

THE ROLE OF TRADITIONAL RELIGION AND SOCIO-CULTURAL PRACTICES IN THE NATURAL RESOURCES CONSERVATION AND MANAGEMENT OF THE LUNGUDA LAND, ADAMAWA/GOMBE STATE NIGERIA

By

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Abstract

This paper examines the role of religious beliefs and socio-cultural practices of the Lunguda people in the conservation and management of the natural resources in their environment. Facts findings were made through the process of personal interviews with elders and elites of the community, group discussions with colleagues, visits to some socio-cultural and religious places, discussions with traditional priests and women in thirty (30) villages of the communities living in Adamawa and Gombe States. Secondary data was collected from the literature and history of the people. Findings revealed that the Lunguda socio-cultural and religious practices have played a very important role in the conservation and management of the Environmental Resources in the area before the arrival of the Christian and Islamic religions and the Modern Science and Technology education. It was discovered that on arrival, the religions and modern education succeeded in outright destruction of the earlier system of resources conservation and management. Through the alien's moral and technological education, the cultural practices that sustained the environmental resources were eroded or precluded. The resultant effect is the wanton destruction and unsustainable resource utilization. Most parts of the resource base have been destroyed and numerous resources past to oblivion. The socio- cultural and religious practices that thitherto conserved and maintained the environmental resources years immemorial need to be revisited and combined with modern methods and be fully backed up with law enforcement in order to salvage the resource base. Deliberate attempts must be taken to sustain the environmental resources base. It was revealed that, the Lunguda people have worked credibly hard and admirably excellent in the sustainability of their environment through their religious beliefs and cultural practices.

Keywords: *Religious beliefs, socio-cultural practices, conservation and management, environmental resources.*

Introduction

An environment can be defined as the sum total of all the external conditions and influences that affect the life and development of an organism. It is the space within which man performs his daily activities to improve his living standard. The physical environment is made up of tangible structures such as vegetation, soil, water, land, rocks interacting with each other and the animal kingdom. It is the environment that suffers extensive spoilage and effects through human exploitation. It carries the natural resources which easily demonstrate man's interference with nature and exhibit man's abuse on it.

Resource conservation and management is "a process of decision making, where by resources are allocated over time and space according to needs and aspirations and desires of man within the frame work of his technological inventiveness, his political and social institution, and his legal and administrative arrangements," O' Riodans (1971). Thus, it involves control of the quantity, quality, availability and entire directions of resources developments, which are achieved through designed strategies that can promote exploitation, enhance and restore resources. According to Peter (1995), the ultimate goal of resource management is to change human values and behaviors reflect across the entire social spectrum, from that of wanton exploitation of nature and ecological apathy, to a new spirit and habits, morals, ethos, principles, customs mores, and life styles that will appreciate the beauty of nature, protect and manage it for sustainable development that will benefit the present and future generations.

The interaction between man and his environment awakens geographers to focus and emphasize a new branch of psychology called environmental psychology which is the field of psychology that focuses on the study of environmental behavior interactions. As conceptualized by Gifford, (2007). These are the conceptions and the ideas on mental images that people generate regarding their environment. Shastre et'al (2002) postulated that positive relationship exists between spirituality, human well-being and environment and that the ethics often help them regulate interactions with their natural environment.

Human activities have exposed many parts of the natural resource base to considerable risks. Introduction of modern science and technology has helped in understanding and harnessing the world's resources. This has enabled man to reach critical thresholds detrimental to future generations. Conservation which is the positive embracing, preservation, maintenance, sustainability, restoration and enhancement of natural environment as opined by Olawepo (2002) becomes eminent, and mastering of the complex process contained in the environment in order to abate chronic damage of the system.

The Lunguda people were conscious of the need for conservation. They consciously or unconsciously linked the resource base to the supreme God and his numerous divinities (smaller gods) who are invisible intermediaries between God and his people, with natural environment. It is believed that these gods dwell in the environment and abode in the structures therein. An abode of a god is deemed sacred. Anything sacred is highly feared, respected and a restraint. All restraining ordered from it is strictly adhered to. The Lunguda man has cultured himself in this manner and was able to pass these norms from generation to generation. This has gone a long way in the management and careful or rational use of the resources around him.

While modern religions and western education saw all resources everywhere is worth exploiting by all means, the traditionalists see some and not exploitable no matter its worth. The ability to understand and harness natural resources by all means and at all cost has exposed the natural base to wanton destruction. The inability of the traditionalists to fail or climb gigantic tree trunks, and to destroyed life with modern fire arms and chemicals is an ability to preserve nature. So, at one time, disability is ability and ability is becoming inability. While modern elites see the

Lunguda norms that governed the environment as barbaric and heathen, it plays a vital role in the management and conservation of natural resources.

The Location and Extend of Lunguda Land

The Lunguda land is found in Adamawa and Gombe states of Nigeria. The Lunguda people mainly occupy the Guyuk Local Government Area of Adamawa State. Others are found in Shelleng and Lamurde Local Government Areas of Adamawa State. About a quarter of the Lunguda population occupy the southern part of Balanga Local Government of Gombe State.

The study area lies within Longitudes 11°.50' and 12°.00' East and Latitudes 9°.51' and 10°.00' North. The area experiences dry sub humid tropical continental climate with an average rainfall of about 900mm and 1100mm with mean monthly temperature above 33.3° in April and 26.9° in January. According to Areola (1982) and Ray (1999), the soils are generally vertisols of Lithomorphic origin strongly richer in weatherable minerals and have Sorptive clay minerals. Numerous fast flowing streams originate from the Lunguda plateau at the western ranges into River Gongola in the east and River Benue in the south. About 98% of the people are farmers and main crops cultivated are cotton, guinea corn, soya beans, cowpea, okro, rice, sweat potatoes and calabashes. They also practice poultry, piggery, cattle rearing and hunting. The area is rich with Limestone and Gypsum, (Mirchaulum, 1994).

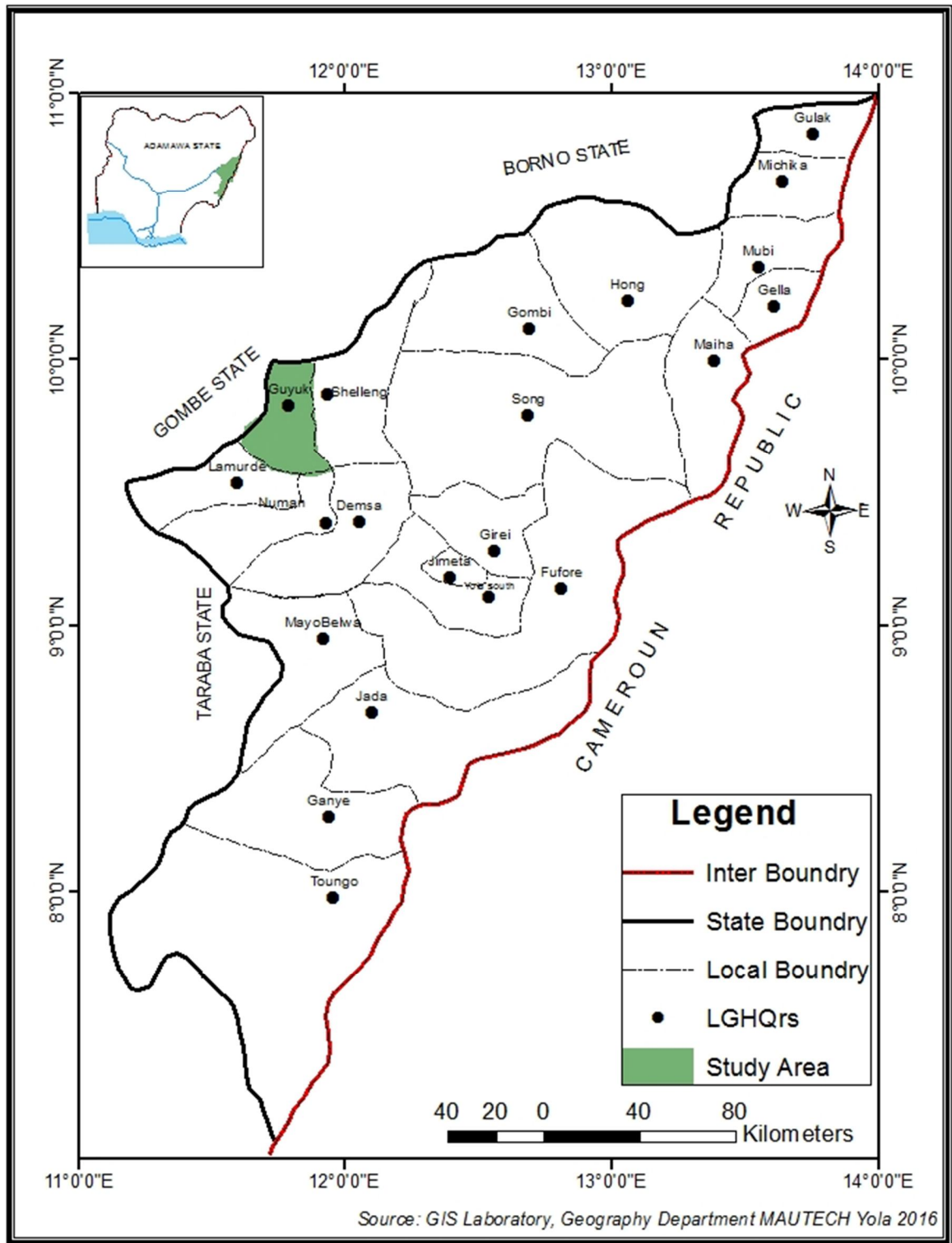


Figure 1: Adamawa State Showing Guyuk L G A

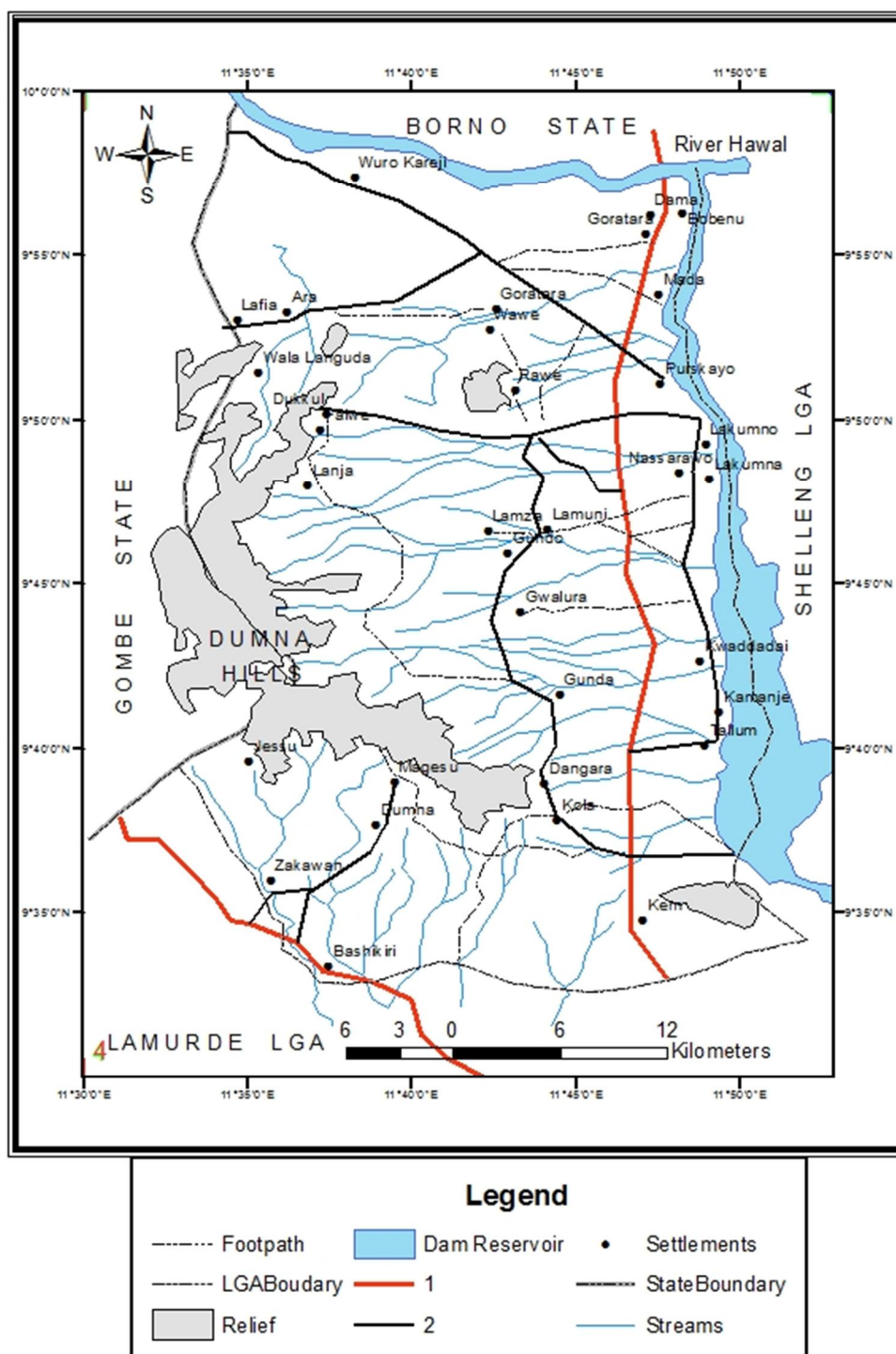


Figure 2: Map of Guyuk L G A

Methodology

In the study, two major sources of data were exploited, namely the primary data and secondary data sources. The primary sources of data are the questionnaire, interview and observation. The open-ended questionnaire is the major source of the primary information generated. The open-ended questionnaires were administered to mainly the clergymen and elites of the selected communities. A total of 30 village communities purposefully selected and visited for interviews, personal observations and administration of the questionnaire. Three village communities were selected from each of the ten districts in Adamawa and Gombe States. It was employed to obtain data relating to Resources utilization in the study area, rules guiding the use of natural resources, and the extent to which the culture of the Lunguda influenced the behavior of the people towards environmental stewardship.

Interviews were conducted in order to obtain information that strengthened and complement the data from questionnaire and observation sources. The interview was a Key Information Interview (KII) for a few selected community leaders, heads of clans, priests, and community based associations and institutions. The observations were to enriched and confirm data collected through questionnaires and interviews. This is in order to generate complementary information as the data generated could be said to be first hand and essentially qualitative. The secondary sources of data include textbooks and related materials such as journals and monographs.

The Divine Command on the Natural Resources Conservation and Management

The alien Christian religion, in her inspired word of God, as contained in the Holy Book, the Bible, gave its readers the story of God's creation of the earth and what is contained in it. It goes ahead to explain on how God commanded the creatures in it not to be stagnant but to multiply. He gave man authority over all the fauna and the flora on the earth. He also commanded man to be fruitful and increase in number and subdue it. Genesis 1:22-30, Psalm 8:6-8. Ordinarily, that means that, natural resources could be exploited without restraint. The natural resources are here considered inexhaustible. Though some of these resources have the capacity to regenerate, some cannot. Even those that have capacity for self regeneration, the process is rather slow and complicated. Some natural resources when over subdued, the stock will fall rapidly thus meeting the increasing number of the population as commanded in Genesis 1:28. Therefore, the pressure that arise when basic human needs are not met and when man endeavor to satisfy by any available means can destroy the resource base on which he depends for sustenance. This is already posing serious challenges for environmental management. God has commanded that both the user and the used should be judiciously and prudently used to meet the growing of both. Man as a rational being has to device a means to curb it from reaching critical thresholds that will have counter effect on them all (Resources and Man). That is to subdue both fauna and flora in the vineyard with prudence and not impunity. Sustainability is here emphasized in the divine command. So as societies vary in cultural practices, the methodology and cultural practices of subduing the creation. Though some practices appear to be more superior, they all geared toward one goal –sustainability of the resource and the resource base.

Social, Religious and Cultural Practices that Enhance Natural Resource Conservation and Management in the Lunguda Land

Lunguda people who call themselves Nunguraba meaning descendents of their patriarch whose name was Nungur are found in Guyuk Local Government Area of Adamawa State and Balanga Local Government Area of Gombe State. They practiced a Religion inseparable with their culture. Their way of life and religion are interwoven and are practiced simultaneously. Their

cultural orientation and acceleration is embodied with the customs and beliefs, norms, arts, ways of life and social organization, music, literature, attitudes which control and guide their everyday life. These practices are reflected in a variety of practices regarding their natural environment from where they earn living. It means the Lunguda cultural and religious practices encompass holistically his life and attitudes towards everything.

To the Lunguda man, apart from the belief of the existence of the supreme God, Tambarade, who is invisible almighty, the creator and the sustainer of the universe, and to whom all souls will return and be awarded accordingly, there exist other smaller gods (divinities) who intercede between man and the supreme God through priests.

To the Lunguda man, the existence of God, Yambode is not only manifesting in his creation, but that his messengers (smaller gods) abode the creation. These gods are believed to abode in the environmental structures such as mountains, trees, water bodies and rocks. Because of these beliefs, the environmental structures in which these gods are believed to abode are highly protected and greatly revered. The gods communicate the will of God through the priests who are intermediaries between the gods and the people. When a god is believed to abode in a place or objects, shrines or cairns or idols, are constructed and set in as symbols of the gods presence just as Aaron did to the Israelites on foot of Mount Sinai. Altars were built before them where the priests make proclamations and offered sacrifices. The priests restrain people from performing any act in these areas that will offend the gods. The protection and the restraining of allegation of those structures or areas do literally encourage the natural Resources, Conservation and Management.

Some Lunguda Beliefs Systems that Protect the Natural Resources

The Lunguda beliefs and taboos have helped in enforcing rules and regulations for environmental preservation because people restrained from using resources carelessly especially as it is related to sacred places. Some objects are being restrained from use, revered or hold as sacred places because of their role in existence. The Bonhoyaba clan for example, does not kill snakes of any type nor do they eat its flesh, because to the clan, a snake is a friendly reptile, so killing it is an abomination and eating its flesh will cause very serious eye disease that may lead to total blindness. So in the past, snakes were found roaming in the houses and environments where the clan dwells without disturbance.

The Bonsabba or Bakimbaraba clan does not kill crocodiles because to the clan, it is the crocodile that saved them, carrying their patriarchs and matriarchs across a big river (Jordan) when they were scattered from the tower of Babel and were crossing the Big River that separates the Middle East from Africa into Ethiopia.

The Bongwabliba clan also revered all classes of monkeys because they belief that monkeys and apes are human beings that escaped from the finishing touches of human formation (creation story) and that they lack some basic human gifts that to them shouldn't make them quite different from man. In fact, at the death of a member of this clan, during the burial, monkeys often appear in colony to witness the burial of a member. Also, when a member of a clan is provoked, the monkeys often descend in large number and destroy the farm crops of the person that provoked their clan member. Therefore, monkeys, gorillas, apes and chimpanzees are protected from being killed by members of this clan. It is an abomination to even inform a non-member that there is one in this or that tree or cave, talk less of killing it or eating its flesh. It is a very strong taboo to do so.

Bonshuryebe or Bonzanyiba do not eat or kill birds because there was a year of famine that birds have to fly long distances and across nations and seas to supply them with grains from foreign lands which kept them survived the period of famine. So, killing them especially quill birds, ravens, doves, egrets, bats, vultures and herons is a very serious abomination, defaulters suffer calamities of

peeling of the body skin. When the elders or priests of the clans are provoked, they open up a whole from which quill birds will fly out in swamps and destroy farm produce when about to mature for harvest. Bonshumye or Bansumbe clan, this clan protect and preserve all varieties of locusts or grasshoppers. They neither eat nor kill them. They claim that, when they were crossing the Sahara Desert from Sudan to Chad Basin, it was the locusts that saved their lives in the wilderness before they settled to farm around the Chad Basin. When provoked, the priest will open the shrine and locusts will come out in millions and destroy all food crops and any green leave, and can even enter granaries or stores and destroy stored food, products like the case of Na-Allah, the story teller.

Bonjumbe clan, they protect and preserve bigger animals like elephants, buffalos, reindeer, horses, donkeys and zebras. These are the roles played by paternal clans in natural resources conservation and management in the Lunguda cultures. This is only in the area of wild life. The Lunguda people have two strong clans. Apart from the paternal, there is also the maternal clan. They all contribute immensely to the environmental resources conservation and management.

The Sakasanwa maternal clan has Ants as its symbol of identification. This clan has the belief that there was a famine on the land for years. All warehouses were exhausted of grains-foods. When the gods decided to answer the rain priests (rain-makers), rains were released from heaven and there was enough rain for planting to take place. Unfortunately, there were no grains to plant on the farms. A man was walking around making invocations on where to obtain seeds for planting/sowing on his farm, coincidentally, he saw ants evacuating guinea corn grains from their holes and drying them on the land surface. He gave thanks to the gods for answering his prayers through the ants. He gathered the seeds and even dug the holes and obtained more of the corns. He was equally careful not to harm any. It was from him that the rest of the people got seeds to sow and keep life going. This man and his descendents passed the story from one generation to another. Members of the clan still revered ant colonies and do not kill them at all. The clan is seriously provoked when they see people use chemicals to destroy ants in their farms.

Varieties of beliefs and cultural practices protect the environmental resources from wanton destruction. In the Lunguda land, there are some resource areas that are sacred. These are no go areas by resource exploiters. There are laws restraining people from utilizing the resource in that sacred area. Noise making is prohibited in some sacred areas while in others; women are restrained from going or entering it. In some areas too, hunting is not allowed. The belief is that anything in those areas belong to the gods, therefore only animals at the buffer zones are hunted. Any that escaped into the sacred forest is not followed or pursued. It has reached its safe havens. There are some trees that are believed to harbor spirits. Such trees like the gigantic baobab trees, tamarind trees, trees with aerial and buttress roots are always regarded as abode of evil spirits and so they are always avoided by women that cut fire wood. Tress that stands besides large water bodies are believed to harbor spirits that sustain the water in the place; they too are avoided from being cut. All forests on grave yards are also restrained from been used as fire wood and the land around is also not cultivated.

Witchcraft and Human Resource Conservation and Management

Witchcraft, which is the use of magic powers especially evil ones, is a common belief in most African societies. Witches are believed to witch-hunt human spirits at witch hours. That is, people possessing these magic powers go about at late hours in the nights seeking for human spirits to harm or destroy. This indirectly affects the people, which sometimes lead to deaths. Among the Lunguda people, this belief is real. The art of witchcraft among the Lunguda people is broadly classified into two: there are those who are believed to invisibly feed on the intestines of infants and toads. This class use lights that resemble electric lights at night in performing their nefarious

activities. These lights are sometimes seen flying from one object to another along streams or swamps. This type of witchcraft is believed to be hereditary and is mostly passed from mothers to their children. The other type is entirely invisible, more powerful and dangerous. Membership is by initiations, deliberately or coincidentally.

Witchcraft among the Lungudas is not used randomly on people. Every witch or group of witches can exert their witchcraft on only members of their close relations. The witches can use their powers to protect the members of their immediate families from being harnessed by other witches. Witches in families act as shepherds to their family members. They can protect them from outside predators and present a member of the family as a prey to the association which he (the witch) belongs to when his turn is due. Any member that presents a prey outside his relation, the association rejects it. In a situation where a witch cannot present a member from his folks, he is forced to present himself to be killed instead. In their organization, a member can offer an individual of almost equal personalities offered to him by his colleagues. This act of not trespassing in to other family members protects the members from being prey to other witches. Only the shepherd of a folk can have access to harness the human resource therein. That means, there is no random predation on every prey in the aquarium (their invisible environment).

The Lunguda traditional belief on witch craft therefore had its role that it plays in the conservation and management of human resource.

Some Seasonal Activities and Resource Conservation

The seasonality of some cultural practice such as fishing, hunting, fire wood cutting and gathering, lumbering, bush burning, thatch cutting are some of the strategies latently devised to allow natural resources such as fauna and flora to regenerate in period of restriction. In some fishing pounds and lakes, fishing activities is allowed after two to three years. Constant annual or biannual fish harvest is restrained. The belief is that, the gods deliver children and that they should be given enough time to nurse and wean their children before being disturbed with the fishing activities. If the tradition is not followed, then the gods of the pounds and the lakes would be annoyed and the fishing activity will record a very poor harvest. Sometimes the gods will be annoyed that calamity will fall on the community. Sometimes in the cause of fishing, people may be drowned in the water. Coincidentally, the period of restraining allowed fish to multiply and grow very large to be caught during the period of fishing. All these are practical support of natural resource conservation and management in the Lunguda traditional practices.

The grass (thatch) harvested for mat makings and roofing also has specific seasons of harvest. Usually the harvest is in the months of November to January when the grasses are believed to be matured for the purposes of which they are harvested for. Latently, this coincides with the period when the seeds are matured and are dispersed by the north-east trade winds that blow over the land area for further regeneration of the species in the next wet season.

The Lunguda man is very much aware of what is called green manure. If he wants to open up a new farm, having cleared the trees and shrubs, he will pull out the grasses in the months of September and October. The pulled grasses will be left to decompose on the farm plot. This may be done for a year or two, safe guarding it from bush fires. After the period of pulling, then comes the time or year of tilling. This time he may burn the notorious thorns or shrubs that could not decompose. All these activities are done in specific periods in the year guided by the priests. For example, you cannot pull grasses (Doba) before September and after October. Defaulters are prosecuted and tried by the law enforcement agents of the land known as Kwandiri. However, when a farm is diminishing in production, it is left to fallow for a period of three to five years depending

on the land availability. This allows the land to regenerate its vegetative growth which in turn nourishes the soil with fertility.

As peasant farmers, the Lunguda people who are mountain dwellers have developed their means of conservation and managing soil on the slopes of the hills for their agriculture. Because of the uncommonness of soil surfaces on the slopes of the mountains, they pile up stones horizontally approximately one meter apart to reduce rain water from washing away soil and fertility down slopes and aid water infiltration into the soil. This is called terracing in agriculture. It is an old system of mountain dwellers technology of harnessing soil resources.

Trees in the Lunguda community, all edible trees such as fig trees, tamarind, baobab tree, Shea butter, locust beans, bush lemons and a lot of others though wild, are being restrained from cutting and anyone that violates the law faces the wrath of Kwandiribe. It is also an abomination to cut down a tree that people rest under whether on the road side or in a hamlet or compound. It can only be done on certain conditions that are more helpful than destructive.

The management and conservation of wild life also abound in the Lunguda tradition. In the Lunguda tradition, when honey is to be removed in a hive, bees are not killed by the fire and even the honey with maggots (the young bees) is always not removed but left in the hive to mature so that they can continue to produce or manufacture the honey. So it is a taboo to utterly destroy the hive or the bees in the process of harvesting honey. Too, the process is done not with high flames of fire, but with smoke in order to spare life of the bees.

In digging wild yam, when the digging and uprooting is completed, the head is cut and returned in the pit for regeneration. Sometimes, it is planted on a different place where digging will be less difficult and with enough soil to enable it fatten well. Yam usually grows under trees or shrubs in the forests or mountains.

Sacrificial Animals and Resource Conservation

Another area of traditional resource conservation and management is seen when ceremonies are celebrated especially those involving slaughtering of animals. The Lunguda man traditionally does not offer sacrifice with female animals, bull dogs, rams, cocks are the most vulnerable. In the absence of a male animal, if it becomes necessary for a female animal to be sacrifice or slaughtered, a neighbor can exchange the female animal with a male one so that the female animal is spared for regeneration. Male animals are randomly killed because few of them can sustain large herds of the female ones for propagation. Thus the belief that gods like male animal blood than the female ones is a traditional conservation of animal kingdom.

In the Lunguda tradition, most sacrifices are done not only with male animals but the color of the male animal matters a lot. Sacrificial fowls are purely white and spotless cocks. A he-goat used for sacrifice is always black and spotless. All bull-dogs used for sacrifices are purely black and spotless. In the absence of the types mentioned above, the sacrifice may not be accepted by the gods until the priests plead very well. These color types of animals are not common among the animal kingdoms, so random offering of sacrificial animals is restricted thus limiting the over use of animals for sacrifices. The belief that the gods are more interested only in the blood of those animals has gone a long way in protecting the lives of other animals that would have been randomly used for the sacrifices. A clear management and conservation of the animal kingdom apparently manifests here. Females are spared entirely, while males are randomly segregated so that a good number of them are not involved in the sacrificial acts.

Water bodies and vegetation covers are believed to have divine relationships with man. So any tree standing on natural lakes, pounds, swamps, or rivers were not tempered with because exploiting it in whichever manner may lead to provoking the divinities that may transfer or migrate,

leading to drying up of the water body completely. Sometimes, the divinities will react by bringing calamity to the person's family or communities. So the belief has latently conserved the lives of fauna and flora around water bodies. Presence of water bodies and aquatic life were identified by seeing stands of green forests as, most areas are deciduous in character. A lineated forest signifies the presence of river and nucleated forest signifies a lake, pound or swamp. They were regarded as divine and therefore not exploited. Such areas were found in Jiragangwaya, Tilkwenla, Jamhong, Teye, Turusho, Kwabchaunle, Tarekachin, Henemhenem, Nyudahi, Kwaharati, Yamamle 1, Yamamle 11, Habkwahaka, Benbikisho, Kwabchingtu, Zumzur, Bisima, Zaho, Dashillo, Larga, Mamda, Gwanjilau.

The priests care and protect those areas. They pass laws governing the areas such as when to harvest or exploit any natural resources in the area, how to exploit it, the sacrifice to the invisible being that abode the structures therein, what is to be and what not to be tempered with and the extent of exploiting any natural resource in the area. The Kwandiri are the traditional forces that ensure the coherent adherence and compliance of the laws passed by the priests. Defaulters are forced to pay fines through the priests to appease the divinities in order to avoid calamities that may befall the communities as a result of non-adherence to the laws of the land headed by the priests. There is a belief (not geologically proved) that there is an underground river which connects lakes Gera in Dele (Jessu) Gonbe state with Lake Plem in Falu, Adamawa state covering distance of about 30 kilometers. The two lakes are believed to be sacred. It was once said that, a person was mysteriously drawn in Lake Plem but the corpse was found in Lake Gera meaning there is an underground connection between the two lakes. If fishing activity is to take place in one of the lakes, the fish will migrate to the other; hence no fish can be caught. So the priests have declared the two lakes: no fishing areas. On ordinary days, large flirt of fish and of different varieties and sizes are seen but on fishing days none will be trapped. During floods, the fish therein migrate to other ordinary water bodies where they sometimes meet there waterloo or continue to propagate.

On traditional forest conservation, examples abound in Adamawa state. Typical of which are the Farai forest in Demsa Local Government, the Doguba forest in Hong Local Government. The belief is that these are wild forests where the gods and ancestors dwell. Hunting, cutting of fire wood or poles as well as grazing is strictly prohibited thus latently promoting the conservation of both fauna and flora of the areas.

Another traditional practice that latently conserved and enhanced the management of forest resources worth mentioning here is the use of firewood to generate energy in the local industries such as calabash designing, pottery, cooking, distilling and blacksmithing which involve the use of fuel wood to generate energy in these local industries. Some industries use specific fuel woods to generate the energy required.

Typical in these industries are calabash designing and pottery. In these industries, some trees when used as firewood can damage the products. So only specified fire wood are used in calabash designing and pottery industries. Another example is the blacksmithing industries. Some firewood do not generate the required energy for smelting iron ores either because they are too soft, easily die to mere ashes or splash die out fire tongues when fueling. Such tree species are not used in the industry thus latently conserving them for other purposes.

In cooking food too, some trees are abstained from being used as firewood because when you used them, the food will smell against human consumption. Others when used for cooking or as poles in the house, it is believed that members of the house will eat beyond the normal rate thus causing food shortage. Typical of these trees is the Shuwurke tree.

Some trees have the capability of retaining water in their trunks even when cut off from the main tree. They do not dry in time for use as fire wood. Such trees are the soft wood types like the

baobab tree, fig tree, and silk cotton trees. Others are Kukwargijwameka, Amaka, Kaltimka, Shurunke, Suburke, Tatuke and Masulake. It takes months for them to dry up for easy transportation and to be used for firewood. So they are neglected by firewood and pole cutters.

Some trees are preserved and abstained from being cut because of their medicinal values. They include wanpwalala, tanfirke, nyewa, tantalka, damshilaka, shuwurke siseunke, katimshurke, zumike and yaurala. It is an abomination for any to cut these trees because of their medicinal values. Other trees have barks that prevent them from being burnt. Such trees include gwabka, gakineke and tullangika. For this reason fuel wood cutters do not patronize them.

The Belief about Some Reptiles

The Lunguda people believed that the flesh of certain reptiles are medicinal and so can be used to cure some diseases. An example of such animals is the agama lizard which is used for treating whooping cough among children. The lizard is caught, roasted and cooked with traditional potash and pepper. The soup and flesh is given to the patient to drink and eat respectively for at least three to seven days after which the cough vanishes and the patient is relieved. But because of its palatability, even after the cure, some stick to eating it and at old age they eat it openly.

The aspect of conservation in this scenario is the belief that, agama lizard scavenges on fresh herbs (Nyaunla) that are poisonous to humans. The herbs sprout during early rains of April and May. When the agama lizard feed on them, it is believed that their flesh become poisonous because of the toxic substances taken in the herbs. So children (people) are advised to de-crease from patronizing them (agama lizard) in the months of April up to November when the herbs are believed to have dried up. November is the beginning of bush burning, the lizards leak the ash of the burnt grasses which in turn neutralizes the toxic substances taken in the herbs into their bodies, and the flesh become toxic free ready for human consumption.

This period of abstinence coincides with the lizards mating, laying of eggs, hatching and nursing of the young once. By December, they are matured and can hide from their predators. This has also latently preserved the reptiles for generation.

Some Belief Systems of Lunguda Clans that Play Vital Roles in the Conservation and Management of Natural Resources

Among the Lunguda belief systems, a clan called Bonshuryeye/Bonzanyiya is believed to control the shrine that care for the existence of birds. The shrine is controlled and cared for by the priest from that clan. The priest mediates between his fellow men and the god of birds. When the gods are provoked, or the priest is provoked, the shrines will bring out many birds on to the land to destroy crops (quill birds). When the gods are appeased, the priest will order for the immediate withdrawal of the birds. They will miraculously disappear from the scene. If the gods and the priest proved to be notorious, the clan controlling snakes to fill the havens of birds biting and preying on them. So the clan can bring both fortunes and misfortunes to the land depending on the relationship that exist between them and the people.

If the Bonshumye, a clan controlling the existence of the locusts is provoked, he will order locusts to fill the land and cause destruction. However, if all efforts to appease the gods and their priests failed, the priest controlling the birds will be consulted and the birds will be ordered to come out and consume the locusts. If it is worms that have been ordered out by the priest of the Wohsumelle clan and have refused appeasement, then the Bonhoyaya will be consulted to bring out snakes to consume the worms. Sometimes, two clans can be consulted to call into existence what they control. Examples, when the battle between Wohsumelle and the community is unresolved, both the Bonhoyaya (snake priests) and the Bonshuryeye (bird priests) will be consulted to bring out

snakes and birds to consume the worms. So there is a kind of checks and balances between the priests that control the resources of the land. But most highly respected by the people and the other priest is the rain-making priest.

So, the Lunguda man is knowledgeable about the life cycles and the food chain/food webs in his environment and does all things possible to protect them, using all the available means especially the fear of the gods/shrines to manage and conserve its environmental resources. The gods check mate all unsustainable uses of the resources by bringing bad omen to defaulters and fortunes to those that obey the norms of the land/society.

Modernization and Resource Conservation

The modern religions namely Christianity and Islam have divergent environmental ethics from the traditional practices. They succeeded in subduing the traditional beliefs and norms that form the basis of the former resource conservation and management methods. The belief in the existence of invisible divinities that abode in environmental structures such as forests, mountains, trees, stones, rivers, lakes within the traditional Religion was eroded. They advocated for the worship of only supreme God without intermediary smaller gods thus subdued all the beliefs that were the tenets of the traditional socio-cultural practices of environmental stewardship. The environmental psychology of the people has drastically been altered with the modern religions. Secret places that were hitherto observed and restrained from exploitation are no longer viewed in that perspective. (Mc Cammon, 2003)

The modern equipments introduced by science and technology to ease and hasten the exploitation of natural resource have added to the stupendous and unsustainable environmental resource exploitation. Trees with gigantic stems, extremely tall trees can now be reached and felled with great ease. Large lands are cultivated with tractors and use of herbicides, chemicals is now used to destroy both fauna and flora easily and faster thus leading to environmental degradation.

The coming of other tribes like the Waja who are almost 85% herbalists have contributed in peeling the barks of the trees for medicine while others embark on harvesting their roots for the same purpose thus endangering the life span of the plants. The coming of the Fulani herdsmen has also contributed its toll in the vegetal destruction in the area. The relative peace loving nature of the Lunguda tribe and the support of the herdsmen by the governments made it possible to graze anywhere and cutting down tree branches in the dry season for their cattle to feed on. These factors have exposed the life of vegetal species to danger. The land has been over scavenged to the extent that grasses do not even grow to maturity and trees have been drastically stunted beyond regeneration. Soils have therefore been exposed to both wind and rain erosion. Rivers and lakes have been filled by sediments. Gullies have been created and hitherto swamps have now dried up. Only gallery forests are found in the hearts of the villages and grasses used for mats and thatch for roofing are only found on boundaries of cultivated farm plots or preserved at the centre of farm yards and are often found on very steep slopes of the mountains.

The influx of the Tiv people into the Lunguda land has contributed its toll in eroding the traditional conservation methods of the aquatic life of Nungurau waters. Before the influx and the indiscriminate hunting of frogs in Nungurau waters, varieties of frogs abound in the waters. The frogs and toads entertain communities with varieties of choruses in their multi-lingual tongues as they glorify the gods of the land for bringing rains and caring for them through the hardships of the dry season. Too, they sing choruses and pray in tongues for the gods to bring rains in times of need. They also serve as predators to ants, termites, earthworms and mosquitoes larva and serve as prey to snakes and crocodiles in the aquarium. On arrival, the Tiv guys found their new business haven where they unsustainably harvest the resource. The frogs that hitherto do not run away from men

due to friendly nature of the community now jump into hide outs on noticing footsteps tens of meters away. The man which used to be friendly has now become a monster with the coming of the Tiv guys.

Governments too have introduced forest guards who gave licenses to commercial fire wood sellers and timber men to cut and sale woods using saw machines. Gigantic trees with bulky trunks which were difficult to fell can now be failed easily by lumbermen. These trees hitherto protect the bank of the rivers and swamps with heavy under growth and mere evergreen have all past to oblivion. They were hitherto regarded as sacred groves, but with the introduction of the new faiths, man has misused the God given order of having dominion and subduing of his environmental resources.

Recommendations

- Incorporating traditional systems into conservation and management of natural resources.
- Emphasized public participation in resource conservation and management.
- Indigenous knowledge systems of environmental stewardship should be backed-up by legislation.
- The alien religions should not under rate and devalue the beliefs of traditional religion and some of their practices.
- Sacred groves still have original species, so they can be used to rejuvenate the environment.
- Government should involve communities in the conservation and management of natural resources.
- All institutions should be involved in conservation and management of natural resources.
- Unemployed youths should be employed and engage in the conservation and management of the natural resources, payments should be based on performance on the field. Each should be given a portion to manage effectively and necessary requirements such as seedlings, water, manure, and barbwire etc, adequately and regularly provided.
- There should be thorough sensitization of rural communities on environmental stewardship and incentives attached.
- Environmental education should be included in the schools' curriculums right from the primary schools to tertiary levels.
- In churches and mosques, the God's command of environmental stewardship, "And the Lord God took the man, and put him into the Garden of Eden to dress it and keep it." Genesis 2:15. This area should be emphasized as a divine command that needs to be obeyed too. They should emulate Lunguda cultural practices that conserve the environmental resources by preserving some places as no-go areas.

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