

RESEARCH ARTICLE



Roles of and Threats to Indigenous Cultural Beliefs in Protection of Sacred Forests in Southwest Nigeria

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Abstract

Sacred forests play a central role in the cultural and livelihoods of indigenous people. Despite the vital roles of sacred forests, a decline in the areas of the forests have been reported. The consequence of this is that many of the people's indigenous knowledge systems built over the years as well as the endemic forest diversity are at the risk of becoming extinct. The study therefore investigated the contributions of selected sacred forests to rural communities as well as the challenges facing the forests. Data was collected through field visit and questionnaire administration. The respondents include people living in two villages (*Balogun* and *Ososun*) adjacent to *Igbo Igunnko* (meaning *Igunnuko* sacred forest) and *Igbo Oro* (*Oro* sacred forest) located in Ogun State, Southwest Nigeria. The forests form part of the history upon which the surrounding villages were established. Among the taboos supporting existence of the sacred forests, prohibition of fishing in *Oso'ro* River (that link the two sacred forests) is the most effective. Increasing rate of firewood collection and killing of wild animals, and land demand for farming and building constitute great threat to existence of the sacred forests. Adoption of Christianity and Islam by the people is also contributing to the neglect of cultural beliefs that are in support of the sacred forests. To prevent further encroachment into the sacred forests, there is need for proper demarcation of the boundary for protection against pressing land uses and over exploitation. Also, the current traditional knowledge and beliefs in support of sacred forest should be properly strengthened to control unsustainable exploitation in the forests.

Keywords: Sacred forest, land use, cultural belief, religion, encroachment, land demand, traditions

1. Introduction

Within the past few decades, international fora targeted at discussing the challenges faced in the conservation of biodiversity have identified the need to intensify protection of landscapes categorised as "protected areas". A lot of efforts have been dedicated to producing publications on categorisation and classification of protected areas [1,2,3]. Most of these efforts were championed by the International Union for Conservation of Nature (IUCN) and World Commission on Protected Areas (WCPA). The peak of these exercises was the publication of Dudley [3] which centres on revision of the categories of protected areas and brought it down to six categories (Category I-VI). According to Dudley, IUCN members worked together to produce the revised

definition of protected and this was given as "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values".

The need to protect areas for the values and benefits they bring to society has been emphasised (Philip, 2002). One of such forests that connect people with their values is the sacred forest. Sacred forests are unique landscape and involve the protection of small patches of forest as sacred [4], whereas sacred groves contain historical features surrounded, in most cases, by forest. For instance, sacred groves include places like burial grounds [5,6] and sites of ancestral or deity worship. These landscapes serve many purposes from spiritual to protection of biological

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diversity. In most cases, the guiding principle behind sacred landscapes is that they are rooted in indigenous knowledge as well as cultural belief built over time [7,8,9,10,11]. The rules guiding sacred landscapes are established by local communities and sometimes differ from place to place. In most cases, these rules are termed taboos and often prohibit the felling of trees and the killing of animals. In some places, it may allow collection of firewood, fodder, and medicinal plants by local people.

It has been reported that sacred forests are rich in plant diversity and these are also use as site for collection of plants for various herbal medicines [12,13,14]. In addition to their ecologically richness [15,16,17], sacred forests also serve as link between traditional religion [18], knowledge and cultural beliefs [19], and biodiversity conservation [20,21,22,23,24].

Rural people depend almost entirely on specific skills and knowledge essential for their survival [7,15]. Cultural belief in support of the establishment of sacred forest is part of the livelihood of rural poor. The role that indigenous people play in protection and conservation of forest through their cultural belief in southwest Nigeria has been emphasised [19]. Despite the interdependence of local people and sacred forests, a decline in the areas of sacred forest has been documented [25,26]. The consequence of this is that many of the people's indigenous knowledge systems

built over the years as well as the endemic forest diversity are at the risk of becoming extinct with the loss of sacred forest [8]. This study therefore investigated the challenges facing existence of sacred forest in southwest Nigeria with specific focus on the indigenous beliefs and cultural practises in support of the forests. It is envisaged that findings from the study will be an update to existing body of knowledge on the challenges facing remnant of sacred forests valuable to conservation of remaining endemic and threatened forest diversities in developing countries. This information is pertinent to designing conservation strategy as well as policy formulation as well as appropriate institutional intervention.

2. Material and Methods

2.1. The study site

The study was conducted in Ogun State, located in the rainforest zone of Southwest Nigeria (Figure 1). Forests of the State is typical of tropical forest and rich in forest diversity. The primary and secondary forests of the State play a central role in livelihoods of the people and meet their domestic as well as financial needs. The State is dominated by Yoruba tribe. The Yorubas are in constant consciousness and acknowledgement of God's divine lordship over the whole earth, and have a number of deities which they believe serve as intermediaries between them and the supreme god [24].

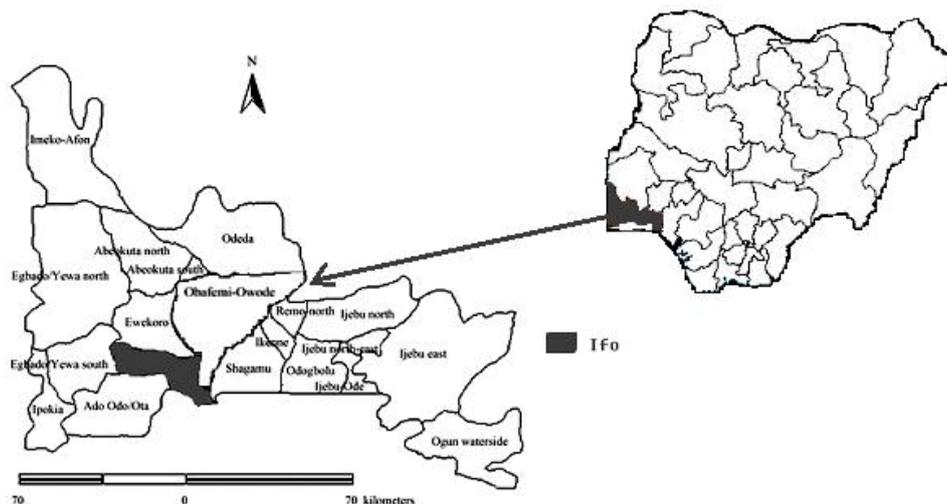


Figure 1. Map of Ogun State showing Ifo Local Government Area (Inset is map of Nigeria showing location of Ogun state)

Different communities in Ogun state have sacred forests with history linking establishment of the villages to the forests. The believe is that the forests serve as habitat to some *gods* and *deities* worship by the people for protection and healing. Reconnaissance survey was therefore conducted at the

preliminary stage of the study to identify the sacred forests located in the State. Some of the communities believe that the gods that protect them against attack from enemies during the period of war as well as protection against sicknesses and diseases resides in the forest. In addition, the gods that promote bountiful

harvest as well as those that prevent barrenness are believe to resides in scared forests thereby leading to establishment of settlements adjacent to such forests. Unfortunately, majority of the sacred forests have been heavily exploited while some have been degraded through various forms of anthropogenic activities. For this study, some of the remaining sacred forests that are still under active protection are compiled for the study.

The two sacred forests selected for the study include *Igbo Igunnuko* (meaning *Igunnuko* sacred forest) and *Igbo Oro* (*Oro* sacred forest). The *Igbo Igunnuko* was selected due its famous with the masquerade known as “*Igunnuko*” while the *Igbo Oro* is famous with “*Oro*” a mystical god. The forests are link together by a river known as “*Oso’ro River*”. The two villages close to the forests and with history directly linking them to the forests are *Balogun* and *Ososun*. These villages share the same historical background, cultural practises, and belief in the two sacred forests. History pass down from generations to generations is that the first set of people that settled in the present location of the two villages did so after discovery of the healing virtue of *Oso’ro River*. *Oso’ro River* links the two forests together and has supernatural healing power for different types of sicknesses and diseases. Most importantly, the river can cure children suffering from any type of sickness through bathing in the river. It is also believed that the forests around the river harbour some deities that serve as linkage between the villagers and god. Cultural and religion activities are carried out in the sacred forests either occasionally or on annual basis. As identified by Adesiji and Babalola [10], the cultural and religion activities carried out by villagers in the sacred forests include *Igunnuko* festival, village rituals and sacrifice, coronation of a new king, women fertility ritual, initiation of the forest Priest, and burial rite for the forest custodians.

2.2. Data collection

Data collection for the study took place between March and May, 2012. Prior to commencement of the data collection, permissions and approval to enter into the villages were sought from the village heads and chiefs. After due permission and approval have been obtained, primary data for the study was collected through administration of structured questionnaire to the villagers and informal interview of key informants

such as village chiefs and other leaders, local healers and selected old people in the communities. For sampling of the villagers, households within the two villages were randomly selected. In each of the household, the questionnaire was administered to the head of the household. Male head was targeted due to the regard that the villagers give to issue relating to cultural activities. Male are seen as the custodians of cultural activities and are always referred to when information on such activities are requested. In situation where the male head could not be found, the questionnaire was administered to the next most senior member of the household. Preference were given to women with many years of experience in the household in places were male were not found. Some of the youths were also sampled to find out their perception about the cultural belief in the sacred forests.

The questionnaire was aimed at generating information on the cultural beliefs about the sacred forests and current challenges facing the existence of the forests. This information is necessary for appropriate documentation of the contributions of indigenous knowledge system to conservation of biological diversities as well as threats to remaining sacred forests for adequate intervention. A total of eighty copies of the questionnaire were administered in the two selected villages; forty in *Balogun* and another forty in *Ososun* villages. However, seventy one copies of the questionnaire were eventually considered adequate for analysis and interpretation. Due to the similarity in the cultural beliefs of the two villages and sharing of the same sacred forests and river, data collected were pooled together for analysis and interpretation. Data were analysed using descriptive statistics such as frequency and percentages and presented in cross tabulation.

3. Results

3.1. Demographic information of the sampled villagers

About 80.3 percent of the sampled villagers were male while 19.7 percent were female (Table 1). Men were more than female because they are responsible for the cultural and religious activities carried out in the sacred forests. Women are normally are not allowed unless in some situations such as making ritual for fertility. The few women that responded to the questionnaire and interview were

either due to unavailability of men in the households. Another instance that women respond to questions is if such a woman is elderly with many years of experience in the cultural and religious activities. Majority of the respondents were married (67.6 percent) and above 30 years. This implies that most of the sampled villagers have been living in the villages for a long period of time and can give adequate information on the sacred forests adjacent to their respective villages. The highest education of majority of the sampled villagers was primary education with 59.2 percent (Table 1).

3.2. Entering into the sacred forests

Not all the people are allowed to enter into the sacred forest except under some conditions. About 77.5 percent of the people indicated that only custodian of the sacred forest are permitted to enter into the forest while 22.5 percent indicated that only indigenes of the villages are allowed to enter into the forests. Further interviews revealed that special permission must be obtained to enter into the forest. Strangers to the villages are not allowed to enter into the sacred forests. This condition also holds when people are to make sacrifices to the god and during festivities. People in need of consultation to the gods are accompanied into the forest by the custodian or local herbalists who then carry out the necessary cultural or religion activities.

Table 1: Demographic information of the sampled villagers

Demographic characteristics	Frequency N=71	Percentage
Gender of the respondents		
<i>Male</i>	57	80.3
<i>Female</i>	14	19.7
Age (years) categories of the respondents		
<i>Less than 20</i>	3	4.2
<i>21-30</i>	9	12.7
<i>31-40</i>	18	25.4
<i>41-50</i>	16	22.5
<i>More than 51</i>	25	35.2
Highest level of educational level of the respondents		
<i>No formal</i>	42	7
<i>Primary</i>	5	59.2
<i>Secondary</i>	18	25.4
<i>Tertiary</i>	6	8.4

Table 2: Conditions and people that are allowed to enter into the sacred forests

Questions	Frequency n = 71	Percentage
Are people allowed to enter into the forest?		
<i>Yes</i>	8	11.3
<i>No</i>	63	88.7
What set of people are permitted to enter into the forest?		
<i>Indigene of the village</i>	16	22.5
<i>Custodian to the sacred forest</i>	55	77.5
<i>Strangers to the village</i>	0	0

3.3. Activities in the sacred forests

As indicated by 66.2 percent of the sampled villagers (Table 3), unauthorised exploitation are not allowed in the sacred forests. Two major activities carried out in the sacred forests include religion or cultural activities (29.5 percent) and collection of

medicinal plants (29.5 percent) by the herbalists of the forest custodian. Despite this responses, it was informed that some of the villagers still engage in firewood collection around the sacred forest. Firewood collection is done in secrecy and at the edges of the forest mainly for domestic use. The

villagers also collect seasonal wild foods such as fruits, seeds, spices and nuts from the forests. Hunting of wild animals as well as fishing is not permitted in the sacred forests. Unfortunately, some of the villagers carried out hunting of wild animals using local tools and traps at the boundary of the forest. On the contrary, fishing in Oso’ro River is a serious offence and none of the respondents indicated that the villagers involve in fishing. The punishment given to anybody found fishing in Oso’ro River is out rightly

banishment from the village, in addition to other sacrifices that must be offered to appease the river goddess. Furthermore, farming is not allowed within the forest. However, due to decrease in land area available for farming, some farming activities were observed close to the boundary of the sacred forests. The farming practices were observed to be advancing toward the sacred forests with possibility of future encroachment.

Table 3: Activities carried out by the villagers in the sacred forests

Question	*Frequency	Percentage
Are people allowed to carry out exploitation in the sacred forest?		
<i>Yes</i>	24	33.8
<i>No</i>	47	66.2
Total	71	100
What are the activities that people carry out in the sacred forest?		
<i>Hunting of wild animals</i>	8	3.3
<i>Fishing in the Oso’ro River</i>	0	0
<i>Firewood collection</i>	63	26.1
<i>Religion/cultural activities</i>	71	29.5
<i>Carry out farming activities</i>	0	0
<i>Collection of medicinal plants</i>	71	29.5
<i>Collection of wild fruits</i>	28	11.6
Total	241	100

*Multiple responses allowed

3.4. Perceptions on the challenges facing the sacred forests

The results of four-likert scale questions on the challenges facing the existence of the sacred forests are presented in Table 4. About 54.9 percent of the respondents strongly agreed and 29.6 percent agreed that pressure for land to farm is a major challenge to the sacred forests. About 43.7 percent of the respondents agreed while 33.8 strongly agreed that collection of firewood can lead to deforestation and degradation of the sacred forests. It was envisaged that the current rate of village expansion through construction of buildings is a threat to encroachment into the sacred forest. About 43.7 percent agree and/ 33.8 percent strongly agree with the threat of the village expansion. An ongoing building was observed just at the boundary of the sacred forest during the field visit. In the same vein, the entrance into *Igbo Oro* forest has been blocked by a completed building belonging to one of the villagers. This means that the sacred forests are at the verge of being taken over by the process of infrastructural development.

About 88.7 percent of the respondents disagreed that collection of firewood can lead to deforestation and degradation of the sacred forests. Some of the arguments given in support of this response is that wood are collected around the boundary of the forests while felling and logging operations are not allowed in the forests. Majority of the respondents (95.1 percent) also disagreed that hunting in the forests is a threat to extinction of wild animals in the sacred forests. On the contrary, 40.8 percent of the people agreed and 26.8 percent strongly agreed that adoption of Christianity and Islam is influencing abandonment of the cultural beliefs that are in support of the sacred forests in the villages (Table 4). The villages are founded on traditional religion, but from information obtained, majority of the traditional worshippers are now elderly ones in the villages. Further interview revealed that the youths seem not to have interest in traditional religion in support of the sacred forests.

Table 4: Challenges facing the sacred forests at Balogun and Ososun villages, Ogun State, Nigeria

Challenges of sacred forests		Strongly Agree	Agree	Disagree	Undecided	Total
Pressure for land to farm is a challenge to the sacred forests	F	39	21	11	0	71
	%	54.9	29.6	15.5	0	100
Collection of firewood can lead to deforestation and forest degradation	F	1	3	63	4	71
	%	1.4	4.2	88.7	5.6	100
Village expansion is a threat to forest encroachment	F	24	31	11	5	71
	%	33.8	43.7	15.5	7.0	100
Current level of hunting activities is a threat to extinction of wild animals	F	0	2	65	4	71
	%	0	2.8	91.5	5.6	100
Christianity or Islam are making the people to abandon cultural beliefs that support the sacred forest	F	19	29	23	0	71
	%	26.8	40.8	32.4	0	100

4. Discussions

4.1. Roles of the sacred forests to the villagers

The sacred forests play a central role in the cultural and livelihoods of the villagers in *Balogun* and *Ososun* communities. Plants in the sacred forests play a significant role in preparation of local medicines used in treatment of sicknesses and diseases. The local healers informed that they collect plants used in preparation of their medicines from the sacred forests. In addition, *Oso'ro* River is believed to have supernatural healing power most especially for children. Children suffering from sickness are taken to the river to bath with the believe that such children will be healed. In addition, the villagers offer sacrifices to the gods and deities believe to be residing in the forests. Festivals are carried out every year and rituals are conducted when the need arises.

4.2. Custodian of the sacred forests

Responses obtained from the key informants revealed that ordinary people are not permitted to enter into the sacred forests to collect forest products. The only group of people that are permitted to enter into the forests for products collections are the forest custodian or assigned chief priest by the council of the chiefs. Getting the title of forest custodian is through family lineage. A family is responsible for producing the Chief Priest; this is along standing tradition passed down through generational inheritance. The priest is responsible for offering sacrifices and takes the lead in other religious activities within the forests. Any other activities carried out without the consent of the priest within the forests is a violating of the local rules and said to be a *taboo*. The offender when caught is subjected to punishment ranging from banishment to

payment of fine and rendering of sacrifices to appease the god.

4.3. Taboo in the sacred forests

Taboos are set up through people's cultures and this informal practices, rather than laws, to determine human behavior [26,27]. Fishing is considered as the most grievous taboo for anyone to commit in *Oso'ro* River, located in the sacred forests. In the past, the punishment for fishing is death. Majority of the villagers in *Balogun* and *Ososun* are aware of this taboo and guide against committing it. The fishes in *Oso'ro* River are believed to belong to the river goddess that is responsible for healing of the children and healing women from infertility. Fishing as a taboo in river has also been reported elsewhere. For instance, prohibition of fishing in *River Osun* at *Osun Osogbo Sacred Grove* in Southwest Nigeria was reported by Babalola and Kumoye [19]. *River Osun* is believed to be inhabited by "goddess of fertility", people are therefore prohibited from fishing in the river. Furthermore, fourteen forms of taboos and beliefs protecting destruction of fishing habitats and controlling unsustainable fish consumption have been identified in Tanzania [28]. In a research on ecology of food taboos and fishing technology in India, Patnaik [29] discovered that indigenous fishermen groups establish micro resource utilisation through 'technology restrain' and species behaviour thereby making the different descent groups to operate at different distances from the coastline, creating micro resource zones and facilitating resource partitioning. Far from the seas, the Tibetan also have different fish taboos in their diet. All these taboos have direct contribution to protection of fish habitat as well as control harvesting of fish in the wild.

On the contrary, taboo relating to hunting of other wild animals is not as effective as strict protection of fishing in the sacred forests. Some of the villagers use local traps as well as local hunting tools to carry out hunting activities around and within the forests. It was also informed that some of the hunting activities were carried out at night. Hunting activity has put the population of the wild animals to very low level. It was informed that wild animals are not seen in abundance as they use to be in the past. If adequate intervention is not carried out, the current level of uncontrolled hunting may lead to total extermination of the wild and endemic animals in the sacred forests.

4.4. Threats on existence of the sacred forests

Igbo Igunnuko and *Igbo Oro* are under various threats and land pressure for building and other development activities. Farming was observed on land around the sacred forests and this is advancing toward the forests. Products such as firewood, wild animals and wild fruits are also collected from the forests. It was against the culture and tradition of the people that exploitation of resources is carried out in the forests. The forest is meant to be a strict nature reserve under the local rules. As informed by Bhagwat and Rutte [14], sacred forest are not set for utilitarian purpose, but population increase has compelled people to use the resources for day-to-day purposes. In places where traditional knowledge is developed, this has been useful in conservation of natural resources and sustenance of rural livelihoods. Households also worship and protect naturally growing tree species considered valuable to their everyday life. Jimoh *et al.* [11] discovered that 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, have limited the efficiency of the application of traditional conservation measures.

Firewood tends to be the resource that the villagers collect on daily basis from the forest to meet their domestic energy need. Due to the increase in distance that the villagers need to travel to collect firewood, a number of them resorted to collecting fallen tree branches and logs from the boundary of the sacred forest. Although this collection was in secrecy, it is however advancing into the forest more than expected. With the current rate of biomass energy demand and usage, it is possible that firewood

collection could have negative impact in the sacred forests in the nearest future. Various studies have documented increase in the demand and use of biomass energy with impacts of forests. For instance, biomass was reported to account for about 11 percent of total primary energy consumed globally [30], this is on the increase in sub-Saharan Africa as a result of population growth [31,32]. Also, increase in the demand for biomass energy in some selected states of southwest Nigeria has been reported [33]. Culture of the people has been discovered to influence increasing demand for wood utilisation as opposed to other sources of energy. On the negative impact of biomass energy use on forest, the World Energy Council [34] has informed that traditional biomass energy use in Africa is associated with deforestation.

Bhagwat and Rutte [14] has reported that conversion of people to other religions has resulted in the degradation of sacred groves. Specifically, Babalola [24] found that Christianity and Islam religions caused reduction of worshippers of traditional religion in Nigeria, while Matthews and Matthews [35] reported that the arrival of Christianity in ancient Europe (4th-5th century AD) led to destruction of groves. Local people have embraced Christianity in Nigeria thereby shunning traditional religion. The traditional religion is presently skewed to the old people with long years of faith in worshipping of the gods of the land. Most importantly, the abandonment of the traditional religion for Christianity and Islam was pronounced among the youths and younger generations.

From the study areas, majority of the sampled youths (less than 30 years of age) informed that they are not in support of the cultural practises carried out within the sacred forests and dissociate themselves from the traditional religion. Some studies have indicated the critical role that youth can play in protection and conservation activities at local level. One of such studies is that of Urnasan [13] who explained the cultural beliefs of Mongolians and their dependence on nature. The Mongolians were successful in their closeness and relationship with their environment due to active involvement and adoption of their cultural beliefs by the younger generation.

Elderly people in the sampled villages tend to be more interested in continuous existence of the sacred forests unlike the youths. This finding is in support of previous study by Etiendem *et al.* [36] on

the importance of people's cultural and religious values to conservation of Gorillas in Cameroon. The authors reported that youths seemed to be less knowledgeable about their traditions than their elders therefore resulted in a decline of conservation strategies for Gorillas.

In most of the places where informal restrictions in the exploitation of natural resources exist, this may not be specifically designed for nature conservation; rather, the major reasons are based on traditions, practices, and beliefs passed down through generations [37]. The rationale for establishment of sacred forest vary differently from the rationale for setting aside formal protected areas [14]. In addition, enforcement and sanctioning mechanisms are also different. Unlike informal landscape conservation which is mostly enforced by community members hence making it cheaper, or at no cost, to implement, the formal protection on the other hand depends on legal frameworks of laws which is enforced by officers thereby making it expensive. All these must be put into consideration in development of conservation strategy aimed at sacred forests that are protected by indigenous beliefs.

5. Conclusions

The study has shown some of the central roles of sacred forests in local communities. The belief in support of sacred forests have evolved over time and central to the livelihoods and religion of local people. Sacred landscapes may not be specifically designed for nature conservation where they exist, yet they can play a key role in conservation of forest diversity if adequately integrated. The need for recognition of the cultural and ecological values of sacred forests and other sacred landscapes have been emphasised. This can play a vital role in gaining the trust of local people and involve them in conservation of biodiversity around their communities.

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