

# The Role of African Indigenous Religion in Natural Resources Conservation among the Ngoni Speaking People of Mpezeni Chiefdom in Chipata District, Zambia

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DOI: <https://dx.doi.org/10.47772/IJRISS.2024.808090>

Received: 07 August 2024; Accepted: 23 August 2024; Published: 31 August 2024

## ABSTRACT

Africa, Zambia in particular, is endowed with a rich and diverse natural resource base on which the livelihood of its people, especially rural constituents, depends. Over the years, traditional African societies have observed environmental religious ethics that have helped in regulating the interactions with the natural environment. However, rural parts of Zambia continue to experience indiscriminate exploitation of natural resources. The objectives of this study were threefold; (i) to investigate the African indigenous religious beliefs and practices used to conserve natural resources by the Ngoni people, (ii) to describe how natural resources are conserved through religious beliefs and practices among the Ngoni people and (iii) to explain how African Indigenous Religious (AIR) beliefs and practices contribute to natural resources conservation among the Ngoni people. The study was qualitative in approach and adopted a case design to address the research questions. The data was collected through guided interviews. The study has established that among the Ngoni, taboos and totems are common beliefs and practices that help in conserving natural resources. The study also revealed that among the Ngoni natural resources are conserved in the form of sacred places such as; graveyards, sacred forests, sacred streams, and sacred animal and plant species. Study findings further revealed that among the Ngoni, things such as; hunting and setting fires in sacred areas, cutting trees for timber, and gathering plants for medicine is strictly regulated and sometimes completely prohibited. The study concludes that, among the Ngoni, African religious beliefs and practices have contributed to the creation of a culture where communities are highly integrated with nature, valuing it, respecting it, and striving to live in harmony with it. The Ngoni AIR beliefs and practices promote conservation of some trees and animal species which would have otherwise been extinct.

**Keywords:** African Indigenous Religion (AIR); Natural Resources; Conservation; Ngoni People; Belief.

## INTRODUCTION

Natural resources are critical to building the economy of every country. They serve not only as important enhancers of tourism but also as source of raw materials and are key in the ecosystem. Despite the key position they hold, natural resources are in danger of depletion. Sub-Saharan Africa, with the highest fertility rate in the world, faces increasing demographic pressure on its natural resource base (Franzel, Place, Reij & Tembo, 2004). Moreover, because of climate change, natural resources such as wetlands, fisheries, fresh water, and forests are in attenuation whilst the fertile lands are being degraded and species are almost becoming extinct.

Sustainable natural resource management is essential in the fight against poverty. Access to natural resources provides a crucial contribution to livelihoods, a buffer against poverty and an opportunity for self-employment (Wynberg, 2002; Sigauke, Katsaruware, Chiridza, & Saidi, 2015).

Traditional African societies over the years have observed environmental ethics that have helped in regulating their interactions with the natural environment (Shastri, Bhat, Nagaraja, Murali, & Ravindranath, 2002). Before the introduction of modern forms of natural resource conservation and management, indigenous African communities often developed elaborate resource management systems (Ostrom, 1990). Local groups of people managed the land on which they lived and the natural resources they were surrounded for millennia (Roe, Nelson & Sandbrook, 2009). There existed locally well-informed traditional beliefs that helped in conserving the available natural resources. It has been recognised that established conservation programmes in many African countries do not recognise the value of traditional institutions despite existing evidence showing that they can be effective in natural resources conservation and management (Chandrakanth, Bhat & Accavva, 2004; Bhagwat & Rutte 2006). This view is further supported by Kankpeyeng (2000) when he argues that despite the potency and the role of traditional African belief systems in natural resource management and conservation, little attention is given to this informal institution. Sigauke, et al. (2015) argue that it is important that natural resource management adopt a holistic approach that incorporates the traditional values aimed at ensuring the sustainability of the natural resource base in Africa.

Zambia has tremendous natural resource wealth but faces increasing threats to its environment, including deforestation, land degradation, water pollution, wildlife trafficking and the effects of climate shocks. In Zambia a number of laws and policies do have the provisions on the use of indigenous knowledge in natural resources conservation on which the use of African Indigenous Religious conservation strategies can be anchored. For example, the Government of the Republic of Zambia through Parliament enacted Act No. 16 of 2016 for the Protection of Traditional Knowledge to provide for a transparent legal framework and its wider application and recognised the spiritual, cultural, and social aspects of indigenous knowledge. While the Environmental Management Act, 2011 (No. 12 of 2011) also provides for the use of indigenous knowledge in natural resources conservation, use and management. Additionally, Zambia National Forest Policy (2014) did also provide direction on establishing incentives for local communities involved in the use of indigenous knowledge in forest management and encouraged the development of appropriate training materials based on both scientific and indigenous knowledge for sustainable natural resources conservation. Despite the existence of laws and policies on the use of indigenous knowledge in natural resources conservation, there is still limited understanding of the role of AIR in natural resources conservation in many parts of Zambia. Many studies on this subject matter in Zambia (Chomba, 2004; Baudeon, et al., 2007; Moonga & Moonga, 2016) have mainly focused on western scientific conservation strategies, while insignificant attention has been devoted to examining how African Indigenous Religious Beliefs contribute to natural resources conservation. Yet, these strategies were used in the past with considerable success in conserving natural resources such as land, water, and forests of which many have since been abandoned. This reflects the problem of Western hegemonic knowledge and its detrimental impact on indigenous knowledge and the environment. Continued ignoring and excluding the role AIR plays in natural resources conservation contributes to continued decline in the availability and condition of natural resources because of exploitation being experienced in many rural parts of Zambia leading to increased poverty and vulnerability in communities that significantly depend on these natural resources. Based on the aforementioned, the study explored the role of African Indigenous Religion in Natural Resources Conservation among the Ngoni Speaking People of Mpezeni in Chipata District, Zambia. The objectives of this study were threefold; (i) to investigate the African indigenous religious beliefs and practices used to conserve natural resources by the Ngoni people, (ii) to describe how natural resources are conserved through religious beliefs and practices among the Ngoni people and (iii) to explain how African Indigenous Religious (AIR) beliefs and practices contribute to natural resources conservation among the Ngoni people.

## **METHODOLOGY OF THE STUDY**

This study adopted a qualitative research approach. Qualitative research approach involves collecting and analysing non-numerical data such as text, video, or audio to understand concepts, opinions, or experiences

(Hambulo, 2016). The way in which people being studied understand and interpret their social reality is one of the central motives of qualitative research (Bryman, 1988). Purposive sampling was used in selecting the villages (Maulao, Chithaza, Chibwe, Mangiza & Kaluba) in Paramount Mpezeni Chiefdom based on the knowledge of the researcher and easy accessibility of the villages by the researcher. Also, purposive sampling was used to select the key informants (Village Headmen, herbalists and elderly village women and men). In purposive sampling, the participating units are selected based on the purpose of the sample (Karmel & Jain, 1987; Hambulo & Higgs, 2017). On the other hand, snowball sampling was used to sample elderly village women and men. The total sample size consisted of twenty (20) participants (five (5) Headmen, ten (5) Herbalist and ten (10) elderly village community members (two from each village). All the respondents were asked questions based on the three research questions derived from research objectives of the study. The interview took between 10 to 15 minutes. These interviews took place at the home of the respondents except for the herbalists, who opted that the interviews be done at their location of operations.

Data from interview guides was analysed thematically. Thematic analysis is a method for analysing qualitative data that entails searching across a data set to identify, analyse, and report repeated patterns (Braun & Clarke 2006; Hambulo & Higgs, 2019). For this study, the raw data from interviews was classified and categorized into themes and classes in line with the objectives of the study by following the following five (5) steps. Step 1: Familiarising with the data. The first step that was taken during the thematic analysis's process was for the researcher to become familiar with the entire data set, which meant repeated and active reading through of the data sets collected. Step 2: Generating initial codes. This coding helped in organizing the data collected. At this point the researcher started to take notes on potential data items of interest, questions, connections between data items, and other preliminary ideas. Step 3: Searching for themes. This involved the examination of the coded and collated data extracts to look for potential themes of broader significance to the study. The themes were constructed by the researcher through analysing, combining, comparing, and mapping how codes relate to one another. Step 4: Reviewing themes. This was done at two-levels. In the first level of analysis, the researcher looked at coded data placed within each theme to ensure proper fit. The researcher reviewed all relevant codes and data extracts under each theme by ensuring that each theme had adequate supporting data. At the second level the researcher had to decide if individual themes fit meaningfully within the data set and whether the thematic map accurately and adequately represented the entire body of data. Step 5: Defining and naming. Once themes were identified and mapped out, the names of themes to be included in the final report were reviewed to ensure they were brief and adequately descriptive of the research issues at hand. The researcher then went on to create a coherent narrative of how the collected data within each theme provided unique insights and contributed to the overall understanding of research questions.

## **PRESENTATION OF STUDY FINDINGS**

### **African Indigenous Religious Beliefs Useful for the Conservation of Natural Resources among the Ngoni**

#### **Belief in Taboos**

Taboos are understood to be specific rules that forbid people from performing certain actions, the performance of which may result in the negation of the moral conduct that govern human behaviour (Masaka & Makahamadze, 2013). Most of the respondents indicated that breaching of taboos is thought to invite misfortunes such as bad luck, drought, or death. Violation of Ngoni taboos is thus said to invite an angry reaction from the spirit world on a perpetrator. In some cases, the misfortunes may befall the whole community in the form of droughts, hailstorms that destroy crops, or wild locusts that devour crops. Thus, research found out that it was a taboo to kill certain animal species as some animal species were considered to bring misfortunes to the people if killed. Supporting this finding, Herbalist 4 explained that;

The njoka maloza (black and white) snake is a spiritual snake among the Ngoni. When this snake is moving, it squeezes itself. When you meet it, it is usually a sign of misfortune. Ancestors communicate bad things that will happen or give warning signs for misfortunes. People are not allowed to kill it or destroy its dwellings forest or bushes.

The Ngoni consider it morally wrong to cut trees in certain forests and places. In supporting this finding, village participant 9 mentioned that;

The forest graveyard for the paramount chiefs is an open place without a fence but people are afraid to cut trees or hunt as it is believed that the spirits of Kings linger around the forests and if one goes and cut trees there, they disappear, or a major calamity befalls the person and the family.

The study also found out that taboos have helped to preserve certain tree species with medicinal value. Thus, taboos are formulated to reinforce the spirit world power and greatness. Consequently, taboos are followed by the Ngoni people in order to enhance their relationship with the spirit world and nature, thereby preventing exploitation of certain plant and animal species as stated by Herbalist 5;

Mountain areas and forests that are attached with taboos still contain plant and animal species which are not found in other local forests. Some Taboos still exist but others have disappeared with the coming of modern things and Christianity in our chiefdoms.

In addition, Herbalist 3 alluded to the fact that among the Ngoni, every member of the community observed societal norms and rules regarding the harvesting of medicinal plants/trees, such as cutting trees. For medicinal purposes, only parts of a plant/tree were used be it the leaves, tree backs or roots. The main religious belief held among the community members and the herbalist was that cutting the entire medicinal tree or plant would cause the medicine not to work and the patient would die.

### **Belief in Totems**

The study found out that there are beliefs in the mystical powers of some animal and plant species that were embodied by the spirits. The Ngoni like many other African people believe that spirits operate in the human world through plants, animals, and birds. Totemic animals have mythical and religious significance among the Ngoni people, and they have taboos attached to this. People are therefore expected to respect totem animals. Some animals are associated with good omen, but some animals are associated with misfortunes among the Ngoni people. For instance, the study found out that pigeons are associated with good omen, while hyenas and owls are associated with bad omens. There was a general agreement among the respondents that in the past, hardly could a Ngoni person kill such animals. This is supported by Headman 3 who explicitly said;

Pigeons of Satwe Hills have always been believed to be from the gods, they host good spirits and during the rainy season, the spirits shield this place. And there is fresh grown chilly and tomatoes throughout the year around this place which is the Ngoni's symbol and indication of the presence of the gods and were never killed.

The above sentiments were also shared by Headman 2 who mentioned that 'the water at the Satwe Hills does not dry because this area is protected by the gods. And the local people are not allowed to kill the pigeons and to harvest the chilly that grows at Satwe.' On plants, Msolo tree was also found to be a species that is a special tree as it is regarded as the home of the ancestors and a sacrifice tree for the spirits. Village participant 2 said "Msolo tree was the home of the ancestors. Once the tree is cut, calamity befalls the person that has cut the tree and their family members." In addition to Msolo tree, participant 18 mentioned that "Kachele tree is also believed to be embodied by mystical powers, such that local court sessions in villages are usually held under this tree where people are expected to say the truth or be punished by the spirits."

### **Conservation of natural resources through religious beliefs and practices.**

#### **Land**

The study found out that land among the Ngoni is sacred. This view was shared by Headman 1,3 and 5. Thus, land, is considered sacred as it is ancestral land, and it bears the remains of the ancestors. As a result, land is personified in sayings such sentiments as the 'land is angry'. This is supported by the following statement from Headman 4;



The land belongs to the living, the unborn and the dead. Chief Mpezeni acts as the trustee and allocates land to people. The land in our culture does not have a marketable value as it is for the community who in turn protect it and preserve it. If we do not protect our land, according to prescribed taboos and restrictions the ancestors would be angry with us and as a result some misfortune, such as drought and epidemics, might befall the community.

From the above verbatim, it can be noticed that the fundamental attitude to land among the Ngoni is a religious one and is based on fear of mystical sanction by the ancestors. This underlies all attitudes to other aspects of natural resources. People and nature are bound together by moral order.

### **Sacred Places**

All the participants interviewed expressed similar views on places considered to be sacred. Headman 1 stipulated that “places like graveyards are respected places as they are believed to be the home of the ancestors.” To which Herbalist 3 had said;

“People fear and respect sacred places as they believe that when you cut a tree at a sacred place, you hear voices endlessly asking you to take back the tree.”

One of the villagers, participant 4 had similar views when she added that;

“A woman or a man who gets something from the sacred place can be struck by the spirits with serious catastrophe such as madness, blindness or barrenness.”

The view above was also shared by village participants 7,8,5, and 10.

One such sacred place in addition to the graveyard is called Forty Young. Forty Young according to Headman 5 was a hiding place for Mpezeni (Nsingo) when he was avoiding being killed by the whites as the place is believed to be the home of the ancestral spirits. Up to date this place is considered to be a sacred place, local people are not allowed to cut trees.

In addition to the aforementioned, the study also found out that there are some sacred places like Chilonga Mawe (packing stones) where people were not even allowed to pass unless a ritual is performed. Below is the verbatims from Herbalist 1 supporting the finding above;

Chilonga Mawe is a sacred place at the hill surrounded by trees, and no one is allowed to pass there. On special occasions and only during desperate times such as seeking for a tree for medicinal purposes, then if one decides to pass there, a ritual has to be performed first. A transparent stone from the river has to be thrown at Chilonga Mawe to make the spirits sleep. If this is not done, people who pass there usually get sick of strange diseases.

In addition to the above sentiment, the study also found out that in some portions of certain rivers, domestic activities were not allowed as they were considered to be sacred. This finding was affirmed by the following verbatim by village participant 1;

It is prohibited to draw water for domestic use from certain sections of Msipadzi River, especially where the Msinyika tree is grown along the riverbanks. This tree along the river has spirits that store water and hold the riverbanks.

### **Contributions of African Religious beliefs to natural resources conservation among the Ngoni people**

#### **Conservation of Plants and Animal Species**

The study found out that some religious beliefs and practices by the Ngoni people have promoted natural resource conservation and management among Ngoni communities. Most of the participants believed that some trees and animal species would have gone extinct by now without the existence of some religious taboos,

totems, and exclusion of sacred places which are now threatened by the modern way of life and Christianity. This finding is supported by the following verbatim from village Participant 3;

I believe that our Ngoni religious way of life has helped a lot in protecting our natural resources in our communities. Trees such as Mubanga tree, Mkuyu tree, Chibale tree, Msniyka tree and the Kachele tree have been associated with having spirits that hold water and this has enabled the conservation of such trees from being cut aimlessly by the people. The conservation of these trees also contributed to the protection of animal species, soils and protection of water. However, the so-called modern life in our communities and other religious beliefs has affected most of our religious beliefs and way of life in many ways.

### **Culture of community conservation and living in harmony with nature**

The study also found out that African Religious beliefs and practices contributed to the creation of the culture of communities integrating with nature, valuing it, respecting it and striving to live in harmony with nature. For example, among the Ngoni people and traditional institutions were in place to ensure that the people followed the established religious beliefs and practices necessary for conservation. These sentiments were shared by most of the participants. In particular, Headman 4 stated that;

Many of the Ngoni's communities' social and cultural practices depend on the environment, our ceremonies, our food, food for livestock, water, our farming, our huts. All these things, nature provides, this is why our forefathers regarded nature as our mother as it provides and takes care of us, this notion has been passed on from generation to generation. In turn, we value, respect, and protect our environment as we are part of the environment. It is the responsibility of everyone to try and live in harmony with nature by following our religious beliefs and practices that are in place. Our traditional leaders and herbalists used to be the custodians of our beliefs and monitored and punished the people who disobeyed or did not follow our beliefs and practices. But nowadays few people listen to them, as most of our youngsters don't believe in our religious beliefs and practices even if we the elders consider them to be important for us to live in harmony with nature and with each other.

## **DISCUSSION OF STUDY FINDINGS**

### **African indigenous religious beliefs that are useful for the conservation of natural resources by the Ngoni People**

The research found that religious beliefs such as taboos and totems were used among the Ngoni to prevent people from using certain animal and plant species as they were considered to bring misfortunes to the people. Taboos were designed to enforce positive societal attitudes towards the environment. The Ngoni through the observance of taboos were and still are able to control the indiscriminate harvesting of forest products, protect water sources and species of spiritual, nutritional and medicinal value and even rare species. For instance, ordinary people do not kill birds like Pigeons that hold special status in Ngoni communities. Therefore, due to its special status, the pigeon is only reserved for chiefs to be eaten on special ritual occasions. What must be emphasised though is that most of the taboos were designed in a way that people fear even to make negative comments or ridicule birds or animals. Such a view symbolically means that the Ngoni possess intrinsic relationship with their environment. In this regard, these beliefs have helped to preserve certain natural resources.

Most of the participants alluded to the belief in mystical powers of some animal and plant species that were embodied by the spirits and protected them. For example, it was alluded by Headman 2 who mentioned that "The water at the Satwe Hills does not dry because this area is protected by the gods as a hosting place for the pigeons." Practicing totemism by the Ngoni people can be viewed in the light of Cosmo Vision Theory as the Ngoni belief system fosters a primary relationship between animals and humans, animals and the deity, humans and humans, deity and humans, nature, and humans, the dead and the living among the Ngoni people. Thus, the fundamental premise of totemism can be said to seek to create a cosmology that takes the existence of non-human entities seriously.

The findings of this study were similar to the study by Mokuku & Mokuku (2004) who investigated on the African indigenous religious knowledge as applied by the Lesotho Highlands communities to conserve biodiversity. The study found out that certain totems and taboos about certain plant and animals species contributed towards conservation of biodiversity. For example, trees such as Moomang (*Gnidia burchellii*) were not used as firewood because it was believed that once used, they could cause starvation, bring bad luck or cause mental illness and quarrels among family members. Thus, through certain beliefs some animal and plant species were perceived to have powers to cause certain awesome consequences for humans if destroyed or used. Consequently, such specified species could not be tempered with in any way. The belief was that the ancestral spirits used such tree species to reach people. As a result, cutting or destruction of such trees would detach people from their ancestors, thereby spelling doom to the tribes.

The argument was also supported by Diawuo & Issifu (2015) who explored taboos and totems as belief systems in terms of how they were used successfully to promote natural resource conservation and management in the Sankana & Tongo-Tengzuk communities in northern Ghana. The results of the study revealed that the local communities served as classic examples of successful traditional natural resource conservation and management through the use of totems and taboos. These findings were also similar to those of Kanene (2016) who studied the Tonga people of Southern Province and highlighted that the Tonga communities had regarded the animals related to their clan as a totem. Both the traditional leaders and the elderly noted that it was a taboo for any clan to eat their totem as they were perceived as sacred. Thus, there was an intimate relationship between the totem and the clan to the extent that the clan did not eat, kill, or trap these animals. The research revealed that they also guarded their totem against being killed by other clans who may not have considered it as sacred. The conclusion was that totemism reduced hunting and gathering of some edible fauna and flora. Essentially, totemism created a harmonious relationship between tribal groups and the natural environment.

Based on the discussion hereby presented, it can be noted that the Ngoni view themselves as part of the environment and man is conceivable only in this cosmic interweavement. This fit into Cosmo Vision theory. And it can be argued that the Ngoni worldview is anchored on the intricate relationship between humans and nature. This relation has contributed to natural resources conservation among the Ngoni communities.

### **Conservation of natural resources through religious beliefs and practices among the Ngoni people**

The study established that natural resources were conserved through religious beliefs and practices among the Ngoni people in the form of sacred places such as the sacred graveyards, the burial site for the paramount chiefs, sacred forests, sacred stream portions along the Msipadzi river, and sacred animals such as the pigeons and plant species such as Mubanga, Mkuyu, Chibale, Msinyika and Kachele trees. It was established that typically, hunting and setting fires in sacred areas was prohibited, cutting trees for timber, and gathering plants for medicine were strictly regulated by the traditional leaders and institutions in place. This finding was affirmed by the sentiment from village Participant 1 who mentioned that “in the past it was prohibited to draw water for domestic use from certain sections of Msipadzi river, especially where the Msinyika tree was grown along the riverbanks as those portions were considered to be sacred.” As a result of the importance attached to certain plant or animal species and adjourning other natural resources, Ngoni communities used to designate certain forests as sacred. It is in this vein that among the Ngoni, sacred places were highly revered because they were considered as places of abode for the gods and felling of trees, and other anthropogenic were considered as taboos and forbidden. The religious or cultural designation of an area as sacred, especially those which were relatively natural, either intentionally or coincidentally promoted the conservation of its associated natural resources. In this way, natural resources were successfully conserved.

From the religious and environmental perspective, the use of religious beliefs and practices by the Ngoni in natural resources conservation system is functional. Firstly, it helps to protect the environment as well as control personal behaviour and social arrangements. Secondly, it can be argued that the use of religious beliefs and practices embraces the theory of ‘Cosmo Vision’ as the theory is anchored around human notions of living in harmony with nature.

The findings of this study were similar to the study by Khan, et al., (2008) who looked at the sacred religious places such as the sacred groves and their significance in conserving biodiversity in India. That study found out that the sacredness of certain places and religious beliefs played a significant role in promoting sustainable utilization and conservation of flora and fauna in India. This was also supported by the study by Rim-Rukeh et al., (2013) who researched on the role of traditional beliefs systems in the conservation of natural resources in some selected communities in Delta State, Nigeria. The findings of that study showed that African tradition religious beliefs and practices were important in natural resources conservation in form of the protections of ecosystems or habitats (such as sacred groves and sacred rivers/ponds) and protection of animals or plant species (such as totem and tabooed species).

The aforementioned was also similar to the findings of the study by Kanene (2016) who established that the Tonga regarded some water sources to be sacred. In this case, sacredness was associated with either the whole or part of the water source. Usually, the water sources were perceived as habitats of the gods such that some tended to be upgraded into shrines and humans were not allowed to destroy such places. The main difference with regards to sacred places between the current study and the findings of Kanene (2016) was that the researchers pointed out that some sacred places would eventually be upgraded into shrines by the people. This was not the case with the Ngoni people based on the findings of this study. However, it could be noticed that all the studies, African Religious beliefs and practices were very useful tools in natural resource conservation. This ideal picture of African interaction with the environment may need to be qualified in the light of the Ngoni practical attitudes to nature as some animal and plant species could be preserved for generations as a result designating them as sacred places.

In light of the study findings, Cosmo Vision theory is well aligned with how the Ngoni people behave and interact with nature, since the members of the community are expected to act in a manner that is in harmony with nature and with community members in all aspects of life. This requires an integrated cosmogony between the gods and nature. Thus, the Ngoni people view themselves as symbiotically related to the natural environment as it is closely correlated to the spiritual world. This relates with the central aspect of Cosmo Vision theory, that postulates that to respect the spiritual is to respect the environment, and the destruction of the land is seen as a violation of the balance between man and nature.

### **Contributions of African Religious beliefs to natural resources conservation among the Ngoni people**

This research found that some religious beliefs and practices by the Ngoni people promoted natural resource conservation and management among the Ngoni communities. Most of the participants were of the opinion that some trees and animal species earlier mentioned in the previous sections would have gone extinct by now without the existence of some religious taboos, totems, and exclusion of sacred places which are now threatened by modern way of life. For instance, the findings indicated that trees such as Mubanga, Mkuyu, Chibale, Msniyka & Kachele were associated with having spirits that hold water hence such trees were not used for construction purposes. Consequently, people were taught from cradle to death not to cut such trees or do any activity that was destructive to those particular species. However, people were allowed to gather fruits and dead wood.

It suffices to state that the Ngoni people through religious prescriptions and prohibitions were able to regulate patterns of natural resources use. Such selective use of species was deeply rooted in the religious worldview of the Ngoni people and posits an intimate relationship between the cultural life and environmental management. People have a selfless conviction to conserve and safeguard the environment because they acknowledge that the community is the custodian of natural resources while the individual belongs to the community. This is in alignment with the findings of Sigauke's et al., (2015) study of the role of African Traditional Cultural Values and Beliefs as driving Forces in natural resource management in Makonde District, Mashonaland, and Western Province of Zimbabwe. The results of that study showed that religious norms and values as well as the role of the spirit mediums had an impact on the conservation of natural resources namely tree species, water resources, forests, minerals, and some sacred groves in Makonde District. All these studies and the current study demonstrate that the contributions of African religious beliefs and practices has been key to natural resources conservation. However, over the years there has been little appreciation of these practices as this



valuable knowledge is not documented for the current generations to appreciate the traditional way of regulating and managing natural resources (Tanyanyiwa & Chikwanha, 2011).

It is believed among the Ngoni that several mysterious incidents were encountered by people who breached ancestral rules and regulations. The significance of Ngoni's religious knowledge systems in natural resources may not have been explicitly stated by the traditional institutions yet it was in natural resources conservation. Thus, their relevance and vibrancy in the utilization and conservation of natural resources should not be underestimated. But the indigenous religious beliefs and practices knowledge systems should be an integral part of local community participation in environmental management strategies.

In addition, the selective use and harvesting of medicinal plants practiced by the Ngoni based on their religious beliefs could today be related to sustainable use of natural resources with emphasis on the proper management of natural resources for the benefit of the entire human community and provision of resources for present generations without compromising the needs of future generations. These findings were similar to the study by Kanene (2016) who studied the Tonga people of Southern Province of Zambia. In that study, it was found that traditional institutions regulated how medicinal plants were harvested. It was considered a taboo to remove all the plant roots, remove barks around the plant or to cut the entire plant for medicine as this would lead to the death of the patient. It was also believed that if one uproots a medicinal plant, that species would relocate to places far from the local community, thus being inaccessible and resulting in deaths locally. That study further argued that such beliefs helped the Tongas to ensure that only parts of plants that would not retard regeneration and affect recovery of the plants for future use, were removed.

Similarly, the Ngoni way of life has caused some African scholars to argue that AIR has latent capacity to contribute to the preservation of natural resources as it has inherent natural resources conservation and management practices (Taringa, 2006; Eneji et al., 2012; Kankpeyeng, 2000; Chandrakanth et al., 2004; Bhagwat and Rutte 2006; Roe, et al., 2009; Attuquayefio and Gyampoh, 2010). This is due to the fact that everything and every act is looked upon in a religious and customary perspective. The Ngoni view themselves as part of the environment and man is conceivable only in this cosmic interweavement. These Ngoni worldviews are anchored on the intricate relationship between humans and nature. This relationship has contributed to natural resources conservation in their communities.

Based on the findings from study, it can be clearly seen that the African Religious beliefs and practices among the Ngoni people of Chief Mpezeni contributed to the promotion of the culture of communities integrating with nature, valuing it, respecting it and striving to live in harmony with nature. These aspects demonstrate the culture among the Ngoni people of humans striving to live in harmony with nature based on their religious beliefs and practices. This also fits in well with Cosmo Vision theory where everything that exists is interconnected and considered as part of a larger "whole", thus the need for balance, harmony, and equilibrium as is the case among the Ngoni religious beliefs. Consequently, the goal of society is to attain (or maintain) mutual balance and harmony among humans, animals, and elements of nature, and the universe (Jiménez, 2012; Silburt, 2019). This way of life leads to conscious interactions with natural resources and proper management and conservation of natural resources as a common heritage.

## CONCLUSION

The Ngoni consider various aspects of nature, plants and wildlife and water bodies to be under the mystical tutelage of ancestral spirits and guardian animals. People are mandated to use natural resources in a way that does not anger spiritual beings or harm the environment as they depend on it for sustenance. It was also seen that there are environmental taboos that are intended for the ethical use of the environment. These taboos help keep people away from further depleting the environment. Therefore, the Ngoni people have a rich indigenous religious knowledge system which if applied in the way that fits the modern time may help in environmental conservation. The findings of this study and its conclusions, fit in well with Cosmo Vision theory as it postulates that everything that exists is interconnected and considered as part of a larger "whole", thus the need for balance, harmony, and equilibrium between people and nature as is the case among the Ngoni people. AIR beliefs and practices promote conservation of some trees and animal species which would have become extinct by now without the existence of some religious taboos, totems, and exclusion of sacred places. Additionally,

African religious beliefs and practices promote the creation of a culture where communities integrate with nature, value it, respect it and strive to live in harmony with it as it is the case among the Ngoni people and tradition. The Ngoni people of Mpezeni Chiefdom viewed themselves as part of nature and their worldviews were anchored on the intricate relationship between humans and nature.

**Data availability statement:** The original contributions presented in the study are included in the article. Further inquiries can be directed to the corresponding authors.

**Ethics statement:** This study on which this article is based on was approved by the University of Zambia Humanities and Social Sciences Research Ethics Committee.

**Competing interests.** The authors declare that they have no conflict of interest.

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