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Full Length Research Paper

A study of the effect of traditional values and conservation of natural resources in Nigeria

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The role of traditional beliefs systems in the conservation of natural resources in some selected communities in Delta State, Nigeria, have been studied. Methodology of study involves the use of personal interview, literature review, group discussion, and site visitation carried out by the authors between April 2011 and March 2012. Findings show 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/pond); and protection of particular animals 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 are very useful tools in natural resource management. Using the classification of the International Union of Conservation of Nature (IUCN), **the plants and animals species in the study scared groves and forest can be described as an environment with widespread and abundant taxonomy and are not at risk or endangered.**

Key words: Forest, sacred groves, traditional beliefs, biodiversity conservation, natural resources management, totems.

INTRODUCTION

Conservation of natural resources is the wise use of the genetic, species, and ecosystem diversity in the natural earth's resources by humanity. It is the management of abundance in which they occur. Thomas (2003) sees valuable natural resources such as timber, fish, topsoil, conservation as the sacrifice of immediate rewards in pastureland, and minerals, forests, wildlife, parkland, return for delayed ones. Smith and Wishnie (2000) de-wilderness and watershed areas. There are several fined conservation as actions that prevent or mitigate definitions of the concept – conservation, some stressing biodiversity loss and are designed to do so. In time past, the structural roots of anthropologist interests, others local people have developed a variety of resource arguing from the point of view of economic reasons. management practices that continue to exist in tropical Usher (2000) defined conservation as the maintenance of Africa, Asia, South America and other parts of the world (Appiah-Opoku, 2007).

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One of such approach is the use of traditional methods that have helped them to regulate interactions with their natural environment. The role of traditional beliefs in the conservation of a large number of elements of local biodiversity, regardless of their use value, dates back to creation (Berkes et al., 2000; Turner et al., 2000; Shastri et al., 2002). Traditional conservation ethics are capable of protecting biodiversity species in particular and the environment in general as long as the local communities have a stake in it. In fact, Traditional Ecological Knowledge (TEK) systems are infused with practices and concepts, and modes of teaching and learning that can be related directly and indirectly to resource stewardship and conservation at various scales. However, despite considerable attention directed towards documentation of these systems and approaches to conservation, we still have a limited understanding about their development, evolution, and transmission over time and space.

Chacon (2012) and Krech (2005) have pointed out that the existence of traditional beliefs/taboos does not guarantee sustainable harvest of natural resources. Traditional African religion (ATR) and cultural practices as done in most part of African communities are environmentally friendly and sustainable, thus contributing so much to natural resources sustainability and conservation (International Institute for Environment and Development, 1992). In Africa and indeed Nigeria, the traditional belief system holds the ascription of supernatural powers to objects called gods and goddesses. The major tenet of African traditional religion and belief system lies in the belief that the abode of the gods and goddesses is located on rock, streams, pond, tress, land or anywhere they so desire to live within the community. The gods choose their followers through the rites of initiation with a core messenger who is the mouth piece of the gods living among human beings. The gods or goddess communicate its will to the people through the juju priest or chief priest. The belief system is that the gods protect the community members from harm, famine, bareness, impotence, drought, epidemics and war among others. The gods avenge their anger on whoever omits or commits any flaw for which their presence forbids; hence, the cultural system holds to a very high esteem all the precepts of the laws of the gods (Shastri et al., 2002). These beliefs and strategies are passed on to those who become initiated into adulthood in the community during the rites of initiation. Most often, it is the men that are always initiated into these community cults or sects which are often enshrined in religious or cultural beliefs and superstitions and enforced by taboos. The taboos and beliefs have legal backing in the rules and institutions of the communities which are strong enough to make people obey the religious and cultural regulations (Venkataraman, 2000; Cox, 2000). The role of traditional beliefs in the protection of natural resources is reflected in a variety of practices including sacred groves and sacred landscapes. For example, in India, particular patches of forests are designated as sacred groves under customary law and are protected from any product extraction by the community. Such forests are very rich in biological diversity and harbour many endangered plant species including rare herbs and medicinal plants. Tiwari et al. (1998) identified 79 sacred groves and their floristic survey revealed that these sacred groves are home to at least 514 species representing 340 genera and 131 families. About 1.3% of total sacred grove area was undisturbed, 42.1% had relatively dense forest, 26.3% had sparse canopy cover, and 30.3% had open forest. Notably, the species diversity indices were higher for the sacred grove than for the disturbed forest.

Study on two sacred groves, *Oorani* and *Olagapuram*, situated on the north-west of Pondicherry found a total of 169 angiosperms from both sites. The *Oorani* grove (3.2 ha) had 74 flowering plant species distributed in 71 genera and 41 families; 30 of them are woody species, 8 are lianas and 4 are parasites. The *Olagapuram* grove (2.8 ha) was more species-rich with 136 species in 121 genera of 58 families; woody species were fewer (21) while 9 lianas and 3 parasites occurred (Ramanujam and Kadamban, 2001). The traditional conservation of non human primates by Iban forest farmers in West Kalimantan, Indonesia, is an important part of their subsistence economy, and as such aided the promotion of certain aspects of the traditional Iban agroforestry system (Wadley et al., 1997; Wadley and Colfer, 2004). In a research on traditional and indigenous methods of conserving biodiversity, Ntiamoa-Baidu (1991) identified three indigenous methods for conserving biodiversity in Ghana and other West African sub region (Nigeria inclusive). The tribal communities of Urhobos in Delta Central – have a tradition of environmental conservation based on various religious beliefs. An essential feature of Urhobos in the conservation of natural resources is totemism (the belief in a supernatural connection between a group of people and a group of objects like certain animal species, sometimes plants, or more rarely other objects). Usually, it is a taboo to kill or eat an animal totem (Tonukari, 2007).

Social taboos exist in invariably all cultures throughout the world, and represent a class of informal institutions, where traditional, religiously governed norms or taboo system define the human behaviour. These taboos remain the prime factor guiding their conduct towards the exploitation of the natural resources. However, the singular role played by these informal systems of taboo in conservation of biodiversity has not been given its due importance. The present paper attempts to render forth the salient aspect of conservation borne out of the taboo system in practice surrounding the sacred natural sites, principally the sacred forests, in some communities of Delta State, Nigeria. The vital roles of beliefs, rituals and taboos in traditional natural resources management are emphasized.

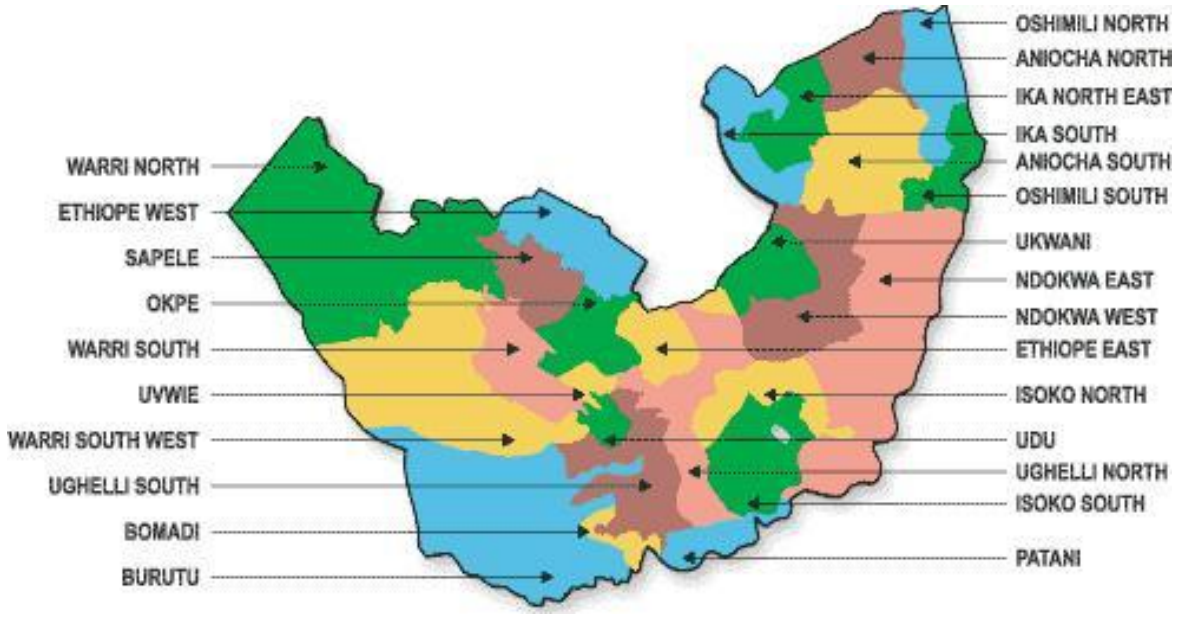

Figure 1. Map of Delta State showing the local government areas.

MATERIALS AND METHODS

Study area

Delta Sate is one of the 36 states of the Federal Republic of Nigeria comprising mainly Igbo, Urhobo, Isoko, Ijaw and Itsekiri ethnic nationalities. The whole ethnic-groups that comprise the Delta are administratively grouped into three senatorial districts namely Delta North, Delta South and Delta Central for administrative purposes. The State presently covers a landmass of about 18,050 km^2 of which more than 60% is land. The State lie approximately between longitude 5° 00 and 6°45' East and latitude 5° 00 and 6° 30' North. It is bounded in the North by Edo State, the East by Anambra State, South-East by Bayelsa State, and on the Southern flank is the Bight of Benin which covers about 160 km of the State's coastline. Delta State is generally low-lying without remarkable hills. The State has a wide coastal belt inter-lace with rivulets and streams, which form part of the Niger-Delta. The physiographic and ecological zones found in Delta State range from the relative high of the Asaba Plateau through the low wetlands and swamp forests that occupy almost the entire west and southwestern half of the state to the Atlantic coastline. While the high northeast is sparsely drained, the wetlands are crisscrossed by numerous perennial streams. This diversity in ecosystems requires careful management with policies that specifically address these systems. In addition, the entire state falls within the Niger Delta petroleum province. Petroleum exploration and production is gradually moving northwards from the south where the industry has been thriving for more than fifty years. Pipelines and flow stations abound.

In light of the foregoing, it has become necessary to undertake the production of guideline with the specific purpose of protecting Delta State ecological environment especially the marine ecosystems. Delta State is made up of twenty-five local government areas (Figure 1).

The method of data collection and fact used in this research is personal interview, literature review, group discussion, and site visitation carried out by the authors between April 2010 and March 2011. The method of study is consistent with that reported in literature (Chambers, 1983, 1994). A total of 9 communities were purposefully selected and visited for the study. The choice of the selected communities is based on the fact that these communities have established religious and cultural practices already as was revealed in the course of literature review. The communities are located within the following local government areas: Ukwani, Ethiope East, Ughelli South, Ndokwa East and Ughelli North (Figure 1). The communities studied were Umuaja, Orogun, Useifurun, Ode-Itsekiri, Okorobi, Ase, Ovu Inland, Orohoakpor and Ujevwu. Some traditional and cultural practices are similar, with the same name in some communities, so there was no need repeating the same story, so such traditions were recorded for only one community. The findings from the field were documented and their implication discussed with our interviewees in the various communities in Delta State.

FINDINGS

At Useifrun and Ujevwu communities in Ughelli South and Udu Local Government Areas, respectively, the python is regarded as a totem. Ancient legendry has it that during inter tribal wars; the python goes after the people and erases their footprint so that enemies would not identify the pathway of the people. This is similar to that reported in the worship of python in West Bengal kingdom where there was evidence that 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. In the studied communities, there is a dedicated temple where sacrifices are offered to the snake god. The python house can be described as a rectangular hut of clay painted with white colouring substances and covered by a thatched roof. The priesthood is hereditary, and the chief priest is

head of the system. There are snake wives; these are beautiful women that the snake consistently appears to physically and spiritually. On the day of initiation into the temple, the priest, dressed in a ceremonial robe, drinks from the bowl of the python, then hands over to the woman of concern to also drink from. The spirit of the python goes into the medium (the woman) who wriggles on the floor like a snake, uttering strange sounds and talking in a language which has to be interpreted to the worshipers, she is then admitted in the service of the snake god.

The snake is a symbol of their annual festival where every member of the community was allowed to take part in the revelry, which included dancing, feasting and singing. The python god is the god of wisdom, earthly bliss and benefaction. It is the principal object of ancestral adoration. In these communities, the killing of python is an abominable act, so they are held sacrosanct. Snakes are free to wander, but the priest may retrieve them. A native who meets a python says, "You are my father and my mother." The native then cries to the god, "My head belongs to you, be propitious to me." Very seldom is a human being attacked by a python, but, if such an event happens, the priest is the only one who may effect a rescue. No one dared harm the reptile; on the contrary, it must be guarded and fed. The population of the reptile in the communities is high and is fast becoming a source of concern. The findings of the study are consistent with that reported in West Bengal and Ashati (Deb and Malhotra, 2001; Eneji et al., 2009; International Institute for Environment and Development, 1992).

At Orhoakpor in Ethiope – East Local Government Area, the mighty *Okpagha* tree is highly revered. The *Okpagha* and *Ogriki* trees have had a conspicuous position in the cultural landscape of the people. The *Okpagha* tree is said to belong to *Aziza* spirit. It is believed that the *Aziza* spirit himself found enlightenment under *Okpagha* tree. *Aziza* is essentially considered by the people as a deity of the woods, whose province is to guard the fields, crops and herds of the peasantry and to drive away their enemies. The location of the tree is regarded as a sacred place where trees and plants were allowed to grow undisturbed and where reptiles, birds and animals could have free living without fear of poaching or interference by man. Groves of this tree are 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. At the bottom part of the tree, cocks, sheep and goats are sacrificed and prayers are offered for rain or fine weather or on behalf of sick children. In addition, a number of the juju priests have their powers associated with the *Aziza* spirit. At the time of the study, the location of *Okpagha* tree provided excellent sites for examining the vegetation that had existed a century earlier, as several species of plants and birds that are rare were sighted. Although, the plant is strictly protected in the community; however, religious use of this resource is allowed. Wood from the sacred tree is believed to keep its magical powers when fashioned into other objects and was used for making a variety of objects like statues of gods, staffs, sceptres, etc. The bark of the plant is reported to be very medicinal and is efficacy is in the treatment of strange illness.

At Ovu Inland in Ethiope – East Local Government Area is the *Ovughere* (village deity) that is highly regarded as the god of war. The chief priest of the village diety is the *Osedjo* whose office is hereditary. The abode of the *Ovughere* is located within a very thick forest with presence of trees such as Iroko tree, Mahogany trees, *Ogriki* etc. According to oral literature, these trees are well over seventy years. The forest is the property of the god of the village in which they are situated, and the trees ought not to be cut. Location of residential settlements close to the shrine is not permitted thus checking defo-restation and farming and thereby protecting the surroun-ding vegetation. This factor promotes the conservation of biodiversity in sacred grove through selective limits or prohibitions on the use of biotic species. Secondly, infor-mation such as about species of ritual, medicinal or commercial value are kept secret from outsiders. This finding is consistent with that reported in traditional Afri-can societies where many people believed that trees and forests were the manifestation of the power of the Supreme Being (Eneji et al., 2009). While the area occu-pied by the forest may be a relatively small, the level of biodiversity is high and thus is of some environmental significance to the community people.

At Okorobi village in Ethiope East Local Government Area, is the "*Obi"* pond popularly called *Obi* Lake. It is the main source of water for drinking and domestic purposes in the community. It is believed that the Obi spirit inhabits the water body. Harvesting of fish here is strictly prohibited, but when fish leaves this lake to the surrounding environment, harvesting can be done there. There is also the traditional Obi cult in the community with a juju priest in charge of offering sacrifices to the Obi god. Usually, membership into this group is on strict qualification with terms and condition of membership strictly spelt out and passed down to community members for onward transmission to their children while growing up. Most often, the process of initiation is a transitive one, from adolescent to adulthood and done in the night deep inside the shire. Felling of trees or fuel wood collection within 30 m radius from the pond is strictly prohibited. These principles though unknown was meant to preserve the watershed and the surrounding vegetation, this consequently checks the amount of evapotranspiration and allows some amount of tolerable water temperature for both micro and aquatic organisms to continue their ecosystem services for the enrichment of the soil, continuous supply of water and the healthy growth of the forest. The vegetation cover also helped to keep the water cool and fresh for drinking. Bathing and washing of clothes around, near or inside the pond where drinking water is fetched is not

allowed; also fishing or harvesting any aquatic animals within the pond is as well prohibited. Reasons abound for this law, spanning from the respect for the *Obi* god who protect the pond and the organisms helping to purifying the pond and keeping the pond alive and also control the spread of diseases. Silence is observed while fetching water from the pond because it is believed that while speaking, an infected person may spill or splash saliva. For instance, an infected person with tuberculosis or whooping cough spill infected saliva containing bacteria in the water.

In addition, this rule ensured the gods were not provoked to anger. Their anger could result to streams or rivers drying up. Other taboos, such as the disallowing of menstruating women to collect water from the pond, prevent the defilement of pond deity and god and the issue of menstrual blood in traditional beliefs has been treated extensively in anthropology as a source of potent force (McLeod, 1981).

In Ase village in Ndokwa East Local Government Area, the "*Usede"* pond is a mysterious pond harvested for fish species by the entire Ase kingdom once in ten years. The only species of fish harvested, brought together and shared together by everybody present is the mudfish; any other species of fish caught during this day is owned by whoever catches it during the harvesting period. The *Usede* pond is such that nobody goes there to fish alone within this period of ten years, if violated the punishment begins by having a bloated stomach and later death no matter the sacrifice made. However, entrant into the pond alone is frightening. Community harvesting of the pond is usually carried out in the dry season and two peculiar events happens in the course of the harvesting. First, is the heavy rainfall that precedes harvesting of fish from the *Usede* pond showing that the spirit of the gods and the living are in tandem. Secondly, is the appearance of a big fish with a string of cowry that signifies the end of the fishing festival, the big fish with a string of cowry will come through where the people are harvesting the fish, once the mother fish with the cowries is sighted by anybody, the harvesting must stop and everybody inside the pond must be called out of the pond. Although, species diversity in the water body have not been documented; it is believed that the pond is rich with different species of fish.

In Ode Itsekiri in Warri – South Local Government Area, there is an evil forest within the mangrove swamp forest where "dead bad people" are thrown into. The dead bad people may include those that have confessed to the act of witchcraft (male and female inclusive), dead by suicide, dead by cancerous wound, dead resulting from falling from a tree or palm tree, and a pregnant dead woman. In addition, when a person dies as a result of mysterious sickness and did not confess to any act of evil doing, the oracles are consulted to inquire into the cause of this death. If the deceased was not a "good citizen" often the corpse is thrown into this forest. This is done to prevent the reincarnation of such spirit. While this is so, the number of wild beast that lives within this area is awesome. No human activity of any kind is carried out in the evil forest as it is belief that the spirit will not take it kindly with anybody disturbing the peace of the dead or the spirits themselves. So, the area remains a very thick forest habiting a number of species of different organisms. This observation is consistent with that reported in the Eastern part of Nigeria (Ogbuagu, 2011). For the Urhobos, death can happen because of old age, witchcraft, accident or illness and abomination. But, generally speaking, the Urhobos think that there are only two kind of deaths – good death and bad death. Good death is associated with people who are of age 70 or more, who had a moral life and are not members of some secret cult. The Urhobo people believe that burial rites and ceremonies are needed because without them the spirit of the deceased will not be able to join the ancestral spirit. Good people are buried in a traditional ritual to the ancestors and gods of the land. There are prayers for the dead to protect and bless the living. A young person who died prematurely, but lived a morally right life is buried, but without passing on festivities and rituals. In the coffin of the deceased people, some "weapons" such as cutlass, knife, broken bottle etc are placed inside. It is believed that these objects should help him/her to fight and avenge his/her death. The Urhobos believe that young people cannot die. For them these deaths are caused by someone who killed them. People who died without children are buried, but with no festivities and other rituals. The reason for this is that they do not have children, who will continue to have their name and perform the ancestral worship (Onigun, 1998).

In Orogun kingdom in Ughelli – North Local Govern-ment Area, the reptile *iguana* are found in large popula-tion and revered. The Iguana is sacred animal to the Orogun people who may not kill or eat it. The myth has it that Orogun people were initially settled around the Aboh area where they had problems with Benin traders which resulted in the killing of the Benin traders, fear of possible reprisal from the great ancient Benin kingdom made them to move to their present location. In the course of such movement, on getting to riverside while escaping, they could not find their boats, but instead they saw what appeared as logs across the river, on which they crossed the river. Upon successfully crossing the river, they discovered that it was *Iguanas* that formed a chain across the river for them to get to safety. That was how the Iguana became a god and saviour for the Orogun people. Eating Iguana by indigenes brings rashes to their body and the only cure to it is to go to *Erose* shrine where you will be giving native chalk and sand from the shrine. The affected person will now use the sand and native chalk to robe his body for seven different Orogun market days before the rashes can be cured. Today, the population of Iguanas is very high as the animal is allowed into homes where they are well fed. At the death of an Iguana, an

Orogun indigene gives it a befitting burial.

At Umuaja, in Ukwani Local Government Area, is the origin of River Ethiope where water is seen to come out from underground through roots of a very big tree. The tree is regarded as sacred grove and an abode of gods. Spiritual activities at the sacred grove are controlled by chief priest who is in charge of the abode of such god and who also is the messenger of the god in human form. The source of the river, is also revered and protected because it is regarded as the source of life and fertility; barren women go to bathe in these waters in the hope of being fertile. The river and their immediate surroundings, especially forest are protected on the basis that the spirit of the river resided in the area. The responsibility for protecting the grove is vested in the entire community, but a selected group of people or family normally takes the duty to enforce the rules. The conservation strategy, which is one of preservation, is enshrined in taboos, totems and sacrileges and other numerous cultural and religious rites and is maintained through reverence for the gods and ancestral spirits. These traditional guards regularly patrol the periphery of the grove and arrest intruders, who are reported to the chief priest for the necessary customary sanctions. The sanctions, which are done for the purpose of pacifying and purifying the gods and spirits, vary depending on the gravity of the offense. However, they usually consist of a cash fine, bottles of hot drinks, goats, sheep, chicken, kola nuts and alligator pepper as sacrifice to the gods.

Action that attracts the wraths of the god includes: i) felling of trees or fuel wood collection within 20 m radius from the area is strictly prohibited. This principles though unknown was meant to preserve the watershed and the surrounding vegetation, this consequently checks the amount of evapotranspiration and allows some amount of tolerable water temperature for both micro and aquatic organisms to continue their ecosystem services for the enrichment of the soil, continuous supply of water and the healthy growth of the forest. The vegetation cover also helped to keep the water cool and fresh for drinking. This system protects the watershed from destruction; ii) Bathing and washing of clothes around, near or inside the source of the river where drinking water is fetched was not allowed; iii) fishing or harvesting any aquatic animals within the source of the river is not allowed.

This sacred grove survived all these while purely because of the strong religious / cultural beliefs held by the local people and the spiritual, religious and cultural attachments to the grove. The major virtue of this strong culture-based practice is that it encourages community participation in natural resource conservation and sustains positive awareness of nature and the linkages between man and nature (Tunon and Bruhn, 1994; Tupper, 2002). This tradition has been used to protect the headwaters of several river bodies, especially those that served as potable water sources for a community or group of communities (Falconer, 1992).

The River Ethiope watershed may be small in size but it is of biological significance, and a potential for biodiversity conservation.

Conservation status of plants and animals species

As noted previously, traditional natural resources management is shaped around local rules and regulations. These rules and regulations are most often enshrined in religious or cultural beliefs and superstitions and enforced by prohibitions. These have no legal backing, but the beliefs have been strong enough in the past to make people obey the regulations. In the context of natural resources management, they enhance biodiversity con-servation and minimize the continuous use of natural resources. The conservation status of most of the species of plants and animals found in the studied areas was assessed using the International Union of Conserva-tion of Nature (IUCN) red list of threatened species (also known as the IUCN red list or red data list). The IUCN is the world's main authority on the conservation status of global conservation status of biological species. The IUCN red list is set upon precise criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. The aim is to convey the urgency of con-servation issues to the public and policy makers, as well as help the international community to try to reduce species extinction. According to IUCN (1996), the for-mally stated goals of the red list are: 1) to provide scientifically based information on the status of species and subspecies at a global level, 2) to draw attention to the magnitude and importance of threatened biodiversity, 3) to influence national and international policy and decision-making, and 4) to provide information to guide actions to conserve biological diversity.

Species are classified by the IUCN red list into nine groups, set through criteria such as rate of decline, population size, area of geographic distribution, and degree of population and distribution fragmentation.

i) Extinct (EX) – No known individuals remaining.

ii) Extinct in the wild (EW) – Known only to survive in captivity, or as a naturalized population outside its historic range.

iii) Critically endangered (CR) – Extremely high risk of extinction in the wild.

iv) Endangered (EN) – High risk of extinction in the wild.

v) Vulnerable (VU) – High risk of endangerment in the wild.

vi) Near threatened (NT) – Likely to become endangered in the near future.

vii) Least concern (LC) – Lowest risk; does not qualify for a more at risk category. Widespread and abundant taxa are included in this category.

viii) Data deficient (DD) – Not enough data to make an

assessment of its risk of extinction.

ix) Not evaluated (NE) – Has not yet been evaluated against the criteria.

Using the classification of the International Union of Conservation of Nature (IUCN) red list of threatened species (also known as the IUCN red list or red data list), the plants and animals species in the study scared groves can be described as an environment with wide-spread and abundant taxonomy. Plants and animals species are at a very low risk as a result of culture and traditional beliefs systems. Plants and animals species are not endangered.

Conclusion

From the very on-set, the paper aims at looking at the roles African traditional religion and socio-cultural practices can play in the management of natural resources. Findings indicate that traditional religion and cultural practices have contributed in the conservation of resources through the ascription of psychic powers to object, rock, stream/pond, tree, forest land etc; these ascriptions of the supreme powers and the belief and respect for the gods of the land holds the string to reverence and respect for these objects. This belief in the existence of a supreme being responsible for the protection of the communities has also enabled the traditional African communities to voluntarily take management of natural resources very seriously. The traditional beliefs and taboos helped in enforcing rules and regulations for environmental preservation because people refrained from using resources carelessly, especially as it is related to sacred places. In particular, the important role of these practices in the conservation of biodiversity through sacred groves has been highlighted. However, an assessment that would provide valuable insights into the changing values of local people in relation to the protection of forests and other natural resources is highly recommended.

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