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The Use of Indigenous Cultural Practices by the Ashantis for the Conservation of Forests in Ghana

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Abstract

Indigenous cultural practices play a significant role in the conservation of forests. Most of the forests within traditional communities in the Ashanti region of Ghana were preserved centuries ago through traditional beliefs and practices. Yet, less attention has been given to them in modern forest management. In most communities, these traditional practices are gradually "dying out." This work identified cultural practices that have been used to successfully conserve forests by four communities purposively selected from the Ashanti region of Ghana (i.e., Semanhyiakrom, Akegyesu, Kubease, and Jachie), their benefits, and the perceived reasons for their neglect in the management of public forests. Qualitative data were collected through semistructured interviews using stratified random sampling technique to select respondents. The study found that beliefs, taboos, myths, proverbs, and songs were vital traditional systems used by the Ashantis to effectively conserve their forests. The Ashantis believe that the neglect of cultural practices in the management of public forests has resulted in increasing rate of deforestation, destruction of water bodies, and disasters inflicted by the gods such as prolonged drought and loss of soil fertility. To avoid forest degradation, it is important for forest managers, decision makers, and governments to recognize various cultural practices and traditional beliefs as very useful tools and integrate them into current national and international forestry plans and programs.

Keywords

forest conservation, cultural practice, sustainable forest governance, taboo, traditional belief

Introduction

Forests are important for the socioeconomic development of societies; they ameliorate global warming, provide income, recycle water and oxygen, and serve as homes to most of the world's plants and animals. Chand (2011) asserted that they provide raw materials for more than 5,000 products valued at 23 million dollars. According to Attah (2014), forest goods and services contribute US$450 billion/year to the global economy. The continuous flow of these benefits for future generations requires efficient forest conservation measures.

Anane (2015) mentioned that until the period of industrial revolution and urbanization, indigenous groups in some societies, including the Ashantis in Ghana, used cultural practices to conserve forests, which were largely successful. Asante (2011) explained that Ghana can boast of numerous forest reserves that were conserved through sociocultural beliefs by the traditional people. Cobbinah (2011) noted that the passage of cultural practices from one generation to another ensured forests' biodiversity conservation and sustenance of their livelihoods. These old conservation models were effective because they were cheap and required less time and energy in their application (Jimoh, Ikyaagba, Alarape, Obioha, & Adeyemi, 2012). People believed that forests were sacred resources associated with spiritual realities and interconnected with humans, nature, and the universe. Asante (2011) noted that among the Ashantis, forests were highly revered because they were considered as places of abode of the gods and dead ancestors. Thus, farming, indiscriminate felling of trees, and other anthropogenic activities that affected their quality were considered as taboos and forbidden. Any abuse of the forest ecosystem attracted punishment from spiritual deities. In effect, forest resources were successfully conserved.

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Currently, forests in most countries are managed through formal scientific methods, which include the use of silvicultural principles enshrined in policies, regulations, and international conventions, while relegating the indigenous system that entailed cultural beliefs and practices to the background. Thus, despite their contributions to sustainable forest management, traditional practices are not sufficiently respected and promoted (Cobbinah, 2011). In Ghana, although respect for cultural practices in forest operations is enshrined in the Timber Resources Management Act (ACT 547), people violate them because the regulation (L.I. 1649) that prescribes sanctions to streamline activities in public forests is silent on punishments for individuals who breach sociocultural beliefs. Parrotta and Trosper (2012) explained that there has been a long-standing acrimonious relationship between the beliefs and practices of traditional communities and those of formal forest science. Therefore, attempts at solving the challenges of forest management in recent times have ignored cultural practices of indigenous people. Kendie and Ghartey (2000) explained that the breakdown of traditional values that supported natural resources protection has negatively affected humanity's pursuit of environmental sustainability. Societies have been left with unfortunate consequences of rampant forest degradation. Berkes (1997) argued that the loss of Caribou from the North American forest in the 1900s resulted from a neglect of cultural practices and traditional beliefs that regulated hunting activities. Dixon, Perry, Vanderklein, and Hiol Hiol (1996) and Dauda (2009) mentioned that despite current conservation efforts, Ghana's forest resources continue to decline in quality and quantity due to indiscriminate felling of trees, overexploitation, poor timber processing methods, and illegal logging. Mongabay (2010) estimated that about 125,400 ha of forests were lost between 1990 and 2010. Cobbinah (2011) mentioned that the recognition of the role of cultural practices is imperative to overcoming forest degradation. According to Piras (2011), when indigenous people are empowered to build upon their cultural and spiritual values of forests, deforestation is minimized, conservation efforts are successful, and the community receives greater benefits from managing their natural resources. However, little has been reported in literature about the success of cultural practices used for forest conservation in recent times, which could form the basis for their advocacy in modern forest management practices. Therefore, this article sought to identify the cultural practices that have been used to conserve forests by four Ashanti communities in Ghana, the perceived benefits of these practices, and the reasons for their neglect in modern methods of forest management. This would improve the recognition given to traditional systems in addressing forest- and environment-related challenges.

Materials and Methods

Study Areas

The study was conducted in four communities (Semanhyiakrom, Akegyesu, Kubease, and Jachie) purposively selected from the Ashanti region of Ghana (6.7500° N, 1.5000° W). The communities fall within the semideciduous forest zone of Ghana with mean monthly temperature of about 27 °C and humidity between 95% and 71.6% during the wet season and 42.5% in the dry season. They are characterized by a double rainfall maxima regime; the major rainy season occurs between March and July, while the minor occurs between September and November. Mean annual rainfall ranges between 855 and 1,500 mm. The topography is undulating with an elevation of 210 to 300 m above sea level. The major occupation of the inhabitants is farming. Crops such as citrus, maize, citronella grass, rice, cocoa, oil palm, and cassava are widely grown. Semanhyiakrom has a population of 530, Akegyesu has 284, and Kubease and Jachie have 1,240 and 1,850, respectively. The communities are administered by a traditional system of chiefs and elders who employ culture, traditions, customs, and values in governance. The forests in Semanhyiakrom (i.e., Numafoa forest), Akegyesu (i.e., Kobiri forest), and Jachie (i.e., Jachie forest) are managed wholly by the traditional leaders through powerful invocation of divine oaths as well as strict taboos, myths, and other cultural practices, which are believed to spiritually bind all members of the community together. That of Kubease (Bobiri forest reserve) is jointly managed by the Forestry Commission of Ghana (on behalf of the government) and the community. Harvesting of timber and nontimber products (e.g., snails, mushroom, medicinal plant, and bush meat) is forbidden in Numafoa and Kobiri forests. In Jachie and Bobiri forests, however, these products can be harvested by individuals only after consultation with the chiefs and elders who have to offer prayers and sacrifices to the gods before entry into the forest was allowed. Generally, these forests are dense with very tall (40-50 m) and large (90-120 cm in diameter) commercial timbers, including Dahoma (*Piptadenniastrum africanum*), Odum (*Milicia excelsa*), Mahogany (*Khaya ivorensis*), Onyina (*Ceiba pentandra*), Kyenkyen (*Antiaris africana*), Esa (*Celtis mildbraedii*), and Kyenedua (*Cordia millenii*).

Sampling Technique

Purposive sampling technique was used to select the four communities, which have forests that have been successfully preserved using indigenous cultural practices. Lewis and Sheppard (2006) explained that purposive sampling is most effective when selecting study areas within a cultural domain that possesses the specific characteristics under investigation. It was also used because of its cost- and time-effectiveness. The number of respondents (n) sampled from each community was determined by Slovin's formula (Tejada & Punzalan, 2012):

$$n = \frac{N}{1 + NE^2},$$

where N = total population of each community and E = margin of error (0.05).

Stratified random sampling was then used to select a total of 22, 16, 30 and 24 respondents from Semanhyiakrom, Akegyesu, Kubease, and Jachie, respectively, by first

identifying existing strata (traditional authorities, elderly men and women, chain saw operators, foresters, and farmers) within the communities followed by random selection of respondents from these strata. As no data on the exact number of individuals in each strata within the communities existed, great efforts were made to locate respondents from the various segments of the communities. This was done to ensure that the respondents selected closely represented the population.

Data Collection and Analysis

Semistructured interviews (using interview guides with open-ended questions) were conducted to collect qualitative data on the traditional systems that have been successfully used for forest conservation in the study area, and perception on the extent to which modern forest management practices incorporate these traditional methods and/or reasons for and consequences of their neglect on current conservation efforts. Thematic content analysis, which involved analyzing transcripts and identifying themes within the text, was used to evaluate the qualitative data obtained from the interview (Barbour, 2001). To ensure that the data analysis was more rigorous and the element of bias was reduced, an interrater reliability approach, where an experienced qualitative researcher independently reviewed interview transcripts, data analysis, and emerging themes, was employed (Mays & Pope, 1995).

Findings

Traditional Systems Used for Forest Conservation

Under this theme, the respondents indicated that cultural practices (beliefs, taboos, myths, proverbs, and songs) were the traditional methods that have been used to preserve the forests, which belonged to the communities:

> This forest (i.e., Numafoa forest) has survived till date because our elders ensured that taboos, myths and the lessons in proverbs, which were handed down to us by our forefathers, were strictly respected. Nobody dared to break any taboo. (Elderly man, Semanhyiakrom)

> We don't allow people to enter the forest anyhow. There are sacred/taboo days during which entry into the forest is totally forbidden. The gods visit the forest on these days. The absence of humans in the forest on such days allows the forest ecosystem to rest from stress from anthropological activities. That is why our forest has not been degraded compared to those managed by the government. (Farmer, Jachie)

> As a community, we inherited this forest from our great grandfathers and we have a strong belief that the forest is home to several deities, who lived there in order to protect the entire community from calamity. This inspires reverential fear in us and we are careful not to disturb any part of it. Offenders face the anger of the deities until costly sacrifices are offered. (A member of the traditional authority, Akegyesu)

> I am mindful of the consequences of destroying the forest because our songs and proverbs tell them all. If you hear proverbs such as *Adidi daa yɛ kyɛn adidi prɛko* [which means "It is not good to eat all that you have in a day"], *duako gye mframa a ebu* [meaning "if a tree stands in the path of the wind alone, it falls"] and *dua ko ntumi nyɛ kwae* [literally means a single tree cannot make a forest] and songs including "*ɔkɔm bɛba o, ɔkɔm bɛba o, wo sum brɔdeɛ a sum kwadu na ɔkɔm bɛba*" [translated as "it is important to preserve both plantain and banana for moments of scarcity"], you will always be conscious about sustainability and not involve yourself in any activity that will destroy the forest. (Chain saw operator, Kubease)

The community members generally understand that beliefs, taboos, myths, proverbs, and songs have played major roles in the management of the forests within the communities. A member of the traditional authority of Jachie recounted an incidence in which someone went into the forest on a taboo day to collect firewood and was banned from entering the forest again for several years after the elders had offered animal sacrifice to appease the gods:

> . . . he was banned and could not enter the forest again for so many years until the gods permitted him to and it was a great lesson for everyone . . . that is the power of our culture . . . you cannot abuse the forest as you like.

These traditional systems are well respected by members within the study area and have been effective means of regulating activities within the forests.

Benefits of the Traditional Systems of Forest Management

The respondents noted that the respect for cultural beliefs and practices has contributed to the continuous existence and richness of the forests in the study areas:

> We have seen an enhancement of the forests' capacity to sustain animal and plant life because we uphold our traditional beliefs and practices that govern them. (Elderly woman, Akegyesu)

The respondents explained that by comparing the current poor structure and productivity of the forests that are managed by the Forestry Commission of Ghana (on behalf of the government) with that of those by the communities, which are regulated by the traditional methods, one could draw a conclusion that the traditional system is a very potent and useful tool for forest conservation:

> The respect for cultural practices creates a serene atmosphere for the gods, who in turn increase the productivity of their forest (e.g., great yield of fruits, bush meat, firewood and lumber) for the benefit of the community. (Forester, Kubease)

The researchers observed that the forests, which were managed by the communities, were largely undisturbed and had a closed canopy with high amount of commercial timbers (e.g., *M. excelsa* and *K. ivorensis*).

The Extent to Which Modern Public Forest Management Practices Incorporates Traditional Systems

This theme captured respondents' perception about the level of incorporation of traditional methods into current scientific systems of forest management by the government. Respondents agreed that the government (or the Forestry Commission) gives little attention to traditional beliefs and cultural practices in recent conservation efforts:

> . . . our Chief and elders sustained our community's forests by our customs. We expected the Forestry Commission to fully adopt these customs in the management of the forests belonging to the government. However, this has not been so . . . they have blatantly ignored our traditional beliefs and practices. (Farmer, Jachie)

An elderly man in Semanhyiakrom had similar thoughts:

> The Forestry Commission looks unconcerned when timber contractors operate in public forests on taboo days. This is an infringement on the tradition of the communities within which such forests are located . . . a great disregard for culture.

According to the respondents, the conduct of activities in the forest on sacred days were signs of neglect of traditional practices in modern forest operations. They blamed this neglect on the government who is the regulatory body of forests belonging to the public.

Reasons for the Neglect of Traditional Methods in Modern Forest Management Practices and Their Effects on Current Conservation Efforts

This theme encapsulates the respondents' perceived reasons for the neglect of cultural practices and beliefs in modern forest management and the effect of such neglect on the preservation of public forests. Several reasons (e.g., the traditional system is archaic and unscientific) were attributed to the neglect of traditional practices:

> Researcher: Can you tell me why you think these traditional systems are neglected in recent forest management practices?
> Farmer: . . . the forest managers think our traditions are outdated and inconsistent with modern scientific principles of forest management . . .
> Researcher: Can you tell me the effect, if any, of their neglect on the success of forest conservation efforts by the government?
> Farmer: . . . I can cite the increasing rate of deforestation, rampant bush fires and loss of soil fertility . . .

A chain saw operator also explained that

> . . . the traditional beliefs and practices are perceived to be outdated, barbaric, and inhumane . . . meanwhile, their neglect has caused the nation so much . . . destruction of water bodies, shortage of high value timber materials, collapse of wood industries, and drought . . . all due to indiscriminate felling of trees.

According to the respondents, conservation of forests managed by the government has failed woefully because the traditional systems that are the bedrock of the survival of the community forests have been side-stepped.

Discussion

Traditional Systems Used for Forest Conservation

Beliefs, taboos, myths, proverbs, and songs were identified as the traditional systems for forest conservation in the study areas. Our findings on this theme agree with those of Busia (1951), McLeod (1981), Graham (2002), and Diawuo and Issifu (2015) who asserted that cultural beliefs, myths, and taboos had great impact on forest conservation among the Ashantis. The authors explained that forests were believed to be dwelling places for dwarfs (*mmoatia*), devilish spirit (*Sasabonsam*), and other deities. The deities were believed to be the gods who are the custodians and protectors of the towns and villages. Opoku (1979) noted that these gods abhorred actions which upset the harmony of the community and administered punishment to those who infringed upon the moral code of the community. Diawuo and Issifu (2015) reported instances where people suffered from several misfortunes including death, barrenness, disappearance, and mental disorientation for infringing upon cultural injunctions in the Ashanti kingdom. Thus, Rist, Delgado, and Wiesmann (2003) mentioned that due to their intimate connections with the natural environment, beliefs and culture in traditional communities promoted sustainable natural resource management. Nongkynrih (2007) observed that in Mawphlang (India), there was a strong belief that a deity called *labasa*, which was in the form of a tiger or a leopard, lived in the forest and protected the community as its patron. Therefore, attempts to destroy any part of the forests were seen as an attack on the deity, which attracted grave penalties including death of an entire family. This prevented people from felling trees indiscriminately and destroying the forest ecosystem. The Ashanti proverbs are also used to educate and advise members of the society to conserve the forests for future generations (Awuah-Nyamekye, 2013; Gyekye, 1996). Awuah-Nyamekye (2009) indicated that the Ashantis' songs are easily sung by every member of the society and unconsciously taught people the expected codes and laws of the land. People

naturally learnt the importance of natural resource conservation through them and ensured that their lives were consistent with what these songs taught. This enhanced communities' efforts at resource protection.

Rattray (1923), and Colding and Folke (2001) explained that cultural practices have socioecological benefits when applied to regulate access to natural resources that are at risk of extinction. For example, Negi (2010) observed that to preserve the alpine meadows/pastures in the Vyas Valley of Uttarakhand, grazing was regulated by taboos, which no shepherd dared to overlook. The customary lifestyle of the inhabitants thus had inherent conservation ethics that sustained pasturelands. Based on the findings of the study, it could be stated that the reverence giving to the traditional systems by the communities enhance their resource conservation potential. Thus, beliefs, taboos, songs, myths, and proverbs are potent tools that, when giving key attention by managers and decision makers, can promote sustainable forest and other natural resources management.

Benefits of the Traditional Methods of Forest Management

According to International Institute for Environment and Development (1992) and U.S. Agency for International Development (USAID; 2005), the unique cultures of indigenous people are most often closely related to the continuous existence and sustainability of local natural environments. This is in agreement with the findings under this theme. Fontein (2006) explained that through these cultures, indigenous people believe that the spiritual world manifests itself in natural phenomena such as forests, rocks, trees, and animals. The spiritual deities regulate and protect the forests and the resources they house by striking those who abuse and overexploit them. Thus, Lebbie and Guries (2008) noted that access to sacred forests in most Ashanti communities is governed by strict customs, which include the performance of rituals and sacrifices before entry was permitted or harvesting of certain species was allowed. According to Schoffeleers (1978) and Gadgil, Berkes, and Folke (1993), these practices deterred community members from abusing the forests, protected forest biodiversity and watersheds, and ensured the continuous existence of forests and were therefore important for resource management and conservation. It was therefore not surprising that respondents attributed the continuous existence of their forests to respect for cultural practices.

Rim-Rukeh, Irerhievwie, and Agbozu (2013) also observed that the use of cultural practices in the management of some patches of forests in India promoted biodiversity, preserved many endangered plant species, and ensured continuous existence of such forests. Anane (2015) noted that most of the untouched forest cover of the Ashanti region of Ghana was managed by communities through cultural practices. The Ashantis believe that the survival of every individual in the society is possible if only forests and other natural resources continue to exist. They believe that human beings were not created to live alone but in close relationship with other creatures (Awolalu, 1972). Therefore, the protection of the forest from destruction was essential for their survival. For example, the Asuo Akosua stream in the Ashanti region is believed to be home to a beautiful woman goddess. Therefore, the stream is carefully protected from farming activities, washing of clothes, and other forms of pollution through cultural practices that restrict entry into the watershed area of the forest. By this, the water resources are conserved and the community has access to quality water throughout the year. Based on the benefits obtained from the application of traditional systems in resources management, the United Nations Convention on Biological Diversity (UNCBD; 2007) admonishes countries to respect, preserve, and apply knowledge and cultural practices of indigenous and local communities in the conservation and sustainable use of forest resources.

The Extent to Which Modern Public Forest Management Practices Incorporates Traditional Methods

On the above theme, our findings were consistent with those of Cooper (2010), who asserted that in Chile, indigenous beliefs tend to be left out of conservation efforts. Ntiamoa-Baidu (1995) and Abayie-Boateng (1998) noted that cultural practices have lately been neglected in forest management in Ghana due to Western education, which very often has no respect for local traditions, and the absence of legislation to reinforce traditional rules. Anane (2015) mentioned that scientific methods of management, policies, and regulations on sustainable development of forests have persistently failed to acknowledge the broad roles of culture in conservation and environmental protection. Indigenous people are thus estranged from the debate on forest protection. In some instances, this could be responsible for degradation of a large number of forests managed by the State compared with those by traditional societies (Roberts & Gautam, 2011). It is therefore undisputable that incorporation of cultural practices into modern scientific methods of forest resource management will go a long way to contribute to resource conservation. There is therefore an urgent need to promote traditional knowledge about forest conservation along with the formal methods.

Reasons for the Neglect of Traditional Methods in Modern Forest Management Practices and Their Effects on Current Conservation Efforts

Respondents noted that the neglect of traditional systems in forest management was due to the perception that the systems were barbaric, unscientific, inhumane, and outdated. Similarly, Boon (2005) explained that modernization and advances in

science and technology most often threaten cultural systems of indigenous people. According to Yanggen, Angu, and Tchamou (2010), many people perceive indigenous culture to be outdated and less progressive. The younger generation is thus influenced to devalue their culture and adopt new lifestyle and technology. Consequently, their cultural knowledge on conservation and sustainability is lost, which contributes to the neglect of cultural practices in forest management.

Diawuo and Issifu (2015) asserted that despite conscious national efforts (including the formulation of policies and regulations and improved methods of forest management) to curb deforestation, which brings about drought, loss of soil fertility, and shortage of high valued timbers, the country continues to battle with forest degradation partly because the contribution of cultural practices to forest sustenance has been overlooked. Our findings agree with the observation by Diawuo and Issifu. Similarly, Reaksmey (2011) observed that regardless of Cambodia's government modern forest management plans that sought to curb illegal logging, woodlands were continuously degraded due partially to a breakdown of the traditional value system that protected forests. Therefore, Anane (2015) advocated for the integration of traditional systems into modern forest conservation methods, as they have proven to be effective over the years in several indigenous communities in India, Ghana, Nigeria, and Ethiopia. This could be achieved by enforcing traditional education, respect for traditional institutions, and collaboration with modern management practices. As cultural practices are noncostly and have voluntary compliance characteristics inherent, their incorporation into forest management methods would offer several advantages in addition to those of the conventional conservation systems (Colding & Folke, 2001).

Conclusion

Cultural practices were successfully used by many traditional societies for forest conservation before the period of industrial revolution and urbanization. Currently, forests in many countries are managed mainly by formal scientific or silvicultural methods, which have not been entirely successful as forest resources continue to decline in quality and quantity at alarming rates. This work aimed at drawing the attention of forest and natural resource managers to the effectiveness of traditional methods in forest management by qualitatively exploring the success of some cultural practices that have been used to conserve forests by four Ashanti communities in Ghana. Beliefs, taboos, myths, proverbs, and songs were the traditional systems used by the Ashantis to effectively conserve their forests. The continuous existence of the forests, which were managed by the communities, and maintenance of their productivity and capacity to sustain animal and plant life were noted as benefits derived from the use of cultural practices for forest management. However, respondents indicated that modern forest management practices most often ignore traditional methods because they are seen as outdated, barbaric, and inconsistent with scientific principles. The Ashantis believe that the neglect of cultural practices in public forest management has resulted in increasing rate of deforestation, destruction of water bodies, prolonged drought, and loss of soil fertility. This is buttressed by the richness of the forests preserved by cultural practices compared with those managed by formal scientific methods. Thus, to avert forest degradation, it is important for forest managers, decision makers, and governments to recognize various cultural practices and traditional beliefs as invaluable tools and incorporate them into current national and international forestry plans and programs.

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