina and Kofi 2009).

This study seeks to identify local practices and institutions, which may promote wildlife conservation; and also the limitations which may affect the efficacy of such institutions and practices as conservation tools.

MATERIAL AND METHODS

Study Area

This study was conducted in four communities in the Oban Hill Sector of Cross River National Park, Nigeria including: Old Netim, Oban, Akin and Osomba (Fig. 1). This constitutes about 10% sampling intensity and represents well, the two (east and west) divisions of the sector. This sector was carved out of Oban group Forest Reserves in 1991. The total area is 3,000km² and it shares boundary with Korup National Park, Cameroon, in the east. It falls approximately within latitudes 5º 15' and 5º 251N and Longitudes 8º 30¹ and 8⁰ 45¹E (Fig. 1). The climate of Oban is a tropical humid one (Bisong and Mfon 2006). Annual rainfall ranges between 2,500mm and 3000mm. The temperature ranges from 25°C to 27°C in January, but in July, it rises above 30°C.

Relative humidity is about 75 to 95% in January, but towards the end of the year, it lowers gradually as a result of harmattan (Ogar et al. 2005; Bisong and Mfon 2006; Fa et al. 2006). The vegetation of the area is evergreen tropical rain forest, and it is regarded as the last stronghold of tropical rain forest in Nigeria (Eniang et al. 2008). The area is noted for its high species diversity (Reid 1989; Oates et al. 2004). Eniang et al. (2008) reported that despite this great diversity and richness, the area is prone to degradation through human activities, ranging from hunting and poaching, agriculture, logging to unguided exploitation of Non-timber Forests Products (NT-FPs). The Oban Hill is inhabited predominantly by the Ejagham tribe with few Ibibios, Efiks, Calabaris and Ibos. The people of Oban are mostly Christians with some practicing African traditional religion (ATR). Some members of both groups are also members of several native cults such as Ekpe(Mgbe), Ekpo and Obon. Both practitioners of ATR and Christians relish bush-meat. Some make use of certain wild animal species and their body parts for worship, sacrifice and rituals and others forbid them mainly for reasons of native taboos (Eniang et al. 2008).

Data Collection

As part of the initial protocol of study, a visit was made to the headquarters of Cross River National Park (CRNP), where discussions were held with officials and staff. Also, the team interacted with members of staff of Cross River State Forestry Commission (CRSFC). These interactions assisted us in the selection of the four villages for the study.

Four villages were purposefully selected from the east and west corridors of the park including: Old Netim; Aking, Osomba and Oban. The communities were selected based on their locations and activities within the proximity of the Park. Selection of informants was based on their ecological knowledge and experiences in the culture and tradition of the study area. The study was divided into three phases. The first phase was a reconnaissance survey intended to obtain information on the socio-cultural background of the people of the area. This information was used to develop structured questionnaires used in conducting the interviews. The second phase involved collection of vital information using the key informant interview tech-

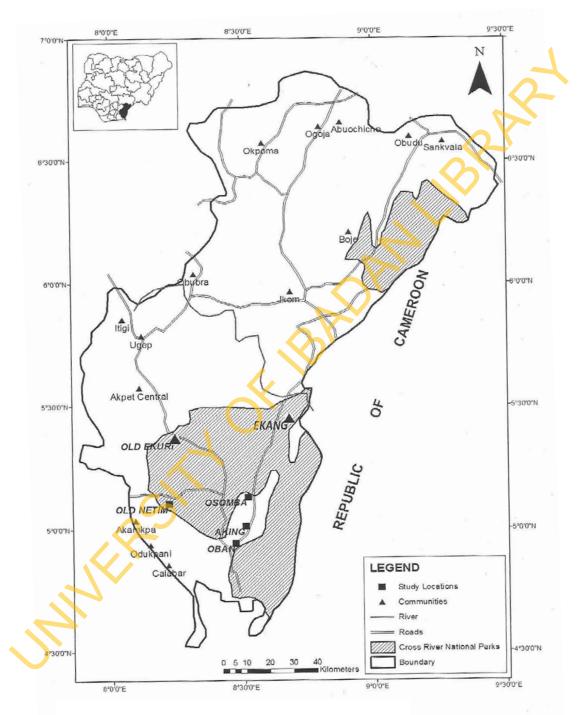


Fig. 1. Map of Cross River State showing the study locations

nique developed by Kideghesho (2008). This assisted the researchers to gain insights into the traditional laws, taboos, concerning natural resources use and management as well as the challenges that may militate against the effectiveness of these laws.

Altogether, a total of one hundred questionnaires were administered; twenty per village for the four villages and twenty for park staff. At the level of each village, four each, of hunters, traditional chiefs (*Ntufams*), bush meat traders, traditional healers and farmers were randomly selected while park staffs were selected across the various cadres. Information parameters collected among the people include: traditional festivals, social ceremonies, traditional beliefs, totem and forbidden animals; hunted animals, sources of income and cultural associations.

Information gathering for the third phase of the study was carried out in September 2009 during a stakeholders meeting held in Calabar, Cross River State, Nigeria. Part of the information collected included possible approaches and strategies for sustainable harvesting of bush meat in the Oban Hill Region. Stakeholders at the meeting included: members of staff of: CRNP, Cross River State Forestry Commission (CRS-FC), Department of Forestry and Wildlife Resources Management, University of Calabar, Nigeria, traditional chiefs, farmers, youths/students, women leaders, hunters and bush meat traders, Non-Governmental Organizations, (NGOs) including: Nigeria Conservation Foundation (NCF) and Wildlife Conservation Society (WCS).

Forty- two stakeholders attended this meeting and at the end, five working groups were set to develop a framework on the roles that traditional laws and taboos could play in the conservation of wildlife in the study area. The reports of the groups were harmonized and incorporated into the results.

RESULTS

Traditional/Cultural Institutions, Taboos and Laws Related to Wildlife Conservation in the Study Area

Ten cultural groups/associations were identified while 7 laws and taboos were observed to be in practice in the area, which were relevant to sustainable use of natural resources (Table 1). *Mgbe*, *Angbu*, and *Egbe* were the most common cultural institutions in all the villages and they have direct bearing on the lives and behaviours of the people. Some details about these are presented in the next sections of the paper

Table 1: Traditional/	cultural	institutions	and
traditional laws /taboo	os in the	study area	

Cultural institutions	Traditional laws/taboo
Mgbe	Ofu anakae
Angbu	Ofu Dibu
Ademwa	Law against use of chemical for
	fishing
Momikim	Law forbidding women from
	touching Civet cat
Obon	Law or taboos that forbid hunter
	from killing pythons
Egbe	Law forbidding pregnant
women	from eating elephant
Nabor	Law or taboos that forbid hunter
Trabbi	from killing leopard
Women association	from kinnig teoparu
Achaboraban	
Akang	
Abiamkpo	
· ·	

Forbidden Forest

Every *Ejagham* community or village has forbidden forests. Eighty five percent (85%) of respondents confirmed that these forests contain the *Mgbe* shrine where initiation into the *Mgbe* cult is conducted. These *Mgbe* forests are forbidden to anyone who is not initiated into the cult which helps to regulate forest resources extraction. It is this cult in association with the elders that maintain and guide all norms, taboos and customs of the people. Each community has an *Mgbe* priest (*Iyanba*) and a shrine located in the *Mgbe* Forest.

Mgbe is the most powerful traditional cult among the *Ejagham* tribe. Initiation is done in two steps. The first step requires only four bottles of beer and dry gin. The second and final stage is only for adult and the person is asked to bring a jar of native wine, legs of duikers, bush pig or porcupine (which may be as high as 20 pairs each depending on the economic status of the prospective member); and specified number of plantain bunches. The initiation is performed in the *Mgbe* shrine located in the *Eten Mgbe* (*Mgbe* Forest) by the *Mgbe* priest. When a member of *Mgbe* dies, similar items used in the initiation are presented to members who come to mourn their late member. Membership of *Mgbe* cuts across all ages and classes of people of *Ejagham.* Most elites in the communities belong to the *Mgbe* cult and always return home on each *Mgbe* day to perform the rites as required of him.

Mgbe shrine is located in the forest (*Eten Mgbe*) where harvesting and hunting are strictly prohibited. The *Eten Mgbe* is protected by members of *Mgbe* cult who are reportedly not visible to non-members. Among the *Ejaghams*, non *Mgbe* members who enter the forest would be initiated by force, after which the person would pay a fee double the normal fee for initiation. Some informants report that a non-member of *Mgbe* cult who enters the forest will not find his or her way out of the forest until a member will meet the intruder. The report also has it that nobody is allowed to defecate in the forest; the offender will be forced to match it with his or her feet till it is cleaned from the ground.

Ofu Dibu: This is a traditional law which forbids men from hunting on certain days (especially *Mbge* day). For *Ofu dibu*, anyone who breaks the rule is made to pay a goat, some tubers of yam, bunches of plantains and 2 cartons of beer. The fine varies among the communities; some may be higher or lower. *Mgbe* and *Angbu* who act as community law enforcers see to it that the offender complies; failure to provide the items will result in the banishment of the offender from the community.

Ofu Anakae: This is a traditional law which forbids women from hunting on certain days. The offender of *Ofu anakae* may be asked to go to 'evil forest' (a dreaded forest where it is believed that evil spirits roam about). She would also present 4 bottles of native gin and 1 jar of palm wine to the community in lieu of the punishment.

Angbu: This is a cult group whose symbol is a masquerade. Items required for initiation include: 14 fruits of coconut, 21 cups of dry corn and 2 bottles of red oil. It is more wildlife conservation-friendly as it requires no wild-life parts, unlike the *Mgbe*. Despite its low demand for initiation, it is a very powerful cult as it is allegedly used against evil spirits especially the dead. "When the spirit of a dead person is disturbing the community, *Angbu* would be staged which would arrest the ghost and this brings the spirit under control" says an old *Ejagham* man. It also regulates the use of resources. Whenever it is found out that resources are being abused (wasted) in a community, the priest calls on that community for a meeting. He issues a warning as regards the use of that resource and spells out sanctions which are difficult to meet by the offenders. Both *Mgbe* and *Angbu* work together as their membership is in most cases interwoven.

Traditional Law on Fishing

The *Chans* in the *Oban* Sector have traditional law against the use of poisonous herbs and chemicals in the harvesting of fish in streams and rivers. When any one is caught, the offender will be made to pay a heavy fine to the community. At the *Ekang* axis of the study area, there is a traditional conservation group known as *Mfameyin* Conservation Society which assists the community in the enforcement of the law. The society imposes a law on the use of poison or explosives for fishing.

Forbidden Animals in the Study Area

Eleven animal species were mentioned as forbidden, either for reasons of culture, taboo, religion, personal dislike or on health grounds (Table 2). Python is the first animal considered as taboo by 82.5% of respondents in the villages; closely followed by leopard (70%). In all, 58.33% of the animals mentioned by villagers were forbidden by taboos, 33.33% due to personal dislike while 8.33% were for religious and health reasons.

Leopard

This animal is regarded as the symbol of *Mgbe*, the deity of the *Ejagham* tribe. It is therefore forbidden to hunt it. Any hunter who kills a leopard by accident would abandon his hunting expedition for that day. He would take the animal home with its face covered so that "women should not see *Mgbe* face". It would be taken to *Mgbe* hall where the animal will be butchered and the bile publicly removed and buried. The skin would be kept and used for chieftaincy coronation and the meat shared among households. The hunter is not allowed to sell the meat.

Yellow-backed Duiker (Cephalophus sylvicultor)

This species is of significant value to the *Ejagham* people. It is used for re-naming cere-

Species	Old netim	Aking	Oban	Osomba
Leopard	T (60%)	T (80%)	T (75%)	T (65%)
Yellow back duiker	T (45%)	T (40%)	T (60%)	T(25%)
Alligator	P (55%)	P (20%)	P (30%)	P (25%)
Boar	-	P (5%)	-	
Elephant	P/T(45%)	P/T (60%)	P (55%)	T (35%)
Monkey	P (5%)	P (15%)	P (10%)	P (15%)
Snail	-	-	H (5%)	^ ` - `
Python	T (80%)	T (90%)	T (85%)	T (75%)
Tortoise	-	-	P (5%)	
Golden cat	T (40%)	T (75%)	T (55%)	T (35%)
Red flanked duiker	T (55%)	T (40%)	T (45%)) <u> </u>
Bush baby	-	T (45%)	T(55%)	-

Table 2: Percentages of respondents who considered each animal species as forbidden in the study area

T= Cultural taboo, R= Religion, P= Personal dislike and H= Health condition

monies. The *Ejaghams* believe that if a child was not given the right name, he/she would fall sick frequently until a new name is given. When renaming ceremony is to be performed, the skin and meat of yellow- backed duiker is used in sacrifice.

Civet Cat (Civettictis sp) and Bush Baby (Galago cameronensis)

There is a traditional law which forbids women from eating these animals among the *Ejaghams* as such; some hunters may not be willing to kill any animal that will not be eaten by their wives. For instance, women are not allowed to touch Civet cat. The belief is that, if they do, they would have children with sex organs that look like that of the animal. The same is the case for the bush baby, which reportedly would cause delivery of female children without sexual organs if the mother consumes the animal during pregnancy.

Python (Python spp)

The *Ejaghams* also have a traditional taboo that forbids the killing of python. The reason for this is that the bile of python is believed to be poisonous. Thus, any hunter that kills python would have to sacrifice a goat. In addition, the python is to be brought to the village centre where the bile would be removed in the presence of everybody and destroyed in order to be sure that no one would have access to it for negative use.

Red-flanked Duiker(Cephalophus rufilatus)

This species is used when the son of a deceased person cannot afford domestic animals for burial. He would be required to present the species for rituals.

Elephant (Loxodonta africana)

Some households within the community forbid their pregnant women from eating elephant meat because they believe that any pregnant woman who does would deliver a baby which looks like an elephant.

Obstacles Militating Against the Effective Use of Taboos in Wildlife Conservation in the Study Area

Four major limitations were identified including: intrusion of other tribes (90%). Seventyfive percent (75%) were of the opinion that westernization/religion is the problem, 65% cited improved hunting technique (including the uses of sophisticated guns, traps, carbide -powered head lamps and torchlights) as the problem, while 50% identified poverty as the main cause of non-compliance with norms and taboos.

DISCUSSION

The *Ejagham* people of Cross River State have a rich cultural heritage that defines the behaviours as well as guide their use of natural resources. This is in agreement with Abayie-Boaten (1998) who stated that every locality or community in Africa has its own sets of taboos. Some of the traditional taboos, laws and practices which are relevant to the conservation of wildlife are discussed in this section

Forbidden Forest

The existence of forbidden forest (Mgbe Forests) in the communities is an important cultural practice that could aid wildlife conservation in the area. Mwihomeke et al. (1998) reported a similar situation in Tanzania where a traditional law prevents people from entering a sacred forest on certain days. According to Akindele (2010), elites are the most influential members of each cultural group in Nigeria and they play vital roles in the use of wild resources around their communities. In this study, most staff of CRNP are of Ejagham descent and are members of *Mgbe*.

There is a similar practice in Busi at the Okwango division of the CRNP. The Busis believe that forest is a gift from ancestors and as such, the forest must not be burnt nor otherwise destroyed. The offenders are made to offer goat to Bintope (god of the Busi people) priest for sacrifice; failure to do so would bring calamity such as general barrenness of both human and animals (Bassey and Kanung 1996b). Similar practices are found in other parts of Nigeria (Akindele 2010) and other parts of Africa (Saj et al. 2006; Tengo et al. 2007; Kideghesho 2008). The maintenance of such sacred or forbidden forests led to the preservation of the genetic materials of flora and fauna therein. To affirm this, Bhagwat et al. (2005) concluded that sacred forests were richer in biodiversity than any other sites. They showed from their study that threatened and endemic species were found in sacred /taboo forests which were absent from conventionally conserved forests in some parts of India. However, our study did not assess the species richness within the forbidden forest to compare with other forests around this area. Nevertheless, we believe that the existence of such scared forests will help in conservation of flora and fauna within them.

Thus, the Mgbe institution may constitute a vital tool for wildlife and other forest resources conservation in the area since most members of the community submit to its authority and dread the punishment that may arise from flouting its rule. This, if incorporated into the conservation

strategy, may assist the extant forest protection laws which in many cases have become obsolete and weak.

Colding and Folke (2001) reported the effectiveness of local law or taboo against the use of a drag net and other nets of mesh size <2.5cm in the *Djange* Lagoon in Ghana. This has helped in the regulation of fishing in the area. Horowitz (1998) noted a similar case against the use of poison in *Batang Ai* National Park, *Sarawak*, Malaysia. The law regulating fishing observed in the Ekang axis in the present study is for both resource conservation and health reasons. They are aware that poisoning the water for fishing will pollute the streams and rivers which is their only source of water. This law is very effective as all members obey and comply with it.

Akindele (2010) reported that in some rural communities of Nigeria, certain wildlife species are believed to be emblems of clans or people. In Zimbabwe, the Shona people believe that spirits operate in animals (Taringa 2006). Luo et al. (2009) observed a similar practice among the *Baima* Tibetans in China where the giant panda is considered a spirit among the *Baima* Tibetans; they are therefore not allowed by tradition to kill the animal. Baima Tibetan consider killing of animal generally as a sin. Hunters therefore, have to make some sacrifice before embarking on hunting (Luo et al. 2009). The Shona tribe also use part of totem animals for ceremonial dress for chiefs or when diviners perform rituals for public interest, however, they do not eat the meat of the totem animals (Taringa 2006). Also among the Mbutis, leopard as a totem animal is not to be eaten (Colding and Folke 2001). For the Baima Tibetans, Mbutis and Shona, the killing of totem animals attracts consequence for both the individual and community (Taringa 2006; Luo et al. 2009). Although totem animals particularly leopard exists among the Ejaghams of CRS; there is no serious penalty or consequence attached to its killing. This affects the status of the species in the area.

The practice of using parts or whole of an animal for ritual or ceremonial purposes may not be wildlife conservation-friendly, because it is rather an incentive to hunt the animal species concerned to meet high demand of bush meat in the area (Eniang et al. 2008).

Furthermore, the use of specific animal species for certain rituals as is the case with the red flanked duiker for burial ceremony among the *Ejaghams* in the study area has two sides to conservation of such species. It may discourage the killings since the community regulates it to ensure its continued availability. On the other hand, it may lead to over harvesting since a red flanked duiker has to be sacrificed each time a poor male member of the community dies. Mbotiji (2002) had also reported similar use of some species in traditional ceremonies and considered it an impetus for the conservation of such species.

Colding and Folke (2001) presented a list of taboos across the globe which is strictly observed by pregnant women, which are basically for the health of the unborn child. This will normally discourage the hunting of such species. This may, however, not be an assurance for the conservation of the animals concerned as it gives room for commercial hunting of the species. This is in line with the submission of Kideghsho (2008) that some people may kill tabooed animals for commercial purpose.

The elephant is also a taboo in some parts of Ghana and *Ikoma* tribe in Tanzania (Kideghsho 2008; Nganje 2009). Another reason against the consumption of the species is that it has a very long reproductive cycle. The *Ejagham* people believe that, if a female child eats the animal, it would affect her fecundity. As such, it is not encouraged to be eaten by young females

Kideghesho (2008) reported an example of such in Cameroon, where 29 species of animal are avoided by women due to the fear of losing their pregnancies. This sounds good for the conservation of such species; however, money incentive especially for the tusk of elephant can predispose it to killing even if not for food. Kideghesho (2008) gives an instance in Tanzania where people, to whom elephant is not a totem, give heads of cattle in exchange for elephant. As demand for elephant part increases hunting for the animals is on the increase. Moreover, there is no punishment to the killer of elephant among the Ejaghams and the meat is consumed by non-pregnant members of the family. Therefore the practice may not be effective for elephant conservtation.

The effectiveness of traditional institutions in conservation and protection of biodiversity has been reported in some parts of Nigeria (Anoliefo et al. 2003; Banjo et al. 2006; Obasohan 2008; Akindele 2010). Anoliefo et al. (2003) noted that cultural taboos and their sanctions have helped to check abuse of natural resources at least among the local people. It is also effective in some areas and has contributed to the conservation of biodiversity and wise use of resources in some parts of Ghana (Abayie-Boateng 1998; Sarfo-Mensah and Oduro 2007; Kobina and Kofi 2009). They reported that among the Akan tribe, Thursday was considered as sacred to the mother earth, no farming, or hunting is allowed on this day. The implication of this is that they reduce pressure on biodiversity and regulate their use. The situation in the study area is very similar to the cases considered above. The implication of this is that these traditional institutions could still be effective in resource conservation if carefully harnessed and integrated into the conservation programme.

The success of traditional systems of resource conservation relies heavily on the presence of a homogenous ethnic or cultural community sharing similar values and experiences. This is usually based on a strong shared belief in the spiritual world and its pervasive influence on people's lives (Colding and Folke 2001; Kobina and Kofi 2009). The *Ejagham* clan who are the custodian of these taboos complained that the presence of other tribes like the Efiks, Ibibios, Ibos and others has resulted in most of the forbidden animals being killed, because they are strangers and may not be aware of or choose not to obey the traditional laws. This is more so, when the indigenous people are not ready to leave their work to enforce some of the laws. Even Mgbe members will not be 24 hours in the forest. Similar situations have also been reported in other places (Mwihomeke et al. 1998; Mbotiji 2002; Nganje 2009).

Another limitation is the use of wire traps. Snares and traps which are non selective in their catches; often trap juveniles, mature, male and female as well as forbidden species of animals.

Taboos in the area also suffer a setback with the arrival of the carbide head lamp and torchlights, only the glows of animals' eyes are seen, with little or no time for the hunter to be sure of the animal species. Some hunters explained that even though they could identify some animals by the colours of their eyes, some have similar eyes colours and it is often a quick decision. This often results in the accidental killing of totem animals. Bassey and Kanung (1996b) also identified this as a problem militating against traditional conservation in the *Okwangwo* division of CRNP. Horowitz (1998) and Mbotiji (2002) also observed that improved technology in hunting is a big setback for effectiveness of taboos for resource conservation in many areas.

Religion and westernization also play a role as many who belong to a western religion now see some of these taboos as being satanic (Horowitz 1998; Mwihomeke et al. 1998; Mbotiji 2002; Kobina and Kofi 2009 and Nganje 2009). Saj et al. (2006) reported a case in Ghana where the Saviour Church of Ghana, encouraged their members to hunt monkey which is a taboo among the people. This according to them affects the population of monkey. In Nigeria, Anoliefo et al. (2003) and Akindele (2010) reported that, many local people in Nigeria have embraced Christianity and hence shun traditional religion and its taboos.

In view of democratic governance which guarantees basic freedom and human rights, many traditional rulers have lost their power over the villagers. Power is now vested in the political class which is largely dominated by the elites. Also if offender feels he or she has been maltreated by the community in trying to enforce the traditional law, he could sue the community and in many cases, the court rules in their favour. They have therefore lost the power to enforce compliance with taboos within their domains.

Furthermore, following the downturn in the economy of the country, many people now turn to bushmeat hunting and marketing as a ready source of alternative income to farming. This has further complicated the problem of resources conservation laws.

CONCLUSION

Ten cultural groups/associations, seven traditional laws and taboos were identified which could play some roles in wildlife conservation in the study area. Similarly, eleven wildlife species are forbidden, either due to cultural taboo, religious reasons, personal dislike or on health grounds. Sacred/forbidden forests exist in every village. However, dwindling powers of traditional authorities and cultural erosion due to modernization and embracement of western religion; advent of sophisticated hunting equipment and widespread poverty incidence limit the efficiency of the application of these traditional conservation measures. Nevertheless, adaptation of some aspects of these taboos may be valuable for wildlife conservation. However, they require institutional support to strengthen them to be more effective. It is pertinent that we manage these resources with the help of these traditional institutions now that they are still available and some animals are still in existence in the forest, or else, when the value of these taboos would be realized, it might be too late to achieve any meaningful success.

REFERENCES

- Abayie-Boaten A 1998. Traditional conservation practices: Ghana's example. In : DS Amlalo, LD Atsiatorme, C Fiati (Eds.): Biodiversity Conservation: Traditional Knowledge and Modern Concepts. Paper presented at the Third UNESCO-MAB Regional Seminar on Biosphere Reserves for Biodiversity Conservation and Sustainable Development in Francophone Africa (BRAAF), Cape Coast, 9 -12 March, 1997.
- Akindele SØ 2010. Forest Restoration through Traditional Institutions in Nigeria: Challenges and Prospects. From http://www.cfc2010.org/papers/session13/Akindele-s13.pdf (Retrieved August 27, 2011).
- Anoliefo GO, Isikhuemhen OS, Ochije NR 2003. Environmental implications of the erosion of cultural taboo practices in Awka-South Local Government Area of Anambra State, Nigeria: 1. Forests, trees, and water resource preservation. Journal of Agricultural and Environmental Ethics, 16: 281-296,
- Banjo AD, Otufale GA, Abatan OL, Banjo EA 2006. Taboo as a means of plant and animal conservation in South-Western Nigeria: A case study of Ogbe River and its Basin. World Applied Sc, 1: 39-43.
- Bassey AE, Kanung R 1996a. A brief look at conservation ethic within the culture of people of Okwango. In: E Obot, J Barker (Eds.): Essential Partnership- The Forest and the People. Paper presented at the Workshop on Rain Forest of South -Eastern Nigeria and South Western Cameroon held at Obudu Cattle Ranch and 21 Resort,Obanliku Local Government Area, Cross River State, Nigeria on 20th -24th October 1996.
- Bassey AE, Kanung R 1996b. The history and cultural background of *Busi* people. In: E Obot, J Barker (Eds.): Essential Partnership- the Forest and the People. *Paper presented at the Workshop on Rain Forest of South -Eastern Nigeria and South Western Cameroon* held at Obudu Cattle Ranch and Resort, Obanliku Local Government Area, Cross River State, Nigeria on 20th -24th October 1996.
- Berkes F, Colding J, Folke C 2000. Rediscovery of traditional ecological knowledge as adaptive management. *Ecol Appl*, 10: 1251-1262.
- Berkes F 2003. Rethinking community-based conservation. *Conserv Biol*, 18(3): 621-630.

- Beckes CD, Ghimire K 2003. Synergy between Traditional Ecological Knowledge and Conservation Science Supports Forest Preservation in Ecuador. Conserv Ecol, 8:1. From http://www.ecologyandsociety.org/vol8/iss1/art1/ (Retrieved 21 October 2010).
- Bhagwat SA, Kushalappa CG, Willian PH, Brown ND 2005. A landscape approach to biodiversity conservation of sacred groves in the Western Ghats of India. *Conservation Biology*, 19: 1681-2065
- Bisong FE, Mfon P Jnr 200. Effect of logging on stand damage in rainforest of south- eastern Nigeria. West African Journal of Applied Ecology, 10: 119-129.
- Colding J, Folke C 2001. Social taboos: "Invisible" systems of local resource management and biological conservation. *Ecol Appl*, 11: 584-600.
- Eniang E A, Eniang M E, Akpan C E 2008. Bush meat trading in the Oban Hills Region of South- Eastern Nigeria: Implication for sustainable livelihood and conservation. *Ethiopian Journal of Environmental Studies and Management*, 1: 70-83.
- Fa JE, Seymour S, Dupain J, Amin R, Albrechtsen L, Macdonald D 2006. Getting to grips with the magnitude of exploitation: Bushmeat in the Cross-Sanaga River region, Nigeria and Cameroon. *Biological Conservation*, 129: 497-510.
- Gadil M, Berkes F, Folke C 1993. Indigenous knowledge for biodiversity conservation. *Ambio*, 22: 151-156.
- Hackel JD 1999. Community conservation and the future of Africa's wildlife. *Conservation Biology*, 13: 726-734.
- Hen L 2006. Indigenous knowledge and biodiversity conservation and management in Ghana. *J Hum Ecol*, 20(1): 21-30.
- Hulme D, Murphree M 1999. Communities, wildlife and the 'new conservation' in Africa. Journal of International Development, 11: 11-285.
- Horowitz LS 1998. Integrating indigenous resource management with wildlife conservation: A case study of Batang Ai National Park, Sarawak, Malaysia. *Human Ecology*, 26: 371-403.
- Infield M, Adams WM 1999. Institutional sustainability and community conservation: A case study from Uganda. Journal of International Development, 11: 305-315
 Infield M 2001. Cultural values: A forgotten strategy
- Infield M 2001. Cultural values: A forgotten strategy for building community support for protected areas in Africa. *Conservation Biology*, 15: 800-802
- Jones JG, Andriamarovololona MM, Hockley N 2008. The importance of taboos and social norms to conservation in Madagascar. *Conservation Biology*, 22: 976-986.
- Kideghesho JR 2008. Co-existence between the traditional societies and wildlife in Western Serengeti, Tanzania: Its relevance in contemporary wildlife conservation efforts. *Biodiversity Conservation*, 17: 1861-1881.
- Kassilly FN, Tsingalia HM 2009. Persistence and loss of cultural values of Tiriki Sacred Groves in Hamisi District, Kenya: Implications for management (RH: Cultural Values of Tiriki Sacred Groves). J Hum Ecol, 27: 137-141.

- Kobina ED, Kofi AA 2009. Change and Continuity: Using Indigenous Knowledge to Achieve Environmental Sustainability in Ghana. Paper presented at the 7th International Science Conference on the Human Dimensions of Global Environmental Change held in Germany, Bonn, on 26th -30th April, 2009 on the Theme. The Social Challenges of Global Change. From <http://e08. cgpublisher. com/session descriptions.html> (Retrieved January 5, 2011).
- Kweka D 2004. The Role of Local Knowledge and Institutions in the Conservation of Forest Resources in the East Usambara. Submitted to: UNESCO-Man and Biosphere (MAB) Young Scientist Programme. From <htp://www.unesco.org/ mab/doc/mys/2003/kweka/finalRep.pdf> (Retrieved May 10, 2011).
- Lingard M, Raharison N, Rabakonandrianina E, Rakotoarisoa J, Elmqvist T 2003. The role of local taboos in conservation and management of species: The radiated tortoise in Southern Madagascar: Conservation and Society, 1: 223-246.
- Luo Y, Jinlong L, Dahong Z 2009. Role of traditional beliefs of Baima Tibetans in biodiversity conservation in China. Forest Ecology and Management, 257: 1995-2001.
- Mbotiji J 2002. Sustainable Use of Wildlife Resources: The Bush Meat Crisis; Wildlife Management Workshop Paper Number 5 FAO Rome. From< ftp /ftp.fao.org/docrep/fao/010/ai569e/ai569e00. pdf (Retrieved -March 12, 2009).
- Moller H, Berkes F, Lyver PO, Kislalioglu M 2004. Combining Science and Traditional Ecological Knowledge: Monitoring Populations for Co-management. Ecol Soc 9(3) [online] URL: From">http://www.ecologyandsociety.org/vol9/iss3/art2/.> (Retrieved April 26, 2011).
- Mwihomeke ST, Msangi TH, Mabula CK, Ylhäisi J, Mndeme KCH 1998. Traditionally protected forests and nature conservation in the North Pare Mountains and Handeni District, Tanzania. *J East Afr Nat Hist*, 87: 279-290.
- Negi CS 2010. The institution of taboo and the local resource management and conservation surrounding sacred natural sites in Uttarakhand, Central Himalaya. *International Journal of Biodiversity* and Conservation, 2: 186-195,
- Nganje M 2009. Harnessing Traditional Ecological Knowledge for the Conservation of Forests and biodiversity. XIII World Forestry Congress, Buenos Aires, Argentina, 18- 23 October 2009. From<www.cfm2009.org/es/programapost/resources/loads/Harnessing traditional_FD.pdf> (Retrieved 17 February 2011).
- Obasohan EE 2008. Fisheries biodiversity: The role of a traditional taboo/ritual prohibition in the management and conservation of the fish resources of Ibiekuma Stream in Ekpoma, Edo State, Nigeria. *Bioscience Research Communications*, 20: 257-264
- Ogar D, Agbor C, Eyamba F, Adeleke W 2005. The Significance of Bush-meat and Timber Trade in Local and State Economies of Cross River State. SPACE Study Report - 3rd Draft 1.P.6.

SFIBA

- Oates JF, Bergl RA, Linder JM 2004. Africa's Gulf of Guinea Forests: Biodiversity Patterns and Conservation Priorities: Advances in Applied Biodiversity Science, Number 6.Conservation International, Washington D.C.From< http://camerounforet.com/system/files/11_03_249.pdf> (Retrieved 2 April 2010).
- Peterson MN, Peterson MJ, Peterson TR, Liu J 2007. A household perspective for biodiversity conservation. Journal of Wildlife Management, 71: 1243-1248.
- Rabearivony J, FanamehaI E, Mampiandra J, Thorstrom R 2008. Taboos and social contracts: Tools for ecosystem management - lessons from the Manambolomaty Lakes RAMSAR site, western Madagascar. Madagascar Conservation and Development, 3: 7-16.
- Reid JC 1989. Flora and Faunal Richness of the Oban Division of the CRNP. *the Plan for Developing Cross River National Park (Oban Division) and its Support Zone*, WWF, Gland Switzerland, pp.1-16.

AND CONTRACTOR

- Saj TL, Mather C, Sicotte P 2006. Traditional taboos in biological conservation: The case of *Colobus vellerosus* at the Boabeng-Fiema Monkey Sanctuary, Central Ghana. Soc Sci Inform, 45: 285-310.
- Sarfo-Mensah P, Oduro W 2007. Traditional Natural Resources Management Practices and Biodiversity Conservation in Ghana: A Review of Local Concepts and Issues on Change and Sustainability.From<http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm> (Retrieved & September 2010).
- Schachenmann P 2006. Spiritual values in Madagascar: The starting point for endogenous conservation initiatives. *Mountain Research and Development*, 26: 323-327.
- Taringa N 2006. How environmental is African traditional religion? *Exchange*, 35: 191-194. 35,
- Tengo M Johansson K, Rakotondrasoa F, Lundberg J, Andriamaherilala J-A 2007. Taboos and forest governance: Informal protection of hot spot dry forest in Southern Madagascar. Ambio, 36(8): 683-691.