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Informal Institutions and the Management of the African Shea Trees (Vitellaria paradoxa) in Ghana

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Abstract

Over the past decades, biological resource conservationists have bemoaned the increasing rate of extinction of ecosystem species and genetic diversity, resulting from habit loss, invasive species, overexploitation, pollution, and climate change associated with global warming. Failures attributed to the formal institutional systems of biodiversity management have made the informal institutional mechanisms attractive to ecological conservationist. In the case of Ghana, evidence of successful application of informal institutions in the sustainable management of biological resources is rather thin and insufficient. This research was structured to investigate the application of informal institutions in the management of biological resources in Ghana, West Africa, using the African shea tree (Vitellaria paradoxa) for a case. By employing such sources of evidence as interviews, observations, and focus group discussions, the study found that, the traditional communities have used taboos, social norms and ritual systems as the most practical and readily available tools to deal with their common challenge of managing biodiversity in a sustainable manner. These informal institutional mechanisms that forbids the cutting of shea trees in the traditional communities have been linked to supernatural entities who are capable of punishing individuals who transgress their dictates and standards. The fear of facing ancestral wrath, coupled with the nature of the resource communities, and the resource system have conspired to influence the successful application of the traditional ecological knowledge systems in the management of shea trees. Like in many other resource communities, traditional ecological knowledge systems in the form of taboos, social norms and rituals might represent the only biodiversity management system with some degree of enforcement. The study

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believes that the provision of legal backing to informal institutions in the management of biological resources will increase ecosystem species and genetic diversity, as well as enhance their resilience amidst rising internal and external pressures.

Keywords: *Informal Institutions, Traditional Ecological Knowledge, Taboos and Social Norms, Shea Tree Management, Mo/Dega land.*

1. Introduction

Over the past decades, biological resource conservationists have bemoaned the increasing rate of extinction of ecosystems, species, and genetic diversity **(Anthwala et al. 2009; Pierre and Peters, 2000)**, resulting from habitat loss, invasive species, overexploitation, pollution and climate change associated with global warming. These changes in the earth's biodiversity components have severe consequences for the ecosystem properties and the goods and services they provide to humanity. To ameliorate this challenge, a long line of ecological development theorists have argued that governments of countries must initiate regulations and or introduce sanctions that create diverse payment structures that would encourage individuals and institutions to cooperate in the management of ecological resources **(Hardin, 1968; Oslon, 1960; Dawe, 1980)**. Since the late 1960s, most governments and research specialists have adopted and used this proposition to develop plans and policies for managing biological resources. However, during the last three decades, many field studies have increasingly questioned the suitability of the conventional approach to the management of biological resources **(see Jaede, 2017; Smid et al., 2015; Pierre and Peters, 2000; Ostrom, 1990)**. It is argued that governments, most especially in the developing world, have lacked sufficient administrative and technical capacity to sustainably regulate the exploitation of biological resources in their respective states. Ecological experts are still mainly divided over the specific governance mechanism that would curb the forces driving the extinction and invasion of biological resources.

Against the backdrop of the unprecedented extinction of global biodiversity and its impacts on human wellbeing, there is an increasing interest in the role of informal institutions in the form of traditional ecological knowledge (TEK) systems and practices, in ensuring the sustainable utilization and management of biological resources. Ecological development experts in recent times have recognized that by ignoring the deep ecological memory of indigenous peoples and local communities, the information base required for conservation measures is significantly reduced, and the capacity to make decisions towards the protection of biodiversity-rich areas are reduced **(Jaede, 2017; Acheampong et al. 2014)**. In its 1991 report, the World Bank encouraged African leaders and policymakers to use the wealth of African "traditional knowledge, standards, taboos and various cultural practices" they have raised to manage the continent's local biodiversity. Recently, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has made application of TEK systems and practices a key component of its established conceptual framework, allowing them to be included in biodiversity assessments **(Diaz et al. 2015)**. It is argued that, as direct users of biological resources, traditional communities have in place management systems that are incorporated into local myths, oral histories **(Jaede, 2017; Turner et al., 2000)**, taboos, and indigenous names **(Acheampong et al. 2014; Nabhan, 2000)**, which are passed on to heads of clans, diviners, chiefs, and other resource users across generations.

In most regions of the world, indigenous peoples and local communities have used traditional ecological knowledge systems to regulate the harvest of certain useful plants and animal species. Others have also succeeded in preventing people from entering or passing near-

certain sacred sites because some ancient spirits and deities would take offence and could cause calamities if these sites were disturbed. For example, in some Akan-dominated tribes in Ghana, it is a taboo to kill some animal species because they are considered embodiments of the local gods. In other words, these animal species functions as the important intermediaries between the Supreme God and human beings **(see Gyampoh et al. 2008; Millar, 2003; Dickson, 1969)**. Similar cases have been reported in Madagascar **(Lingard et al. 2003)**, Nigeria **(Bassey and Kanung 1996b; Anoliefo et al. 2003)**, and East Africa **(see Mwihomeke et al. 1998)**.

Many traditional ecological knowledge systems and practices are known to exist in many rural parts of Ghana. These are often operationalised through well-established social and cultural institutions in the form of local beliefs, customs, rituals, values, and taboos for biodiversity management **(Gyampoh et al. 2008; Ntiamoa-Baidu, 1995)**. Despite this significant knowledge, some studies have reported a general and increasing decline in the application of the deep ecological knowledge systems and practices in the management of biological resources in Ghana **(Acheampong et al., 2014; Millar, 2003)**. **Appiah-Opoku (2010)** insist that the continuous implementation of conventional biodiversity management techniques and the lack of information about the efficacy of local ecological knowledge systems and practices are the key variables that are responsible for the declining application of TEK systems and practices in Ghana **(also see Acheampong et al. 2014; Appiah Opoku, 2006)**. This research was structured to contribute to the ongoing discourse by investigating the application of informal institutions in the form of traditional ecological knowledge systems and practices in the management of biological resources. It uses evidence from the management of the African Shea tree (Vitellaria paradox) in three communities in the Mo /Dega land in northern Ghana, West Africa. Specifically, the research was designed to;

- explore the existing forms of traditional ecological knowledge systems and practices in the exploitation of the African Shea tree;
- assess the current state of the application of traditional ecological knowledge systems in the exploitation of the African Shea tree, and,
- examine the factors that have influenced the successful application of traditional ecological knowledge in the conservation of the African Shea tree.

This paper is divided into five main sections. In addition to this introductory part, the second section presents a description of the study area and the general methodological approach. In the third section, the researchers present the findings of the research. Section four discusses the research findings. The research concludes in section five.

2. Description of the Study Area and General Research Methodology

Ghana is an ethnically diverse country with more than 45 major ethnic groups often distinguished by their different languages, cultures and socio-economic organizations. Among the many indigenous ethnic groups, the Mo / Dega tribe is the focus of this study. Like many other indigenous tribes, the communities in Mo/Dega land have maintained close contact with their environment and, as such, have in place aged-old informal institutions that maintain the link between man and his environment. This knowledge has saved many biological resources, including trees and animal species. Specifically, New Longoro, Kyingakrom and Ayorya communities in the Mo/Dega land have been selected for this study. (see Chart 1)

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Chart 1: Google Map showing the three research communities
Source: (Google Ariel Maps (12/08/2024))

In this research, a case study design was applied. It was chosen because of its suitability for the study of the interaction between social actors and social phenomenon in greater depth. The researchers used both qualitative and quantitative research methods to attain their goals. Although qualitative methods are dominant in this study, some quantitative techniques have been applied using a structured questionnaire. The goal is to utilize statistics to explain some parts of the study in order to better understand human perceptions, behavior, feelings, and attitudes in respect to the subject under investigations in detail.

To recruit participants for the study, the researchers utilized a combination of purposive, snowball and systematic sampling strategies. Purposive sampling was used to select participants from the forestry service division, assembly and unit committee members, queen mothers, and the land pacifiers. It was considered that these individuals/institutions have certain pertinent information that are relevant to the study. Snowball sampling technique was employed to select individuals who have exclusive information about the taboo and social norm systems, but were not readily available and known as of the time of the study. This approach was employed because of the knowledge that the content of the research revolved around traditions, values, social norms and taboo systems, and that certain pertinent individuals have this knowledge. The researchers relied on the first contacts made in the community during the initial community visit, to reach the other respondents in this category. The remaining 49 respondents were selected through stratified sampling techniques. In all, eighty (80) individuals were sampled and used as respondents of this study (see Table 1).

Table-1: Category of respondents

Category	**Number of Respondents**				**%**
	New Longoro	**Kyingakrom**	**Ayorya**	**Total**	
Assembly and Unit Committee members	4	4	4	12	15
Forestry Service Division	1	0	0	1	1
Queen Mothers	1	1	1	3	4
Land pacifier (diviner)	1	1	1	3	4
Key Informants	5	4	3	12	15
Other members of community	20	14	15	49	61
Total	**32**	**24**	**24**	**80**	**100**

Source: (Field Survey, 2024)

The technique used in this study heavily relied on interviews, participant observation, and focus group discussions. Key informants were interviewed in semi-structured interviews. The researcher used an interview guide that contained open-ended questions. The semi-structured interview allowed the respondents to express their views in their terms and provided reliable and comparable qualitative data. Also, the researchers visited sacred local shrines, grassland and farms, where TEK systems and practices related to the exploitation of the African shea tree are perceived to be observed. A focus group discussion was held with community members in each of the study communities. In each of the focus group discussions, the participants did not exceed nine. The study was interested in amassing information from individuals who are well abreast with the dynamics of the informal institutions that govern the exploitation of the shea trees and the factors that influences the successful application of existing TEK. Based on the study's objectives, a list of questions was prepared to guide each focus group discussion session.

Based on the research instruments and the data obtained, data was organized, processed and analyzed. Much attention was paid to stories and experiences shared by the respondents and answers provided to the questions asked. The researcher validated the study findings by re-visiting two respondents in each of the study communities. This process assisted the researcher in producing findings that are consistent with what was related by the research respondents.

3. Results

3.1 Existing forms of informal institutions in the management of the African Shea tree

- *Traditional Ecological Knowledge in the Form of Taboos*

There are taboos that forbids members of the communities to refrain from cutting shea trees entirely. The traditional communities believe that the spirit of their re-incarnated ancestors find their habitation on the Shea tree before they transition to other tree and animal species. The respondents notes that this fear of destroying ancestral habitat has induced the traditional communities to turn away from harvesting the shea tree for economic and any other purposes. The communities regard the ancestors as an integral part of life and live closer to the unseen world. The intervention of the ancestors is invoked during childbirth, pandemic diseases, and in the planting and harvesting seasons. The important ancestors of the communities are thus able to reward good deeds, as well as, punish individuals who transgress their dictates and standards.

- *Traditional ecological knowledge in the form of customs and rituals*

Traditional rituals in the form of slaughtering of fowls and required the pouring of libations are performed in the event of an intent to cut shea tree, or to appease the ancestors for a shea tree that is cut already. Such pacifications are meant to reconcile the communities and the ancestors in the event of transgressing their dictates and standards.

- *Traditional ecological knowledge in the form of social norms*

Existing social norms in the study communities were initiated by the leadership of the communities when they have found that the shea tree is vulnerable to environmental changes. Individuals or households found to have broken established social norm systems face severe penalties and fines. For example, individuals and institutions who wants to use lands that have shea trees for other purposes would present sheep, fowls and bottles of traditional alcoholic drinks to the traditional leadership to pacify the ancestors before such shea trees are cut. Failure to comply with collectively established social norms and rule systems often result in a fine of money or livestock, social gossip and derogatory name-tags.

3.2 Current State of Traditional Ecological Knowledge Systems in the Management of Shea Trees

- *Level of awareness of forms of TEK in the study communities*

The study found that, all the research respondents are aware of the existing taboos, social norms and rituals in the management of the shea tree. 30% of the respondents received this information from the older generation whiles 53% received it from their friends and colleagues (peers). 17% of the respondents couldn't tell exactly where they had the information about the existing forms of TEK in the cutting of shea trees.

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➢ *Extent of adherence to forms of TEK in the conservation of shea trees*

The research explored the extent of adherence to the provisions of traditional ecological knowledge on the preservation of shea trees in the study communities. Chart 2 show the details.

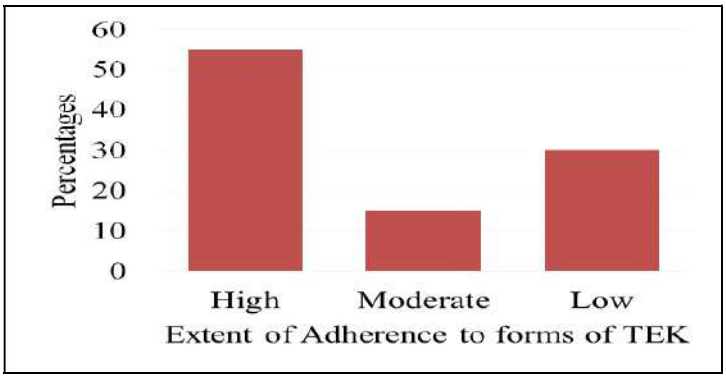

Chart 2: Extent of adherence to the forms of TEK in the conservation of shea trees
Source: (Field Survey, 2024.)

As can be inferred in the data in Chart 2, 55% of the respondents assert that the extent of adherence to TEK forms in the conservation of shea trees is excellent. They attributed it to various factors, including the nature of the communities, the rules in place, and the attributes of the shea tree. The communities share the same socio-cultural attributes, including language, ancestral origin, festivals, and belief systems and practices. It is common knowledge in the communities that bad omen from the ancestral spirits as punishment for breaking a taboo system is a spell on the entire community. Individuals whose actions breached conventional protocols risk invitation to face the ancestral court in the land of the dead. Traditionally, the people also believe that all blessings come from the ancestral world, and hence, the need to observe established protocols and dictates.

Other research respondents believe that the level of effectiveness of TEK in the conservation of shea trees in the study area has dwindled in recent times. According to them, the response rate of the ancestors to actions that are not socio-culturally consistent has been tempered with leniency. The above explains why specific individuals can break the already established traditional protocols without any dire consequences. 30% of the respondents note that the extent to which the communities adhere to TEK forms in conserving shea trees is low.

➢ *Factors responsible for the loss of TEK in the conservation of shea tree*

The factors responsible for the loss of traditional ecological knowledge in the conservation of the shea tree are shown in Chat 3.

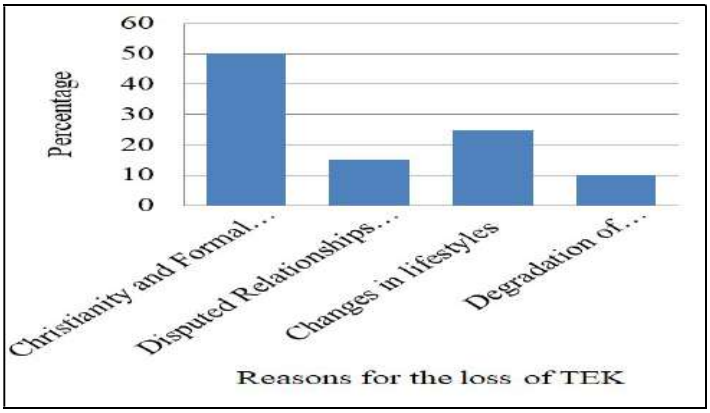

Chart 3: Reasons for loss of TEK in the conservation of shea trees
Source: (Field Survey, 2024.)

In Chart 3, 50% of the population has attributed the loss of TEK in the management of shea trees to the role played by Christianity and formal education. Christianity and formal education have conspired to demonize TEK as primitive and barbaric, and that whatever is borne out of those belief and taboo systems are full of evil spirits. The communities are able to use the shea tree as medium to invoke the spirit of rain, when farmers needs it to boost crop production. These actions have make TEK unpopular most especially among the youth of the communities. The respondents mentioned that, this has the possibility of threatening the sustainable management of shea trees using TEK systems and practices.

Closely related to the above is the marred knowledge relationship dispute between the youthful and older generations in the communities. One of the traditional authority respondents notes that the youth do not see anything worth emulating from them. He summarized the disputed knowledge stained in the following words:

> *In the past, the duck leads the ducklings to their destination. Today, things have changed… The ducklings are now leading the duck (mother). This is the reality of what is happening between us (the older generation) and the young people you see around.*

Some of the respondents note that the youth have exposure to 'modern-day life' and have developed the wrong attitude towards the older generations and their belief systems and practices.

3.3 Factors that are responsible for the successful application of traditional ecological knowledge in the conservation of shea trees

The study investigated the factors responsible for the TEK's effectiveness in conserving the shea tree in the study communities, as shown in Chart 4.

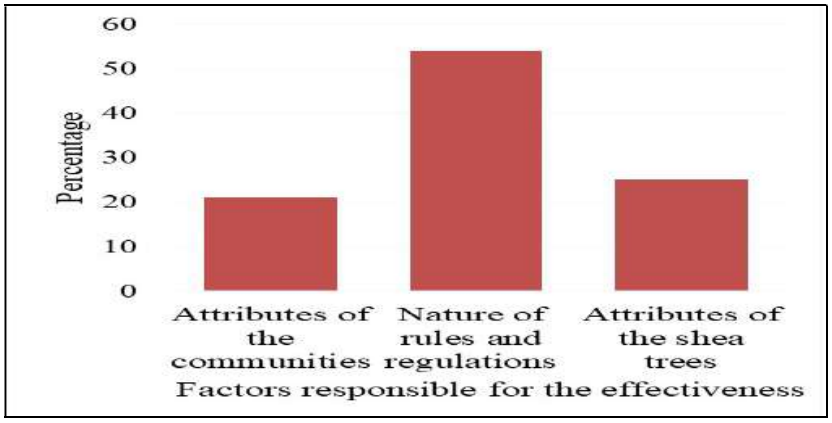

Chart 4: Factors that have influenced the successful application of TEK in the conservation of shea trees

Source: (Field Survey, 2024)

Fifty-four per cent (54%) of the respondents attributed the success of TEK in the study communities to the nature of rules governing the exploitation of shea trees. The communities believe that their important ancestors' spirits can cast spells on individuals who exploit shea trees in an unsustainable manner. Offenders are more likely to get lost in the bush/wild or be bit by poisonous snakes (see table 2).

Table-2: Sanctions for breaking taboos and social norms that forbid the cutting of shea tree in the study communities.

Area	Spiritual Sanctions	Physical Sanctions
Cutting of Shea tree	-Offended might give birth to an already deformed baby -Loose ancestral blessings -Get lost in the wild/bush	-Log is seized -Payment of sheep, goat and fowls for pacification -A fine of up to 100 GH -Gossip and social humiliation
The toasting of the shea tree	-Give birth to a deformed baby -Loose ancestral blessings	-Payment of sheep, goat and fowls for pacification -Gossip and social humiliation

Source: (Field Survey, 2024.)

The communities also have diverse ways of enforcing established social norms systems that borders the exploitation of shea trees. In all the study communities, some sub-committees are charged with the onus of enforcing regulations on the management of the shea trees.

Again, Twenty-one per cent (21%) of the respondents attributed the successful application of TEK in the preservation of shea trees to the characteristics of the resource communities. Over 80% of the population in the communities are of the Mo/Dega speaking origin. The community members share exact ancestral origin, customs, traditions and belief systems. The communities are also characterized by traditional professions such as pastoralism, fishing and agriculture, professions whose activities require the use of TKE systems. The continued interaction between people and their local ecological economy has maintained their interest in maintaining ecological balance.

Twenty-five per cent (25%) of the respondents also attributed the success of TEK in the preservation of shea trees to the attributes of the resource to the sustenance of the needs of the communities. Different parts of the shea tree are generally used in various areas of daily life. The dry wood is used to make household tools and fuel for cooking. The roots and bark are also used for medicinal and pesticides application. The delicious pulp of Shea fruits is a valuable source of energy. The butter collected from the kennels, according to the respondents, is frequently used in local households for cooking, lighting, making soap, and the treatment of numerous ailments. Furthermore, a major portion of the population earns a living by extracting and selling shea products, thereby enhancing their quality of life and level of living.

4. Discussions

This research was structured to investigate the contribution of traditional ecological knowledge systems and practices to the sustainable management of biological resouces in Ghana, using the African shea tree (Vitellaria paradoxa) for a case. The study found that the study communities have used traditional ecological knowledge in the form of taboos, social norms and ritual systems to provide standards of social regulations and the development of worldviews and cultural values that borders on preserving shea trees. The rationale behind the forms of traditional ecological knowledge systems has been linked to the critical role played by the ancestral spirits in enhancing the socio-economic lives of the living. The ancestors are the source of fertility, bumper harvest and the averters of evil omen. They can cast spells on the socio-economic and cultural lives of the living, most especially those who transgress their dictates and standards. Taboos, rituals and social norm systems thus function as coercive forces that ensure adherence to dictates and standards of the ancestors concerning the exploitation of the shea tree in the study communities. It was not surprising that the respondents considered the forms of traditional ecological knowledge systems as an economic and social asset that have resulted in the sustainable management of shea trees and other biological resources in the communities. What the above suggest is the efficacy of the ecological knowledge of traditional communities in ameliorating the challenges of the extinction of biological resources.

The findings of this study confirms the earlier assertion of **Gyampo et al. (2008)** that many traditional communities in Ghana have vast amounts of traditional ecological knowledge systems and practices that exist, and are applied

through well-established social and cultural institutions in the form of local beliefs, customs, rituals, values, and taboos for managing biodiversity. The study recorded high similarities in the forms of traditional ecological knowledge systems and practices across all three communities. These stem from the fact that all the study communities share the same socio-cultural attributes, including language, ancestral origin, festivals, and belief systems and practices. These socio-cultural attributes have enabled the communities to champion their common interest in protecting their boundaries against unsustainable shea trees and other biological resources. The above further corroborate the view of **Colding and Folke (2001)** that when communities share the same socio-cultural attributes (including ancestral origin), significant geographic distance between them is often not a barrier to applying the principles of traditional ecological knowledge systems and practices. The factors, found to have influenced the successful application of TEK in the study communities are not different from the earlier position of Ostrom (2006) who notes that the nature of resource communities, existing institutional mechanisms and characteristics of the resource systems are the key variables that influences the successful application of conservative taboos and social norm systems.

Contrary to earlier assertion of **Hardin (1968) and Oslon (1960)**, this research has demonstrated the ability of a group of resource users to collaborate and sustainably manage the common resource which forms a substantial part of their livelihood. The results demonstrate that focusing on the tenets of traditional ecological knowledge systems and practices as tools for managing local biological resources could yield significant conservation benefits. Social norm systems prescribed by the leadership of the traditional communities have played significant conservation roles, although they often change depending on the prevailing socio-economic and environmental conditions. Unlike social norm systems, taboos and rituals are initiated by the important ancestors. The sanctions for breaking them are in the hands of the precepts of ancestors, who are the owners of the invisible world. Social sanctions associated with breaking the rules and regulations bordering the exploitation of shea trees are alone enough to enhance adherence.

The study reports a broader and increasing decline in the application of valuable traditional ecological knowledge systems and practices in the conservation of biological resources in traditional communities. Aside the role played by religion and formal education in demonizing TEK systems, the study recorded peer to peer transmission as the dominant mode of transmitting TEK in the study communities. Within the transmission processes of TEK systems, the body of knowledge and information tends to be adapted and modified by new observations and practices. What the above suggest is a greater possibility of distortion of traditional ecological knowledge that borders the exploitation of biological resources. **Berkes (2008)** notes that one of the essential features of traditional ecological knowledge is its continuous adaptation to changing environmental and cultural conditions. Therefore, the onus lies in the precepts of local biological resource managers to contend with the many challenges associated with rapidly changing socio-economic conditions that affect the implementation of TEK systems and practices.

Many studies on the informal institutions and the management of biological resources have not reported on the factors responsible for the deficiency between existing rules and rule implementation. In the study communities, this study has demonstrated that the deficiency between the existing rules and implementation of sanctions stems from simple negligence, broken relationship between the current and aged generations and in some cases, active resistance. Other concerns focus on effectiveness and equity in the utilization of shea trees and their related products. Equity considerations are closely linked to efficiency issues. Inequalities in resource use can lead to the collapse of collective management and are more likely to arise when there are substantial inequalities among users, creating the possibility for some to benefit from the products of shea trees at the expense of others. Although these may not always be the case in local communities, it is the study's expectation that biodiversity policymakers, particularly at the local level, will recognize the dynamic nature of resource users and how inequalities and equity issues may undermine the dynamic quality of people's responses to livelihood insecurity. It is beyond the scope of this study to determine how age and gender influence the application of traditional ecological knowledge in shea tree management.

Despite growing recognition of the importance of traditional ecological knowledge systems and practices for the long-term management of biological resources, many management regimes still lack effective formal mechanisms for incorporating traditional ecological knowledge into active biodiversity management. This, among other factors, has contributed to the disparities in understanding of traditional ecological knowledge systems and practices and compliance. As a result, the visibility of traditional ecological knowledge systems and practices to future generations is lowered. Efforts by conventional resource managements to promote the dynamic nature of traditional ecological knowledge and adopt more holistic and adaptive views that accommodate alternative worldviews would be significant in the continued survival of the tenets of TEK. This study believes that taboo systems, rituals and social norms are still revered and used as a basis for the conservation of biodiversity. However, these systems and the associated knowledge have operated without any legal backing. Establishing a legal framework that would empower local resource managers in their strides to protect biodiversity using traditional knowledge systems would be significant in the fight against the excessive loss of biodiversity.

5. Conclusions

For generations, indigenous people have lived in natural habitats. They practiced lifestyles and belief systems based on their extensive understanding of local plants, fauna, and ecology. Conventional systems have often overridden local traditional knowledge, and at times christen them as primitive and backward. Against the backdrop of the unprecedented extinction of global biodiversity and its impacts on human wellbeing, there is an increasing interest in the role traditional ecological knowledge systems and practices play in biodiversity conservation and the factors that have influenced their effectiveness. The study has demonstrated that the research communities have in place taboos and ritual systems that their important ancestors initiate and backed by punitive spells. The nature of the rules and the need to secure a healthy relationship with the ancestral spirits have induced the communities to abhor the cutting of shea trees, used by the ancestral spirits as mediums to transition to the land of the living. The study found evidence suggesting that the general body of knowledge and information bordering the exploitation of shea trees tend to be adapted and modified by new observations and practices. However, the homogenous nature of the communities and the attributes of the shea trees have played significant roles in sustaining the interest of the communities in the sustainable management of shea trees. Scaling up the application of traditional ecological knowledge in the management of biological resources will increase ecosystem, species and genetic diversity and would be valuable for wildlife conservation. This will make Ghana an excellent example for other developing countries. Government agencies, non-governmental organizations, and conservationists must focus on identifying suitable traditional ecological knowledge systems and practices and work collaboratively with local communities to implement them sustainably. It is pertinent that we manage these resources with the help of these traditional institutions now that they are still available and some animals and tree resources are still in existence in the forest, or else when the value of these taboos would be realized, it might be too late to achieve any meaningful success. Future research into applying traditional ecological knowledge systems should focus on establishing a framework of how conventional conservationists and traditional communities could work together to manage biological diversities.

References

Abbiw, D. K. (1990). Useful plants of Ghana. Intermediate Technology.

Acheampong, E. N., Ozor, N., & Owusu, E. S. (2014). Vulnerability assessment of Northern Ghana to climate variability. Climatic change, 126(1), 31-44.

Alieu, E. K. (2010). Building on local foundations: Enhancing local community support for conservation. Unasylva, 61(236), 22-27.

Amit, V., (2000). Introduction: Constructing the fieldwork. Constructing Ethnographic Fieldwork in the contemporary world. Routledge.

Anoliefo, G. O., Isikhuemhen, O. S., & Ochije, N. R. (2003). Environmental implications of the erosion of cultural taboo practices in Awka-South Local Government Area of Anambra

State, Nigeria: 1. Forests, trees, and water resource preservation. Journal of Agricultural and Environmental Ethics, 16(3), 281-296.

Anthwal, A., Gupta, N., Sharma, A., Anthwal, S., & Kim, K. H. (2010). Conserving biodiversity through traditional beliefs in sacred groves in Uttarakhand Himalaya, India. Resources, Conservation and Recycling, 54(11), 962-971.

Barton, J., & Pretty, J. U. L. E. S. (2010). Urban ecology and human health and wellbeing. Urban ecology, 12(1), 202-229.

Bassey, A. E., & Kanung, R. (1996). The history and cultural background of Busi People. In Paper delivered at a workshop on Cultural Anthropology of the Inhabitants of Rainforest of Southeastern Nigeria and Southwestern Cameroon, held at the Obudu Cattle Ranch and Resort, Cross River State, Nigeria.

Berkes, F. (2000). Indigenous knowledge and resource management systems in Canadian. Linking social and ecological systems: Management practices and social mechanisms for building resilience, 98.

Berkes, F. (2008). Sacred ecology. Traditional ecological knowledge and resource management. Philadelphia and London, UK: Taylor and Francis,

Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. Journal of Environmental Management 90:1692-1702.

Boffa, J. M. (2000). West African agroforestry parklands: keys to conservation and sustainable management. UNASYLVA-FAO-, 11-17.

Carette, C., Malotaux, M., van Leeuwen, M., & Tolkamp, M. (2009). Sheanut and butter in Ghana. Opportunities and constraints for local processing. University of Wageningen.

Colding, J., & Folke, C. (2001). Social taboos: Invisible systems

Cole, D. H., & Grossman, P. Z. (2010). Institutions matter! why the herder problem is not a prisoner's dilemma. Theory and Decision, 69(2), 219-231.

Dawes, R.M.; Messick, D.M. (2000). Social dilemmas. Int. J. Psychol., 35, 111–116

DeGeorges, P. A., & Reilly, B. K. (2008). A critical evaluation of conservation and development in Sub-Saharan Africa: Last Chance Africa. The Edwin Mellen Press, Lewiston, New York, 7(3), 572.

Díaz, S., Demissew, S., Carabias, J., Joly, C., Lonsdale, M., Ash, N., ... & Zlatanova, D. (2015). The IPBES Conceptual Framework—connecting nature and people. Current opinion in environmental sustainability, 14, 1-16.

Dickson, K. B. (1969). A historical geography of Ghana. CUP Archive.

Ellen, R. F. Parkes. P./Bicker, A.(eds.)(2000): Indigenous environmental knowledge and its transformations: critical anthropological perspectives.

Gyampoh, B. A., Amisah, S., Idinoba, M., & Nkem, J. (2009). Using traditional knowledge to cope with climate change in rural Ghana. unasylva, 60(281/232), 70-74.

Hall, J.B, D.P Aebischer, H.F Tomlinson, Eosei - Amaining and J.R hindle, (1996). Vittellaria paradoxa: A monorgraph. School of Agricultural forest Science publication number: 8, Bangor, University of Wolves. blishers Ltd.

Houde, N. (2007). The six faces of traditional ecological knowledge: challenges and opportunities for Canadian co-management arrangements. Ecology and Society, 12(2).

Hunn, E. (1993). What is traditional ecological knowledge? In NM. William, and G. Baines (Eds), Traditional Ecological Knowledge: Wisdom for Sustainable Developemnt (pp.13-15). Canberra: Centre for Resource and Environmental Studies, Australia National University.

Inglis, J.T. (Ed.) (1993). Traditional Ecological Knowledge – Concepts and Cases. Ottawa: International Program on Traditional Ecological Knowledge & International Development

Ingold T. The Perception of the Environment: Essays on Livelihood, Dwelling and Skill. Psychology

IPBES, (2013). Recommended Conceptual Framework of the IntergovernmentalScience-Policy Platform on Biodiversity and Ecosystem Services.⟨ http://ipbes.net/plenary/ipbes-2-documents.html#workingdocuments⟩ (accessed 24.11.20)

Jaede, M. (2017): The concept of the common good. Available at: http://www.politicalsettlements.org/publications-database/the-concept-of-the-common-good/ (accessed 10 Feb. 2018).

Lingard, M., N. Raharison, E. Rabakonandrianina, J.A. Rakotoarisoa and T. Elmqvist, (2003). The role of local taboos in conservation and management of species: The radiated tortoise in southern Madagascar. Conservation and Society., 1: 223-246.

Lovett, P. N., & Haq, N. (2000). Diversity of the Sheanut tree (Vitellaria paradoxa CF Gaertn.) in Ghana. Genetic Resources and Crop Evolution, 47(3), 293-304.

Maranz, S., Kpikpi, W., Wiesman, Z., De Saint Sauveur, A., & Chapagain, B. (2004). Nutritional values and indigenous preferences for shea fruits (Vitellaria paradoxa CF Gaertn. F.) in African agroforestry parklands. Economic Botany, 58(4), 588-600.

Maranz, S., Wiesman, Z., & Garti, N. (2003). Phenolic constituents of shea (Vitellaria paradoxa) kernels. Journal of agricultural and food chemistry, 51(21), 6268-6273.

Moller, H. (2009a). Guidelines for cross-cultural participatory action research partnerships: A case study of a customary seabird harvest in New Zealand. New Zealand Journal of Zoology. 36:211-41.

Mwihomeke, S. T., Msangi, T. H., Mabula, C. K., Ylhäisi, J., & Mndeme, K. C. H. (1998). Traditionally protected forests and nature conservation in the North Pare Mountains and Handeni District, Tanzania. Journal of East African Natural History, 87(1), 279-290.

Nabhan, GP (2000). Native American management and conservation of biodiversity in the Sonoran Desert bioregion. In P.E. Minnis and W. J. Elisens (Eds), Biodiversity and Native America (pp. 29-43). Norman OK: University of Oklahoma Press.

Ntiamoa-Baidu, Y. (1995). Issues In African Biodiversity, No. 1. Indigenous vs Introduced Biodiversity Conservation Strategies: The Case Of Protected Area Systems In Ghana. African Biodiversity Series.

Nwana, O. C. (1981). Introduction to educational research. Ibadan: Heinemann Educational Books.

Oakerson, R. J. (1989). Governance structures for enhancing accountability and responsiveness. Handbook of Public Administration, 1, 14-1.

Okumu-Alya, F. (2009). The regional dimensions of the war in northern Uganda. Pretoria: Institute for Security Studies.

Orwa, C. (2009). Agroforestree Database: a tree reference and selection guide, version 4.0. http://www. World agroforestry. org/sites/treedbs/treedatabases. asp.

Ostrom, E. (1990). Governing the Commons: The Evolution of Institutions for Collective Action; Cambridge University Press: New York, NY, USA.

Pierre, M. & Peters, G. B. (2000): Governance, Politics and the state. London: Macmillan.

Sandelowski, M. (1995). Sample size in qualitative research. Research in nursing & health, 18(2), 179-183.

Šmid Hribar, M., Bole, D. & Urbanc, M. (2015) Public and common goods in the cultural landscape. Geografski Vestnik, 87(2), pp. 43–57. DOI: 10.3986/GV87203

Stake, R. E. (1995). The art of case study research. Sage.

Tella, A. (1979). The practice of traditional medicine in Africa. Nigerian medical journal: journal of the Nigeria Medical Association, 9(5-6), 607-612.

Turner, N. J., Ignace, M. B., & Ignace, R. (2000). Traditional ecological knowledge and wisdom of aboriginal peoples in British Columbia. Ecological Applications, 10(5), 1275-1287.

Twumasi, P. (2001). Social research in rural communities. Ghana University Press.

Warren, D. M. (1995). Comments on article by Arun Agrawal. Indigenous Knowledge and Development Monitor 4(1):13.

WHO (2010). The World Health Report in 2010, Berlin, Germany.

Yin, R. K. (1994). Discovering the future of the case study. Method in evaluation research. Evaluation practice, 15(3), 283-290.

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