

Indigenous Knowledge Systems of Conserving Natural Resources in the Erijiyan Community, Ekiti State, Nigeria

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Abstract

Recognition and adherence to indigenous knowledge systems (IKS) in the conservation of environment motivated this study. This research work examined the traditions and values that protect the natural environment as reflected in Erijiyan Community of Ekiti State, Nigeria. Participant-observation, interview and literature review were used in gathering qualitative data. Site visitations were carried out involving the authors and their 200 Level Geography Students of the College of Education, Lanlate, Oyo State, during field-trips between 2010 and 2016. Thirty participants including the chief, women leader and chief priest of the community deities were interviewed. The study established that a goddess (Osa-Erin) inhabits a sacred stream (Odo-Erin). The residents were culturally forbidden to kill the aquatic animals. Nobody is allowed to cultivate, fell trees around this sacred stream. These doctrines symbolised respect for the goddess who provides earthly bliss and fortune to the residents. Osa-Erin also protects the aquatic animals and other organisms that help in purifying Odo-Erin. This principle also preserves the watershed and surrounding forest. This stems the rate of percolation and evapotranspiration, thus reducing erosion. The grove talks about the environmental concerns through rituals and disciplined observance of the mores and instructions of their ancestors. The practice of occasionally festivals and rituals such as Oro-Ologun constantly reminds the citizens about their deity and her principles of protecting the ecosystem.

Keywords: Conservation of environment, Erijiyan Ekiti, Indigenous Knowledge Systems, Odo-Erin, Oro Ologun, Osa-Erin.

Introduction

In the rural and sub-urban areas where the natural environments and resources are under serious threat, the cultural taboos and their sanctions can help to reduce the abuse on their immediate environments. The mitigation of reckless exploitation of the natural resources is noticeable in the indigenous people's farming systems, hunting, and care for the land, forests, wild life, trees and streams. This fact is as buttressed by Ngara and Remigios (2013).

According to the authors, religious beliefs, cultural mores and practices are often aligned with today's conservation ethics, and it is imperative that they are upheld as they are critical in the wise conservation and management of natural resources. Since these rural or indigenous people are those who are the original or oldest inhabitants of an area or region who have lived in a traditional homeland for many generations, it is easier for them to pass on the knowledge about their environment from one generation to another. There is a growing consensus that traditional institutions provide considerable protection for the ecosystems and biodiversity without governmental juridical restrictions (Toledo, 2000; Barrow & Pathak, 2005; Tengö, Johansson, Rakotondrasoa, Lundberg, Andriamaherilala, Rakotoarisoa, & Elmqvist, 2007; Jones, Andriamarovololona & Hockley, 2008; and Dudley, Zogib & Mansourian, 2009).

Indigenous knowledge systems (IKS) are a body of knowledge, or bodies of knowledge of the indigenous people of particular geographical areas that they have survived on for a very long time. IKS is local knowledge that is unique to a given culture or society (Mapara, 2009). IKS is built by societies through generations of living in close contact with nature. It includes norms, taboos, a system of classification of natural resources, a set of empirical observations about the local environment and a system of self-management that governs resource use (Fonjong, 2008).

Conservation of natural resources is the wise use of the earth's resources by humanity. It is the management of valuable natural resources such as timber, fish, topsoil, pastureland, minerals, forests, wildlife, parkland, wilderness and watershed areas. Nwosu (2010) added that the natural environment is closely tied to integral human life, and without it, human life may not be sustained. According to the scholar, the natural environment includes social, religious, linguistic, economic, and other cultural elements.

This study was motivated by the recognition and/or the adherence to indigenous knowledge systems in the conservation and preservation of the environments. The terms 'natural resources' and 'environment' are used synonymously to refer to conservation, preservation, protection and sustainable use of particular plant and animal species. This research is done in order to establish benefits that will be derived by present and future generations from indigenous conservation and preservation of the environment. As such, the aim of this study therefore, is to examine the habits, practices, tradition, and values that respect, protect and foster the flourishing of the natural environment as reflected in Erijiyan Community of Ekiti State, Nigeria.

Literature Review

The literature is replete with numerous scholarly articles on the role of IKS in conserving and preserving the natural environment. Many of those studies examined the conservation of natural resources from the perspectives of religions, culture and belief systems. For instance, Eneji, Ntamu, Unwanade, Godwin, Basse, Willaims, and Ignatius (2012) assessed the roles Traditional African Religion can play in the conservation and management of natural resources especially forest resources in Cross River State, Nigeria. Some religious practices in the African Traditional Religion like methods of worship, initiation rites, and the invocation of the sacred powers of the supreme beings, how these gods communicate their wills to humans through the chief priests and how the gods are atoned if provoked were examined. The stronghold of African religion rests wholly on the ascription of psychic powers to any part of the natural environment as the abodes of the gods and goddesses of the

land and the protection of these abodes of the gods/goddesses. The protection of the abodes of the gods from entrance, utilization and exploitation overtly or covertly encourages conservation and management of natural resources. Forbidden areas associated with worship contribute to natural resources conservation and management in Cross River State. These African traditional religious strategies for natural resource conservation and management have somehow been eroded by acculturation and enculturation of most African communities through the introduction of Christianity as a modern way of worship. In the study of Cross Rivers State literature review and personal interviews was adopted and it was recommended that a re-visitation of the principles of traditional African religious practices where modern conservation programs could integrate traditional knowledge systems into their activities in the conservation and management of our natural resources.

Concerning the conservation of the natural resources from the perspective of cultural practices Ngara and Remigios (2013) investigated the Shangwe religious and cultural practices which are meant to save the extinction of vegetation and particular animals in the then Gokwe District in the Midlands Province in Zimbabwe. Most importantly, these practices were linked to Nevana, the Shangwe rain making god. It emerged from the study that snakes symbolised the ancestral beings. Consequently, it was a taboo for the Shangwe to kill them. The belief in these symbolic snakes was a favourable factor which necessitated their annual increase in numbers. The study established that certain sacred hills were places of abode for gods and spirits. Also, echoes of music and dance used to be heard on the following day after Mukwerera rainmaking performances. Furthermore, it was found out that the community members were culturally not allowed to fell trees from these sanctified hills and they [hills] grew into thick forests. Thus the Shangwe indigenous knowledge system was utilised not only to protect wild animals and deforestation; it was a tool that intensively combated soil erosion as well.

In terms of conserving the natural environment from the traditional belief systems, Rim-Rukeh, Ierhiewwie and Agbozu (2013) assessed the role of traditional beliefs systems in the conservation of natural resources in some selected communities in Delta State, Nigeria. Methodology of study involved the use of personal interview, literature review, group discussion, and site visitation they carried out between April 2011 and March 2012. Findings showed that traditional natural resources management in the selected communities are classified into the following categories: protection of particular ecosystems or habitats (such as sacred groves and sacred rivers/ponds); and protection of particular animal or plant species (such as totem and tabooed species). The practices concerned relate to trees, forests, wildlife and marine organisms. The environmental wisdom and ethics expressed through these religious beliefs were very useful tools in natural resource management. Using the classification of the International Union of Conservation of Nature (IUCN), the plant and animal species in the study scared groves and forest can be described as an environment with widespread and abundant taxonomy that are not at risk or endangered.

The issue of protecting the environment through indigenous framework or philosophies is the thrust of Nwosu (2010). Nwosu (2010) discussed the increased rate at which the environment is being destroyed since the advent of Christianity and Islam in South-Eastern Nigeria. The scholar highlighted the efficient ways Igbo protected their environment before the coming of other religions. These efficient ways were parts of the preoccupation of Okonko Society. It was therefore, the considered opinion of the paper that the fullness of human existence on earth cannot be achieved outside a cordial relation to the environment.

The paper argued that ecological crisis of today, engaged the attention of our ancestors and they tackled the problem through the principles of ancestral societies, of which Okonko is prominent. The paper advocated a revival, appreciation, and applications of same principles to enhance the well-being of the community, its fields and general ecosystem.

From the reviewed literature Nwosu (2010) studied the issue of protecting the environment through indigenous framework philosophies in South-Eastern Nigeria. Eneji, Ntamu, Unwanade, Godwin, Bassey, Willaims, and Ignatius (2012) and Rim-Rukeh, Ierhievwie and Agbozu (2013) assessed the role of traditional African Religion and traditional beliefs systems in the conservation and preservation of natural resources in selected communities in Cross Rivers and Delta States, Nigeria, respectively. From the foregoing, there appears to be a dearth of literature on the role of indigenous knowledge systems in preserving and conserving environment in South-West Nigeria. It, therefore, seems that a gap in knowledge exists which this study concerns itself with. As such, this study examine the roles of IKS in conserving the natural resources in Erijiyan Ekiti community in Ekiti State, South-West Nigeria.

The Study Area

Ekiti State, one of the thirty six states of the Federal Republic of Nigeria was carved out of the former Ondo State on 1st October 1996. It has sixteen local government areas, with Ado-Ekiti as the capital. The word “Ekiti” or “okiti” denotes a mound. This is derived from the rugged mountainous topography of the State. The state is largely agrarian, employing about 75% of the State working population. The State is one of the largest producers of rice, kolanut, palm oil and cocoa in the country. They also produce crops like cassava, yam, cocoyam, maize, cowpea, citrus, plantain and fruits like cashew, mango and orange. Tourism is another source of income for the state. Notable among its tourist attractions is the Ikogosi Warm and Cold Springs. The State is also the watershed and source of some prominent rivers such as Ero, Ose and Ogbese.

Erijiyan Ekiti: Erijiyan Ekiti is close to Ikogosi and Erio. The town is located within the Ekiti West Local Government Area. Other settlements in Erijiyan Ekiti Community include: Asa Oloro, Abuja Camp, Surulere, Oriokuta Camp, Kajola Camp, Ajebamidele, Araromi Oke, Aro, Surulere, Ajayi Oke, Ajayi Odo, Temidire Camp, Orisumibare Camp, Ajebamidele and Kosubu Town. The people of Erijiyan Ekiti, apart from farming, also engage in trading activities, selling farm products like yams, rice, vegetables like *tete, ila, amunututu, adodo, odu, sokoyoto, ebolo, ewuro* and tomatoes. They sell traditional cloths such as *aso ofi, agbada, gbariye, kembe, dandogo, fila gobi, abeti aja, kente*, dye cloths like *adire* of different shades and colours. The people also sell cash products like cocoa, coffee, rubber and palm oil. These commodities are sold in large quantities to the itinerant traders from Ado-Ekiti, Ilesa, Ibadan, and Lagos. Their trading activities take them beyond Erijiyan Ekiti frontiers especially on the town’s market days. The people of Erijiyan Ekiti are mostly Muslims and Christians while some are still Traditional Religionists.

Methodology

Participant-observation, intensive participation, personal interview, literature review and group discussion were used in gathering qualitative data in this research. The site visitations were carried out by these researchers and the 200 Level students of Geography in the College of Education, Lanlate, Oyo State, Nigeria, during the yearly field trips between 2010 and 2016. It was “fieldwork,” and a face-to-face interaction that accorded the researchers the

opportunity to solicit data from individual informants, and it was the eye-to-eye contact and dialogue” with particular insiders that allowed the fieldworkers to dig deeper into their insights individually. Using a purposive sampling technique, the researchers interviewed a total of thirty persons including the chief, women leader and chief priest of the community deities.



Finding of the Study

The Plate shows the “Odo-Erin” and the forest the abode of “Osa-Erin” the goddess in Erijiyan Ekiti. The fishes show up when biscuits or pieces of bread were thrown at them. Fishing and poaching of animals strictly prohibited. Cultivation and felling of trees not allowed. As such, the vegetation is in pristine form. This is a pure protection of a particular ecosystem or habitat (sacred stream).

**Plate 1. The stream and the adjoining forest; the temporary abode of “Osa-Erin”
The Stream**

In Erijiyan Ekiti, there is a particular stream named Odo-Erin. The stream takes its source from Oke-Aye, a settlement in the neighbourhood. This stream transverses through the entire ancient town. This stream provides the residents with the needed water for domestic purposes such as drinking, cooking, washing and cleaning. Apart from these domestic purposes, it serves an important role to the survival of plants and animals in this ecosystem. More importantly, the stream is seen as having magical powers of healing certain ailments like headache, pain and stomach upset. The stream is often conceived as capable of bringing earthly bliss and good fortune. The indigenes of Erijiyan Ekiti conceived this stream as the abode of a certain goddess named “Osa-Erin”. This goddess is seen as powerful and benevolent. According to oral traditions, this goddess had helped them win certain inter-tribal wars in the past centuries. This goddess is also regarded as capable of giving barren women children.

It is the belief of the indigenes and residents of Erijiyan that fishes and other aquatic animals in this stream are the children of this goddess. Killing these fishes is regarded as killing the offsprings of the goddess. Even to the people of Erijiyan Ekiti, fishing or harvesting of any aquatic animals in the stream is well prohibited. It has been established that no matter how long the fishes harvested from these streams are subjected to cooking they remain fresh. The

indigenes were made to believe this ancestress will punish any person who attempts to demystify these traditionally sanctioned mores or destroys this environment. In order not to be punished by this goddess, certain sacrifices must be made. The culprit will be made to pay certain fines (such as money, cock, goat or sheep) before the *yeye abore* (the traditional priestess) could appease the goddess. As such, resource exploitation through activities such as farming, hunting, and tree cutting are prohibited along the stream. Although “Odo-Erin” Stream is relatively small in terms of its depth and volume of water therein contained, it is of biological importance owing to its potential biodiversity conservation.

The Flora Communities

The forest adjoining (space around) Odo-Erin in Erijiyan Ekiti, Ekiti West Local Government Area typifies a pristine vegetation that has not been disturbed for several decades (see Plate 1). Several species of plants such as Palm trees (*Arecaceae spp*), Raffia palm, (*Raphia spp*), Elephant grass (*Pennisetum purpureum*) and Reeds (*Phragmite spp*) amongst others flourished in this forest. This is similar to the finding of Rim-Rukeh, Ierhiewwie and Agbozu (2013) found out that the location of the trees at Useifrun and Ujevwu communities respectively is regarded as a sacred place where trees and plants were allowed to grow undisturbed. Reptiles, birds and animals could have free living without fear of poaching or interference by man. This forest at Erijiyan Ekiti is also sacred and hence no axe may be laid to any tree, no branch broken, no firewood gathered, no grass burnt; and wild animals which have taken refuge there may not be molested. Residents were also prevented from constructing buildings and/or erecting physical structures within certain distance away from the stream.

Oral literature has it that harvesting or tapping of the palm tree and/or the raffia palms in the forest is strictly forbidden. If an attempt is made to tap the palm trees, the local belt (*Igba*) used will turn into a ‘snake’ and bite the person that makes such attempt. If the culprit survives the venom of ‘the snake’ *abore* (the priestess) is the only one who can effect rescue through sacrifices and rituals (*ebo ati etutu*). Cock, sheep, goat and other things may be offered as restitution for demystifying the goddess, while prayers will be offered for the well-being of the offender. These inadvertent principles of conserving and preserving the ecosystem were meant to preserve the watershed and the surrounding forest. Invariably, this stems the rate at which percolation and evapotranspiration occurred. This will also have a reductionist effect on the washing away of the fertile topsoil. The vegetation cover also keeps the stream water cool and fresh for drinking.

Other plants that thrive in this undisturbed vegetation include the Shea butter (old name: *Butyrospermum*, new name: *Vitellaria paradoxa*), Locust Beans (*Parkia biglobosa*), Araba (*Pihostigma reticulata*) and “Akintola taku” (*Chromolaena odoratum*). Although these plants are strictly protected in the community however, religious use of these plant resources is allowed. The use of barks, leaves, twigs and roots of these plants that are medicinal and efficacious in the treatment of both familiar and strange illnesses is also not prohibited.

The “Ejola”, the big snake (the Python)

The ancient legend in Erijiyan Ekiti community has it that a certain *Ejola*, a big snake or python usually come from somewhere at the commencement of the periodic festival of Oro-Ologun. The arrival of the *ejola* is marked with pomp and pageantry, in which every member of the community is allowed to take part in the splendour. This revelry usually includes feasting, drumming, singing and dancing. At Erijiyan Ekiti, the python symbolises earthly

bliss and benefaction. It is also an important ancestral adoration. However, nobody can see this python while coming or leaving the sacred forest located within certain distance away from the Odo-Erin. According to the “*Abore*”, the movement of the python is heralded by strange loud noise and sound. Even at the groove where the python temporarily resides while the sacrifice last, people are forbidden to look at it.

This is similar to what obtained at Useifrun and Ujevwu communities in Ughelli South and Udu Local Government Areas, respectively, where the python is also regarded as a totem. Ancient legend has it that during inter-tribal war; the python went after the people and erased their footprints so that enemies would not be able to identify the pathway of the people (Rim-Rukeh, Irehievwie and Agbozu, 2013). Also in West Bengal Kingdom the reptile was associated with success in war (Deb and Malhotra, 2001). In gratitude, none of the people of West Bengal heritage whose ancestors were thus saved, kills or eats the python to this day. The people of Useifurun and Ujevwu communities believe that the snake itself is not worshiped, but rather its indwelling spirit.

The point of departure from the experiences of Useifrun, Ujevwu communities and West Bengal Kingdom respectively is that in Erijiyan Ekiti, they are talking about a particular python that only pay them homage shortly before the festival proper in which sacrifices and rituals are made. The people are forbidden to look at the python. It is an abominable act to look at it. So this belief is held sacrosanct. The interesting thing according to the oral traditions is that one can only feel it, per adventure one stands on it. The moment one attempts to look at it, the python will turn into a big log. The visitation of the python signifies fortune and it is usually accompanied by a heavy rainfall, marking the onset of rain season in this community.

The Sacred Grove

The grove talks about the environmental concerns through rituals and disciplined observance of the mores and instructions of their ancestors while the practice of periodic festivals and rituals such as Oro-Ologun constantly reminds the citizens about their deity and her principles of protecting the ecosystem. Oro-Ologun festival usually takes place sometimes in June/July. Sacrifices are offered yearly or periodically and/or at the request of the worshippers from within and abroad. At the grove money, ‘ekuru’, ‘eko’, cock, sheep and goats are offered as rituals. “Akara kengbe” (Beans cakes) will be abundantly prepared. After the residents had eaten enough, the remaining “akara kengbe” will be thrown to the Odo-Erin. This will serve as special food for the aquatic and terrestrial animals living within and around the stream and the adjoining forest.

As part of the festival, the “*Abore*” will dance seven times round the particular spot where the Osa-Erin temporary resides while the festival lasts. Libations will be poured. Virgin girls will wear beads round their heads, necks, ankles and waists while dancing. Prayers will be said for rain or friendly weather or on behalf of sick children and adults. In addition, a number of the juju priests have their powers associated with this goddess spirit.

The implication of the IKS in conserving the Natural Resources in Erijiyan Ekiti

The ascription of supernatural and psychic powers to a portion of the environment and protecting the resources in such an environment through taboos, laws and totemic belief helped in conserving and protecting the environment and its resources in Erijiyan Ekiti community.

First, the delineation of parcel of land close to the stream as sacred and abode of the goddess encourages the conservation of forest resources. Secondly, the forbidding of fishing and collecting of any aquatic species from the stream also encourages the conservation and management of aquatic resources, most of which could have been endangered. Thirdly, the forbidding of the clearing, cultivation and construction of residential structures near the stream source is in modern terms known as watershed protection. Fourthly, restriction of human interaction with the vegetation of the area also encourages the maintenance of ecological balance of the area. Finally, citizens' participation was paramount as they were part and parcel of these resource management strategies in all the communities.

Recommendations

Government and other conservation agencies should encourage communities still having and practicing traditional system of resources management. This can be done through positive motivation and incentives. Corporate bodies, private individuals and non-governmental organisations should be involved in the sponsorship of traditional festivals that are associated with the conservation of the environment. This will create awareness on the need for the sustainable use of natural resources. In a nutshell, indigenous knowledge systems should help save the interests of the locals and ultimately, their land.

Conclusion

The indigenous people have their own taboos which work well for them and these taboos need to be promoted for the benefit of the present and future generations in preserving and conserving natural ecosystem. These working IKS could be transferred to other traditional settings in other geopolitical zones in Nigeria and in other countries.

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