
**Indigenous Ways of Creating Environmental Awareness:
A Case Study from Berekum Traditional Area, Ghana**

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Abstract

The people of Berekum Traditional Area, Brong Ahafo region, Ghana, use their religio-cultural practices to instil and impart traditional ecological knowledge to their youth. Qualitative methodology research identified the main means by which indigenous ecological knowledge is transmitted to students: proverbs, myths, folktales, and rituals. There is evidence that indigenous methods of imparting ecological knowledge and thereby dealing with environmental problems are facing some challenges that appear to have interfered with their effectiveness. These challenges may be attributed to a change in the people's worldview resulting from cultural contact and modernity. The findings indicate that indigenous ecological knowledge is a potential resource that can complement scientific means of dealing with the region's environmental problems.

Keywords

Berekum Traditional Area, worldview, cosmovision, ritual, *Afahye*, *Yerepra Yadee*, *Mmebuo*, indigenous ecological knowledge.

Introduction

Knowledge and its transmission are important to any human society for they constitute the basic means by which a society sustains itself and transmits its legacies to its members, especially to its youth. They are also a cultural tool that distinguishes one group of people from another. A society's level of development, in terms of its socio-cultural, political,

and economic lives, depends on how knowledge is generated and disseminated within that society. Therefore, any society that develops appropriate ways of knowing or imparting knowledge stands to develop more successfully. The role of indigenous knowledge systems in nature conservation is a well-known topic in recent scholarship (Berkes, Colding, and Folke 2000; Butler 2004; Chapman 2007; Bonny and Berkes 2008; Brook and McLachlan 2008; Berkes 2012). Yet much has been misunderstood, unexplained, and unexplored (Millar and Haverkort 2006: 8).

Based on a case study of indigenous ecological knowledge in the Berekum Traditional Area of the Brong Ahafo region of Ghana, I have examined the methods of knowing and transmitting indigenous knowledge in an indigenous African society. By 'indigenous ecological knowledge' I mean all the knowledge systems, both religious and non-religious, available to an indigenous society, which enable its members to make sustainable use of the natural resources available to them. This knowledge adapts to new situations as it is transferred from one generation to another. I am especially interested in the worldview of the Berekum, as well as Berekum people's ecological strategies, and their methods of creating and imparting indigenous ecological knowledge to their youth.

The Study Area: Berekum Traditional Area

The Berekum Traditional Area¹ lies in the western part of the Brong-Ahafo region of Ghana (Fig. 1). The Berekum people belong to the larger Akan ethnic group in Ghana. Berekum² is the traditional capital of the Berekum Traditional Area. The people of Berekum speak the Bono dialect of the Akan language. The Berekum practice a local variation of a religious pattern that has been collectively termed African Traditional Religion (Parrinder 1961; Mbiti 1969; McLeod 1981; McCaskie 1995). The Berekum Traditional Area has a total land surface of 1094.2 square km. Berekum is 32 km from Sunyani (the regional capital) and 437 km north of Accra (the national capital). The 2010 Ghana Population Census places the population of the Berekum area at 129,628 (GSS 2010). The area is 800–900m above sea level (Berekum Municipal Health Report 2007) and falls within the moist semi-equatorial climatic zone.

1. A 'traditional area' in Ghana is an area under the jurisdiction of a paramount chief. A paramount chief is a chief who has a number of divisional and sub-chiefs under his/her control.

2. In Ghana, the name of the capital or the headquarters of a traditional area is generally used to refer to the entire traditional area. Thus, Berekum, which is a town, is also the name for the traditional area.

The Berekum area includes two National Forest Reserves, but the state of these reserves indicates the precarious ecological situation facing the area. The Pamu-Berekum Forest Reserve was established in 1932 with a total area of 189 km², but by the year 2000 only 1 km² of pristine forest was left. The Tain II Forest Reserve was established in 1934 with a total unblemished area of 509 km², but this was reduced to just 108 km² by the year 2000 (Appiah Boakye 2011). Today, because of inappropriate farming methods, indiscriminate logging, and rampant annual bush fires, the forest has been destroyed and grass species are gradually dominating the vegetation of Berekum.

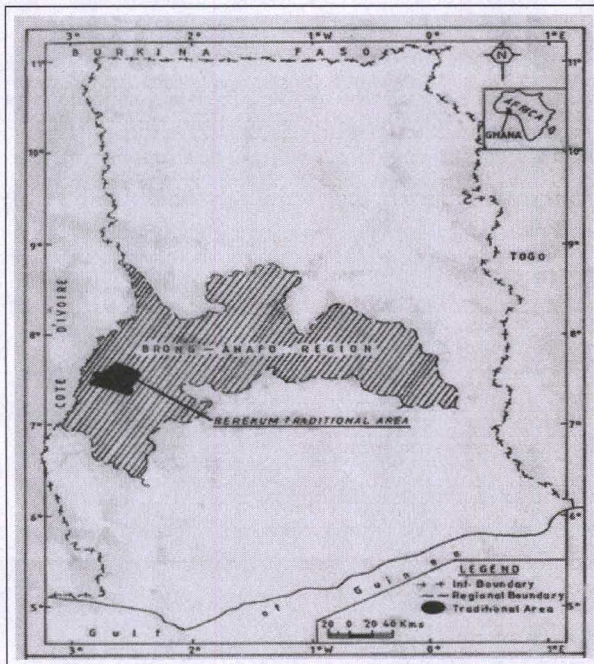


Figure 1. Map of Ghana showing Berekum Traditional Area, by Samuel Awuah-Nyamekye, 2009.

Methodology

I conducted qualitative research (Kemmis 1980; Myers 2000) in the Berekum Traditional Area of Ghana's Brong Ahafo region between October 2010 and January 2012. My primary objective was to examine how nature conservation strategies among indigenous Ghanaians are transmitted to the youth in that traditional society. I used semi-structured interviews to generate my data and used secondary sources to buttress

and cross-check my findings. I used purposive sampling (Dixon, Bouma, and Atkinson 1987; Bernard 2002; Lewis and Sheppard 2006) supported by snowball sampling (Biernacki and Waldorf 1981; Faugier and Sargeant 1997) to select my informants, which included members of both genders. The informants were asked about indigenous/traditional conservation methods, how these methods are passed on to youth, and for their views about the effectiveness of these traditional methods. In all, 30 subjects were interviewed and all interviews were tape-recorded. The interviewees were drawn mainly from the following categories of individuals, each of which is a major player in local environmental matters (Dixon, Bouma, and Atkinson 1987: 139): chiefs and elders (7) in the study area, sacred groves' attendants (5), priests and priestesses (4), farmers (6), hunters (4), and herbalists (traditional medical practitioners) (4).

Berekum Worldview

Previous studies of other indigenous peoples have found that worldview (Ikenga-Metuh 1985; Tucker and Grim 2009) or cosmovision (Millar 1999; Slikkerveer 1999) play a central role in determining the conduct of indigenous peoples. Similarly, in the traditional or indigenous Berekum worldview, the world is full of complex phenomena, some of which are visible and others invisible.³ For humans to be able to make meaning or live a meaningful life, they have to be able to understand the various elements in the universe and how they relate to each other. Berekum have a firm view that the human condition is full of uncertainties and insecurity, and they believe they are not 'whole' and thus need to lean on something that they think can bring them security. This succour, according to my informants, can be found in religion. Berekum attitudes reflect Patten's (1911) view that 'religion begins not with a belief in God but with an emotional opposition to removable evils' (1911: 13).

Nana Kwabena Wusu (2011) explained in an interview that there is no indigenous Berekum term for the word 'worldview' as such, but they

3. Unless stated otherwise, any reference to indigenous people in this paper should be understood as those people whose forebears founded the settlements where they live today and to a large extent make use of the customs and traditions of their forebears. In other words, they are the people who lay legitimate claim to their land through ancestry. In this way, one may also refer to indigenous people as traditional people, and the two terms are used interchangeably in this discourse. By extension, the term 'indigenous' or 'traditional' religion should also be understood to be the religion of the people of Berekum before their encounter with Western European civilization and religions like Christianity and Islam (adapted from Awuah-Nyamekye and Sarfo-Mensah 2011).

express it as '*se nea Berekumfoɔ hunu wiase fa*' (literally, 'how the traditional Berekum people see or perceive the universe and all that is in it'). Traditional Berekum people consider the world as full of myriad spirit beings, all of which qualify for cultic attention. This is because they believe that these spirit beings are capable of influencing their lives either positively or negatively. Benevolent spirits, such as *Abosom* (lesser gods) and *Nsamanfoɔ* (ancestors), receive much more attention than malevolent ones, such as *Mmoatia* (fairies) (Yaw Nkrumah 2011).

The people under study also believe that land, water, animals, and plants are not just factors in production, but that they have their place within the sanctity of nature. That is, in the life and thought of the people, any created entity that plays a crucial role in the very survival of humans is viewed as sacred. This is to ensure their sustainable usage (Kwabena Wusu 2011; see also Gonese 1999; Millar 1999). This explains why certain measures are put in place to preserve nature. The Berekum worldview corresponds to what Bron Taylor (2010) broadly refers to as *dark green religion*, which he sees as resulting 'from a deep sense of belonging to and connectedness in nature, while perceiving the earth and its living systems to be sacred and interconnected' (2010: 13). The traditional Berekum worldview is similar to that of the Akan ethnic group to which the Berekum belong, and it has affinity with worldviews observed in other traditional societies. Slikkerveer, for instance, explains that cosmivision

refers specifically to the way in which the members of a particular culture perceive their world, cosmos or universe. It represents the view of the world as a living being, its totality including not only natural elements such as plants, animals and humans, but also spiritual elements such as spirits, ancestors and future generations. In this view, nature does not belong to humans, but humans to nature. As the concept of cosmivision includes the relationship between humans, nature and the spiritual world, it describes the principles, roles and processes of the forces of nature, often intertwined with local belief systems (Slikkerveer 1999: 171).

Emefie Ikenga-Metuh describes worldview as 'the complex of a people's belief about the origin, structure and organization of the universe, and the laws governing the interaction of beings in it' (1985: 37). In the words of Elkin, worldview is "'a view of nature and life, of the universe and man, which unites them with nature's activities and species" in a bond "of mutual life-giving"' (Elkin quoted in Rose, James, and Watson 2003: 59). In other words, worldview/cosmovision refers to the set of basic assumptions that a people have developed in order to explain reality and their place and purpose in this world (Mkhize 2004). In view of the above, the concept of cosmivision or worldview can be summed up as

the manner in which the people understand the universe and relate to its elements with the view to making life liveable. Worldviews are, in this sense, mental lenses through which people perceive the world (Olsen, Lodwick, and Dunlap, cited in Hart 2010: 2). In agreement with other studies, it is worldview that plays a significant role in shaping the way in which land, water, plants, and animals are to be used and in decisions involving how a people should relate to other creatures of the universe (Haverkort and Hiemstra 1999; Millar 1999).

An aspect of all worldviews that one should not overlook, however, is their susceptibility to change (Hart 2010). For instance, there can even be a sub-worldview within a dominant one (Hart 2010). An experience such as a new understanding of a phenomenon or a practice by a section within a society can result in a sub-worldview within a particular society. This explains the variations in religio-cultural practices among indigenous peoples. Factors such as new experience or knowledge and cultural contact can bring about a change in a people's worldview. My data revealed evidence of continuity as well as change. For instance, an important phenomenon noticed during the data collection and confirmed by all key informants was the unprecedented movement of educated youth (who are mostly Christians and Muslims) from the study area into the area's rapidly emerging cities in search of jobs and modern amenities. Informants were unanimous that Western education and foreign religions, particularly Christianity and Islam, coupled with the reality of city lifestyles, have alienated Berekum youth from their roots. This is because most of them return home with worldviews that are completely different from the local traditional beliefs and practices. A feature of this development is that these youth are able to transfer their newly acquired worldview to their peers in the area due to the wealth and associated status they tend to acquire in their urban lives.

All the above issues have implications for indigenous ways of creating environmental awareness and of enabling ecological management in the study area. This is because issues of ecology in the Berekum traditional society are deeply shaped by the religio-cultural worldview of the people. In light of the above—youth mobility, inroads of Western culture, and impinging faiths in the study area—it is difficult to talk of a static Berekum traditional worldview today.

Berekum Ways of Conserving Nature

The forgoing indicates that in Berekum life and thought, as in many traditional African societies (Danquah 1928; Schoffeleers 1978; Byers, Cunliffe, and Hudak 2001), human beings are in relationship with other

creatures of the universe. That is, in the worldview of the people under study, gods, spirits, ancestors, spiritual and political leaders, lands, forests, rivers, and animals are all interrelated. This means that traditional Berekum people see existence in terms of interrelationship and interdependence. This explains why it is good to use a holistic framework to study an African society. It is within this framework that Berekum environmental ethics are based. Informed by their worldview, the people of the traditional Berekum area have put in place measures to conserve nature. Some of the major measures are *Kwaebennɔ* (sacred groves), belief in *Akyeneboa* (totems), general beliefs towards *Asaase Yaa* (land/earth), *Nsuo* (water bodies), landscapes, the concept of *Nkyida* (literally, 'hateful' or taboo days) or *Dabone* (literally, 'bad' days), and planting of *Ngyedua*⁴ and *Sasa*.⁵ I have elsewhere dealt extensively with these traditional conservation models.⁶ In the next section, I examine the means through which environmental awareness is created in the Berekum Traditional Area.

Berekum Methods of Creating Environmental Awareness

You cannot protect the environment unless you empower people, you inform them, and you help them understand that these resources are their own, that they must protect them (Maathai 2011).

This quote by the prominent, late Kenyan environmentalist, Wangari Maathai, expressed the deep value of education for environmental conservation. In light of such an understanding, traditional Berekum people use different methods to pass on their ecological knowledge to the youth. Several methods are used for the purposes of letting people, in particular the youth, know the importance of the environment and the need to protect and conserve it. Some of the most important ones are the following.

4. *Ngyedua* is the Akan term for species of tree planted in the principal streets of every town/village for the purposes of fighting heavy storms. The trees also help in dividing and beautifying the streets. The shade of the trees provides good places for the youth to meet and enjoy fresh air and play games such as draughts and *oware*.

5. Indigenous Ghanaians hold the view that certain trees and animals are sacred because such plants and animals are believed to have *tumi* (spiritual power) of some sort. The Akan word for this kind of *tumi* is *sasa* (e.g., Rattray 1923, 1959; Warren 1986; Awuah-Nyamekye 2009).

6. For details on the above indigenous conservation mechanisms see Awuah-Nyamekye 2009, 2012a, 2012b.

Mmeɓuo (Proverbs)

The use of proverbs is one of the means by which traditional Berekum people demonstrate their environmental consciousness and create environmental awareness. The Akan word for proverbs is *mme* (*ebe*—sing), and the act of using proverbs is *mmeɓuo*. Makilah describes ‘proverb’ as ‘a saying that expresses an experience that is considered an apparent truth within a particular community’ (quoted in Omare 2010: 90).

Among the traditional Berekum people, *mme* are used to create awareness of the existence of other creatures, their nature, or peculiar characteristics. If they want to emphasise oratory or eloquence, for instance, then the *ako/awidie* (parrot) is used. One would usually hear ‘*na`no ate se ako/awidie*’ (he/she is as eloquent as the parrot). Some of the *mme* will advise people to be wary of certain plants and animals due to the magical power or evil spirit that is believed to be associated with that plant or animal. The following two proverbs attest to that: ‘*Yenni sasa aduro a yennikum tromo*’ (‘If you do not have *sasa* medicine you do not kill the bongo’ [a forest antelope]) and ‘*Se wobeku tromo na w`adware sasaduru dee gyae no ma onfa nemmranteresem nante kwae ase*’ (‘If you kill the bongo [a forest antelope], its spirit will haunt you until you exorcise it; you’d better leave it to roam about in the forest’). These *mme* are used to warn people to be wary of the bongo. It must be stressed that the above proverbs do not mean that the *tromo* (bongo) is not hunted or killed at all. It can be killed, but only by those who have the capability; that is, those who are spiritually powerful enough to circumvent the consequences of killing the bongo. The import of the proverbs lies in the fact that only a few hunters are capable of hunting it. This implies that the element of protection cannot be ignored. Also, because the people are fully aware that the continuous survival of humans is possible only if natural resources continue to be available to humans, at times the *ebe* is meant to draw attention to the sustainable use of resources. This explains why it is common to hear: ‘*Adi daa ye sen adi preko*’ (‘it is not good to eat all that you have in a day’) or ‘*Wo sum boodee a sum kwadu*’ (‘when you support the plantain plant against the wind, do the same for the banana plant’).

Usually the contents of the *mme* are compounded with personal experience, observations, and the reality of natural phenomena. That is, every *ebe* in Berekum is meant to teach a lesson or draw attention to some situation. All the *mme* that say something about natural objects create awareness of their existence (Akumfi Ameyaw 2012). It is, therefore, not surprising that in traditional society a lot of *mme* abound that show how humans should relate with such natural phenomena. Table 1 samples some of the common *mme* in the study area that have something to do with human–nature relationships. These proverbs were compiled from my interviews with some of my key informants.

Table 1. Samples of human/nature proverbs in Berekum Traditional Area.

Proverb	Literal translation	Relationship involved	Meaning/ Relevance
<i>Nnua nyinaa tutu a ebe ka abe.</i>	It is only the palm tree that is able to withstand the strength of a destructive storm.	Plant-plant	Dependability
<i>Enam dua so na ema homa hunu soro.</i>	The help of the tree enabled the vine to reach the sky.	Plant-plant	Cooperation
<i>Ayanko gorō nti na ama okoto enya tiri.</i>	It was through too many friends that the crab lost its head.	Animal-animal	Carefulness in friendship
<i>Abosua tese kwae wogyina akire a ebomu koro wobēn ho na wo hunu se dua bia wo ne sibre.</i>	Family is like a forest; when viewed from afar it looks as if all the trees are one but when you get close you will realise that each tree stands alone.	Human-plant	Both cooperation and self-reliance are important
<i>obonto nfa woho mmo nkaa.</i>	<i>obonto</i> (a fish) do not compare yourself with <i>nkaa</i> (another fish, believed to be very cunning).	Animal-animal	Be selective in friendship
<i>Dua bata boō netwa ye twa na.</i>	It takes the wise person to cut a tree that is attached to a stone.	Plant-stone	Perseverance and carefulness
<i>Kwae a agye wo no yenfre no kwaewa.</i>	Do not be ungrateful to the forest that has saved you.	Human-plant	Gratefulness
<i>Dua koro gye mframa a gbu.</i>	An isolated tree cannot stand the might of a strong wind or storm.	Plant-wind	Cooperation
<i>Aserewa su ayankuku su a neto pae.</i>	When <i>Aserewa</i> (a tiny bird) tries to imitate the cry of <i>ayankuku</i> (a bigger bird) its anus will burst.	Animal-animal	Be wary of over ambition
<i>Se wo bribi ne abobonmua a enka wo beto akuma ama no</i>	You would have bought an axe for the woodpecker if it had been one of your relations.	Human-animal	Sympathy
<i>Aboa a onni dua Onyame na opra ne ho.</i>	It is God who drives away flies for the tailless animal.	Animal-God	Concern/care for the needy

As noted previously, proverbs are used in context; however, the listener has to be properly versed in the culture and particularly in the idioms of a particular society in order to appreciate the import of the message being conveyed. In traditional Berekum society, for instance, the youth are trained to become naturally grounded in the idioms of the community. This method makes the use of proverbs a commonplace means of imparting knowledge to youth. The proverb '*kwae a agye wo no yenfre no kwaewa*', which literally means 'do not be ungrateful to the forest that has saved you', covers a wide range of issues. Socially, it is meant to impart a sense of gratitude to the youth. Philosophically, it advises against showing ungratefulness to any phenomenon that one's life depends on. The use of the word 'forest' even makes its ecological importance clearer, for in traditional societies, people's livelihoods depend on the land (forest); therefore, this proverb is clearly cautioning both youth and elderly to be grateful to the forest. In other words, the forest should be treated as an important natural resource for human survival. Gratefulness to the forest thus also implies the sustainable use of its products.

The proverb '*dua koro gye mframa a ebu*', which literally means that 'an isolated tree cannot stand the might of a strong wind or storm', emphasizes the need for cooperation in all aspects of human life. The need for cooperation in the worldview of the people under study is not limited to human beings; it is also important with respect to other constituents of creation. This view is expressed in another proverb, '*dua koro nye kwae*' ('one tree does not make a forest'). The ecological lesson these two proverbs emphasize is that there is a need for many different kinds of trees in order that the full benefits of forests be available to people. Analysis of each of the proverbs in Table 1 will, in one way or another, emphasise that human survival is tied to the rest of nature, and particularly to trees.

In sum, Table 1 suggests that the contents of many Berekum proverbs are drawn from human–plant relationships, human–animal relationships, plant–plant relationships, and animal–animal relationships. By extension, all Berekum proverbs that have an element of nature can be used to impart ecological knowledge. Kwaku Asante-Darko (2006) has made similar findings in his study of the relationship between Asante proverbs-poetry and environmental knowledge. This implies that proverbs help to kindle awareness that human existence includes non-human creatures. This awareness has accordingly influenced traditional Berekum people's attitudes towards the non-human creatures that play a meaningful role in their lives. I am not suggesting here that anthropocentrism (valuing nature due only to its benefit to humans)—a key

concern of deep ecologists (Naess 1973; Sessions 1995)—is the main driving force for Berekum attitudes towards nature. Proverbs exist in this traditional milieu to show that they value nature due to the holistic understanding they have about nature. The traditional Berekum believe, in this regard, that everything created by God is good. This is expressed proverbially as: '*Asansa se nea Onyame abo nyinaa ye*' (The hawk says all that God has created is good). This is a commonplace proverb among all the Akan of Ghana (Opoku 1978).

Another means through which traditional Berekum people educate their youth on environmental issues is everyday speech. When dealing with a difficult situation, for example, one will often hear an elder from Berekum saying '*Aye se santrofi anoma. Se wokum no a, woafa mmusuo; se wogyae no nso a, wagyae seradee*', which literally means: 'the situation is like the nightjar (a nocturnal bird), which when you kill it, you have invited misfortunes for yourself, but when you leave it, you have missed a delicacy'. Although this saying is intended to advise people to be very careful when making a decision, it also has the potential to warn people to avoid this kind of bird.

Myths

A lot of literature exists on myths (Bascom 1965; Levi-Strauss 1995; McDowell 1998), which some scholars consider to be true narratives while others do not. Bascom provided a classic definition of myths as 'tales believed as true, usually sacred, set in the distant past or other worlds or parts of the world, and with extra-human, inhuman, or heroic characters' (Bascom 1965: 20). Indigenous people usually use myths to explain the beginnings of events. Traditional Berekum people are thus able to use myths to educate youth on beginnings and rituals associated with most of the beliefs and practices in this area. There is a myth among the Berekum, for example, that explains why fish and crabs in the River *Koraa*, the main river in the traditional area, are not eaten. The myth is that when a major war had broken out between the two neighbours in the distant past the river miraculously saved the Berekum people by overflowing its banks anytime that the army of the Dormaa people tried to launch an attack on them. The story continues that prior to the war people could eat the fish and crabs from the river, but immediately after this saving gesture by the river, people began to experience stomach upsets any time they ate crab or fish. An oracular consultation revealed that the river did not want her 'children' (fish, crabs, and so on) to be destroyed. This explains why fishing is seriously prohibited in the River *Koraa*. The people now go to the riverside to watch the fish as they swim beautifully in the stream (Akua Donko 2009).

Folktales

Folktales and songs are another means through which the people of Berekum and the Akan in general transmit ecological knowledge. The elderly use them to impart knowledge and entertain youth, usually during the evening (Kyere Kwame 2011). In some of the folktales the elderly are able to create awareness of natural phenomena, their origin, and humans' relationships with such phenomena. The following folktale attests to this:

Once up a time, there existed a close friendship among three animals—*Tatia* (ant), *Okra* (cat), and *Osono* Kokroko (the almighty elephant). Their friendship grew in strength. One day the friends decided to discuss how each would honour his mother when she died. *Tatia* was first to speak. He told his friend that his mother was so dear to him that when she died, he would give her a special honour by laying her in state on a skin of a human being. *Okra* also said he would kill a human being to honour his mother when she died. *Osono* also said, when the mother died, he would honour her by destroying all the trees around him to show that he has the strength and power over everything in the world. Soon enough, *Tatia* lost his mother. He was able to honour his promise by indeed laying his mother in state on a skin of a human being. All the mourners became surprised at this feat. *Tatia* was asked to explain how he managed to get the skin of a human being. He explained that he got it from a scab of human skin. He explained further that any time a human being gets a wound and it is healing, part of the skin where the wound occurred peels off. It was these scabs that he laboriously gleaned over the years. It was from the piles that he made the 'mat' (human skin) on which his mother's body was laid in state. *Tatia* was applauded for his tenacity, ingenuity, and dexterity by all the friends and sympathisers at his mother's funeral. This also explains why it has become the character of the ant always to move slowly when picking something from the ground. *Okra's* mother was second to die, but he was unable to kill a human being in honour of his mother as promised. He was booed for failing his mother. Out of disgrace, *Okra* decided to make amends by promising to rub his body against the body of any human being he came across. This explains why *Okra* is fond of rubbing his body against human bodies all the time. When *Osono Kokroko's* mother died, he started destroying trees around him as promised, but he could not pull down the *odum* (*Chlorophora excelsa*) tree. He tried several times to no avail. He became disappointed and ashamed. He also was booed by his friends and sympathisers at the funeral for failing to honour his promise to his mother. He was told that it is honourable to be modest in one's promise and that one should not be deceived by one's mere size to claim invincibility (Effah Mensah 2012).

Although there is much emphasis on social lessons in this story, an ecological lesson is implied in the ways the animals in it deal with human beings and flora. In addition to their ecological importance, the

flora and fauna facilitated the smooth impartation of socio-moral lessons to members of the community, implying that the presence of flora and fauna is necessary for human existence and survival. This implies an obligation for humans to protect flora and fauna.

Rituals

In addition to the methods already described, sometimes the performance of certain rituals provides youth with ecological knowledge. Two important rituals in the study area—*Yerepra Yadee* and Festivals—illustrate this.

Yerepra Yadee. *Yerepra Yadee*, which literally means ‘we are sweeping away diseases’, is a ritual performed to prevent an outbreak of a particular disease in the community. (It may also be used to introduce the youth to the dangers of environmental degradation.) This ritual is performed when community leaders have every reason to suspect that an epidemic is imminent. When the people are certain about the imminent danger, the chief of the area will task his *obaapanyin/ohemaa* (queen mother) with collecting an egg from each household in the village. A day is then set for the ritual. On that day, every household brings the refuse for that day, and all assemble at a designated point. A libation prayer is made by the *obaapanyin/ohemaa*, after which all the women go around the entire village three times holding some *somme* (*Costus afer*) leaves and the refuse brought along from their various homes while shouting:

Yerepra yadee oo!
Yerepra yadee oo!
Yerepra yadee oo!

This can be translated literally as:

We are sweeping away sickness
 We are sweeping away sickness
 We are sweeping away sickness

After the third round, the *somme* leaves and the refuse are deposited at all entrances to the village. The deposition is referred to as *mpanpim* (literally translated as ‘barrier’). The *mpanpim* is symbolic, for it is supposed to block the impending disease from entering the village (Mercy 2012). Interestingly, the use of the *somme* constitutes destruction. This is what others refer to as ambivalence in indigenous peoples’ ecological practices (Nugteren 2009). Notwithstanding this argument, I think the objective is well intended and one may say it constitutes one of the clearest ways that traditional Berekum people combine religion and culture to demonstrate their environmental awareness, especially in the

area of protection and cleanliness. This also implies that the view that indigenous/traditional peoples' environmental practices are mainly motivated by their religion may not apply to every indigenous/traditional society (Sinha, Gururani, and Greenberg 1997; Smith and Wishnie 2000; Tomalin 2002; Taringa 2006). It is important, however, to note that due to Westernization and the influence of religions such as Christianity and Islam, this practice is not seen in the big towns in the study area, but exists only in the small villages, and even there the people accept advice from modern health authorities in addition to undertaking their indigenous practices.

Afahye. Another important ritual through which indigenous Berekum people transfer ecological knowledge is through the celebration of local festivals. *Afahye* are annual events that traditional Berekum people and other traditional Ghanaian societies celebrate for various reasons. It may be to honour a god or ancestor(s) or to mark either the beginning or the end of the agricultural season. A key element of *Afahye* is that during festival periods, the history of the community is recounted, the prescriptions and prohibitions are re-emphasised, and, where necessary, amendments are made to some of these prescriptions and prohibitions to conform to the realities on the ground. This annual ritual, which reminds the people of their responsibilities and rights within the community, appraises them of the tenets of the community, including those connected with environmental conservation. Nana Yeboah explained that as part of the preparation for the *Kwafie*, the principle festival of the people of the traditional area, all roads leading to rivers and streams are cleared of debris. Whatever is considered filthy is removed from every household, choked drains are desilted, and so on. Oyewole (2003, cited in Nwosu 2010: 60) described a similar practice in a study of the Okonko society of Nigeria. This practice is designed to safeguard the health of the people in the community. As well as offering people the opportunity to remind themselves of the need to keep their surroundings clean, *Afahye* also constitutes an important way of instilling the culture of environmental cleanliness in the youth.

Conclusion

The foregoing constitutes some of the major means by which traditional Berekum people create environmental awareness. The use of such methods does, however, appear to be eroding through the people's contact with Western culture and its Christian and Islamic religions. These powerful cultural processes have led to a loss of authority by the

traditional chiefs over their subjects as loyalty and respect is transferred to the central government and its agencies. Other factors, such as overpopulation, urbanisation, and the modern market economy, also need to be examined for how they have affected indigenous people's ways of life, but the space constraints here preclude analysis of such variables.

I have demonstrated the value and importance of analysing the methods of knowledge transmission in the Berekum traditional area of Ghana, which suggest that such analysis would be fruitful when examining other regions and societies as well. My findings imply that there is a close connection between a society's capacity to develop and sustain itself and the ways in which knowledge is acquired and transferred in that society. My findings also support earlier studies that found that in traditional societies, religious worldviews can shape actions that help members live 'in harmony with nature' (Ntiamoah-Baidu 1991, 2008; Byers, Cunliffe, and Hudak 2001; Attuquayefio and Fobil 2005; Tucker and Grim 2009; Anane [n.d.]). There is evidence, however, that indigenous methods of dealing with environmental problems are being overwhelmed by contact with an increasingly global market economy and modernity itself. These trends appear to reduce the effectiveness of indigenous means of handling environmental issues. The many challenges notwithstanding, traditional peoples' ways of creating environmental awareness and thereby combating environmental problems are a potential resource that could be tapped and refined to complement the scientific means of dealing with environmental problems.

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