Totemism and Climate-Smart Adaptations in the Wasipe Traditional Area of the Savannah Region of Ghana
Zakaria Shanunu

Faculty of Social Sciences, Department of Sociology and Social Work, University for Development Studies, Tamale, Ghana.

ABSTRACT
The belief in totems is very common in Ghana and other regions of Africa. This study looked at the development of Totemism over time in Ghana and Africa. The purpose of this research was to uncover the significance of Totemic climate smart adaption methods used in development discourse in Ghana's 'Wasipe' Traditional Area of the Savanna Region. This has the potential to provide certain societal benefits related to climate-smart adaptation. The study adopted the Ethnographic theory as seen in Dewan and Haverkort’s conceptual approach to measure the relationship between nature and Totemism. At the same time, Ethnographic research provides insight into the cultural and social context in which people live and work. Both quantitative and qualitative data analysis were used for the study. The ‘Wasipe’ traditional area was purposively selected for the study because of the cultural background and experiences of the diverse endogenous knowledge systems and practices in the area. The target population consisted of traditional chiefs and opinion leaders who actively participate in the Community's cultural, traditional and customary activities. Key among the findings include: "Wasipe" traditional area is divided into clans and groups according to Totemic beliefs. They mentioned leopard, tiger, rivers, tortoise, hawk, python, mudfish, electric fish, baobab tree, chameleon, parrot, spear, kapok tree, and some forms of tree species as totems in that traditional area. Totems help them to be able to forecast short, medium and long-term weather changes. It is recommended that multiple layers of actors and stakeholders should be involved in the planning and implementation of Ghana's adaptation action. The paper concluded that Totemism continues to play a significant part in the day-to-day socio-political economic orientation, defying the effect of Western norms in our societies. This paper has shown that climate-smart adaptation strategies are cross-disciplinary and multidisciplinary.

Keywords: Totem, Taboo, Sacrifice, Religion, Tradition, Culture, Climate, Chiefs, Cosmovision.

INTRODUCTION
The role of beliefs, culture, traditions, customs and concerns associated with Ghanaian tradition has been neglected and devalued throughout the development process.¹ There is widespread agreement that traditional development methods have flaws.² Development models have frequently produced some results but not all of them. According

¹ A. Abu and D. Millar, Land, Natural Resources and Spirituality, Policy Implication on Rural Livelihood in Northern Ghana (Bolgatanga, Ghana: CECIK, 2004).
to Augustine, all human society's common goal is to develop, but the issue is figuring out the best routes to take. A critical evaluation of different development initiatives demonstrates that there are many different problems, according to Bacho. This is a result of the problems the developing world encounters being diverse, intricate, and multi-dimensional. Changes in development methodologies were necessitated, particularly in the 1980s and 1990s, by efforts at structural adjustment, decentralization, and participatory development. When considered in the contemporary global context, development concerns are more complicated than they ever were. To realize their own development, societies have created structures and procedures that act as building blocks.

Belief in totems has become widespread among cultures in Northern Ghana and some parts of the world. Social taboos such as incest between related totems are avoided by those with totems. The idea of employing totems served as a visual representation of the intimate connection between people, animals, and their environment. According to anthropologists, the use of totems was a common practice in early communities. A totem is a sort of physical object that a conqueror reverts out of superstitious fear because he feels a beloved, one-of-a-kind connection to everyone.

As in the Anishinaabe clan system, a totem is a spirit being, sacred item, or symbol that represents a tribe, family, clan, lineage, or other group of people. The Anishinaabe people are grouped into several clans, each of which is called mostly after an animal totem. The majority of these clans are located in North America and Canada. Totemism is the reverence of certain living things, such as animals, plants, and other tangible objects. The supernatural or spiritual abilities of totems are thought to exist. In this sense, most African societies frown against mishandling, destroying, or even murdering totemic animals and plants.

Although "the planet" is under severe physical harm from climate change, most people, civilizations, and ways of life and culture also face social, political, and cultural threats. Everything related to history, dwellings, languages, foods, architectural styles, and traditions is included in culture. Even if such strong correlations between climate and personality have been disproved by modern studies, researchers are still looking at how culture and climate interact, hence the relevance of this study. ‘Wasipe’ traditional area was purposively chosen for this study because of the different cultural and traditional symbolic meanings attached to “Totems” and the use of this for climate-smart adaptability issues, the variations involved in the area which the study seeks to unravel.

Climate Adaptation and Culture
Reduction in carbon emissions is no longer sufficient to halt the effects of climate change. Many governments are recognizing that it is past time to begin preparing for a warming planet. Adaptation initiatives focused on agriculture, water, ecosystems, and cross-cutting sectors must be expanded. The process of adapting to the effects of climate change is known as climate change adaptation. These can be current or anticipated effects. Adaptation seeks to reduce or eliminate harm to people. It also intends to capitalize on opportunities. Humans may also intervene to help natural systems adjust. The climate catastrophe and its growing effects will have a significant impact on how societies design their shared future. But culture and tradition have a profound influence on how humans perceive, comprehend, and react to climate change. Designing and executing efficient solutions to reduce harmful heat-trapping emissions and aid communities in adapting to unavoidable impacts can be greatly aided by an understanding of what people value and prioritize within their respective cultural contexts. Climate catastrophe puts Indigenous communities' livelihoods, habitats, and cultural integrity at risk. Redressing historical wrongs that threaten cultural traditions and fusing modern and Western ways of life are necessary for maintaining the cultural integrity of individuals. Heritage is made up of both tangible and intangible things, including museums, artwork, archaeological sites, architecture, and monuments. This heritage passed down and developed through generations spanning decades to millennia, might comprise customs, culinary traditions, languages, talents, ceremonies, creative


6 Abu and Millar, Land, Natural Resources and Spirituality. Policy Implication on Rural Livelihood in Northern Ghana.


expression, cosmologies, identities, and ways of knowing. These populations are frequently the most vulnerable to climate change and have traditionally experienced marginalization, discrimination, or aggressive persecution.12

Climate-related factors, such as temperature and precipitation variations and weather shocks, can have an impact on cultural traits through several different mechanisms. First, being exposed to certain weather patterns has an immediate bodily and psychological impact. The weather has been shown to alter a wide spectrum of emotions, according to research in behavioural economics, psychology, and medicine.13 Societies could have both pleasant and sad emotions in response to rain. Violence and crime rates have been connected to extreme temperatures. Weather anomalies cause psychological reactions since they endanger survival and way of life.

People adapt to their surroundings, which is the most important concept for the subject of this paper. They either adopt ideologies and lifestyles that guarantee their survival in a particular climatic area, learning from one another and passing on the knowledge to their progeny, or they migrate in quest of more favourable habitats.14 Thus, the observed variations in cultural features and behaviours may in part be the result of human adaptation to a variety of settings. For instance, agricultural methods are influenced by climate, which affects the importance of collaboration, ideal family and community size, gender roles, and other factors. Additionally, climate influenced the type of agricultural activities, which in turn influenced norms and behaviours. According to Saylor et. al., particularly for indigenous adolescents, issues surrounding identity, culture, and their future on a warming planet are fraught with uncertainty.15

Awuah-Nyamekye, for example, demonstrates that societies that engaged in plough agriculture evolved gendered divisions of labour and more unequal gender norms than communities that participated in shifting cultivation.16 Due to the intimate ties between a person's culture and their sense of identity and community, the loss of cultural traditions could result in decreased social cohesion and general mental health challenges.

The majority of the climate change argument focuses on the immediate effects, such as worsening storm intensity and frequency, greater insurance premiums, rising sea levels, declining property prices, and dwindling arable land. The indirect effects of climate change on culture, however, are less frequently talked about. These include the loss of traditional practices and customs.

**Cultural and Climate Threats**

Traditional knowledge has historically been a significant source of regional creativity to offer answers for coping with the effects of nature. Climate change's human and cultural impacts imply "the need to consider how the loss of tangible heritage places, sites, and structures will affect communities and the intangible aspects of culture, or on finding a locally appropriate response to this potential loss." According to Adger et al "Culture influences how society reacts to every aspect of global climate change. The material and lived aspects of culture, identity, community cohesion, and sense of place are all threatened by climate change."18 Adger, et al posit that "Climate adaptation refers to the steps taken to manage the effects of climate change by reducing vulnerability and exposure to its negative effects and utilizing any potential benefits."19 This happens internationally, nationally, and local levels. Ecosystems have a huge influence on human culture, and changes in those ecosystems can have a big impact on social stability and cultural identity.20 Cultural patterns are lived, confirmed, and altered by the individuals who participate in the culture to create it. They are not static and cannot be reduced to a single, absolute description. Michael et. al., indicated that cultural heritage faces competition from an "avalanche of other urgent resource-demanding concerns" under the climate change regime. They contend that the cultural heritage regime's own lack of attention to the "cultural heritage values" for mankind is a contributing factor to the issue.

According to Hee-Eun, utilitarian thinking pushes some facets of cultural heritage to the margins of discussion and policy.21 Due to the dispersed nature of Tuvaluan immigration in New Zealand, the traditional culture

---

12 Millar and Dittoh, “Interfacing Two Knowledge Systems and Science in Africa.”
18 Adger et al., “Cultural Dimensions of Climate Change Impacts and Adaptation.”
19 Adger et al., “Cultural Dimensions of Climate Change Impacts and Adaptation.”
20 Adger et al., “Cultural Dimensions of Climate Change Impacts and Adaptation.”
of Tuvalu has inevitably merged with that of the island nation, thus diluting the community-based culture. Climate change has typically been blamed for the increased vulnerability and frequency of particular dangers.\textsuperscript{22} UNESCO promoted the understanding of the value of heritage to humanity. The necessity to legally preserve and protect history for present and future generations resulted from this realization. When UNESCO adopted the World Resources Convention in 1972, the legal framework established to conserve cultural resources was first restricted to protecting only intangible cultural heritage. The tangible cultural legacy has suffered significantly as a result of climate change. Harsh weather conditions destroy monuments; glaciers melt and flood natural environment sites as a result. The International Union for Conservation of Nature (IUCN) wrote in 2008 that the disproportionate impact of climate change on vulnerable populations, especially indigenous people, made the lack of an Indigenous voice in climate-smart discussions particularly concerning.

Gul et al. emphasized a similar pattern, concluding that Indigenous Peoples are disproportionately affected by climate change.\textsuperscript{23} They claimed that they are "among the most vulnerable to the adverse effects of climate change because, among other reasons, their existence is often inextricably tied to the land." Native American activists were among the first to stress that climate change affects not only landscapes but also cultural identity. Future generations of Indigenous communities will undoubtedly be impacted by climate change, in addition to the current generation Indigenous Peoples have participated in international conversations on climate change, according to Maus.\textsuperscript{24} Indigenous peoples' representatives have been involved in climate-wise adaptation since 1998, and they have released several declarations expressing their worries about how climate change may affect their way of life and culture.\textsuperscript{25}

\textbf{Society and Totems}

Given the differences in the various cultural settings, the worldview of any civilization will typically present both obstacles and chances for development processes in various economic, political, and sociocultural circumstances.\textsuperscript{26} The bond between a man and his totem is mutually beneficial because the totem protects the man, and the man shows his respect for the totem in an array of ways, like avoiding killing it if it is an animal or cutting or gathering it if it is a plant.

Totemism is thus a social and religious philosophy. In the context of the belief system, it refers to a person's relationship towards his or her totem; as a matter of the community, it refers to the relationships between members of one clan and those of other clans. Each family or clan in Senegambia can claim ancestry from one of the following animals: hippopotamus, crocodile, or scorpion. The people of Funafuti or Ellice Island in the South Pacific think that men and women originally lived there prior to being followed by porcupine fish.

Acting disrespectfully to the totem is said to result in a variety of consequences. According to Barre et al, if a man ate his totem, the women of his tribe would either miscarry and give birth to totemic animals or perish from a terrible sickness.\textsuperscript{27} Eating the totem appears to have resulted in sickness or death in Australia as well, but the Australians have a highly complicated code of food prohibitions as well, which varies mostly with age, generally becoming stricter and more extensive during puberty and progressively loosening with increasing years. A man and his totem share a connection of mutual assistance and defense. The man expects the totem to treat him with respect and care if he treats it similarly. Totemism refers to a mystical or ritual tie between members of a particular social group and species of animals or plants, according to Freud.\textsuperscript{28}

Africans have always held a belief in totems as real entities or as legitimate religious concepts. The practice and belief of Totemism are well-known throughout Africa. Africans think there are two ways in which people might be linked. A person can first have a blood connection. This kind of connection demonstrates that the two people in question share a mother or father. A blood connection can be made in this kind of interaction. Totemic relationships are the second way to understand relationships. The individuals in question therefore possess the same totems. It is possible to view this from the perspective of a clan, village, full community, or even individuals from various

\textsuperscript{26} Millar and Dittoh, “Interfacing Two Knowledge Systems and Science in Africa.”
communities who share the same totem. Therefore, from an African perspective, human relationships can be totemic or consanguineous.

Religion, Totemism and Tourism
In fact, the original veneration African ancestors gave to totems in Igbo-African ontology has actually decreased under the impact of Christianity and Islam.29 He further pointed out that some totemic animals were being murdered and totemic plants were being removed for commercial gain. Without hesitating, one can assert that totemic belief can be significant in the fields of tourism and ecology. There is no denying the reality that Totemism as a philosophy and a way of life can promote the development and maintenance of totemic animals and plants in the places where they are revered. It is an axiom of existence that in environments without hostile treatment, animals are more likely to relax, reproduce, and live. The animal species can coexist in the totemic community because of the amicable expression. Furthermore, it may be claimed that Totemism is a highly important concept in the field of tourism. A reliable source of income for Ejikemeuwa is tourism.30 People enjoy taking vacations and visiting new places. Both domestic and foreign visitors are drawn by tourism. A totemic community benefits from this when totemic animals and flora are preserved. Some communities are witnessing the extinction of particular species of animals as a result of unrestrained hunting and animal killing. In some locations, people also indulge in tree cutting without any constraints. But as has just been stated, Totemism is a religion and a way of life that promotes a great veneration for totemic beings as well as a set of laws and norms that are meant to protect them. Because the town will become a major tourist destination for both domestic and foreign travelers, the preservation of totemic beings will undoubtedly have a significant positive impact on the local economy.

Antwi-Agyei claims that "preserving and reinforcing the country's cultural values would help the nation to follow the right path in achieving its goals."31 Amoah remarked that "when a deity or spirit is associated with a particular natural object or phenomenon, it is treated with care and not exploited in any way, but rather, through established procedure."32 “Due to habitat loss, many animals, reptiles, and most bird species have perished permanently.” According to the argument for the necessity to conserve totems, discarding them in the service of an alien culture also means discarding one’s cultural history. Wildlife is a treasured part of African culture, but due to habitat loss brought on by excessive hunting, logging, bushfires, the use of hazardous chemicals, and other factors, many species of animals, reptiles, and most bird species have perished permanently.

Taboos and Belief Systems
Traditions are ingrained in every element of life in Africa and are utilized to explain every occurrence in ordinary activities.33 However, the influx of foreign religions like Christianity and Islam, as well as modernity, have diluted and further pushed this unique attribute to the background. This could be enacted and passed down as religious creeds, pledges, or ordinances. Even if they are unsure of their metaphysical assumptions, most people will not intentionally violate these taboo sanctions because they are thought to be instantaneous and "automatic" in contrast to sanctions in other religions that must wait until death or stand to be mitigated by God's mercy and forgiveness. According to popular belief, among the Gonja, breaching a taboo results in punishment or ill conscience.34

But indigenous traditions continue to exist in the background, and recently the Indigenous Knowledge System (IKS) has become more well-known in academia. It's challenging to define what a "taboo" is. The word is an Anglicization of a Polynesian word. Taboo is described as a component of all circumstances where attitudes toward values are conveyed through risky behaviour. A taboo is associated with "sacredness," something that is potentially "forbidden," can refer to a "person" or a "thing," and can describe things that are "elements" or "devoted." Taboos have always existed even though Captain James Cook did not define the word until 1777. As a broad and dynamic notion, taboos are challenging to define. According to their social functions, taboos are categorized in literary works. Taboos are categorized by Osei into cultic, moral, economic, political, scientific, and environmental taboos.35 As envisioned in the worldview of indigenous African communities, they manage a person's life from

conception through birth, death, and beyond. According to the Akan worldview, there are two types of reality: the supernatural (also known as the spiritual) and the living (also known as the physical). The supernatural governs the affairs of the physical. Humans must be able to understand the various components of both the spiritual and physical aspects of the universe and how to relate to each to enjoy the positive aspects of life (such as fertility, bumper harvests and good health) and avoid all the negative aspects of life (such as sudden deaths, incurable diseases and recurring accidents).

According to Amoah, the Gonjas generally think that wicked spirits existed which might harm people, hence they must seek the protection of more powerful entities. In the opinion of Amoah, preserving a healthy relationship between people, nature, and spirits is the best way to find protection. Culturally and traditionally, the Gonjas hold the view that every event in a person's life has a theological explanation. For them, the spiritual and the unseen are hidden behind the visible and physical, respectively.

The Study Setting
The “Wasipe” Traditional area lies in the North Gonja District of the Savanna Region of Ghana. There are 4,793 households in the District comprising 730 (15.2%) households in the urban locality and 4,063 (84.8%) households in the rural localities. The district is predominantly inhabited by the Gonjas but there are also the Tampulma, Mamprusi, Hanga, Dagomba and Fulani. The people of the district celebrate several festivals, namely; the Damba festival, Jintigi (Fire festival), Eidul-Fitri and Eidul-Adha. The main religious groups in the district are Islam, Traditional African Religion and Christianity. The social organizations of the area are based on kinship patterns and the social structure is based on the lineage system. The area is dominated by patrilineal inheritance. The overall chief known as Wasipe-wurah resides in Daboya. It is one of the main “gates” to the highest Gonja skin. The area also has a rich unique numerous superstitious belief systems, rich traditional, cultural-linguistic belief systems, and endogenous taboo systems. The land chief (kasawule-wurah) is always the one who performs all the ritual sacrifices and prays on behalf of the community. The area has fertile land for farming and water for fishing. There are thick forest zones occupied by species of birds, animals, reptiles and shrines in the traditional area. The White Volta runs across the traditional area and lies on latitude and longitude (decimal): 9° 52’ 47” North, 1° 23’15” west latitude and longitude (WGS84): 9.52847, -1.38764 with a tropical savanna wetland.

The area is noted for its rich smock-weaving industry and medicinal salt deposits.

THEORETICAL FRAMEWORK
Totemic phenomena were studied using Ethnographic Theory as posited by Dewan. This was adapted and used for the study. It enables the use of techniques by researchers, such as participant observation and in-person interviews, to investigate human cultural phenomena from the perspective of their own surroundings or subjects.

This theory also emphasizes the significance of in-depth knowledge of the user's viewpoints, behaviours, and daily sights and noises. It gives the researcher insight into the users' perspectives on the world and their interactions with their environment. Also in order to add more meaning to the approach of the Totemism study, the study also adapted Haverkort's conceptual approach to the relationship between nature and Totemism. In this approach, he concluded that Totemism embodies all three worlds and therefore adds to the completeness of human life.

36 Amoah, African Indigenous Religions and Inter-Religious Relationship .
37 Amoah, African Indigenous Religions and Inter-Religious Relationship .
38 Amoah, African Indigenous Religions and Inter-Religious Relationship .
METHODOLOGY
This research was conducted in Ghana’s North Gonja District, encompassing the Wasipe traditional area of the Savannah Region. Wasipe traditional area was purposively chosen for this study because of the different cultural and traditional symbolical meanings attached to totems and the use of this for climate-smart adaptability issues and the variations involved in the area which the study sought to unravel. The Wasipe traditional area was purposively selected for the study because of the cultural background and experiences of the diverse endogenous knowledge systems practices and taboo systems in the area.

The convenient sampling technique was used to select one hundred and fifty (150) stakeholders for the study because of the key roles they play in the study area. The target population was the ‘Wasipe’ traditional area. All traditional chiefs, sub-chiefs, land chiefs (Kasawule-wurah) and opinion leaders who actively participate in Community Cultural, Traditional and Custom activities in the area made up the sample size. These stakeholders were chosen because they are chiefs, sub-chiefs, and opinion leaders as well as custodians of the Totems in the traditional area. They had also lived in the community for more than 45 years and also believed to have an in-depth knowledge of the area. The open-ended, closed-ended interview guide was administered to those who can read and write. A focus group approach, oral interviews, visitation and observation were employed to collect the data. Participants were also assured of confidentiality, anonymity, and voluntary participation.

Presentation of Field Data and Analysis
The collection of data is very important for any research process; data inaccuracy can hamper the reliability of the research.43 The socio-economics – demographic characteristics of a study population play a vital role in the collection of data. Data was collected from secondary and primary sources. The instruments used to gather the data were the open-ended, and closed-ended questionnaire, observation and focus group discussions. Both qualitative and quantitative data analysis approaches were employed. The data was put into themes and analyzed. The SPSS was used for the analyses and then quantified into simple descriptive statistical analysis and percentages.

FINDINGS AND DISCUSSION
Types of Totems found in the traditional area
In focus group discussions, Chiefs, sub-chiefs, land chiefs, and opinion leaders were the target sample groups for this inquiry. This focus group discussion lasted for 5 days due to clan differences and opinions. The field data revealed that the Wasipe traditional area is divided into clans and groups according to totemic beliefs and this has led to the division of individuals and families based on their spiritual ties to the natural world. They mention the following leopard, tiger, rivers, tortoise, hawk, python, mudfish, electric fish, baobab tree, chameleon, parrot, spear, roan antelope, kapok tree, and some forms of tree species as totems in the traditional area. Inductively, the totems can be classified into three (3) primary sorts after examining some of the different types found in the area. They are (1) the clan totem, which belongs to the entire clan and is passed down through inheritance (2) the sex totem, which is shared by all of the males or all of the females in a tribe, excluding the opposite sex in each case and (3) the individual totem, which is owned by a single person and does not pass on to his or her descendants. This result from the data supports Asante, who opined that traditions are ingrained in every element of life in Africa and are utilized

42 Haverkort, “‘Sharing Vision on Local Worlds’ Community Diagnosis for Endogenous Development.”
to explain every occurrence in ordinary activities. The family is a crucial social organization that exists in all human communities. However, to represent their unique cultural circumstances, various societies display differing manifestations of the concepts of family and clan.

**How can Totems be used for climate-smart adaptation?**

Since the Industrial Revolution, human activities have contributed significantly to the atmosphere's buildup of greenhouse gases like carbon dioxide, which has altered the planet's climate. The climate of the earth is influenced by several natural phenomena, including variations in the sun's energy and volcanic eruptions. Indigenous knowledge systems have recently become more popular, and it is ingrained in the community that is specific to a certain culture or place. This body of knowledge was created outside of the traditional educational system over many years to help communities survive in a healthy relationship with their natural and social environment.

The open-ended and close-ended interview guide was used to gather the data from chiefs, sub-chiefs, and land chiefs (Kasawule-wurah). In all one hundred and fifty (150) questionnaires and interview guides were sent out and one hundred and twenty (120) were retrieved. Following the analysis and transcription of the data, 30% of the chiefs, 65% of the Kasawule-wurah (land chiefs), and 5% of the sub-chiefs made the following claims: Taboos like incest are protected by Totems. The idea of employing Totems illustrated the strong connection between people, animals, and the environment in which they lived. Due to the existence of these Totems, they are guarded by people or groups, increasing the protection of species and the environment hence reducing bush burning and drying of the ponds and rivers in areas where these totems lived. The data also revealed that the land chiefs will normally employ these Totems as preconceived concepts to promote and restore nature, increase the preservation of endangered species and their ecosystems and also increase habitat heterogeneity.

Clans are not allowed to hurt or kill their totem animals since they are bound to them and depend on them for their continued survival as the data revealed. According to them, these techniques resulted in the spread of sacred species, which are not threatened and would improve the capacity of forests and oceans to naturally absorb carbon dioxide. Totemism thus developed into a powerful tool for animal preservation in the area. Further on the data also indicated that 67% of the chiefs, 25% of the sub-chiefs, and 7% of the opinion leaders asserted that: Totems serve as identifiers for the many clans, and it is usually accepted that members of a clan will exhibit characteristics of the totem that will ultimately rule their lives and help change attitudes towards climate change adaptation and global warming. However, only 1% of the respondents declined.

One of the land chiefs said that “the use of Totems will allow the natural world to clean up our emissions, but we need to look after them. Planting trees in the right places or giving land back to nature through ‘rewinding’ shrines and sacred places used as Totems schemes is a good place to start.”

The chief also said that from observations in the past, “Tribal and clans have learned how to take care of the land because our land continues to take care of us.” This confirms the belief of Anthropologists that totem use was a universal phenomenon among early societies and protecting the planet and this started with humans.

After living in the study area for four weeks and on a tour of some of the places where some reptile totems take shelter. The findings from the data indicated that 78% of the chiefs and 65% of the sub-chiefs further postulated that totems’ behaviour helps them to forecast short, medium, and long-term weather changes; they rely on the behaviour of some of the animal totems. Especially, when animals used as totems come out of their resting places to move about as a result of high emissions around where they stay. This findingbacks Crawhall's claim that Karen villages in Thailand can foretell earthquakes and floods by watching cat and dog behaviour. A cat's peculiar running pattern predicts an earthquake. They continued by saying that bird migrations are crucial indicators of seasonal changes and their extension, as well as of heavy downpours, storms, or droughts. The data also revealed that Plant Totems are also used for Plant phenology, astronomical occurrences and atmospheric phenomena to forecast the weather in the traditional area. This result supports the opinion of Andreas, et al., that, ecosystem preservation or restoration serves as both mitigation and adaptation since they frequently remove emissions from the atmosphere.

In one-on-one in-depth interviews with the sub-chiefs and the opinion leaders on physiological and behavioural traits of Totems on climate change adaptation practices, key amongst the findings from the use of totems as an adaptation strategy in the area include; The sub-chiefs indicated that no matter what kind of property

---

45 Asante, *The History of Africa*.
49 Neef et al., “Climate Adaptation Strategies in Fiji: The Role of Social Norms and Cultural Values.”
you own, planting trees in and around the Totems’ protected regions prevents land degradation and protects the soil. The use of hydrological balance to improve environmental conditions is required. From an observational point of view as a result of the researcher's immersion into the traditional area for four (4) weeks, it was observed that the practice of male calling effects of exposure to Ethinylestradiol on the area’s ability to reproduce is revealed by totem behaviours as it expresses the effects of mercury pollution using mobility and foraging behaviour. Some totem fish had their glycogen levels locally measured by observation to see how stressed out they were as a result of aquatic pollution. Inductively, endogenous and local knowledge systems can offer important insights into methods for coping with the effects of climate change. According to Haverkort, endogenous development approaches are based on mainly but not exclusively on local strategies, knowledge, institutions and resources, the key being that climate change adaptations must be controlled and owned by local actors. These results support this opinion. The findings support Saylor, et al. who found that indigenous populations and other local communities usually manage forests with lower rates of deforestation than other groups do.

One of the land chiefs (kasawule-wura) who is also a spiritual leader added that: “live Totems are not carried around to gatherings but are molded in the form of walking sticks, or part of the skin of a Totem is fixed on a smock in a form of a Talisman to indicate the symbol, anybody noticing will know the clan where he or she is from.”

**Can Totems influence development?**

Structures and procedures that societies have developed serve as the foundation for achieving their own development. Development pulls together various disciplines with origins in anthropology, economics, sociology, and politics. Change necessitates interconnected solutions. Nowadays, animal totems serve as more than just a group's symbol; they are also embraced by people as representations of their true selves or desired traits. The practice of choosing an animal totem, plant totem or any object totem is based on the idea that a Totem spirit can provide insight into your most fundamental life.

Visitation and observation were employed to collect data on the influence of Totems on development. This data was collected from the traditional chiefs, sub-chiefs, land chiefs ("Kasawule-wurah") and opinion leaders. Key among their views is:

Traditional cultural practices known as totems have their organizations and structures that serve as the cornerstone for pursuing the objectives and aspirations of a society’s growth and development. Land use, food production, community administration, and health habits are all influenced by totems. These are the primary articulations for development.

To hasten growth, owners or guardians of totems are represented in local decision-making. In this way, participatory acts in supportive environments can lead to the realization of development. The necessity of harmonious coexistence with Mother Nature serves as the ideological foundation on which Totemism flourishes. For progress to be sustainable, the fundamental structures must be understood. Totemism is important for fostering communal cohesion for development. They also added that some people outside the traditional area do visit the place for information regarding totems.

The findings affirm the views of Abu and Millar, who indicated that the clan totem is revered by a group of people who go by the name of the totem, consider themselves to be of one blood, descended from a single ancestor, and are united by shared obligations to one another as well as by a shared faith in the totem. Hence, these assumptions can be used to trigger development in the traditional area. Totemism, in their opinion, is a fantastic environmental activity. According to them, the forefathers of the land and the creator God support environmental protection.

Totemism plays a key role in developing social cohesiveness throughout the study area. The planning and execution of the traditional area’s adaptation of climate-smart strategies involve many levels of actors and stakeholders. The information demonstrates that like in the West, the context and methodology of climate-smart adaptation are customarily and culturally multidisciplinary and cross-disciplinary.

**RECOMMENDATIONS**

The results show that the context and approach of climate-smart adaptation are cross-disciplinary and multidisciplinary. Multiple layers of actors and stakeholders should be involved in the planning and implementation of Ghana’s adaptation action. Local priorities for climate-smart adaptation in Ghana should serve as a guide for the

---

50 Haverkort, “‘Sharing Vision on Local Worlds’ Community Diagnosis for Endogenous Development.”
51 Saylor, Alsharif, and Torres, “The Importance of Traditional Ecological Knowledge in Agroecological Systems in Peru.”
52 Augustine, Totemism: An Endogenous Development Perspective of Indigenous Associations Among the Dagara of the North-Western Ghana.
54 Abu and Millar, Land, Natural Resources and Spirituality. Policy Implication on Rural Livelihood in Northern Ghana.
executive, the legislature, the ministries, departments, and agencies (MDAs), the metropolitan, municipal, and district assemblies (MMDAs), the traditional leaders, the community leaders, the private sector, the gender constituencies, the youth organizations, the civil society organizations (CSOs), the development partners, the religious organizations, and other recognized and identifiable groups. It is also recommended that the traditional area be used as a tourism hub for studies in Endogenous traditions and culture.

CONCLUSION
Totemism continues to play a significant part in the day-to-day socio-politico-economic orientation, defying the effect of Western norms. Totemism and its practices can be understood in the framework of the Patri-clan; this also has a direct connection to the locals’ traditional cosmology. Each person's relationships in the Patri-house are also established at birth through the parents and, to some extent, his connection to a totem. The increased dimensions indicate that the totemic phenomena carry some significant implications for development in the context of the Wasipe traditional area's Cosmovision and climate-smart adaptation practices.

BIBLIOGRAPHY


ABOUT AUTHOR

Zakaria Shanunu holds a PhD in Culture and Development Studies. He is currently a Lecturer and Head of Department at the Department of Sociology and Social Work, Faculty of Social Sciences, University for Development Studies, Nyankpala campus, Ghana. His research area focuses on Sociology and Social work, Culture, Sports, Rural Development and Social policy. He has published a number of articles in these areas.