



International Journal of Asian Social Science

journal homepage: <http://www.aessweb.com/journal-detail.php?id=5007>



INDIGENOUS KNOWLEDGE SYSTEMS AND THE CONSERVATION OF NATURAL RESOURCES IN THE SHANGWE COMMUNITY IN GOKWE DISTRICT, ZIMBABWE

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ABSTRACT

The dwindling of wild animal species and vegetation is a common feature in the African continent let alone in the world at large. The paper investigated the Shangwe religious and cultural practices which are meant 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 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.

Keywords: Nevana, Indigenous knowledge system, Culture, Taboo

INTRODUCTION

Religious beliefs, traditional beliefs, cultural mores and practices play a crucial role for the successful conservation of the environment and specific organisms especially in the developing countries (Berkes *et al.*, 2000; Lingard *et al.*, 2003; Sasaki *et al.*, 2010). The natural environment and resources are under serious threat and at least cultural taboos and their sanctions have helped to check abuse of the environment at least among the local people. 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. It is usually observed that among the rural communities of the world, the preservation of the environment has an inextricable link to the culture of the people (Anoliefo *et al.*, 2003). This is also noticeable in the people's farming systems, care for the land, forests, wild life, trees, and streams. 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 (Toledo, 2000). Hence 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 of ecosystems and biodiversity without governmental juridical restrictions (Barrow and Pathak, 2005;

Tengö *et al.*, 2007; Jones *et al.*, 2008; Dudley *et al.*, 2009). It is therefore conceivable that these traditions should be included in conservation and management strategies as they have tacitly proved effective. In revered areas, local people refrain from cutting down trees, killing animals, harvesting useful plants within such sites, or even entering or passing nearby, believing that the spirits or deities would be offended and bring harm to the persons, families, or even whole villages if the sites are disturbed. There are many practical reasons for conserving biodiversity, not to mention benefits related to food, medicine, and other materials as well as the environmental services supplied by natural ecosystems.

Rapid decline in biological diversity – species, ecosystems, and genetic diversity – is one of the critical challenges of the 21st century (Fonjong, 2008; Anthwala *et al.*, 2010). This is because of the fact that traditional beliefs are rapidly eroding worldwide. The resulting breakdown of these informal, self-imposed restrictions on land and resource use is threatening species and habitats that were once afforded protection by traditions (Anoliefo *et al.*, 2003; Lingard *et al.*, 2003; Bhagwat and Rutte, 2006). The disregard for these traditional checks and balances especially among modern communities has adversely affected their enforcement. The abandonment of traditional cultural practices is doing harm that goes beyond the abrogation of traditional cultural practices to serious threat to natural environmental structures (Anoliefo *et al.*, 2003). The erosion of tradition is characteristic of developing countries, where there is increased exploitation of the biodiversity, and this is threatening approximately one third of species worldwide (Groombridge, 1992).

Africa is a continent that is endowed with an abundance of natural resources, which provide a potential springboard for economic development in the region (Appiah Opoku, 2006). However, the exploitation of these resources has led to serious environmental degradation in the form of deforestation, desertification, soil erosion, and air and water pollution. Instead of using indigenous practices to deal with environmental catastrophes, African governments and policy makers prefer to employ strategies and techniques which worked in the developed countries. Unfortunately, these are not suitable to conditions in Africa. Government leaders and policy makers should make use of Africa's wealth of experiential knowledge, norms, taboos and a range of cultural practices that have sustained local ecosystems on the continent for centuries (W.B., 1991).

Apparently, indigenous knowledge systems (IKS) are now being unjustly negated. They are viewed in some quarters as somehow inherently primitive (Appiah Opoku, 2006). Indigenous knowledge systems 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. In particular rural women are one group within a community who hold enormous indigenous knowledge of conservation which can assist modern efforts of environmental management (Fonjong, 2008).

In Ghana ancestral veneration plays a critical role in the conservation of resources. Traditional Ghanaians believe that ancestors can punish a person who violates traditionally sanctioned mores or destroys the environment. Burial and ritual sites are believed to be the abode of ancestors and are kept as sacred groves. Resource exploitation through activities such as farming, hunting, and tree cutting are prohibited in these places until certain rituals are performed. The sacred groves harbour economically and socially important ecological species (Appiah Opoku, 2006). In Nigeria and especially among the Igbo community, cultural values were safeguarded through the use of traditional taboos (laws) and sanctions. These practices were used to preserve "sacred groves" for the ultimate aim of better management and conservation of the natural resources (Anoliefo *et al.*, 2003). In Zimbabwe, the Shona environmental taboos foster a sustainable use of the environment. Among the Shona people, an unconscious appreciation of certain 'environmental taboos' informs an esoteric environmentally based knowledge that is meant at sustainable use of nature's resources

(Chemhuru and Masaka, 2010). Even though the Shona people have been exposed to cultural globalisation, they continue to be guided by their values, taboos and beliefs in the conservation and management of their natural resources. Shona taboos are specifically fundamental in preserving the environment, and protection of water sources, the natural vegetation and wildlife, and endangered nonhuman species (Chemhuru and Masaka, 2010). As such they are a source of environmental ethics, propagating a synergistic relationship between human beings and the biodiversity.

Few African countries are as well-endowed with both natural and cultural sites of international significance as Zimbabwe (Hyland and Ikumenne, 2005). It is home to the Matobo Hills, which are of spiritual significance to the Ndebele and Shona people. Important traditional ceremonies are conducted at shrines in these hills; for example, during severe drought rainmaking ceremonies are often performed at the Njelele shrine. It is believed that the ancestral spirits of the people live among the hills (Manwa, 2007). In most African communities, the ancestral spirits are believed to be living in the forests and special trees, caves and ruined homes and water bodies (Wilson, 1989). Such landscape elements are therefore normally treated with veneration to ensure limited human access into them lest the spirits be offended and driven away 'homeless'. In this regard, it is taboo to cut down trees found in a sacred place without the sanction of the local chief priest. The Amarula and Muhachi trees are of special mention here (Hyland and Ikumenne, 2005). It is equally taboo to hunt or poach animals within or running into a sacred forest because they belong to Mwari and the ancestral spirits. Amongst traditional communities such as the Ndebele, where totemic is practiced, it is taboo for clan members to kill animals which serve as the revered symbol of their families (Hyland and Ikumenne, 2005).

Motivation and Objective (S)

This study was motivated by the recognition and/or the adherence to cultural beliefs and taboos recognisable in songs and dance among the Shangwe who give veneration to their Nevana rain spirit and their intelligent application of indigenous knowledge systems in the conservation and preservation of their environments and particular animal species. This given, the objective wants to assess the influence of the Shangwe indigenous knowledge systems to their local environment and certain wild animals in order to establish benefits that will be derived by future generations.

Area of study

The study was conducted in the districts of Gokwe South and Gokwe North at Kufahazvinei and Nevana communities in the Midlands Province in Zimbabwe. Nevana neighbourhood is a wooded hilly area. Conversely, Kufahazvinei is situated on the flat land of Mapfungautsi Plateau. The same community is home to vast and densely populated thickets of michakata and misasa trees where rainmaking ceremonies are performed and yet in Nevana community they [rainmaking ceremonies] are conducted at particular hills. It is important to note that the entire Shangwe community is embedded in mythological symbolisms connected to Nevana, the Shangwe spirit.

METHODOLOGY

Observation, participant-observation ["being-in-the-field"] as echoed by Jeff Titon, intensive participation, and interviewing, were in use in gathering qualitative data. Our full participation in Mukwerera rainmaking performances in which we could also dance, play drums and sing, accorded us the opportune time to ask key informants questions related to their indigenous knowledge systems. Furthermore, it was our involvement in their day to day activities that offered us a favourable moment to study their environment.

It was "fieldwork," a face-to-face interaction emphasised by (Cooley and Barz, 2008) that accorded the researcher the opportunity to solicit data from individual informants and it was the 'eye-to-eye contact and dialogue' with particular insiders that allowed the fieldworker to dig deeper into their

insights individually. According (Bohlman, 2008) “fieldwork” has to consider daily cultural practices; a position which the fieldworkers found applicable to the study. The necessity to receive a data collection through direct and total involvement is emphasised in ethnomusicology. It is the “totality” of participant observation of course, that facilitates holism, but it also gives an intimacy between the researcher and the informants not provided by other research methods’ (Amit, 2000). Correspondingly, Powdermaker echoes that: “This [total participant observation] is where humanism of participant observation comes to the fore, in contrast to its ‘scientific’ observation, analysis and explanation” (Powdermaker, 1968). The ethnographers’ total activity and attachment in their farming practices aimed at a mutual interaction with the informants, and to create the opportunity to gather all the data on their indigenous knowledge systems in the conservation and preservation of the environment and certain wild animal species.

Findings and discussions

Dumba Ranevana

The study confirmed that the Shangwe rain spirit, Nevana, lives in a symbolic round hut called dumba. Furthermore, it was established that the dumba houses various mystic snakes of different lengths and colours. Additionally, it was substantiated that these snakes were attributed to roles such as fertility, rainmaking, and farming. From the Shangwe’s perception, the snakes are symbolic to their ancestors who performed different roles when they still living beings. (Aschwaden, 1989) concurs with the Shangwe standpoint that: “When the puff-adder appears in the village, it is symbolised as an ancestor. The ancestors are considered to be responsible for fertility. The snake is then the vital symbol for fertility.” One insider reiterated that: “Ndisekuru vanenge vachizvifambira. Dzinonzi nyokadzimu.” (It is the ancestor who will be walking. They are ancestral snakes). The Shangwe indigenous knowledge systems inform them that it is taboo to kill the snakes under what circumstances. The snake symbolism is well established even amongst young Shangwe children such that they may be viewed wriggling across any home stead ground without human interference. Eventually, they will wriggle back into the hut. The nurtured mystic knowledge on snake symbolism has not only made it possible for the Shangwe to be humane to them, it inculcated them to show a gesture of honour and respect. Consequently, the locals attach snake symbolism to even the ones [snakes] which dwell in their surroundings. It is from that long founded knowledge that we were made to believe the Shangwe community is heavily infested by large snakes such pythons, black mambas, green mambas, cobras, to mention but just four species. The Shangwe indigenous knowledge systems of Nevana’s mystic snakes has greatly conserved and preserved wild snake species such that future generations will benefit if that knowledge remains shared within the community.

The Three Tree Species

The study found out that the Shangwe performed rainmaking music and dance under the indigenous trees such as mibvumira, michakata and misasa, hills and rain spirits graveyards and hence these served as rain spirits shrines. In trying to find out why insiders set aside certain trees as rain sanctuaries, the Shangwe stressed that these trees were homes to their rain spirits. One of the informants said: “Miti iyi inonaya. Ikatemwa mvura hainayi.” (These trees rain. It will not rain if they are cut down). The answer reflects that the culture bearers have an indigenous knowledge that these trees augment the amount of water vapour into the atmosphere. It is a clear testimony of their metaphysical knowledge of The Water-Cycle (The Hydrological-Cycle) and how it is negatively affected by deforestation since the rate of evapotranspiration will be disturbed. Consequently, it is taboo for community members to indiscriminately cut down these trees. Also, the Shangwe belief that huge trees are homes to spirits works as another positive factor towards three multiplications. Thus their communal law binds all community members from felling mibvumira, michakata and misasa trees and anyone who breaches the bylaw is fined one cattle herd payable at the chief’s court called dare. There is a Shangwe rain song entitled “Ndiani wapisa mwoto? (Who has set the fire?)” The song epitomises the cultural importance of above mentioned three species of trees since

they are sanctified shrines where Mukwerera rainmaking ceremonies are performed particularly in Gokwe South District.

Correspondingly, the study established that there are densely populated forests of michakata [the plural of muchakata] trees in Kufahazvinei Village and another community, Machakata, is named after the large population of the michakata trees found in that locality. Apart from the trees' contributions to the amount of water vapour in the atmosphere mentioned earlier on, michakata trees have other uses. The trees produce edible fruits called chakata. From the interactions held with insiders, the chakata saved the lives of many people during drought in 2008 especially in Gokwe South District where these trees are naturally found in large populations. The ripen, soft outer shell of the chakata may be consumed without adding anything to it. On the other hand, the chakata are sometimes pounded in wooden moles in order to prepare a certain beverage locally referred to as mahanya. The local drink may be left for a day to ferment in order to improve its palatability. Fermentation is also meant to maintain the normal rate of urination. Similarly, the inner, harder part of the chakata is broken to obtain shomwe which will be ground into natural butter. The butter may be added as ingredients to vegetables. Other community members now mix the ground flesh with sugar and make what they refer to as cakes. These are eaten after they have been sun dried.

Sadly, too much consumption of the chakata during the drought period had negative results. Some people passed away because of constipation. It is noteworthy that domestic animals such as pigs and donkeys rarely die during dry periods since they will depend on chakata. In addition, donkeys consume the bucks of the michakata at starvation times. In a nutshell, the Shangwe stressed strongly that soil erosion is highly reduced by these trees and they locally advocate for their preservation. They demonstrated multiple indigenous usages of the michakata in their locality.

Moreover, the study established that huge trees and hills served as special graveyards for rain priests in certain parts of the two Gokwe districts. For instances, all the six deceased male rain spirit mediums of Nevana were buried at a particular site at a hill and the location is locally referred to as Kumarinda kwaNevana, (The Nevana Graveyard). (Brownlee, 1944) notes that *Basuto Chiefs in South Africa* were buried "on the summit of an off-shoot of the Drakensberg mountains" and "Cecil John Rhodes was buried in the rugged fastness of the Matopo hills-the "world's view." Similarly, the Matobo Hills are of spiritual significance to the Ndebele and Shona people of Zimbabwe. Important traditional ceremonies are conducted at shrines in these hills; for example, during severe drought rainmaking ceremonies are often performed at the Njelele shrine.

In addition, any other community member be it young, old, male or female, have their different cemetery. It is the Shangwe custom to weed around the rain shrines as a sign of veneration of the spirits and the grooves remain as sanctified mores. The hill is the Shangwe's local symbol which they owe great honour since it is symbolic to the spiritual home. It is against cultural practices and beliefs that their indigenous knowledge systems guide them to think that they should not cut down trees from any sacred hill in their community. Consequently, their local knowledge goes a long way in not only combating the soil erosion, but helps in what we may refer to as "the natural forestation process."

The lonely baboon is sometimes viewed under a particular muchakata tree during the rainy season and the Shangwe interpret its presence as a symbol of the rain medium. Thus the baboon is perceived as a human being and hence the insiders ethically owe it great honour and one informant said: "Ndisekuru," implying an ancestral symbol. Culturally, it is taboo for the Shangwe to chase and kill the baboon. This given, Shangwe indigenous knowledge system is meant to promote the conservation and preservation of not only animal species but trees as well.

The Two Animal Species

The study established that Nevana, the Shangwe rain spirit, is of the Shumba [lion] totem. Subsequently, there is a peculiar pride of lions which are locally known as mhondoro, rainmaking lions. These lions do not have humane. Lions are carnivorous animals. Most strangely, these distinct lions do not kill the Shangwe people's domestic animals. Weirder than ever is the scenario when the rain lions are sometimes found lying among grazing cattle. At certain instances, the lions are often heard roaring in the Chirisa Safari Area in Gokwe South District during the rainy season and the Shangwe attach different interpretations to the lion symbolism. Their first roaring in October marks the encroachment of the rainy season and the Shangwe prepare to work their fields. Also, their frequent roaring in summer is an insignia of plenty of rain and ultimately bumper harvest. Thus these unusual regular sounds send signals of joy among the Gokwe community. Signs of jubilation are also reflected by one of their Mukwerera rainmaking songs entitled: "Shumba yarira muDande." Literally translated, it is "The lion has roared in Dande." The tune is equally meant to acculturate the Shangwe children that there are rain lions which communicate rain messages. This song universally features during their rainmaking ceremonial rites. Conversely, infrequent and/or no roaring is interpreted locally as a clear indicator of imminent drought. And in the Shangwe's mind framework, they envisage a community that has been cursed by the rain spirit, and God, Mwari.

It is customarily known among the Shangwe that Nevana sometimes conveys rain messages through the rain lions and hence they are also rain spirit mediums just like live human beings. The Shangwe children are cultured about the indigenous knowledge systems of rain lions from their youthful stage. Consequently, the Shangwe utilise their indigenous knowledge of rain lions' roar as a mechanism to interpret the rain patterns throughout the rainy season. The indigenous knowledge systems in rain lions is well established in the Gokwe community and other parts of Zimbabwe to date. In nutshell, this clearly demonstrates the Shangwe's close connection with sympathetic magic.

The Two Sanctified Hills

It emerged from the study that there are two sacred hills namely Chidoma in Gokwe South District in Mapfungautsi Plateau and Nyanhekwe which is adjacent to Nevana's homestead in Gokwe North District. Most interestingly and surprisingly, is that the two hills are strongly associated with strange spirits. Nyanhekwe is home to Shangwe wandering and homeless spirits which are locally called masengu. Interestingly, the term masengu is related to Musengu. Musengu is the name of a matepe mbira song at Mukota. It is the song of Kadyandove, the mhondoro who lives in the Mazoe River.

Anyone who might attempt to ascend the hill is believed to become a rombe for the rest of her or his life. In the Shangwe logical thinking, a rombe is a person who seems to be somehow mentally disturbed, will never marry, and prosper at all. Contrariwise, Chidoma is believed to be haunted by the spirits of the Shona who were killed during the war commonly referred to as Hondo yaMadzviti (The Ndebele War). Consequently, these Shona spirits were often heard yelling, at dawn and dusk in the past. The study further established that the mystic indigenous knowledge systems attached to the two hills is well understood and appreciated by the Shangwe such that they offer these consecrated hills reverence. The local knowledge acquired from birth by the indigenous Shangwe about these two hills have not only saved and increased tree population, the hills, particularly Chidoma, has turned into a permanent home for the baboons called chiro. Although these baboons consume plants such as maize from the fields during the summer, it is believed that sacred indigenous knowledge systems attached to Chidoma has conserved and preserved their population since locals are afraid to ascend the hill in order to kill them. One would stress that the baboons now instinctively know quite well that they are extremely safe from human cannibalism once they get into the sanctified hill.

Also, it was established that there are certain Shangwe rainmaking songs which originated from the mythology associated with these hills. One of the songs entitled: “Bvura tsihore”-literally meaning ‘Showers from tiny clouds’, might have been composed from the constant observation of the morning mist which used to be engulfing Chidoma hill. The song is a description of The Water-Cycle¹. It is often sung during Mukwerera rainmaking performances. One inference is that the origin of The Water-Cycle, which is generally studied in Physical Geography, is embedded in mythological symbolism.

A certain informant reiterated that singing, drumming, and dancing to rainmaking music was a common feature in Nyanhekwe hill in the following morning and/or evening of Mukwerera rites. Consequently, the indigenous knowledge systems of these two hallowed hills have been passed on from generation to generation among the Shangwe. The finding that these hills are engulfed by densely populated trees cannot only be attributed to natural growth and government policy to protect natural resources, it is the locals’ valuable understanding and indigenous logic that these hills serve as sacred homes for their departed forefathers. In this scenario, indigenous knowledge is viewed playing a positive role in the preservation and reduction of soil erosion. Moreover, the study affirmed that there is plenty bee hives found in Mopani trees in Kufahazvinei and Nevana communities. As a result, the honey obtained from these hives is a source of energy to the human body since there is a lot of sugar in it. Most importantly, the honey is now a source of income to the Kufahazvinei community members who are commonly viewed selling honey at misika, local markets that are along the Kwekwe-Gokwe high way road annually.

CONCLUSIONS

The Shangwe indigenous knowledge systems are central to the preservation and conservation of natural resources. It is now the responsibility of the Zimbabwean government to implement them for the benefit of the locals. The Shangwe shrines are symbols steepened with deeper symbolisms. These grooves are storehouses of symbolisms which are best understood through intensive participant observation.

RECOMMENDATIONS

The study recommends that the African government policy makers should promote the inclusion of the Shangwe indigenous knowledge systems and its application in the conservation and preservation of natural resources since the information tends to be peculiar to this particular ethnic group. In a nutshell, indigenous knowledge systems should help save the interests of the locals and ultimately their land. It is advocated that African government policy makers should not just adopt policies that worked positively in developed countries and implement them to conserve and preserve natural resources. The indigenous people have their own taboos which work well for them and they need to be promoted for the benefit of future generations. The study recommends that there is great need to find out the role of African indigenous symbols in various ethnic groups in their particular environment. These symbols need to be brought into public knowledge. This can be achieved through introduction of programmes that focus on the teaching of indigenous knowledge systems at institutions of high learning.

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¹ Nettl (1994:139-148) declares that: “Music comes from the supernatural. Songs come as whole units, and you learn in one hearing, they are objects that be traded, as it were, for physical objects.”

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