

Perceived Ecological Relevance of Sacred Groves in Omuma Local Government Area of Rivers State, Nigeria

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ABSTRACT: The study assessed the ecological relevance of sacred groves in Omuma Local Government Area of Rivers State, South South, Nigeria. The sacred grove was established on the indigenous knowledge of the people of Omuma and passed down orally from one generation to another. Ecological encroachment and degradation activities posed great challenges to the sustenance of the grove. Data was collected through interview of twenty key informants in the adjoining communities in the grove. Some of the challenges facing the grove include pressure from population explosion and urbanisation process, poaching and deforestation resulting from farming practices going on along the boundary. The sacredness, religious beliefs and taboos play a significant role in promoting sustainable utilization and conservation of flora and fauna of the region. However, with the passage of time, considerable changes have taken place in the extent of the sacred groves, in their vegetation structure, peoples' perception towards them and the religious beliefs and taboos. Therefore, a holistic understanding of the current status, structure and function of sacred grove is essential for assessing their ecological role and formulating strategies for their conservation.

Introduction

In ancient times, Sacred Groves were places of sanctuary and worship for the people. Like a temple or chapel set within the natural world, they were places of spiritual refuge: places to calm the mind, refresh the spirit, and give comfort in times of distress has continued till date, this tradition of seeking tranquillity. As a result, thousands of trees, and hundreds of groves have been planted around the world. These groves form a network of woodland sanctuaries that radiate peace, and offer refuge to both wildlife and human kind (Nwankwo, E. A & Agboeze, M.U (2016). Trees are universally powerful symbols, a physical expression of life, growth and vigour to urban, rural and forest dwellers alike. They can symbolize historical continuity and human society. They are often of frightening magnitude, linking earth and heavens, arbiters of life and death, incorporating both male and female

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aspects, and home to both good and bad spirits, including the souls of ancestors. According to Bhasin, (1999), trees provide protection from harm, cure diseases and increase fertility.

Some studies have been conducted on the state of sacred groves and their management in Nigeria. These studies include the works of Nwankwo and Agboeze (2016, Wahab, Ezekwe, Wekpe, & Nwaogu (2015), Umazi, Iwa and Etim (2013) and Chima, Ezekwe and Ogbonna (2009). These scholars looked at the phenomena of sacred groves by identifying threats, opportunities as well as the cultural disposition of the people towards sacred grove management in certain parts of Nigeria (Ezekwe et al, 2016). The significant thing in this work is that not much research about the ecological relevance of sacred groves has been carried out in Nigeria. This research work is thus aimed at filling the existing vacuum in the literature. As such, this study is geared towards investigating the ecological relevance of sacred groves in Omuma Local Government Area of Rivers State Nigeria.

Statement of the Problem

Sacred groves as a home for biotic components of the ecosystem have experienced series of threats in recent time. These threats may have occurred as a result of cultural afflictions, Christianity, poverty, economic activities, infrastructural development and evolving religious beliefs and changing socio-cultural loyalties. As a result of the above mentioned factors the aim of sacred groves has been affected in different ways.

Consequently, the accelerated depletion of the sacred groves has contributed to the loss of biodiversity thereby changing the original nature or the natural state of the sacred groves in Omuma Local Government Area of Rivers State. Agricultural practice in the study area has contributed to the reduction in size and quality of the sacred groves, where the local farmers constantly encroached into the groves as a result of family activities and survival, that is why Ezekwe et al (2016) said that poverty is a major factor to the threats in the sacred groves.

In the light of the fact that, the relevance of the groves has reduced due to the serious threats that the sacred groves had experienced on daily basis in different forms, the research questions outlined below have been formulated to guide the study. These include:

1. Can't laws be enacted to stop the encroachment of people into the sacred groves?
2. Does it mean that, the people do not understand the relevance of sacred groves?
3. Does environmental degradation (soil erosion)/pollution pose any threat to the existence of these sacred groves?
4. Why do religious beliefs affects the sustenance of the groves?
5. What way can the problem of religions differences be tackled to avoid further destruction of the groves?
6. What effort is government making to maintain the existence and sustenance of the sacred groves in different communities as part of biodiversity conservation strategy?

The Aim and Objectives of the Study

The Aim of this study is to examine the perceived ecological relevance of sacred groves on the study area. The specific objectives of the study include:

1. To examine the relevance of sacred groves.
2. Analyse the ecological and biodiversity roles of the sacred groves.
3. Evaluate the effects of sacred groves ecosystem to the host communities
4. Proffer solutions on how the sacred groves can be protected.

Study Area

Geographically, Omuma is situated at the South part of Nigeria. Omuma is a Local Government Area in Rivers Nigeria ,It is a sub-tropical rainforest ecosystem, bounded in the North by Isiala Ngwa

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North, South by Ukwu West, at the East by Osisioma Ngwa Local Government Area of Rivers State, at the West by Etche local government area, Rivers State. It lies between latitudes $5^{\circ}10'58.734''$ and $5^{\circ}11'14.185''$ North and longitude $7^{\circ}14'55.136''$ and $7^{\circ}17'46.776''$ East, with an elevation of 111 metres and total area of 258 km. Population According to the 2006 census conducted by the Nigerian population commission projected the population of Omuma at 100,366, and a percentage growth rate of three (3) percent. Omuma is a local Government Area in Rivers State Nigeria. Its headquarters is in the Town of Eberi. Its people are of Igbo extraction.

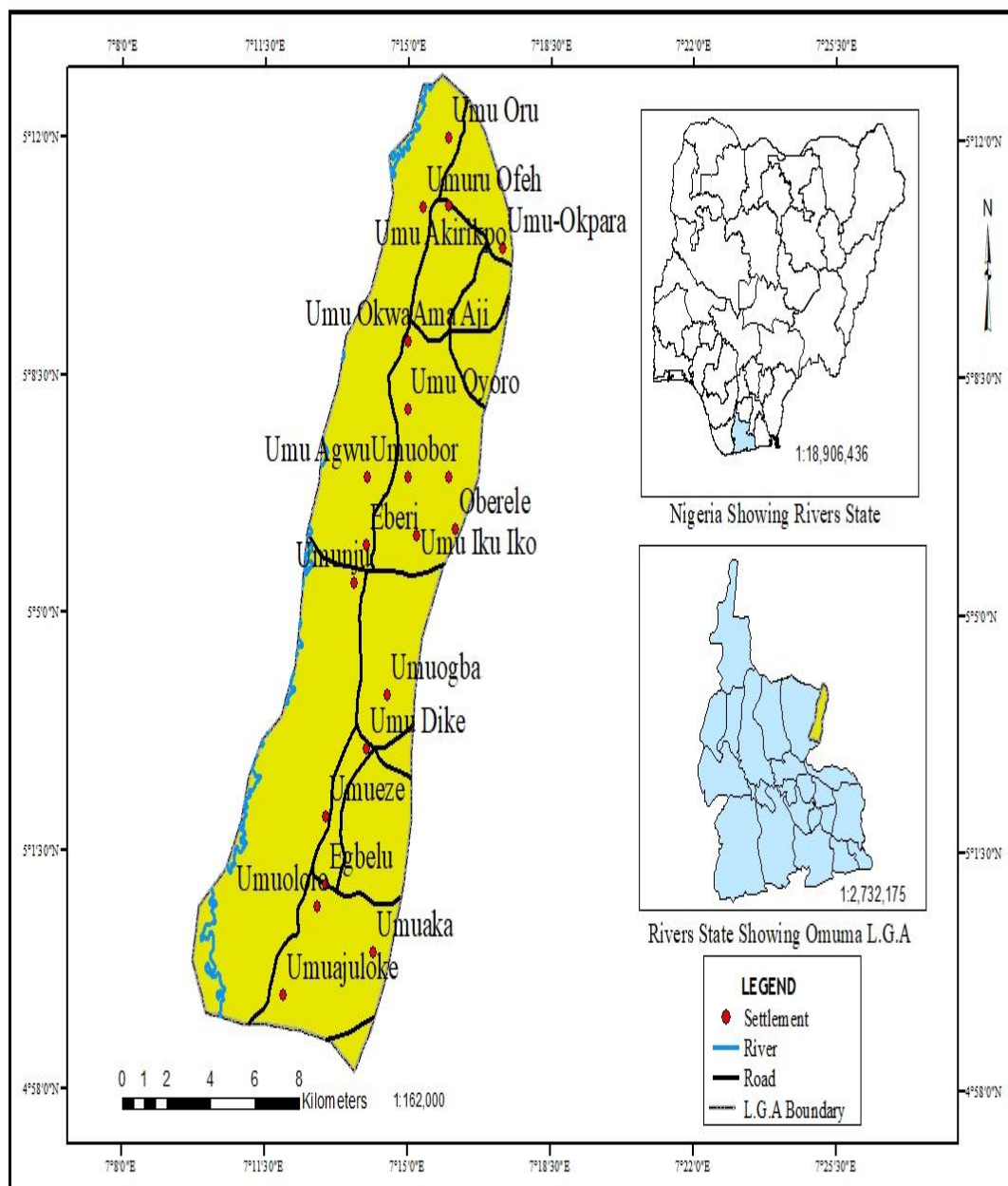


Figure 1.1: Omuma the study area

Source: Nigeria Administrative Map 2017

Methodology

A cross sectional survey design was adopted in this study (Oyegun, 2003) using questionnaire based interviews and field observation. Semi structured questionnaires was developed and used as the tool for eliciting the needed information. The researcher used both primary and secondary data for the study.

The sample size for the study is ten Sacred groves in Omuma which include Umuacha, Umuogba, Oboro Nomiri, Obiohia, Umulo, Umunachi, Nnechetara, Umukalebu, Okwuncha, Ofeh Uhim Oyor. The simple random sampling technique was inevitably used because this method gives all the towns equal opportunity of being selected. The questionnaires were administered to ten (10) respondents in each of the study area. All the questionnaire were filled and returned, therefore amounting to 100% response rate, out of one hundred (100) respondents.

Data Presentation and Analysis

The Sacred Groves in the Study Area

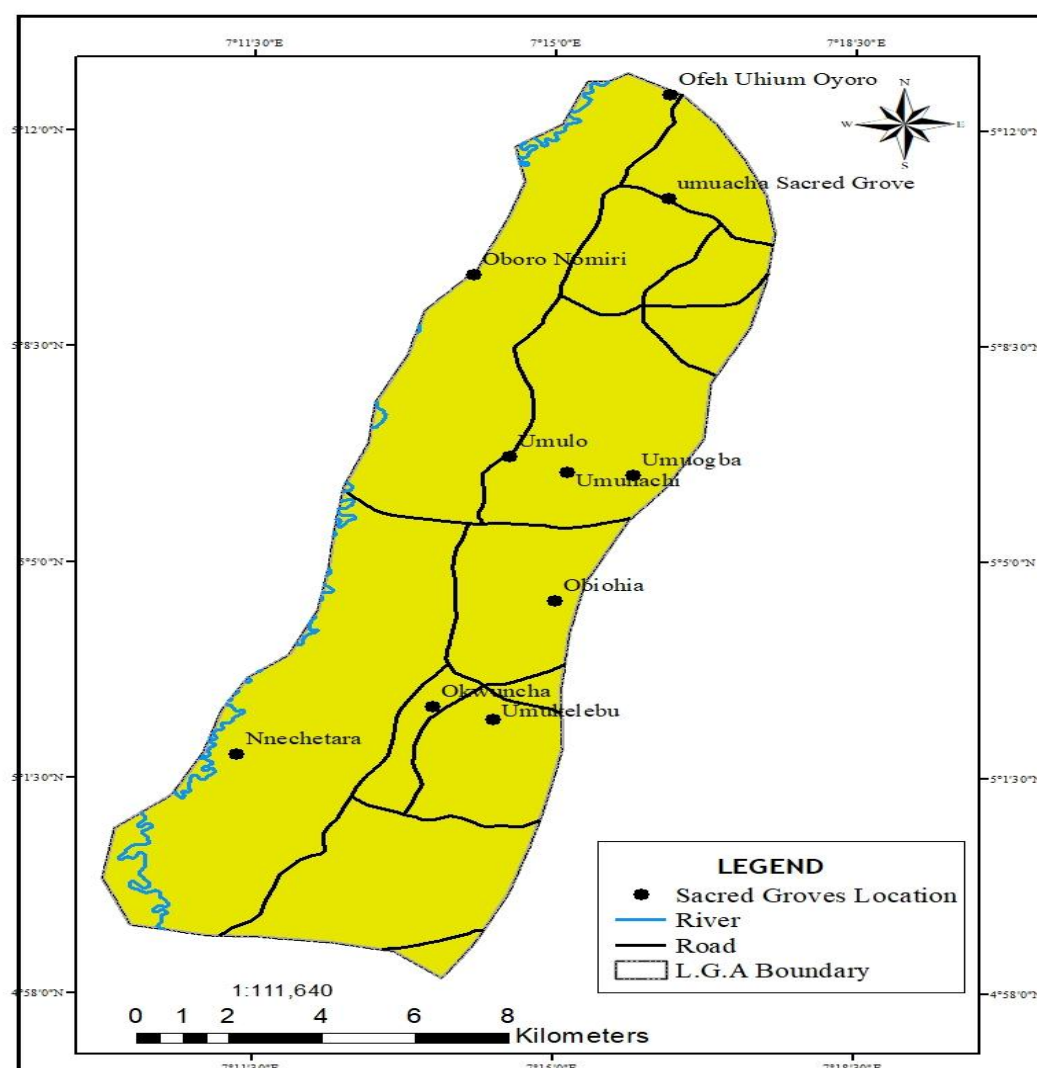


Figure 4.1: Location of sacred grooves in Omuma L.G.A.

Source: Nigerian Administrative Map 2017.

Table 4.1: Location of sacred grooves in Omuma L.G.A

S/N	Location	Longitude	Latitude
1.	Umunachi	7°15.092	5°6.375
2.	Obiohia	7°15.152	5°15.152
3.	Okwuncha	7°13.653	5°5.304
4.	Umuogba	7°14.252	5°5.304
5.	Oboro Nomiri (Isi Nkpa)	7°16.509	5°12.936
6.	Umulo	7°15.926	5°15.926
7.	Umuacha	7°16.285	5°10.890
8.	Nnechetare	7°14.292	5°2.436
9.	Ofeh Uhim Oyoro	7°14.441	5°9.708
10.	Umukalebu	7°13.141	5°8.907

Table 4.1 shows the location of sacred sites in the study area; the threats affecting their existence and the current states of the groves. A total of 10 (Ten) groves were investigated across the study area. 20% of these groves were found to be dead; 30% were in a threatened state. 30% of the groves found in the study area were in a weak state, while only about 20% of the groves found in the study area are strong. (See table 4.3).

Table 4.2: The Location of Sacred Sites Sampled for the Study

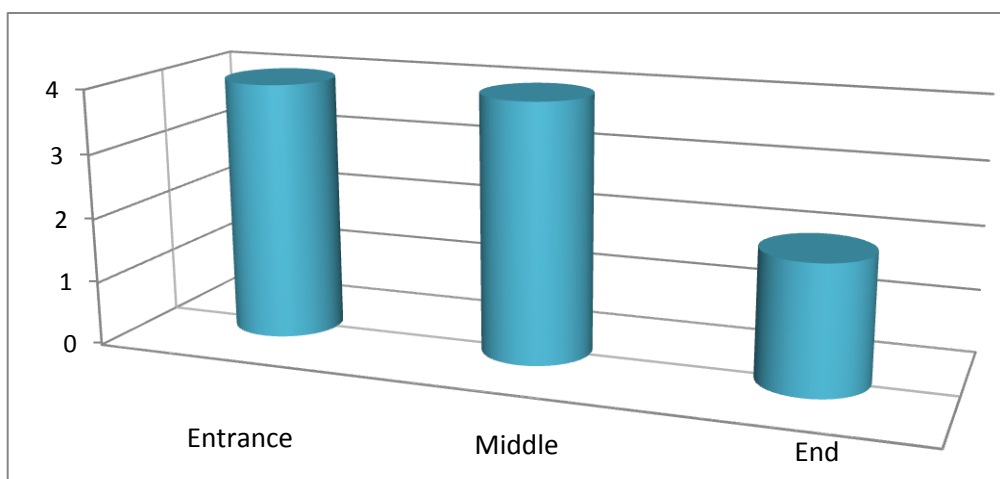
S/N	Community name	Copies of Questionnaire given out	Percentage returned
1.	Umunachi	10	100
2.	Obiohia	10	100
3.	Okwuncha	10	100
4.	Umuogba	10	100
5.	Oboro Nomiri Sacred	10	100
6.	Umulo	10	100
7.	Umuacha Sacred grove	10	100
8.	Nnechetara	10	100
9.	Ofeh Uhim Oyoro	10	100
10.	Umukalebu	10	100

Threats to Sacred Groves

Table 4.3: Grove's Locations, Perceived Threats and State of Groves

S/N	Location	Threats	State of Grove	Location in Community
1.	Umunachi	Development	Dead	entrance
2.	Obiohia	Poverty	Dead	Middle
3.	Okwuncha	Poverty	Weak	middle
4.	Umuogba	Development	Weak	entrance
5.	Oboro Nomiri Sacred	Religious	Weak	end
6.	Umulo	Development and religion	Threatened	end
7.	Umuacha Sacred grove	Development and, poverty	Threatened	Middle
8.	Nnechetara	Development	Threatened	middle
9.	Isi-Nkpa Ofeh Oyoro	Development and, poverty	Strong	End
10.	Umukalebu	Religion, Population and development	Strong	end

Figure 4.2: Sacred Grove location distribution across the various communities



Out of ten (10) groves four groves are found at the entrance of the community, and it serves as protection to the people. Another four groves were found at the middle of the villages as rallying points. While two of the groves are located at the end of the village or community (Fig. 4.2).

Table 4.4: Flora species identified in the Omuma Sacred Grove, Rivers State, Nigeria

S/N	Species	Family	Life form
1	Acanthus montanus	Acanthaceae	Herb
2	Adenia cissampeloides	Passifloraceae	Tree
3	Afzelia Africana	Cesalpiniaceae	Tree
4	Alchornea laxiflora	Euphorbiaceae	shrub
5	Allophyllus africanu	Sapindaceae	Tree
6	Anchomanes difformis	Araceae	Herb
7	Antiaris toxicaria	Moraceae	Tree
8	Aristolochia ring	Aristolochiaceae	Climber

Table 4.5: Factors given by the indigenes to be causing deforestation in Omuma Sacred Grove

S/N	Reasons for encroaching the grove	Number of interviewees n = 20	Percentage (%)
1.	Neglect of the local belief	5	25
2.	Present custodian do not have the local knowledge of protection	6	30
3.	Low employment of local indigene	3	15
4.	Government is in total control	3	15
5.	Inadequate land for farming	3	15

State of Groves in Omuma

This study was able to identify and classify the groves found in Omuma into four categories based on its present state or condition (Table 4.5). Out of a total of ten groves identified in the study area, two have been identified to be dead. The identified dead groves are found, Umunachi and Obioha. The major causes of dead groves are the activities and influences of other religions (Plate 4.1) poverty

fallen cultural values, in most cases, death of the presiding priest or grove manager, which agrees with the earlier findings of Oyelowo, Adwuradola, Onadeko, Agboola, (2014).

Ecological Relevance of the Sacred Groves

The finding of this research has shown that sacred groves are the good source of a variety of medicinal plants, fruits, fodder, fuelwood, spices, etc. The study of interrelationship between the human beings, plants and animals in their surrounding environment (i.e. ethnobiology) is very revealing. Ethno-botanical studies conducted by Gadgil and Vartak (1976) in the sacred groves of Maharashtra, as well as the study of the tree wealth in the life and economy of the tribal people in Andhra Pradesh revealed that various species are used by the different ethnic groups for various purposes including the treatment of common diseases and disorders as shown by (Etukudo, 2003). Tolchha-Bhotiya sub-community inhabiting the buffer zone villages of Nanda Devi Biosphere Reserve has a strong faith and belief in traditional healthcare system/herbal treatment and depends on various medicinal plants.

There is a need to record and document their knowledge of various medicinal plants, which are used for treating different ailments by local practitioners Malkhuri, Nantiyals, and Roak, Saxena (1998). The role of sacred groves in the conservation of the regional medicinal plants has been emphasized in several studies from different parts of the country. Bhakat and Pandit (2003) recorded from the Chilkigarh sacred grove in Midnapore district (West Bengal) 105 medicinal plant species of which 12 are threatened elsewhere in the district. A total of 120 medicinal plants widely used for the treatment of various ailments were reported from four sacred groves of Manipur (Khumbongmayum et al. 2005). Presence of a large number of medicinal plants is reported in 'Kavus' of Kerala (Pushpangadan, Rajendraprasad, Krishnam (1998) and 'Hariyali' sacred site of Garhwal Himalaya (Maikhuri et al, 1998). Conservation, utilization and assessment of the implications of exploitation of these species have become an important task (Dhar 2002, Sumit and Dhar 2002). Availability and habitat preference of critically endangered medicinal plants of west Himalaya were assessed for their conservation (Ray, Chandran, and Ramachandran, 2015). Problems and prospects of the development of medicinal plant resources in different regions of the country have also been highlighted by several researchers (Biswas, Rieger, Morschhauser 2003), Islani, and Williams 2009).

From the foregoing, this study is in agreement with Ezekwe et al, (2012) that poverty is one of the causes that makes people to encroach into the sacred groves. The study also discovered that urbanization is another factor responsible for the encroachment of people into the sacred groves as a result; people enter into the Grove without fear of any harm as earlier stated by Ormsby (2013).

The study also discovered that on daily basis, the groves pass through one threat or the other just as discovered by Nwogu (2016). The study is very unique in this area because no literature has reviewed or discovered that death of the priest contributes enormously to the threat of sacred groves, therefore this study is unique in this area.

Summary

Various factors threaten the existence and continued survival of the natural sacred sites in Omuma, south-south Nigeria. The degradation of sacred natural sites seems to be on the increase. More than 70% of the respondents interviewed agreed that sacred groves in Omuma are under serious and potent threats. 60% of the respondents agreed that poverty is the major threat to sacred grove survival.

This is in agreement with the work of Oyelowo, et.al (2014) who opined that poverty is an unfortunate factor that hinders the continued survival and maintenance of sacred groves in south

western Nigeria. They contend that poor people living in areas close to locations where sacred groves are would out of necessity ravage the groves resources in order to meet their vital domestic necessities, such as fuel wood, vegetables, medicinal plants etc.

On the other hand 20% of respondents agreed that rapid infrastructural development poses the greatest danger to the groves. 10% of respondents however opined that the greatest threats to sacred groves were the proliferation of new religions (mostly born again “Christianity”) that pose very grave threats to the continued existence of sacred groves. The view that proliferation of new religions can be a potent threat to the existence of groves is clearly demonstrated where the community sacred grove has been burnt down by religious fanatics who believed that their destinies were tied to the trees in the sacred grove, this also agreed with the findings of Chima et al., (2009) in the Ohaji West area of South Eastern Nigeria, where religious fundamentalists had destroyed sacred groves with the belief that the destinies of the youths were tied to the groves.

As such, it can be concluded that Christianity “born again fundamentalism” poses a significant threat to the existence of sacred natural sites in Omuma. These other factors include changing allegiances in community struggles and dwindling loyalty to community based structures. This reduction in loyalty to community based spiritual structures manifests in community disloyalty; and lack of allegiance to traditional religious worship tied to the grove existence and maintenance. To this end, the powers that accompany many sacred sites have been eroded and more importantly most grove managers and priests have been found wanting due to dishonesty in handling the issues of justice and truth during consultations including indulging in nefarious activities like falsehood, corruption, adultery etc.

The following threats were observed in the study sites;

1. *Encroachment*: Many instances were observed where the sacred groves have been encroached upon by local communities as well as by people migrating from outside.
2. *Removal of biomass*: In many sacred groves, removal of biomass and cattle grazing is permitted. Continuation of these practices over generations has resulted in the dwindling of the groves.
3. *Modernization*: The most recent threats to sacred groves come from the process of modernisation. Local traditions are being challenged by the western urban culture. Modern education system fails to instil respect for local traditions. As a result, institution of sacred groves is losing its cultural importance for the younger generations of local people.
4. *Sanskritisation*: In many places, local folk deities continue to replace the gods and goddesses. This has resulted in the erection of temples in sacred groves.
5. *Commercial forestry*: Many sacred groves were destroyed under commercial forestry operations.
6. *Shift in belief system*: In some places, conversion to other religions has resulted in the degradation of sacred groves.

Conclusion

Traditionally, human relationship with plants played an important role in conservation of flora, fauna and individual species. Expanding human population has caused increased natural resource exploitation and alteration of land use pattern. Phyto-diversity of rich sacred groves could also have strong human impact. A discussion on sacred groves in Nigeria usually elicits some form of negative response as sacred groves are seen as fetish and diabolic. A lot has been seen and said about sacred groves and this work has been able to add to the few voices courageously contributing on the physical conditions and threats to the existence of sacred groves in Nigeria. Sacred groves represent

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naturally conserved biodiversity reserves which need protection from threats like wood logging, fuel wood extraction, species extraction, hunting, and conversion of forests to agricultural lands, encroachment and other religions and socio-cultural changes. Sacred groves in Omuma have been shown to be currently under potent threats arising from; rapid urban and infrastructural development, progressive encroachment, increasing population, uncoordinated and unregulated extraction of grove economic resources such as firewood and timber logging, corruption, changing cultural and religious values and most importantly, the scourge of “poverty”.

Recommendations

There is therefore an urgent need for a deliberate policy and legislative protection of these natural sacred sites that not only remind us of our religious and environmental past but may hold profound keys to sustainable development, environmental protection and enhancement of livelihoods in the future. Forest patches that characterize natural sacred sites are sometimes the only remnants of the original vegetation that characterized our ancient environment and they also provide the last vestiges of protection for plants and animals that have been totemized and their existence currently threatened by the continuous shrinkage of what is left of their habitat.

Future Strategies

- Understanding local people’s knowledge of resource and their value
- Developing and creating awareness among local people about the resource and their values.
- Preparation of action plan for conservation, protection and augmentation of recourses.
- During the preparation of working plans of the forest divisions sacred groves should be included.
- Involvement of the local people in protection and augmentation

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Appendix



Plate 4. 1: Umunachi Grove (Dead grove)



Plate 4.2: Obiohia Sacred Grove (Dead Grove)



Plate 4.3: Okwuncha Grove (A Weak Grove)



Plate 4.5: Oboro Nomiri Sacred Grove (A Weak Grove)



Plate 4. 7: Umuacha Sacred Grove (Threatened Grove)



Plate 4.8: Nnechetara Sacred Grove (Threatened Grove)



Plate 4.9: Ofeh Uhim Oyoro (Isi Nkpa) (A Strong Grove)



Plate 4.10: Umukalebu Sacred Grove (A Strong Grove)