UNIVERSITY OF CAPE COAST

TRADITIONAL ENVIRONMENTAL ETHICAL VALUES ON THE

PROTECTION OF TRADITIONALLY PROTECTED AREAS AMONG THE

ASANTE SEKYERE PEOPLE

BY

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NOBIS

JUNE, 2023

DEDICATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that
no part of it has been presented for another degree in this university or elsewhere.
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I hereby declare that the preparation and presentation of the thesis were supervised
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ABSTRACT

In the traditional African societies, cultural practices provided sound ethical ways of protecting the environment against over exploitation. Thus, in the context of the Asante culture, qualitative ethnographic design was used to investigate the traditional environmental ethical practices supporting the conservation of Sekvere traditionally protected areas. Thirty-three participants comprising chiefs, elderly, traditional priests, linguists, grove attendants, clan heads, community leaders and folks were purposively interviewed in Sekyere Nsuta area; followed by field observations in the traditionally protected areas. The study revealed that Sekyere environmental values prohibit extraction of freshwater in large volumes; refuse dumping and defecation and farming closer to fresh waters, preserve vegetations along rivers, prohibit hunting, farming, tree cutting and fishing in sacred groves. It was revealed that fines, payments of drinks and sheep, deafness, blindness, incurable diseases and death are the consequences for violation of environmental protection norms. The study also revealed that Sekyere rivers are worshipped, sacred groves are protected for being abodes of the gods, a clan cemetery remains spiritual abode for ancestors; mountain sites are valued for being historical battle sites, abode of spirits and being aesthetical. Adherence of traditional ethical values remains very high in the small communities relative to the towns. Sekyere environmental ethical values are based on traditional system of beliefs. In view of this, non-religious incentives, environmental education, new traditional regulations and community-based environmental protection watch dog group will strengthen and safeguard the protected areas.

KEY WORDS

Asante

Ethical Values

Environmental ethics

Environmental protection

Punitive actions

Sekyere

Traditional ethical values

Traditionally protected areas

Unacceptable practices

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DEDICATION

This research work is dedicated to my siblings: Edward Kwadwo Oppong; Joyce Oppong Tutuwaa; Attaa Akwayiwah Oppong; Atta Kofi Oppong; and Tawiah Appianimaa.



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ABREVIATIONS AND ACCRONYMS

ATR African Traditional Religion

NGOs Non-Governmental Organisations

SCD-MTDP Sekyere Central District Medium Term Development Plan

SNSs Sacred Natural Sites

GLOSSARY OF (ASANTE -SEKYERE) TWI WORDS

Adae Rites for appeasing the dead community members.

Aduana One of the seven clans of the Asante tribe

Asuo River

Banmu Place reserved for the burial of dead royals

Kyidom - hene Rear guard division

Okomfo Traditional priest

Dabone Evil day or bad day

Akwasidae Festival celebration and remembrance of the dead -

presentation of food to gods and ancestors and pacification

of black stool

Awukudae Traditional Asante ancestral festival held on nine

Wednesdays in the year

Tano Name of a river

Tano Komfo The priest of the Tano river god or goddess

Ohene nsuo River reserved for the chief

CHAPTER ONE

INTRODUCTION

Background to the Study

Since time immemorial, the protection and conservation of the environment have been an integral part of human culture and traditionally been given importance to. In traditional African societies, it has been noted that cultural practices provided sound ethical practices for sustainable environmental protection and conservation – limiting over extraction and exploitation of the natural environment and its resources (Toledo, 2013; Ogar & Bassey, 2019). Growing empirical evidence have affirmed the observation of ethical values among traditional societies of Africa that significantly sustains their positive interactions with their natural environments. The indigenous African people widely originated diverse sound ethically- based strategies for the purposes of environmental conservation, protection and management (Gratani, Sutton, Butler, Bohensky & Foale, 2016; Eneji, Ntamu, Unwande, Godwin, Bassey, Williams & Ignatius, 2012; Kideghesho, 2009) to maintain a positive human-environment relationship (Ojomo, 2011).

Environmental ethics played crucial roles in environmental protection in the traditional African societies. It regulated the use of natural resources towards sustainable basis; helped in implementing traditional rules and regulations in protecting the environment; braced people to refrain from the careless handling of the environmental resource (Verschuuren & Brown, 2018; Talukder, 2019). Similarly, Bujo (2009); Opoku and James (2019); Ogar and Bassey (2019) consider traditional African environmental ethical values dictate responsible ecological attitudes which

involves their respect for the natural environment and recognition for sacredness and ecological rational behaviours. For instance, it is observed that the Shona of Zimbabwe maintain sacredness of flora. In certain areas (marambotemwa), it was proscribed or morally wrong to cut or destroy trees in order to sustain the water table, minimise run off and sedimentation along river courses (Mhaka, 2015; Mabvurira, Muchinako & Smit, 2021). This practice certainly ensured sustainable environmental use and protection. African environmental ethics embrace innumerable ethical values and true care for the natural environment (Ojomo, 2011; Shava, 2013; Workineh, 2014) where people, animals and spiritual entities are inextricably interconnected with their natural environment (Ojomo, 2011; Maware & Awuah-Nyamekye, 2015). This was how they defined and measured their quality of life (Kouakou, 2013), and with their unique value system that sanctioned them to reverence to harmoniously live with their natural environment, use the natural environment and its valuable resources whilst adhering to the conservation of biodiversity. The natural environment provided much of their food, medicine and material required for their daily life (Abumoghli & McCartney, 2020; Bradley, Emmet & Gonzalez, 2012).

The value for the environment in most traditional African communities can be explained by the strong connection that existed between the people and their natural environment – where they acted as the true guardians of the environment with their deep understanding of their different ecosystems (Bradley et al., 2012). It was through this relationship that the traditional African people maintained and enhanced a strong healthy environment alongside their physical and divine lives (Ngara & Mangzivo, 2013). In view of this connection, Ojomo (2011) in citing Chkwunoyenlum et al. (2013)

argues that "the environment remains an integral component of the traditional people's metaphysical and cosmological heritage determining the nature of relationship the individual developed with the environment" (p.64). Thus, nature was holistically, honorably respected and accorded the due reverence for its own sake (Gedzi, Dumbe & Eshun, 2016; Ikuenobe, 2014). This traditional African conception of nature interdependent is thus presented by Gratani et al. (2016) as: "we are the environment and the environment is us, we are united and identify with nature" (p.13).

Environmental ethics of the traditional African communities still remains imperative to the global environmental crisis discourse. It is in the light of this that, the Rio Earth Summit 1992 highlights the need for the restoration of ethics of care, love and respect for the planet. Some scholars (e.g., Welchel, 2012; Charisa, 2010) support this perspective by arguing that the environment constitutes an essential part of both the individual and the entire societal existence, and that the person has the duty for the environment by protecting it from destruction and sustaining it to be habitable and supportive to the imminent generations. For the fundamental reason that the traditional people did not dominate and destroy their environment, but lived sustainably within it and respected it (Anderson, 2015; Mohammed, 2011; Bradly et al., 2012). Environmental ethical practices in the African traditional setup seemly is explained by Botchway and Agyemang (2012) in citing Ogungbemi (1997) as:

In our traditional relationship with nature, men and women recognise the importance of water, land and air management, ethics of not taking more than you need from nature is a moral code. Perhaps this explains why earth, forests, rivers and wind and other natural objects are traditionally believed to be both natural and divine. The philosophy behind this belief may not necessarily be religious, but natural means by which the human environment can be preserved (p.27).

This assertion underscores the traditional African environmental ethical values as encompassing a holistic moral attitude incorporating elements of anthropological, ecological and mystical mechanisms of life. Revisiting of traditional environmental ethics ultimately contributes towards limiting the problems of land degradation, deforestation, pollution of fresh waterbodies, wildlife extinction, over exploitation of natural resources, local people's negative attitudes on natural environment particularly in local communities (Behren, 2010; Gedzi, 2015; Gedzi, Dumbe & Eshun, 2016). These environmental concerns imply critical explorations of traditional environmental ethical values and revitalise them to the current present environmental problems burgeoning in African local communities that go beyond the Western horizon (Ojomo, 2011). Environmental ethics has been central to the indigenous Asante people over centuries. This has given rise to the conservation of several ecological rich areas such as Asantemanso Forest Reserve, Bosomtwe Forest Reserve, Semanhyiakrom, Akegyesu, Kubease and the Jachie Forest Reserve including numerous communal protected landscapes by their past generations (Botcway & Agyemang, 2012; Boamah, 2015; Appiah-Sekyere, 2016). Hence, the traditional ethical codes and practices underlying the conservation of Asante traditionally protected environment is worth to be investigated. This carries a lot of weight in the traditional African environmental ethics discourse.

Statement of the Problem

Until recent times, environmental degradation remained a less problem among most African societies like the indigenous Asante people (Adu-Gyamfi, 2011). The idea of responsibility imposed on the indigenous helped in regulating and checking negative peoples' attitudes towards the environment. For the indigenous Asante, Appiah-Sekyere (2016) notes that is irrational or unacceptable to harm the environment and its valuable resources. People treated the environment with dignity, and it was considered a disrepute and disdainful to abuse the natural environment. According to Boamah (2015), the attitude of the typical Asante traditionally involves reverence for the diverse ecological resources and thoughtful utilisation of those ones that specifically furnish for his or her family's sustenance. This positive environmental relationship was partly attributed to the instantaneous punitive actions given to culprits – being by deities, ancestors and traditional chiefs (Boamah, 2015).

Currently, the rate of environmental destruction and their growing threats on both humans and different forms of life on earth continues unabated in the local Asante communities (Awuah-Nyamekye, 2014). In most African communities, Tosam and Mbih (2015) indicate that the unbridled dependence on fuelwood, over-cultivation and overgrazing have contributed to the destruction of ecosystems and biodiversity resources—affecting local peoples supply of safe drinking water, access to herbs, edible fruits, nuts, honey, fibre, meat and other environmental services. The environment inhabited by the Sekyere sub-group of the Asante is undergoing rapid degradation: rivers are increasingly drying up, deforestation and reduced soil fertility - due to cutting of trees for charcoal production, increasing in land clearing for farming activities,

activities of commercial timber firms, frequent incidence of bush fires and Fulani Herdsmen activities (Sekyere Central Medium -Term Development Plan 2018-2021, 2017). According to the Sekyere Central District Assembly (2020) Composite Budget Report, between 1990 to 2017, the total forest reserve cover has reduced from 782.0km² to 161.072km², whilst off forest reserve likewise has decreased from 1,336.78 km² 78.20 km² respectively. Consequently, many of the rivers in the area experiencing drying up due to the high rate of deforestation and related evaporation increases; loss of medicinal herbs, economic trees, edible plants and including wildlife species that are home to the Sekyere environment. The rate of environmental degradation remains a concern as the Sekyere people's livelihoods are linked to the environment.

The current environmental problems of Sekyere Central district among other factors can be associated with the relegation and abandonment of the indigenous ethical values enshrined in the cultural practices of the people which proved resilient in monitoring the judicious usage of biodiversity resources (Diawuo & Issifu, 2015; Adu-Gyamfi, 2011; Bonye, 2008). The increasing non-adherence to the long-held traditional beliefs has been attributed to the advent of western technology, the growing influence of foreign religion and beliefs, lack of modern regulations to enforce the traditional rules, and problems of migration, urbanisation and resettlement (Ntiamoa-Baidu, 1995; Diawuo & Issifu, 2015). The indigenous religious institutions and practices, which improve the quality of the environment, are fast disappearing, because they are considered "heathen" and "uncivilized" by foreign religions (Gedzi et al., 2017). However, environmental degradation is not evident in the areas traditionally protected by the local communities in the Sekyere Central district-fauna and flora, waterbodies.

rocks and all biodiversity are well protected and conserved. People's attitudes towards such areas are largely positive. This calls for the unraveling of the indigenous ethical values that have instilled discipline limiting the degradation of environment and its resources.

Objectives of the Study

The main objective of the study sought to investigate the traditional ethical practices supporting the conservation of Sekyere traditionally protected areas in the contest of the Asante culture. Specifically:

- i. To uncover unacceptable practices in the traditionally protected environments.
- ii. To find out the traditional punitive actions related to norms violations on the traditional protected areas.
- iii. To discover the traditional communities' values systems for the protection of those environments.
- iv. To assess peoples' level of adherence to the traditional environmental ethical values on the traditionally protected areas.

Research Questions

The following research questions guided the study.

- i. What are the unacceptable practices in the traditionally protected environments?
- ii. To what extent do the punitive measures instill discipline in the local people from exploiting the resources of the traditionally protected areas?
- iii. What are the traditional communities' value systems that prevent local people from exploiting the resources of the traditionally protected areas?
- iv. To what extent do people observe the restrictions governing the traditionally protected areas?

Significance of the **Study**

The recent calls for the implementation of environmental ethics to protect the society (e.g., Mohammed, 2011), has further ignited researches on traditional ethical values and environmental protections and hence some scholars (e.g., Soini & Dessein, 2016; Gadzepo, 2016) are advocating for Asante ethical values factorisation in the present efforts on ecosystems protection particularly in indigenous communities. Thus, it envisaged that the present study will be useful to the academics and students in the field of: anthropology, religious and philosophical dimensions of environmental protection towards contributing to suitable remedies on environmental crisis in addressing the current African environmental protection challenges.

Further, the study of Asante environmental ethical values ultimately remains instrumental to the innovations and rejuvenation of the Ghana's eco-tourism. Kiper (2013) affirms that at the centre of eco-tourism development involves the protection and conservation of natural environments particularly in indigenous resource communities towards improving the quality of local peoples' livelihoods. Besides, the study contributes to the urgent need for the recognition and re-adoption of the traditional Asante environmental ethical practices and attitudes to help reverse the burgeoning environmental degradation trends. Indigenous cultural values, prohibitions and restrictions, and moral codes which are certainly are indispensable to the contemporary environmental protection and conservation discourse.

Lastly, the present study significantly contributes to the development of more efficient culturally-based innovative approaches and models of environmental protection in Ghana and other indigenous societies in Africa with rich ecological resources. Indeed, the traditional philosophies, belief systems, ethical values and practices underpinning the Sekyere traditionally protected areas are crucial references for the development of biodiversity protection in the indigenous African communities especially under contemporary changing demographics.

Delimitations of the Study

Ethical values for environmental protection in African societies essentially may be diverse and unique among the several African cultural environments. Hence, this study focuses on the Sekyere subgroup of the Asante ethnic group with the focus of those in the Sekyere Central district of the Ashanti region. Geographically, the Sekyere Central district is located within Longitudes 0.05° and 1.30° W and Latitudes 6.55° and 7.30° N respectively. The district approximately covers a total land surface area of 1,631km² (SCDMTDP, 2018-2021). The traditionally protected environments focused under the study were Dadiease Sacred Grove, Twabiri Sacred Groves of Asuo Abenaa watershed, Tadieso Aduana clan cemetery. The fresh water bodies included rivers: Adosowago, Aminwhewa, Supong and Tikosoma – in Sekyere Nsuta; Asuo Bonkoo in Gyetiase and Tadieso; Asuo Abenaa at Sekyere Achiase; and Owuobuoho mountains at Owuobuoho. The selection of the Sekyere Central district was influence by the significant cluster of traditionally protected areas relative to other Sekyere areas such as Kumawu and Mampong. Contextually, the ethical values under consideration are acceptable and unacceptable practices, punitive actions for violation of environmental protection norms, values underlying traditionally protected areas, belief systems and level of adherence to the environmental protection norms.

Limitations of the Study

Even though, the study followed rigorous research methods towards arriving at reliable conclusions, it is ethically important to outline the key limitations associated with the present study: limited time for extensive field studies; inadequate information on individual communities' socio-cultural systems; and inaccuracies in portraying the true cultural system of local people understudy. However, these aforementioned limitations did not present significant effect on the validity of the study as the researcher effectively applied his rich Sekyere cultural orientation to put the study in the Sekyere cultural context; maintained well-focused towards obtaining the underlying cultural values on different environmental resources in the different local communities.

Additionally, the varied mysterious and spectacular rocks were not adequately captured in the study to represent the true nature of the Sekyere Owuobuoho landscape. This to some extent affected the true description of the features of the landscapes. This was not accomplished as mountain sites were bushy, extensive and rugged affected vast site accessibility. To overcome this limitation, the researcher relied on the key local people who were deemed highly familiar with the terrain and knowledgeable on the nature and histories of the Owuobuoho mountains. The information they provided were also reaffirmed by other local residents to be true, thus representing the true field landscape descriptions.

Literature Review

This section focuses on the review of the related literature towards conceptual clarifications and critical discussions on the concepts of ethics, environment, environmental ethics, environmental values and the African environmental ethics underpinning the study. This focuses on what scholars and discussants have put out there in respect of the subject of the research. It follows the thematic approach with critical emphasis on different connotations, interpretations and explanations from diverse viewpoints and contexts. This seeks to enhance our understanding and appreciate the level of scholarship in the subject under research.

Ethics

The term ethics traces its roots from the Greek word *ethos* (meaning custom). The Latin word for custom is *mos;* Its plural *mores*, is equivalent of the Greek *ethos* (Standford Encyclopedia, 2015). From its genesis, Anderson (2013) explains ethics as ideas and beliefs about what constitutes wrong or right of different societies which are expressed in the patterns of behaviours in achieving harmonious social life, justice and fairness. Thus, Pojman and Fieser (2012) assert that ethics guides individual's way of life – questioning what should be done including the justification level for such actions (Mohammed, 2011). However, the contemporary usage of ethics technically means more than its traditional meaning. As a field of study, some contemporary African ethicist (e.g., Osuntokun, 2001; Ojomo, 2011) have related ethics to the study of some standardised tenets that guide human behaviours – good deeds, evil actions, fairness, prejudice and immorality among other principles.

Similarly, Ikeke (2020) states that ethics involves systematic study of individual or group actions in the society that is considered right or wrong. Thus, Salamat (2016) avers that ethics holistically encompasses diverse societal values, customs and principles every member ought to comply for the sake of life dignity. Hence, ethics can be viewed with regards to rights and wrong actions associated with human behaviours on the bases of societal culture. However, ethics essentially revolves on the generally acceptable standards people ought to observe in dealing with fellow human beings, but also attitudes and relationships humans portray towards their natural environment remains central to ethics. This can be ethical or unethical.

The Environment

The environment remains a very vague and vast term which requires a varied explanation to understand it. Palmer (1997) appreciates the fundamental difficulties in our endeavour to define the environment. Awuah-Nyamekye (2013) contends that the term 'environment' still remains fluid due to its socio-cultural dimensions. In his fundamental understanding, he relates the environments to all the things around people wherever they find themselves. This basically encompasses partly living and non-living things of particular groups, or ecosystems which environs humanity and other living species including terrestrial biosphere (Attfield, 1992). Hence, the environment can be considered composing natural resources (e.g., fauna, flora, air, waterbodies, inclusive of ecosystems) where man maintains inter-relationship with them, as well as different circumstances people find (Osuntokun, 2001; Snodgrass & Tiedje, 2008; Ojomo, 2011).

According to Horby (2010), the environment is the natural biosphere of the earth where various life forms- human, plants and animals flourish, and where air, water, water and other things generally require to survive on earth. These perspectives provide the normal meaning of the environment – relating to human surroundings where both living and other objects can be found. This therefore requires man to peacefully interact with other life forms in the environment towards ensuring harmonious co-existence. These definitions succinctly refer to the environment as the totality of everything that surrounds an organism or totality of nature. However, Micheals (2004) says the environment is "the sum of all external conditions and influences affecting the development of life of an organism" (p.71). Anoliefo et al. (2015) also support these positions, by opining that the environment is the "totality of the world around us" (p.1). A relatively comprehensive definition has been suggested by the European Union: "The whole set of elements which forms the frameworks, the surroundings and the living conditions of man and society, as they are or as they are perceived" as cited by Bourdeau (2004, p.4).

However, some scholars (see Awuah-Nyamekye, 2013; Nwosu, 2010; Gottlieb, 2006) maintain that the notion of the environment should focus on both social and physical aspects. The call for this holistic definition for the environment according to Awuah-Nyame (2013) is because "the environmental problems that environmental scientist claims to be addressing are fundamentally social problems, which are created by human beings" (p.57). He contends that "the review should touch the basis of environmental ethics among indigenous African people as underpinned by their world view" (p.57). This can be seen as beautiful and harmonious but also fear he has to fight

it in order to survive. Now, nature is threatened by man who has become detached from his environmental protection values (Mohammed, 2011). In line with social environment, Barnett and Casper note:

Encompass the immediate physical surroundings, social relations, and cultural milieus within which defined groups of people function and interact. Components of social environment include built infrastructure; industrial and occupational structure; labour markets; social and economic processes; wealth; social, human, and health service; power relations; government; race relations; social inequality; cultural practices; the arts; religious institutions and practices; and beliefs about place and community (cited in Awuah-Nyamekye, 2013, p.47).

This definition appears to be consistent with the core beliefs of the traditional African belief systems which sees humans as part of the created order and not above it, and their whole fabric of lifeways - beliefs, ritual practices, kinship, language, governance, landscape, politics, culture and other dimensions of life (Obasola, 2013). Ellis and Haar (2004) note that the role of humanity should seek to maintain a harmonious balance between the material (environment) and the spiritual worlds – meaning that we may use the environment to satisfy our human needs, this must be done with tact as the environment has its own integrity, purpose and value. This is why Gottlieb (2006) argues that the harmonious relationship between the person and environment must exist "because of its connection to the divine that the environment has moral and spiritual dimensions" (p.3).

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Unlike the environmental scientist, who excludes the social aspect of the environment and focus on the physical, Africans generally have a broader view of the environment. Nwosu (2010) views the environment as a complex reality for many African people, and is seen as a much more inclusive way than it is employed in many

developed countries. It is both physical and spiritual, encapsulating lifeforms and non-life forms, which can also be described as both internal and external. In citing Nwosu (2010), Awuah-Nyamekye (2013) mentions the components of the natural environment as "social, religious, linguistics, economic and cultural elements" (p.47). Based on the traditional world view of the African people, Obeng (1991) asserts that "the environment embraces the culture of people – language, beliefs, customs, food habits, way of dressing and craft, including the physical milieu of people and the natural resources, climate and human character" (p.121). From these definitions, it is apparent that the African sees the natural environment as being closely tied to integral human life, and without it, human life may not be sustained. But under this study, the environment is conceptualised as the natural surroundings – forest, fresh waterbodies, rocks, caves, and mountains under the protection and conservation partly for the accruing thereof and the consequences when not adhered to.

Environmental Ethics

Environmental ethics – the study of ethical questions raised by human relations with the non-natural environment emerged as an important subfield of philosophy in the 1970s (Palmer, McShane & Sandler, 2014; Nkansah, 2020) has attracted several views and explanations. Rolston (2012) – considered the leading founder of environmental ethics articulates that human must live with reference to the earth because humans are part of the earth and they live on the earth. Talunder (2010) from his normative perspective argues that environmental ethics provides us with some guidelines about how we should relate and behave with nature. Palmer (2012) defines

environmental ethics simply as "the study of how human should or ought to interact with the environment" (p.6). The aim of environmental ethics as explained by Yang (2006) is to "provide ethical justification and moral motivation for the cause of global environmental protection" (p.23). Thus, valuing nature by humans remains the ultimate issue in the discourse of environmental ethics in which humans know that they have a responsibility towards nature. Schweitzer (1949) rightly observes that:

The great fault of all ethics hitherto has been that they believed themselves to have to deal only with the relations of man to man. In reality, however, the question is what is in his attitude to the world and all life that comes with his reach? A man is ethical only when life, is sacred to him, that of plants and animals as that of his fellow men, and when he devotes himself helpfully to all life that is in need of help.... The ethic of the relation of man to man is not something apert by itself: it is only a particular relation which results from the universal one (p.158-159).

DesJadins (2006:12) states that:

In general, the environmental ethics is a systematic account of the moral relations between human beings and their natural environment. It assumes that moral norms can and do govern human behaviour towards the natural world. A theory of environmental ethics, then must go on to explain what these norms are, to whom or what human have responsibilities, and how these responsibilities are justified (cited in Karakaya & Yilmiz, 2017, p.67).

From this point, Ozer and Keles (2016) have emphasised that environmental ethics evaluates the relationship of people to nature and moral framework and tries to establish the right behaviour towards the environment; and allows people to appreciate the value of nature (Mahmutoglu, 2009). Ozer and Keles (2016) explicitly point out that it remains the individuals' responsibility to behave in a way that is considered vitally right.

As a field of study, environmental ethics is the ethical relationship existing between people and the natural world (Rajesh & Rajasekaran, 2019). From the perspectives of Osuntokun (2001) and Pojman (1997), environmental ethics meaningfully has to do with humanity's relations with the environment, understanding of and responsibility to nature and to leave some nature's resources to prosperity; how humanity could be friendly in using the natural environment and the extent to which humanity should exercise certain moral ties in their relations with the environment. Thus, environmental ethics attempts to prompt human societies about their connection with nature and reflect on how humanity is both directly and indirectly causing environmental crisis with its effects on the present generation but with great impact on the future (Rajesh & Rajasekaran, 2019).

From the analysis, environmental ethics can be described as established beliefs, moral attitudes and norms which determine how humans should relate with nature and its resources -being what is good, evil, right, wrong, just and unjust, beautiful or ugly about, or in relation to the environment. This should embrace diversity and having a shared notion of a moral duty to protect the environment that remains under traditional people's protection and conservation by defining what is acceptable and unacceptable, what should be valued and believed to effectively define, guide and control the best practices people should adhere to and relate harmoniously with the naturally protected environments.

Environmental Values

Environmental values relate to belief systems based on what is deemed good or bad, right and wrong, ugly or beautiful regarding how people relate to the environment (Michael, 2005). Environmental values according to Rolston (2003) relate to "theories, practices, concern for and responsibilities of individuals and moral justification for the protection of the natural world - such as animals, waterbodies, vegetation, rocks, and the welfare right of the environment" (p.57). Reser and Bentrupperbaumer (2005) assign biophysical attributes to environmental values and maintain that "it should be considered as human values, and thus 'individual and shared community or social beliefs about significance, importance and wellbeing of the natural environment, and how the natural world should be viewed and treated by humans" (p.141). In simple terms, Infield and Mugisha (2013) aver those environmental values are essentially ethical principles guiding individual and social decisions about the environment.

Naess (1973) has ascribed intrinsic values to individual living organisms, collective species, ecosystems including humans. Similarly, Gauger, Rabatel-Fernel and Kulbicki (2012) describe ecosystems as valuable due to their intrinsic and instrumental values which require humans to care the natural environment or remain as the planet's moral overseers. However, Kunhiyop (2007) denotes environmental values primarily as beliefs and assumptions determining behaviour which even remain unchanged even after religious conversion. This point is vividly explained by Mabvurira et al. (2021). They opine that with many Africans having changed to Christianity and Islam, the sustainability of traditional belief systems on environmental protection become uncertain as converts may not cling on to such values. In contrast to

this view, Ugwuanyi (2011) argues that Africa's secular environmental morality is grounded in a system of 'communitarianism' – based on shared identity and good will from where core values of co-operation, consensus and reconciliation flow.

People and nature relationship been shaped by human societies (Jepson & Whittaker, 2002), Kellert (1996) opines that "respect and reverence for value of life results from self-interest" (p.218). van Klinken and van Hoff (2004) contend that for human societies to attain high level civilisations, people ought to respect the diverse life forms irrespective of their utilities. This ethical argument recognises the immaterial value of nature and its resources towards the broader utilitarianism environmental conservation discourse (Byers, Cunliffe & Hudak, 2001; Infield & Mugisha, 2013). The utilitarian values such as spirituality, lifestyle and place are central to environmental protection in traditional African societies.

The spiritual values for nature (such as sacred sites, groves, springs, site for worship, rituals, offerings, sacrifices, burial sites and locations of spirits and deities) can be found across African societies are instrumental in nature conservations (Wild & McLeod, 2008). Infield and Mugisha (2013) associate the Rwenzori Highlands in East Africa as providing spiritual values - their glaciers, high summits and hills are the homes of the gods of Bakonjo societies. Lifestyle values essentially entails the collection of resources which may be necessary for the preparation of traditional dishes. The grazing lovely cows connects the Uganda's Bahima pastoralists to their ancestors and their locations, whilst helping them to delineate their traditional taste and ethnic distinctiveness. With regards to values for places, Infield and Mugisha (2013) relate their establishment to cultural and historical importance – battle sites, graves, memorial

and ruins establishing people's identity. By virtue of the value people hold for certain places and mostly perceived to be created by of gods or ancestors, people are required to maintain heathy and harmonious relationship with the places. Place values are also related to established makers, holding gathering, pleasure, plant harvesting, burning grazing livestock (Infield & Mugisha, 2013; Kopnina & Gyerris, 2015; Kopnina & Cherniak, 2016). Thus, Ojomo (2011) maintains that when we value nature from the perspective of humans, it implies that everything in nature is also valuable in relation to the benefit it brings to people. Hence, Abmoghli and McCarthy (2020) opine humans should learn to establish harmonious relationship with the natural environment and with fellow human beings in the environment.

African Environmental Ethics Discourse

The articulation of an African environmental ethics remains ultimately critical for the current global environmental protection discourse. Ogar and Bassey (2019) posit "African environmental philosophy define how Africans ought to live in relation to the environment – being the moral canvas upon which Africa itself may advance its own response to Africa's ecological problems, and in turn address its role in deforestation and land degradation" (p. 76). Some scholars (e.g., Ojomo, 2011; Shava, 2013; Workineh, 2014) associate African environmental ethics as a philosophical discipline embracing varied human values and care for nature.

Africa's environmental ethics according to Tangwa (2007) is 'eco-bio communitarian' oriented involving both metaphysical recognition and acceptability of

harmonious co-existence among the diverse life forms on the earth. Tangwa (2007) validates this assertion by maintaining that indigenous African societies exhibit cautious attitudes and treatment of biodiversity, non-living things including the invisible force components of the world. This is because ontologically, the indigenous African hold the believe that human existence on earth did not happen in vain, but they were well-premediated to make humans live in this world in relation to its environment (Awuah-Nyamekye, 2013). This view, clearly suggests that the traditional African environmental orientation and consciousness are deeply rooted in his traditional worldview. This observation is vividly explained by Ogwuanyi (1997). He emphasises that the traditional African societies personify all-natural environment (such as hills, mountains, big trees, tick forests) and natural forces with the believe that they remain the abode of sacred spirits – making those things sacred. Ogungbemi (1997) further describe this as "the ethics of nature relatedness" (p.208). Kimmerle (2006) contend that the traditional African perceives nature to be infused with spiritual powers and this perception is the basis for the traditional Africans respect for natural ecological resources, and consequently sustainable utilisation. Ogwuanyi (1997) maintains that African personhood or individuality is inextricably linked to the community and thus argues that one is only human because he or she is part of the kin network. From this observation of the relevance of measuring and locating human life in the context of the other things, Ugwuanyi (2011) then formulates an ethic that "ought" to be in Africa: "The environment in Africa ought not to be seen and understood as an economic item only, but where and why to locate the significance and relevance of life itself" (p.6).

Ugwuanyi's (2011) secular environmental ethics is derived from the African moral world, in particular the claim that morality in Africa is grounded in a form of communitarianism. Communitarianism is a theory of shared identity and good-will. From communitarianism flows Africa's core values: co-operation, consensus, reconciliation and commonality" (p. 5). Based on this claim, Ugwuanyi declares that "a relationship with the environment that generate discord or fractions among humanity cannot be permitted by the African moral principle of communitarianism. The African concept of "other", as applies to the environment means that promoting environmental well-being leads to a greater shared identity and goodwill" (p.5).

Collom and Callicot (2017) note that this extension of ethics led Leopold to develop a new moral maxim which, lay the groundwork for a more enlightened relationship between human communities and other living beings: "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise" (p.2). Mangena (2013) maintained that the spiritual relationship is signed through the use of totems. Arhin (2008) described African environmental ethics as upholding the 'sanctity of life' (p.94). Bujo (2009) considers these ethics to be what the African person believes to be the basis for all ecologically responsible behaviour: respect for creation, recognition of sacredness of all life forms and ecological rationality. Nwosu (2010) corroborates this, contending that many Africans believe that without the environment, human life may not be sustained. Culturally satisfactory environmental management among Africans stems from societal organisation that is permeated by spirituality and a reverence for the ancestors. Dopamu (2003) also contends that "African people's ancestors addressed their environmental

problems through the use of the available resources of nature to procure [the] non-therapeutic needs of man" (p.444). They applied the art of influencing courses of events by means of ritual behaviour and the invocation of divinities or spirits aids (Nwosu, 2010). From these bases, many traditional African societies conceive of themselves as stewards of the environment, with social and moral obligations which are central to the African environmental ethics (Abayie-Boaten,1998; Attfield, 2010; Awuah-Nyamekye, 2013).

Methodology

The methodology illustrates the systematic approach used to determine the scientific research procedures adopted to investigate the research problem (Aning-Agyei, 2015). The necessity of the section is based on Easterly-Smith, Thorpe and Jackson's (2012) assertion that "it is certainly important to choose the most appropriate methods for solving research problem towards arriving on a reliable result" (p.6). Therefore, the section presents the description and explanation of the following: (i) Research approach and design (ii). Population of the study (iii). Sample and sampling techniques (iv). Data collection and analytical procedures and; (vi). Ethical considerations.

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Research Approach

This study exclusively adopted the qualitative research methodology. According to Yin (2014); Nixon and Odoyo (2020), qualitative research provides meanings into the universe, explanations, determinations, belief systems, values and attitudes. This ultimately corresponds to the proper cultural understanding of the traditional environmental ethical values on the protection of traditionally protected areas among the Asante Sekyere people. Qualitative research approach was deemed appropriate for the present study due to cultural and social contexts and orientation of the study. Assanful (2017) in citing Kumar (1999) asserts that "qualitative research seeks to provide understandings and explanations as to why people behave, the way they do, portray certain attitudes, have peculiar belief systems and fears" (p.20-21). In this qualitative study, the researcher in-detail was able to explore the traditional acceptable environmental protection practices, environmental protection values, punitive measures associated with environmental protection norms violations in the Sekyere traditionally protected areas.

Under this qualitative study, the ethnographic research design was deemed appropriate. Ethnography, as qualitative methodology has been described as the study of socio-cultural beliefs and interactions, views, attitudes and values of societies based on participation and observation methods over a period of time (Denzin & Lincoln, 2011; Petty, Thomas & Stew, 2012; Dawson, 2014). According to Creswell et al. (2012), "people's culture can be well understood spending time with them and interacting with them to be able to study their lives in their natural setting" (p.76). Thus, the researcher spent appreciable period of time to immerse with the Sekyere traditional

communities to study their traditional ethical values transmitted to them from their past generation on their environmental protection. This was deemed suitable to bring about social perspective on the Sekyere traditional ethical values and the protection of the environment. The adoption of ethnographical methods of enquiry in this study helped by interacting with many key persons who were central to the traditional environmental ethical values of Sekyere.

Sources of Data

Data gathering according to Burns and Groove (2003) cited in Asibey (2016) "is the precise, systematic gathering of information relevant to the research subproblems, using methods such as interview, focus group discussions, narratives and cases histories" (p.55). The empirical phase, which involves the actual collection of data, is followed by presentation of data analysis (Asibey, 2016). Using qualitative design, the sources of data for the study were drawn from two main sources – primary and secondary sources. Neuman (2011) defines primary data as involving gathering data originally for the purpose of particular study. The primary data for this study were obtained through field work observation and one-on-one interviews with specific informants who are natives and residents of Sekyere Nsuta area. However, the secondary data were however sourced mainly from materials such as articles, reports, books, journals, both published and unpublished thesis.

Study Participants, Communities, Protected Areas and Rivers

The population of Sekyere that participated in the study consisted of chiefs, traditional priests and priestesses; elderly indigenes, clan heads, sacred grove attendants, linguist, royal family members, local folks, village committee members, and assemblymen numbering thirty-three (33) (Table 1).

Table 1: Communities and Study Participants

Community	Participants (n = 33)	Number
Nsuta	Local folks (5) Assemblymen (3), Adontenhene (1)	9
Tadieso and Gyetiase	Chief (1), Clan head (1), local folks (3), Traditional priest (2)	7
Owuobuoho	Chief (1), elderly residents (2), local folks (1)	4
Achiase	Traditional priest (1), grove attendants (2), village committee members (5), local folks (2)	10
Dadiase	Traditional priest (1), sacred grove attendant (1), linguist (1)	3

Source: Author's Construct, 2021.

The 33 participants of the study were selected from six Sekyere localities namely Achiase, Dadiase, Gyetiase, Nsuta, Tadieso and Owuobuoho (Table 1 & Table 2) within the Nsuta Traditional area. These localities were selected because they remain the key custodians of the protected areas. Secondly, the rivers selected for the study are located in those areas. Achiase is the main custodian of the Twabiri sacred grove and Asuo Abenaa. Dadiase is a shrine compound purposely created by the paramountcy of Nsuta Traditional Area and exclusively been the traditional sanctuary of Nsuta. Asuo Bonkoo has its headwaters in both Gyetiase and Tadieso, where each locality has a traditional priest serving the Bonkoo river. The Nsuta settlement is also drained by Rivers Adosowago, Aminwhewa, Supong and Tikosoma. The people and the

traditional rulers ensure the protection and observation of norms that protect the rivers. Similarly, the people of Owuobuoho community live within the Owuobuoho Mountains and river Akrampaasu whilst ensuring its protection, they know the histories, the events and stories, locations of mountains mysterious caves, rocks and happenings in the area.

Table 2: Traditionally Protected Areas and Custodian Communities

Protected Area/ Rivers	Custodian Community	Sampled community
Dadiase Sacred Grove	Dadiase, Anansu	Dadiase
Owuobuoho Mountains	Owuobuoho, Bimma	Owuobuoho
Nsuta Kyiridade Sacred Grove	Nsuta	Nsuta
Tadieso Kyiridade	Tadieso	Tadieso
Twabiri Sacred Grove	Achiase, Dida, Npantuoase	Achiase
Adosowago, Aminwhewa,		
Supong and Tikosoma rivers	Nsuta	Nsuta
Asuo Bonkoo	Tadieso, Gyetiase	Gyetiase and Tadieso
Asuo Abenaa	Achiase	Achiase
Akrampaasu river	Owuobuoho, Bimma	Ow <mark>uobuoh</mark> o

Source: Author's Construct, 2021.

The six communities were purposively sampled after the researcher's preliminary investigations indicated those localities are the key custodian of the focal protected areas and water bodies in the Sekyere Central district. The use of purposive sampling techniques in this study is supported by Asante, Ababio and Boadu (2017) in citing Lewis and Sheppard (2006) affirmation that "purposive sampling as the most appropriate and effective technique when choosing study areas within cultural domains that possess the exact characteristics under exploration, notwithstanding its cost and time effectiveness" (p.12).

Sampling and Reaching out Participants

The researcher purposively selected some chiefs and divisional chiefs, clan heads, the elderly indigenes, sacred grove attendants, linguists, traditional priests and priestesses of Sekyere. Similarly, Assemblymen, Unit committee members and gonggong beaters were selected purposively to participate in the study. Purposive sampling deliberately involves the selecting an informant based on the special qualities and experiences he or she possesses are crucial for the study (Kumar, 1999; Tongco, 2007; Twumasi, 2001). With this mind, the researcher was able to reach out to the target participants in the specified positions to help gather the needed information for the study. Lewis and Sheppard (2006) have affirmed purposive sampling as the most appropriate for studies steeped in culture aspects of societies.

The choice of wide-ranging study participants was deliberate in view of their visible roles in environmental protection in the traditional communities. Chiefs implement moral sanctions on environmental protection violations (Diawuo & Issifu, 2015); serve as repositories of knowledge on the community histories and ethical norms. Kideghesho (2009) confirms that traditional institutions command loyalty from their folks based on the belief that failure to observe taboos and prohibitions could cause misfortunes. Likewise, traditional priests are custodians, overseers and enforcers of traditional norms, values, belief systems and taboos on environmental protection such as sacred groves and waterbodies. In close relationship with the traditional authorities, committee members of towns and villages help oversee the protection of community resources like waterbodies and ensure compliance with local

environmental protection and conservation norms. Clan heads provide good accounts of protected burial places reserved for their clan members.

The remaining participants such as local folks at community meeting joints, farmers and people fetching water at the river sides was made possible through convenience sampling techniques employed by the researcher's interactions. Badu-Nyarko and Tagoe (2014) define convenience sampling as the selection of participants on the basis of their accessibility, availability and convenience to the researcher.

Instruments and Data Collection

The key methods of collecting data under ethnographic studies have traditionally involved interviews and observations (Lechissa, 2017). These methods were deemed as more appropriate in obtaining a culturally rich information on the traditional environmental ethical values safeguarding the traditionally protected areas in Asante Sekyere. This section explains the rapport establishment towards the field data collection, description of instruments and their suitability for the study and data collection procedures.

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Rapport Establishment

The data collection process began with the establishment of rapport in the selected communities for the study. Structured data collection for the study first of all involved rapport establishment in the Sekyere communities which are the custodians of the protected areas. Lechissa (2017) describes rapport establishment as a process of inculcating trust, confidence and assurance for study participants during a preliminary fieldwork. The rapport establishment of the study involved meeting community Assemblymen and opinion leaders, sacred grove attendants and one traditional leader in the Sekyere local communities. During the meetings, the verbal consent of the key community members was sought to pave the way for the main field activities that involved interviews and in-depth interviews.

Field Observations

Alongside participant observation in the traditional protected areas custodian communities, field observations were undertaken in the respective traditionally protected areas to capture the holistic description information of the sites: nature, condition (pristine or tempered), visible belief systems such as sacrifices, totems, mysterious and spectacular features of rocks, and visible imprints of human activities along the protected areas; and observe human attitudes in the water bodies. This also sought to document evidence of people's adherence to ethical values in the protected environments.

The field observations were undertaken with the assistance of the attendants of the traditionally protected sites- Dadiase sacred grove, Twabiri sacred grove; Kyiridade sacred grove, Owuobuoho landscapes. They are familiar with the environment (gullies, where dangerous animals are, forbidden places, specific routes); abreast with some history's information, taboos, norms, rules and regulations safeguarding the protected sites.

Data from the field observations were captured in field note books and as photographs. Photographs are widely considered as an essential component of an observational process. Denzin (2011) argues that the "the ubiquitous nature of images in the modern world contests the ethnographer to reflect on the status of photography in qualitative studies" (p.6). It is a means of portraying the truth, capture aspects of culture, captures phenomena which are problematic to describe with words and aids interpretation (Naidoo, 2012).

In-depth Interviews

The second phase of the data collection for this study involved the use of indepth interviews with the study participants (Table 1). Wide range related studies (e.g., Botchway & Agyemang, 2012; Boafo et al., 2014; Diawuo & Issifu, 2015; Anoliefo et al., 2015; Boafo et al., 2016; Asante et al., 2017; Adom et al., 2018) adopted conversational interviews. Furthermore, this method is widely considered to provide research participants (interviewees) convenient atmosphere and opportunities to

unrestrictedly express themselves (Burgess-Limerick & Burgess-Limerick, 1998; Denzin, 2008).

Beginning with generic questions and moving into free speaking about topics, (Nixon & Odoyo, 2020), respondents are able offer interviewers' opportunities in asking and following up questions, justifying and probing answers (Lechissa, 2017) in obtaining rich information in ethnographic studies (Kaya & Seleti, 2014). Interviews can also be adjusted to obtain detail and insightful information about different phenomena using fewer participants under any informal setting (Kaya & Selecti, 2014). However, Nixon and Odoyo (2020) note that "it is time consuming and relatively high cost, takes longer to process to verify and extract compared information; the participants should be carefully chosen to avoid bias" (p.54).

The in-depth interviews were discursive and this allowed each participant and the researcher the autonomy to explore the issues within the framework of the conservation in the areas: acceptable and unacceptable in the traditionally protected areas; traditional environmental protection values; punitive measures related to the violation of environmental protection norms; and level of adherence to the traditional environmental protection ethical values. The researcher ensured that all participants expressions were unhindered. The interviews were conducted in Asante Twi language to enable participants provide information in their cultural context (Asiedu-Boakye & Ntiamoah, 2020).

In all, each interview session was conducted between 1-2hours when the interviewee was not interrupted to respond to any urgent activity. The researcher ensured that all responses from the interviews were recorded on a mobile phone device

with the consent of the participants, which were later transcribed into the text document. Bhattacherjee (2012) has affirmed that the importance of electronic recording of interviews for future references purposes, but with the approval of the participants involved. Alongside the interview recordings, the researcher observed the body language and documenting of key statements.

Data Analysis

Data from ethnographic studies comprise of unstructured accounts, hence analysis are required for the interpretation of their meanings (Reeves, Kuper and Hodges, 2008) based on observations, descriptions and explanations. The analysis of the field data involved re-entering field notes, coding and developing themes, asking additional questions in refining and finalising themes; and lastly providing detail accounts of the Sekyere traditional environmental ethical values and description of features captured from the traditional protected areas. These techniques contributed immensely to present detailed reflective description of the traditionally protected environments. Perry (2013) maintains that the iterative nature involved in the analysis of ethnographic data ensures that the study is grounded in the context of the local culture over considerable period of time.

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Ethical Considerations

This research strictly observed to ethical principles to serve as the wellbeing, dignity and the rights of the Sekyere indigenous people and their culture. Babbie (2011) considers the dignity, rights to participate, safety and wellbeing of respondents in research studies as ethically paramount. Thus, ethical measures relating to fairness, respecting the willingness of the participants to participate in the study, implicating respondents were avoided. Further, all taboos and prohibitions on sacred groves, sacred days, were respected and strictly observed. In line with the confidentiality issues as part of the study, some participants who waived their consent, pseudonym were used for their real names. Whilst, either titles or real names were applied for those who agree to maintain their identity. Even so, some information such as the gender, profession or status in society as well as some places of interview have not been provided for some of these informants because doing so would still give a clue of their real identity.

Organisation of the Study

This thesis is structured according to five key chapters, where every chapter has subsections. Chapter one provides introduction to the traditional environmental protection values in the traditional African societies. It further presented the research objectives, research questions; the significance, delimitations and the limitations. This was followed by literature review that centred on ethics, environment, environmental ethics, environmental values and the environmental ethics in the African context. The last section of the first chapter details the research methodology: research approach, study participants, communities, protected areas and rivers; sampling and reaching to

participants; instruments and data collection; rapport establishment; data collection techniques- participant observation, field observation in the traditionally protected areas, data analysis. It also outlines the ethical considerations. The second chapter reviewed the traditional African environmental protection practices. The third chapter presents the Asante history and culture with the Sekyere people in context. This is followed by the fourth chapter provides the preliminaries of the study followed by the analysis of the field data. The fifth chapter presents the key findings of the study, draws conclusions and making recommendations.

Summary

This introductory chapter of the study provided the background to the study of the traditional environmental ethical values and environmental protection in the African context. It involved holistic discussion of the status of the broader indigenous African environmental consciousness with the Asante environmentalism in context. The statement of the research problem, as well as the scope of the study and the reasons for the settings were discussed. The aims and the objectives, research questions and the significance of the study were presented. The key concepts and the methodology were extensively discussed and clarified. This leads us to the next chapter where the traditional African environmental protection practices are discussed.

CHAPTER TWO

TRADITIONAL AFRICAN ENVIRONMENTAL PROTECTION PRACTICES

Introduction

This section focuses on traditional African protection practices. It presents collection of different African environmental protection practices across Sub-Saharan Africa. It delves into the African indigenous religion and environmental relations. It also discusses sacred natural sites, taboos and their implications in the indigenous African environmental protection practice.

Environmental Ethical Practices in African Cultures

Extant literatures have widely documented several environmental ethical practices across indigenous African societies over the years. Tosam (2019) notes restrictions on hunting for pregnant animals, killing of wild animals giving birth and young animals; and hunting on unauthorised lands and in certain seasons among the Kom people in North Western Cameroun. Tosam (2019) further observes that in particular seasons, hunting could only be allowed through the performance of rituals for the local gods, violations for such taboos provoke the wrath (such as sudden deaths, poor harvest, drought, infertility, diseases) of the gods and the ancestors. Kouakou (2013) avers that "some taboos prohibit over exploitation and usage of the resources of the natural environment — being in the form of hunting, farming, felling of trees, collection of medicine, putting forest on fire; discharge of wastes" (Kouakou, 2016, p.2) contribute to the sustainable conservation of natural resources (Adom, 2016).

Similarly, Maru et al. (2020) loud the Songo in Southern Ethiopia for setting aside sacred forest (amba) for ritual purposes. This sacred forest composes of highest tree diversity than the adjacent lands was made possible through social taboos – that limited them from cutting down trees from the sacred site except when it is needed for public use or ritual purposes with the consent of cultural elders, killing birds and injuring any nature carelessly. Likewise, in the coastal forest of Kenya, Infield and Mugisha (2013) note that the Mijikenda conserved their sacred forest over generations based on their taboo cultural practices and cultural institutions. Infield and Mugisha (2013) note that people breaking the customs faced disciplinary actions from the clan elders based on their traditional accepted sanctions. In the Bakonjo and Baamba communities for instance, Infield and Mugisha point out that killing of chimpanzees remains a strong taboo as the animals are considered as 'kin to people' by the clan members. In making reference to Igbos of Nigeria, Obiora and Emeka (2015) note that defecation close to streams or where drinking water is fetched constitute ecological ethical values and taboos for the protection of rivers based on the belief that any contempt to these taboos and prohibitions automatically attract wide-range of sanctions from the gods who are believed to own the streams.

Traditional African societies also have ethical codes and prohibitive practices regulating the relationship between humans and ecological species. In reference to the Ethiopia's Oroma society, Kelbessa (2010) notes that the 'Saffu' is effectively applied to guide individual towards a proper maintenance and utility of the available natural resources of the land. The *Saffu* as fortified moral codes on any abuse of the environment, works alongside their beliefs in customs related to farming and

agriculture which promotes environmental conservation. Similarly, the Ba'Aka pygmies of Central Africa represent a good case of indigenous people's involvement in environmental sustainability. They are involved in managing flora and fauna in reserves. Their knowledge in conservation greatly contributes to the understanding of the links within the forest ecosystem (Ayong 2007; Lssozi 2012). Also, gun restriction, minimal trapping of animals during the rainy season and sparing of young animals are meant to allow animal populations to increase. Furthermore, some sections of rivers or streams and forests are considered sacred; therefore, fishing and hunting are forbidden in these areas unless special rituals are to be performed. Also, to ensure harvest of wild nuts and fruits is not damaging to the plants, they grow fruit trees on their farms and around the village. In addition, they control poaching by assigning youth groups to guard the park to regularly monitor and report to village councils about the presence of poachers (Ayong, 2007). The *Ba'Aka* people believe that they do not have to kill their totems for food as such acts endanger such animals and eventually affect their lives.

Kanene (2016) notes that it is a taboo for the Tonga of Southern Zambia people to use fruit trees for firewood. Mapira (2013) also reveals that in Zimbabwe some plant species were not used for firewood because of a belief that it would cause a lot of smoke – yet the idea was that they were fruit trees which did not need to be destroyed. Chikwanha (2011) contends that the motivation to conserve these trees is that they provide extra benefits. Kanene (2016) notes that the indigenous practices of environmental sustainability in the Tonga community of southern Zambia reveal that the Tonga regard some water sources to be sacred. Kanene (2016) established that the "Tonga regard some water sources to be sacred particularly associated with either the

whole or part of the water source are perceived as habitats of gods such that some tend to be upgraded into shrines" (p.5). Similarly, Garutsa (2014) notes that the Eastern Cape pools were considered abodes for mermaids; thus, people were discouraged to venture in such areas. Violating this norm attracted sanctions by spirits and punishment by traditional leaders (Garutsa, 2014). In fact, traditional norms also discourage the unwarranted destruction of wetlands. They are a source of water during drought as communities sink traditional wells in wetlands.

Among the Uli, Ihiala in Nigeria, Anoliefo et al. (2015) note that influences of taboos exist on the conservation of their natural resources. Setting fires in the virgin forest was prohibitive. Act of defecation, urinating and washing in or close to the portions of the streams reserved for drinking, cutting down any tree, killing a python in the Uli community are serious abominations. Similarly, Eneji et al. (2012) observe that among the Bekwarra (Gakem) in the Nigeria Cross River State, killing of the road runner (anyiribom) is forbidden based their myth that these birds during their great war, followed and wiped the footprints of the Gakem warriors to mislead their enemies. Whereas the "Ogbogoro" of Etung in Nigeria – a river god of fruitfulness and childbearing, Eneji et al. (2012) assert that with the exception of the annual sacrifice involving the harvesting of mudfish species, it remains a taboo to engage in any form of fishing by anyone since it becomes detrimental to trespassers.

Anane (1997) indicates that the indigenous Asantes in Ghana until the period of industrial revolution, refrained from indiscriminate cutting of trees. They considered all human activities detrimental to their natural environmental totally forbidden based on the belief that deities proscribe punishment to people involved in any environmental

abusing the forest. G'Nece (2012) indicates that hunters desisted from unprescribed hunting practices – such as grossly hunting practices would incur the wrath of the ancestors and the gods who are responsible for interpreting such acts as catastrophe in honouring their sacred commitments. With the traditional Asante people belief in animism – a specific cultural worldview that objects, places and creatures (e.g., animals, plants, rocks, rivers, weather systems) all possess spiritual essence, and as such are not to be abused (Diawuo & Issifu, 2015) in order not to experience any sentence from the spirits or souls inherent in those animate and inanimate creatures and objects (Rattray, 1929). In addition, Botchway and Agyemang (2012) note that indigenous Asante societies protect their water bodies by forbidding vegetations removal, defecation close to water bodies, the use of chemicals for fishing, whilst also observing sacred days reserved not working on the land and going to rivers. Also in Northern Ghana, Diawuo and Issifuo (2016) assert that among the Sankaa and Tengzuk of northeastern Ghana, frogs, crocodiles and pythons are totems and are therefore not to be harmed or killed by the people. The review has pointed out some important traditional environmental protection practices across traditional African societies that indicate the consciousness of the African societies on the need to protect their environments. These were widely enfolded in their religious beliefs permeating all aspects of their lives.

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African Indigenous Religion and Environmental Relations

The indigenous African societies relationship in many aspects has been linked to spiritual connotations (Ntiamoah-Baidu, 1995; Taringa, 2006; Gedzi et al., 2016). Hence, the crucial role the traditional African religion plays in environmental protection cannot be underestimated. Daneel (2001) opines that the ecology of the traditional African societies is inseparably connected to their indigenous religious belief systems – to them environmental protection remains mandatory as it is sanctioned by both God, gods and their ancestors (Daneel, 2001).

The tenets of the traditional African religion emphasise on concepts of good relationships - being with the living, dead, animals and plants (Boamah, 2015). Eneji et al. (2012) in citing Henshey (2011) observe that many people believe that rocks, waterbodies, mountains, trees and forests are manifestations of the powers of the Supreme God and abode of gods, which is why these places are used as shrines, temples, sanctuaries and sacred places for worship, consultation, appeasement and encountering the Supreme Being and the gods (Tilman, 2000; Thompson & Homewood, 2002). These places with ascribed powers are prohibited from entry by people to extract their resources - species of flora and fauna remain untouched and preserved in their natural states (Eneji et al., 2012; Mkenda, 2010; Verharen et at., 2021). Additionally, physical landscape features - mountains, streams and stones are personified as living beings; whilst the land is regarded sacred for housing their dead relatives (Verharen et al., 2021).

The African traditional religion holds profound ecological value for nature - where the land and its resources belong not only to the living, but also belongs to the

ancestors and the future generations who are accordingly regarded as the true holders of the land (Ssebunya & Okyere-Manu, 2017; Murray & Agyare, 2018). According to Kumi (2013), "the stringent adherence to those traditional orders goes a long way to preserve some rivers, trees and animals" (p.4). Obiora and Emeka (2015) opine that the spiritual attributes of the natural environment make human beings as mere stewards who are to demonstrate the responsibility of care and humility towards nature.

In truism, the Traditional African Religion (ATR) illustrates a conciliatory relationship between people and their natural environments across varied African cultures. Tangwa (2004) describes the attitudes of the Cameroonian 'Nso' people towards their nature and its resources as conciliatory, containment, peaceful coexistence – where they make regular sacrifices for the Supreme Being, clan ancestors, including other visible and invisible divinities and forces of nature. To Mbiti (1990), the indigenous African societies believe that the universe is sacred composed of God, spirits, human beings, plants, animal creatures and objects. Mbiti declares that "to destroy or to remove one of these categories is to destroy the whole existence including the destruction of the Creator, which is impossible. One mode of existence presupposed all the others, and a balance must be maintained so that those modes neither drift too far apart or get too close to one another" (p.8). Among the Akan traditional societies in Ghana, all creation (such as plants, animals, water bodies) are attributed to God, which they recognise as their responsibility to protect for the sustenance of human life (Awuah-Nyamekye, 2014). It is for these reasons that trees, forests and water bodies reserved as sanctuaries for worship. The environmental resources (e.g., herbs, grasses; barks, roots, seeds, leaves, fruits of trees and other plants) aside their spiritual

reservations, supported lives of humans, wild and domestic animals – as source of food and herbal medicines (Deb & Malhotra, 2001; Henshey, 2011). The study of African Traditional religious system is in themselves complex relative to modern lifestyles (Appiah-Opoku, 2007; Paden, 2009; Rim-Rukeh, Irerhievwie & Agbozu, 2013).

Eneji et al. (2012) in their submission on the Cross River in Nigeria, note that the local people revere their land and water bodies as special gifts from God – the land is what the people revere as commercial resource, home and a place of worship the Supreme God and lesser gods. To their dismay, the environmental elements once held untouchable are degraded today and the attribution of psychic powers to these objects of worship are completely detached disregarding their environmental conservation values. These dimensions of environmental degradation were evident with the development of farms along watersheds. From this discussion, it is apparent that the traditional African relation relates positively with the environment. And it is proper to recognise that the traditional African societies had efficient ways of protecting the environment through their sacred traditional belief system.

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Sacred Natural Sites

The spiritualities among the indigenous people which are largely made up of a body of beliefs, values and respects intimately connected to the surrounding biodiversity and environments (Verschuuren & Brown, 2018). Guiley (1991) defines sacred sites (e.g., groves, forests, hills or streams and other water bodies) as "Power Points – a location, site, object, or edifice, believed to be sacred or to possess magical or supernatural energies, or to be the dwelling place of spirits of the dead, nature spirits or gods" (p.460). To him, the "power" at points emanates from "an ineffable spiritual source, identified as cosmic in origin or part of the living earth, coming in contact with it instills feelings of wonder, awe, fear, fascination and mystery" (p.460).

Awuah-Nyamekye (2013) in sharing the view of Thomas Schaaf (2003) stressed the important lessons that can be learnt from the conservation and management of sacred natural sites:

linking nature and culture; an anchor for cultural identity; constitute an effective means for environmental conservation as it is embedded in local and traditional belief systems; great value for conservation ecology as areas of high biological diversity, sanctuaries for rare or threatened species, sites that protect freshwater sources, and as indicator sites showing potential natural vegetation in areas subject to environmental degradation important for the restoration and rehabilitation of degraded ecosystems (p. 201).

In most parts of the Africa traditional societies, sacred groves are typically associated with sites – such as ancestral shrines with patches of climax vegetation being preserved through existing traditional values, belief systems and taboos to overcome the wraths of their gods (Infield & Mugisha, 2013; Anoliefo et al., 2015). For instance, the Uli sacred grove in Nigeria depicts climax rainforest characterised with multiple tiers of

trees – emergent, tall trees, undergrowth, climbers, shrubs, lianas with unique microclimate atmosphere (Anoliefo et al., 2015; Kideghesho, 2009).

Sacred groves offer effective environmental management practices in the traditional African societies. In the Rusitu Botanical Reserve in Southern-eastern Zimbabwe, Byers et al. (2001) note that unauthorised cutting of trees in the site is revenged by the ancestral spirits in the forms of death, droughts, mental illness or disappearance. With the regulation and full protection of species and habits in sacred sites, Mgumia and Oba (2002) agree that rare, endemic and endangered plants and animals are well-conserved and protected. Thus, relative to adjacent lands and many states managed forests, sacred sites are highly rich in biodiversity (Mgumia & Oba, 2002; Lean, 2006).

Primarily, for cultural and spiritual reasons, abuses and careless destruction of sacred sites are totally forbidden (Pungetti, Ovideo & Hooke, 2012; Frascaroli, 2013). Most indigenous societies in Africa dare not to exploit sacred groves – through tree or wood cutting, hunting animals, collection of folders, seeds, snails, fruits or any form of natural resource extraction attract negative consequences to the offenders (Maru et al., 2020). Kideghesho (2009) notes that compliance to the prohibitions and taboos governing sacred groves applies to all categories of people irrespective of one's religious belief. In Tanzania, Kideshesho (2009) reported that a church cleric was fined one sheep following the collection of folders from the Washana clan in Ugweno, and cases where clan leader seeking intervention from courts of arbitration against people caught harming their forests.

Notwithstanding the cultural and spiritual values of sacred groves in the traditional African settings, in the contemporary times, protected sacred sites provide support for the conservation of plants and animals associated with local areas and forest regeneration; conservation of medicinal plants; maintenance of local ecosystems and water tables, attracting precipitations and controlling flooding; providing refuge for animals; harbouring several last seeds and buds (Rim-Rukeh et al., 2013; Toledo, 2000). In reference to Gamo Gofa Sacred Sites in Ethiopia, both cultural and biodiversity conservations have been well supported through fostering of local rituals and reducing pressures on the sacred grove (Infield & Mugisha, 2013). Additionally, Maffi and Woodley (2012) maintain that legal recognitions accorded to the custodians of sacred sites help in the protection of culture and biodiversity.

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Environmental Protection Taboos

Taboos primarily can be understood as the specific rubrics of the society banning individuals from performing certain actions which may negate the moral conducts governing human behaviour (Chemhuru, 2016). Taboos for environmental protection and conservation entail moral and restraining restrictions on unwarranted activities by the authorities of traditional societies (e.g., traditional chiefs, traditional priest, clan heads, community elders). These cautionary measures for environmental protection are related to the communities' long-time traditional beliefs, customs and ethics and indigenous (Kideghesho, 2009; Adu-Gyamfi, 2011).

The role of taboos in the management of natural settings and resources in the African traditional societies over years is well-recognised (Diawuo & Salifu, 2015). The divine sanctions associated with the abuse of environmental protection taboos were enough to restrain and regulate people's negative environmental attitudes particularly in the traditionally protected areas. Igbos counted on benevolence of the Supreme God (*Chukwu*) and the invisible spirits of their dead ones (*Mmuo*) for the natural resources that provide them their means of sustenance (Ebigbo, 1995). It is deemed that the forest remains the sole resource and if destroyed potentially leads to catastrophes for both local communities and the world at large (Anoliefo et al., 2015).

Taboos related to related to the protection of flora and fauna in the traditional African societies are several but Kideghesho (2009) classifies them as specific and habitat based. Table 3 presents the taboos and other conservation regulations practiced by the Ikoma and the Nata tribes of Tanzania.

Table 3: Taboos and regulations observed by the Ikoma and Nata tribes of Tanzania

Taboo – Animals	Other-conservation-related	
	regulations	
 Hunting animal for commercial purposes Accumulation or storage of game meat for the future. Hunting or touching animal sacred to a particular clan (oghusengera). Killing an animal found giving birth Killing friendly non-edible wild animal Killing young, pregnant or lactating animal. Killing an animal that has sought refuge in a homestead. Entering and harvesting any resource from sacred forests. Destroying medicinal and fruit trees 	 Sharing of wild meat among members of the community (okomussa) Keep the number of hunters in society at low levels) Setting free wild animals found trapped Restrict hunting of some species unless special permit obtained from tribal chief Restrict hunting of certain species to specific seasons to allow breeding Heavy fines on anyone found setting fires Limit firewood collection for cooking and heating to dead trees Allocate specific use(s) to tree species depending on availability, durability and workability 	

Source: Adapted from Kideghesho (2009, p.89)

These taboos are mainly linked to what the local community perceive as sacred spaces and sacred objects. For instance, trees are regarded as homes for ghosts, that bring rain and therefore should not be tampered with. This resonates with the belief that is a "totemic ancestor hood' embedded in the environment, that is, an indissoluble solidarity between humanity and the natural environment" (Murove, 2009, p.4). Failure to uphold the taboos ultimately results in calamity upon the community. To avert such calamity for disobeying such taboos calls for the performance of rituals and sacrifices to ensure the continuance of a mutual relationship, and to avert any potential calamity, natural, or otherwise (Ssebunya & Okyere-Manu, 2017).

Among the tradition Akan people of Ghana, it is a taboo to embark on hunting in sacred sites, whilst some taboos on the protection of freshwater bodies relate to the defecation along river banks, farming close to rivers, wearing footwear to walk across a river, cutting trees along river banks (Boateng, 1998; Appiah-Sekyere, 2016; Awuah-Nyamekye, 2014; Nkansah, 2018). Likewise, the Tongo-Tengzuk communities in the northeastern Ghana, Diawuo and Issifu (2015) observe that harmful chemicals cannot be used for fishing or close to water bodies. It remains a general knowledge not to harm or kill their sacred crocodiles - killing of a crocodile is equally considered to the killing of an individual – a crime that ultimately brings calamity to the family of the offender. They also note that the Tong-Tengzuk people uphold taboos on the use of rocks and hills for both commercial and domestic uses based on the belief that they are the abode of the gods (*Tengban* and *Ba'ar* shrines). For the indigenous Asantes, Boateng (1998) taboos help to protect indigenous economically valuable and precious trees – such as mahogany, palm tree, *prekese*, *betene*, *osese*, *odum and wawa*. These plants were distasteful to cutdown as they are believed to house powerful and vengeful super natural forces. The of any of such plants becomes only possible when approved by the traditional authorities with excessive rituals.

From the above discussion, environmental protection related taboos are clearly connected to the indigenous religion – where their infringement amount to automatic regrettable outcomes consequences (Agegboyin & Jegede, 2009). Nonetheless, taboos are not construed as totally eternal and as such rigid rules. This overridability of taboos are expressed in diverse ways among the indigenous Akan people – it remains a taboo among the Akan people in general to carry items in palm leaf basket to the traditional palace, but this prohibition emphatically excludes the usage of palm leaf basket in carrying gold nuggets to the chief's palace (Ofosuhene, 2006).

Consequences of Environmental Protection Taboos

The sanctions associated with the trespassing of taboos under the indigenous African religion are immediate and certain without mercy and forgiveness – such deterrents prevent most individuals from voluntarily violating them. Acker (1998) argues that certainly, most traditional African people will endeavour not to violate taboos for fear of inevitable costs (Acker, 1998). According to Awuah-Nyamekye (2013), the wrath of the super natural forces on offenders is realised when i). the offender is not immediately punished; ii). When rites are not performed to appease the gods and the ancestors; or iii). When punishments are subsidised or softened. Msuya and Kideghesho (2009) contend that the items (e.g., rams, fowls, white clothes, white eggs, alcoholic drinks) or huge monetary fines are usually required for the performance of pacification and cleansing rituals by the traditional priest and priestesses are difficult to come by or pay.

The violation may even end in a partial surrender to the taboo as Freud (1944, cited in Madu, 2002:65) wrote in *Totem and Taboo*: "A person who breaks a taboo will be tabooed himself or herself, because he or she has the dangerous threat of luring others into following his or her example". It is believed that the environment remains under regular monitoring by the Supreme God, ancestors and lesser gods. Supposedly, the punishments and displeasures from ancestors and the spiritual forces for non-observation of taboo includes: drought, accidents, sickness, famine and other distressing problems, sudden death, serious ailments – leprosy, epilepsy and the likes) who defile the environment (Awuah-Nyamekye, 2013; Gyekye, 1996; Adom, 2011; Maru et al., 2020; Gathogo, 2021).

Considered as principles and punishments that emanate from God, gods and the ancestors (Scanlan, 2003), Awuah-Nyamekye (2015) opines that indigenous Asante people highly revere taboos to overcome any displeasure from the ancestors and the lesser gods whose sanctions are ultimately inconceivable and possibly extend to the culprit and his or family including the whole society (Awuah-Nyamekye, 2013). For instance, the traditional Asantes ascribe felling down trees where spirits are believed to abode results in infertility (Eshun, 2011). For the stubborn infringers of taboos, they may be unable to eat, drink, or will be seeing strange things or experience evil attacks at night (Ormsby, 2013).

The traditional Akyem-Abuakwa in Ghana relate untimely death, blindness, impotence and paralysis as consequences for trespassing taboos on sanctifying the land, water bodies, forests and groves, killing authorised birds and animals (Asiedu-Amoako & Ntiamoah, 2020). According to Gathogo (2021), the consequence of breaking the taboo forbidden the use of man-made tools other blunt stone recklessly collects firewood, or voluntarily sets fires in the Mountain Kirinyaga Forest in Kenya, using wood from the forest for building house involves the payment of sheep (ndurume) for cleansing and pacification ritual for him or her and the local forest immediately in order to avoid the God's wrath. In this same forest, firewood collection is only permitted occasionally under the close supervision of the local elders.

Taboos on traditional belief and social systems of enforcing prohibitions on environmental destruction make the local people to refrain from harming forest resources carelessly, especially as it is related to religious sites (Bhagwat, Dudley & Harrop, 2011; Dickson et al., 2018; Adu-Gyamfi, 2011; Bhagwot, 2004). Boamah

(2015) in citing Fisher (1997) opine that: "a taboo is an offense against ancestors and Supreme Being" (p.108) - making taboo an obligation and not a choice, which in turn validates the punishment for breaking a taboo. A punishment that could come from God, the ancestors or spirits (Scanlan, 2003). It is in this light that Barre, Grant and Draper (2009) maintain that "taboo then, becomes "prohibitions which, when violated, produce automatically in the offender a state of ritual disability...only relieved when the relief is possible, by a ceremony of purification" (p.31).

Taboos become traditional directives through which leaders are protected from social and spiritual ambivalences; giving moral guidance and maintenance of social order (Osei, 2006). This may seem to be irrational and unscientific to the "modern" mind, nevertheless, the notion continues to thrive in most parts of African societies (Thody, 1997). This, in a sense, demonstrates that the concept of "spirituality" is integral to the traditional African communal settings. Among other reasons, Boamah (2015) argues that the traditional African belief in the religious order of the universe, in which the Supreme Being, ancestors, and other spirit beings are thought to be actively engaged in the world of men plays a significant role in the sustenance of this notion.

These connections between taboos and gods and the ancestors have implications for how humans should relate with their natural environment, considering the fact that these ancestral spirits, supposedly reside in objects such as trees, rivers, rocks and in certain animals (Aye-Addo, 2013; Boamah, 2015).

Chapter Summary

This chapter has discussed the environmental protection practices associated with different traditional African societies- with regards to African indigenous religious and environmental relations, sacred groves and the use of environmental protection taboos and their consequences. The discussion showed that the traditional religious beliefs permeate in the African environmental protection. It also showed that traditional environmental taboos as cultural values are indispensable to the traditional African environmental protection practice. The overall traditional environmental protection practices have disclosed that the traditional African societies were conscious on the value for protecting their environments. This understanding leads us to the next chapter, where the Asante people's history and culture with Sekyere people in context is presented.

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CHAPTER THREE

ASANTE HISTORY AND CULTURE WITH SEKYERE PEOPLE IN CONTEXT

Culture as a way of life of different groups of people, inevitably help us to distinguish one group of people from another, how they organise and develop values to achieve their aspirations. The Sekyere people are an integral part of the formidable Asante ethnicity. However, the Sekyere people been the focus of this study makes it necessary to differentiate them as a subgroup, account for their cultural and historical traits that make them delineable as unique within the larger Asante people. In order to do this, I identified the Asante people and their formation histories; identify the Sekyere people - composition and relative geographical locations and their contributions to the formation of the Asante kingdom. I also positioned the Sekyere people in the realm of the Asante social and political elements - clan and inheritance system, political organisation, stools, environmental protection; environmental issues, causes and impacts.

The Asante People and History

The Asante people who are the focus of this study constitute the larger of the Akan tribe's population living in Ghana. Figure 1 occupy about nine regions - Ashanti, Ahafo, Bono, Bono-East, Eastern region, Central, Western, Western-North and some parts of the Oti region. Inclusive of the Asante, the other Akan subgroups comprises Agona, Ahafo, Brong, Ahanta, Akuapem, Akwamu, Akyem, Aowin, Wassa, Asante,

Assin, Gyaaman, Twifi, Sefwi, Fante, Kwahu, and Nzema. The name 'Akan', according to Kissi and Eck (2017) in citing Danquah (1968:198), means "foremost, genuine' (from *kan*, first) and is the corrupted form of *Akane* or *Akana* corrupted by the early Arabs of the Sudan in Ghana and the early Europeans who visited the coast

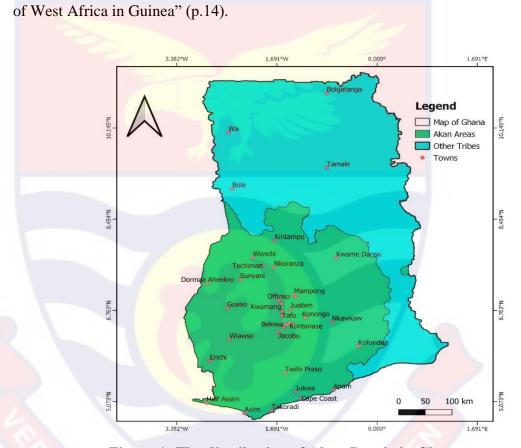


Figure 1: The distribution of Akan People in Ghana

Source: Author's Construct, 2022.

Like the Akan, the Asante people have subgroup independent states with identical culture with one overlord (Otumfour). Some of these sub-ethnic groups include the Adanse, Kwaman (Kumasi), Ahafo, Atwema, Sekyere, Kwabre, Manso (Figure 2) which all existed before the formation of the Asante Kingdom by the famous Osei Tutu I during the latter part of the 17th Century. Some versions have attempted settle at the

Twi linguistic origin for Asante- *Asan-te-fuo* (clay producing group), *Esa-nti-fuo* (because of war group) (see Rattray, 1929; Gedzi, 2014).

According to Osei (2001), the Asante obtained the name from the special commodity they served the Kings of Denkyira with between 1660s and 1690s. In addition to other commodities *baha* (plantain fibre for lavatory and toilet purposes), yam, firewood and gold dust all the Denkyira controlled states every *Akwasidae* (Asante festival), the Asante were sending *Asan* (red clay) as a special commodity to Denkyira. This commodity differentiated the Asante from others with the name Asante-fo – those who dig for clay (Osei, 2001). As already pointed out 'because of war' (*esa nti*) that the Asante union was formed. Osei's (2001) theorisation of the name Asante seem to be grounded on the etymology of the 'Asantefo'. Gedzi (2014) opines that the "derivation does not seem to prove much because it does not provide any clue to the meaning of the word" (p.22). This etymological attempt ultimately remains an important social construct in carving out and understanding the identity of the Asante people.

However, the historical accounts (e.g., Rattray, 1929; McCaskie, 2007; Osei, 2001) underscore the contribution of the famous Asante war with Denkyira wars marking the formation of the Asante early kingdom by Osei-Tutu I. Based on the accounts of McCaskie (2007), between the 1660s and 1690s Denkyira was the dominant power among the Twi-speaking Forest Akan of the Ofin–Pra river basin (Figure 2). The harsh rule of the Denkyira on the Asante and other Akan groups compelled them to fight for independence.

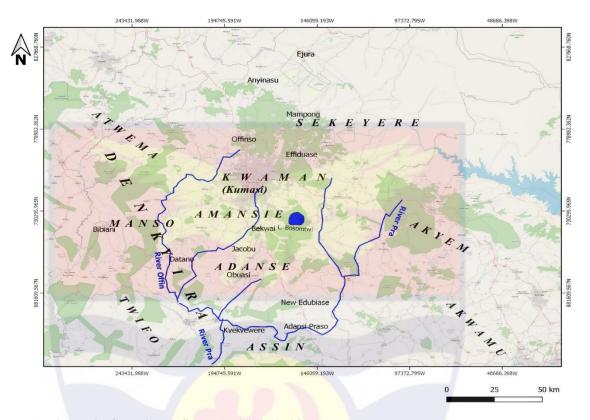


Figure 2: Core Akan States c. 1660 -1729

Source: Reproduced from McCaskie (2007), p.5

It was the most important inland supplier of gold and slaves to the Dutch at Elmina and the English at Cape Coast, and the wealthiest importer of European guns and munitions. Ntim Gyakari's increased demands for gold provoked resistance from a coalition of his northern tributaries, famously led by Osei Tutu I of Kwaman (Kumasi)" (p.2). This Kwaman coalition later became Asante kingdom as they formed a confederacy through Osei Tutu with the help of his friend Okomfo Anokye. The confederacy included five independent states which included Kumasi, Mampong, Kokofu, Juaben and Esumagya. These settlements of the Asante ancestral leaders were built *Abirempon* (literally lords) because they had large followings and their settlements

became the logical traditional capitals. These states remained as independent of one another (Rattray, 1929). They consisted of the capital town and several small settlements which attached themselves to the capital for protection. The name of the capital settlement became the name of the state such as *Mampon-Mman*, *Dwaben-Mman*, *Kumawu-Mman* among others (Boaten, undated).

Who are the Sekyere People?

The 'Sekyere' are a subgroup of the Asante tribe, who are themselves an ancillary *Oman* (nation) of the major Akan ethnic group. Its towns trace their migration from Adansi area (Figure 2), south of Kumasi before the formation of the Asante confederacy at the end of the 17th Century (Austin & Luckman, 2014). Boaten (undated) has emphasised that "at the time of their movement northwards, the ancestors of the Asante had acquired many of their characteristics that made them identifiable as a people with identical aspirations and mode of life" (p.51). The traditional Sekyere states include Mampong, Kumawu and Nsuta. Mampong and Kumawu were among the independent Akan states which were united by Nana Osei Tutu I (Kumasi-hene) with inspiration from the legendary Okomfo Anokye in the 1670s to form the Asante kingdom (Botchway & Agyemang, 2012; Osei, 2000).

In Ghana today, the "Sekyere" people presently occupy Mampong municipality, Sekyere Central district, Sekyere East district, Afigya Sekyere districts, Sekyere Afram plains, and Sekyere Kumawu district in the Asante region of Ghana. According to Austin and Luckham (2014), these areas occupied by the "Sekyere" take more than one-fourth of Asante region but two-thirds consist of largely uninhabited

Afram plains. It also extends north and east from the extension of Kwahu scarps where most of the people occupy the heavily forested mountains- making their homes in the towns and villages beneath these dramatic cliffs, or on the hilly plateau. Although its northern reaches are on the frontier of Brong area, Sekyere is very much Asante distress.

The independent Sekyere states have their respective identity, migration history and contribution to the formation of the Asante kingdom. The origin of the Mampong people has been traced to two clans, Bretuo and Tana that lived in Adansi Ayaasi (at which place they had come from the ground) under a chief called Kwakye Panyin. He was succeeded by Maniampon who was moved from Adansi Ahensan owing to dispute with the Akrokyere Adansi to settle at Behinease (Rattrary, 1929). Another version also has it that the first person who led the migration was a woman called Nana Asiama Nyankopon (Guahyia) (Adu-Agyem, Agyapong & Agyei, 2013). According to Adu-Agyem et al., 2013), "the ancestors migrated mainly because Denkyira the then powerful kingdom made them feel insecured and the ancestors of Mampong were very peaceful and did not want to engage in any war with the Denkyira" (p.120).

Mampong played a crucial role in the formation of the Asante Kingdom. Ratrary (1929) notes that in the formation of the Asante kingdom by Osei Tutu I, Manianpon helped in the wars against Tafo (who owns all the lands near Kumasi), Dormaa, Ekase and Amakom. Manianpon owing to the help he gave to Osei Tutu in these wars received a title of *Amaniampon*, *ye de akobo gyege no tata* ('Amaniampon, whom bullets taught how to walk'). During the war against Denkyira rule, Boahen Anatuo of Mampong commanded the whole Asante national army, the express

command of Priest Anokye, but requested that his position as the next to the leader should be made permanent and it was subsequently granted. In that regard, it makes Mampong-hene the second to Asante-hene in the hierarchy of the confederacy, a position Mampong has enjoyed till this day (Adu-Agyem et al., 2013). Boahen Anantuo is spoken of as having died of praise of his valour in battle (*Boahenanatuo a ekemfo ekum*). Akuamoa Panyin succeeded Boahen Anantuo and was the first Mampon Chief to sit on the Silver Stool, which was given to Mampon by *Asante Hene* as a reward for the services of Boahen Anatuo, with the injunction *Me so tiri, woso so nsa* (I hold the head, you hold also hold the feet), that is of the Nation (Rattray, 1929).

Sekyere Nsuta per the accounts of Rattray (1929) share common stools with Kokofu and have common ancestress with Kumasi Stools, Ekuru (Apori), who came from the ground at Asumegya 'Asantemanso'. She bore Yita and Anchewa Nyame. Nsuta is descended from Yita and later became Dako. Tabi Himani came to where there were twin rivers (Nsu' ta). The spot had already been discovered by a hunter, Yaw Bensin, alongside elephants and buffalos, Tabi sent his younger brother, Kwante Bofuo, to inspect the land where he found that the place was near Beposo. Rattray (1927) mentions that "Tabi and his people came to the land of the twin rivers where he built the town of Nsuta where it stands presently. Tabi died and was succeeded by his brother Tutu Koko. Nsuta great oath 'Fiada' (Friday) dates from his time. Tutu was succeeded by Nti Beko, who was succeeded by Asa Botwe who lived peacefully and died at Nsuta and was succeeded by Agyin Frimpong" (p.256). Agyin Frimpong was succeeded by Oduro Panyin of Nsuta who once acted as Okyeame (linquist) to Osei Tutu I; his staff Abusuapoma, still in possession of Gyakye Hene (Chief of Gyakye)

remained a good friend of Nsuta Chiefs (Rattray, 1929). Until this time Nsuta, like the rest of the Asante kingdom was a subject to Denkyira. Rattray (1929) also notes that "the Nsuta paid tribute of *ntwuma* (red clay). During the Denkyira war, at the battle of Feyiase, the Nsuta occupied a position on the left of Kumasi *Adonten Hene (Benkum nawase)*. *The Nsuta capt*ured the Head of the Denkyira Horn-blowers, and his descendants are in Nsuta today" (p.258). The *Asantehene* always addresses the *Nsutahene* as *Wofa* (Uncle) (Agyemang-Duah, 1968).

Kumawu is presently Sekyere Kumawu district capital. It is one of the significant traditional towns in the Asante region. According to oral history, there were two important historical reasons associated with Kumawu. First, the name originated from a tree, "kuma" planted by Okomfo Anokye, a traditional priest, in a bid to select a capital for the Asante Kingdom (alongside the one planted in Kumasi (originally called Kwaman). Oral tradition has it that, the tree that was planted in the then Apemso did not survive hence, the name "Kumawu" (Kuma is dead). Secondly, the town is known for the heroism demonstrated by Nana Tweneboa-Kodua I during the reign of Otumfuo Osei Tutu I, when he sacrificed himself for the Asante Kingdom in order for Asanteman to defeat the Denkyira State in a war in the 17th Century. The men in this town are known for their bravely due to Nana Tweneboa-Kodua's selfless action, hence the accolade, "Mmarima a wo wo Asante man mu" (Men in the Asante Kingdom). The towns surrounding Kumawu are all historically related to the people of Kumawu. For instance, the chief of Besoro is believed to be a grandson of Nana Tweneboa-Kodua (Ghana Statistical Service, 2013) contributed to the formidable Asante empire in the 17th Century through various wars fought by the Asante empire.

Ultimately, the Sekyere possess an identity that made them a core of the Asante empire by virtue of the significant roles they played as defenders and expanders of the empire.

Social Organisation

The Sekyere like the other Asante and Akan people have similar clan and inheritance system. The Sekyere people being Akan likewise belong to eight clans and each has an animal which it regards as a totem (agyinaboa) and kinsman (Table 4). Below are the clans and their associated totems (Table 4).

Table 4: Akan Clans and their Totemic Animals

Clan	Totem/ Local Name	English Name	Scientific Name	Symbolic Quality
Aduana	okraman	Dog	Cannis domestica	Skill
Agona	Ako (awidie)	Parrot	Psittacosis erithacus	Eloquence
Asakyiri	ope te	Vulture/ Eagle	Neophron monochus	Cleanliness
Asenie	Apan	Bat	Myotis lucifugus	Diplomacy
Asona	Kwaakwaadabi	Pied crow	Corvus albu	Wisdom
Bretuo	o sebo	Leopard	Panthera pardus	Aggressiveness
E kuo na	E koo	Buffalo/Roan	Syncerus caffer	Uprightness
əy əko	Akrə ma	Falcon/hawk	Falco columba <mark>riu</mark> s	Patience

Source: Conservation International, 2003 (p.2) cited in Awuah-Nyamekye, 2013 (p.142)

The ancestors of Mampong are Bretuo by clan, whilst Nsuta, Beposo and Kwaman people belong to the Oyoko, Adako, Agona and Aduana clans respectively (Adu-Agyem et al., 2013). By virtue of the Sekyere people been an Akan people, traditionally, they remain matrilineal, this means they inherit from the mother side. Boama (2015) explains that the implication of matrilineal inheritance is that nephews

inherit the properties of their uncles (mother's brothers) after their death. Sarpong (2002) provides some key norms governing the Akan matrilineal system of inheritance – "the clans are exogamous (i.e people marry from outside); women are more important than men where women continue the lineage while later ends with men; property is collectively owned by the clan- individuals can use it but cannot dispose it off; succession inheritance and ranks are determined lineally" (p.64-76). Every Sekyere like the mother Asante clan belong to their mother's clan; therefore, fathers have more to do with their sister's children than their own (Walker, 2018). However, Mc Gee (2015) argues that a matriarchal culture can contribute in significant ways to the advancement of women - power ascribed to women because of the matriarchal tradition, and their access to political and economic structures. In other words, the matrilineal family consists of all persons, whether male or female, who have descended from a common ancestress.

The basis of the genealogy is the common blood that feeds and nurtures the child in the mother's womb. The peculiarity involved here is that the matrilineal blood passes only through females. This naturally leads to a system of diagonal succession where the matrilineal blood dies with every male member (Josiah-Aryeh, 2005). This means males are only regarded as members of the matri-family during their lifetime (Gledzi, 2014). This implies children belong to their mother's family and not to their father's. That is, one's father's brothers are one's fathers while one's mother's sisters are one's mothers. This means these people must treat one as if they are one's biological father or mother. In the matrilineal kinship and family system, maternal siblings take precedence over the spouse in many spheres of life (Sarpong, 2002). The matrilineal

family members enjoy common ownership of property. Moreover, they are liable to contribute to pay family debts and possess the rights of representation at family meetings. Further, the head of the family holds all property in trust and also manages and controls it on behalf of members (Awusabo-Asare, 1990).

Political Organisation

In Sekyere land, each town and village are traditionally organised within a wellarticulated political territorial system formulated by Asantehene Osei Tutu I and his successors on the "Golden Stool". The three Sekyere semi-autonomous divisions (aman) owe allegiance only to the Asantehene: Mampong, Nsuta and Kumawu commanded by an Amanhene (paramount chiefs). Each of these traditional areas comprises subdivisions and villages (Austin & Luckman, 2014). For example, the Mampong-hene enstooled by his people must swear allegiance to the Asante-hene who sits on the Golden-Stool (Adu-Agyem, Agyapong & Agyei, 2013). Mampong is a state and the chief are responsible for the administration of the state, presides over all the chiefs in the towns and villages under his traditional area. The third, is the wing or divisional chief (Abrempong) responsible to the paramount chief. Gyamase-hene and Effiduase-hene are Abrempong serving under Mampong-hene. The fourth is the village chief (Odikro) who has his council of elders (Mpaninfoo) (Adu-Agyem et al., 2013). The paramount chief of Sekyere has various divisional chiefs that perform varied roles in the traditional administration. Key of such divisional chiefs and their roles are described in Table 5.

Table 5: Hierarchy of Chiefs and their Respective Roles

Hierarchy	Role		
Omanhene	Supreme leader of the traditional area		
Ohenemaa	She is queen mother and the counterpart to the paramount chief responsible for matters of women in the traditional area		
Kurontihene	He assumes the position of the paramount chief in his absence.		
Twafoohene	He acts as the spokes-person for the subchiefs in the traditional area, designs the path for the traditional army in times of war		
Adontehene	Traditional army commander		
Nifahene	He administers the right quarter of the traditional area on behalf of the paramount chief, holds the right-wing position in the traditional army		
Benkumhene	He occupies the left quarter of the traditional area on behalf of the paramount chief, and occupies the right wing of the moving army.		
Kyidomehene	He serves as the rear-guard of the moving army.		
Gyasehene	The chief is charge of feeding the stool and a caretaker of town/state upon a death of a chief.		
Sanaahene	The chief in charge of the Paramount chief's treasury		
Nkosoohene	"Nkosoo" means development- the occupier of this position is in charge of developmental issues in the paramount area/town		

Source: Author's Construct, 2022.

However, administrative positions are occupied by the linguist, executioners, stool carriers, drummers, and chief umbrella carriers. As it is in the Akan tradition, in Sekyere, the authority of the chief is functionally derived from the people. The subjects regard themselves as partners in the administration of authority and the chief must always rule with the consent of his subjects and respect the wishes of the people (Gyekye, 1996; Adu-Agyem et al., 2013). One unique feature of the Sekyere traditional authorities likewise other Asante traditional rulers is the stool. The term 'stool' was

coined by the British to describe the intricately carved wooden seats of the Akan which serve as symbols of political office and ritual observance (Agyeman-Duah & Ivor, 1976). Labi (1992) affirms that, the Akan stool is symbolically complex and has multiple art forms, functions and meanings. Adu-Agyem et al. (2013) indicate that "in Asante, the most visible and tangible cultural traits are the stool serves as a seat, 'represents the status of the occupant, dignified emblem of political, judicial and social leadership – thus remaining the most important of all regalia in the palaces of chiefs and provides a record of its history, a measure of its wealth and a state of its collective identity" (p. 119-120).

The 'Golden Stool' is the most important stool in the Asante kingdom. According to an Asante legend noted by Gledzi et al. (2014), "the golden stool contains the soul of the Asante nation and thus, belongs to the Asante nation. Every chief inclusive of those of Sekyere in the Asante union pays allegiance to it" (p.22). However, individual states, town and villages possess their own stools. For example, the Amaniampong Silver-Stool of Mampong is hierarchically next to the Golden-stool of Asante in Ghana and serves as the pivot of religious and political power (Agyapong, 2010). As a special symbol of the Mampong state, Agyapong (2010) asserts that "the Silver-Stool as an art form contains pieces of information which can be interpreted only when the code and the system of symbols are known" (p.120).

Environmental Protection

Sekyere cosmology posits that the world (*ewiase*) including the earth (*asase*), plants, animals and humans were created by *Odomankoma Nyame* (Creator God) (Botchway & Agyemang, 2012) and that all aspects of creation are accorded respect, protection as they serve as sources of sustenance for human life – trees, animals and rivers are given more attention (Awuah-Nyamekye, 2014). The Sekyere belief system can be summarised as 'humans depend on the Earth'. The notion that the Earth is a mother or a grandmother emphasises a deep link between the Sekyere and the Earth. According to Adu-Agyem et al. (2013), the following is a literary translation of a libation prayer that is said at the stool room (Nkondwafieso) by Mampong-hene:

Good morning *Nananom* (ancestors), Today is *Akwasidae*, on behalf of my people, I offer you this drink. Receive it and grant us long life, Grant health to me, Grant health to the queen-mother, Grant health to the Akyeame (linguists or spokespersons), Grant health to all including strangers in our midst. Visit us with abundant rains. Permit bearers of children to bear children Protect us against all forms of misfortune (p.124).

There is an organic and symbiotic relationship between religion and nature in the Sekyere cosmology of the Sekyere State of Mampong, which according to Vanessa (2014) describes as belief system centering on Earth in the form of land and linked with the ancestors. The link is due to two factors. The ancestors are regarded as the real owners of the land.

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The Sekyere people traditionally carried out environmental protection in many ways. Botchway and Agyemang (2012) note that the Sekyere observed "taboos for the Mother Earth as "tilling land on Thursdays, hunting on lands where the ancestors are buried, working on the land during certain sacred days or time" (p.12). People invoked

curses from the spirits and the ancestors and the gods to enforce environmental protection and morality. Asiedu-Amoako and Ntiamoah (2020) note that "any abuse of land, rivers, the forest and groves, killing of animals and birds was more likely to be met with punishment in the form of death, diseases like blindness, impotence and paralysis" (p.191) – implying the implication of these consequences for environmental protection norms violations strictly check environmental exploitation activities.

Environmental Problems

The central argument for the study of Sekyere traditional ethical values under this research bordered on environmental protection – necessitating the need to establish the current environmental problems in the district. It has been established that the natural environment of the entire Sekyere land and in particular that of Sekyere Central district has been degraded (Sekyere Central District Medium Term Development Plan, 2014-2017). The SCDMTDP (2014)-2017) estimated that "the rate of environmental degradation is around 7.0% annually in the last ten years.... forest reserves have reduced from approximately 782.0km² to 161.07sqkm, whilst off forest reserve was 1,336.78km² to 78.20sqkm" (p.7). This is affecting the "preservation of timber and wildlife resources, preserve climate of the area, check soil erosion, protect water resources, prevent southwards expansion of the savannah vegetation of which the reserve was created for" (p.7).

The rapid deforestation in the district has been attributed to cutting of trees for charcoal production, poor farming practices, timber operations and bushfires.

Consequently, the original forest vegetation of the north-eastern part of the district has been reduced to savannah. The vegetation of the area -originally rainforest (moist semideciduous type in most area have turned to secondary forest (Ghana Statistical Service, 2013). Furthermore, Sekyere Central District (2020) composite budget report revealed that a "large quantity of economic trees and medicinal herbs are cut for charcoal production resulting in loss of flora and fauna and the district is also prone to bush fires due to the unprofessional method of charcoal burning" (p.8). The Composite Budget Report (2020) highlighted other environmental challenges to include "reduction of ground water sources or levels, shrinking and drying up of rivers due to forest losses in the head streams, reduced biological productivity and loss of forest, progressive of timber species and non-timber forest products" (p.10). The Sekyere Central Medium Term Development Plan (SCMTDP - 2014- 2017) reported that climate change is gradually as an emerging environmental problem for Sekyere Central district and by extension the whole of Ghana. The SCMTDP (2014) operationally defined climate change as "a change of climate which is attributed to directly to human activity that alters the composition of global atmosphere and which is in addition the natural climate variability over comparable time periods" (p.86). The current environmental situation remains a key driven factor in this study.

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Impacts of Sekyere Environmental Problems

The rate at which the forest of the Sekyere area is being depleted into savannah as a result of increasing charcoal production, unfavourable farming practice and bush fires has caused reduction in the levels of flora and fauna of the soil which affects agricultural production with its negative impacts on the people's livelihoods. The Ghana Statistical Service (2013) has reported that productive lands which used to be the main sources of food supply in the area are presently undergoing falling trend in food production owing to the destruction of the farm lands. The GSS (2013) also reports that "large quantities of economic trees inclusive of medicinal plants cut for charcoal production have caused massive loss of flora and fauna; many rivers are drying up in the area due to deforestation and the district is experiencing extinction of economic trees and wildlife" (p.65). Notwithstanding studies on the manifestations of climate change in the area, the SC-MTDP (2014-2017) has related the phenomenon to the "loss of biological diversity, emergence of new vectors and diseases in climatically induced burdens, crop harvest losses, forest loss, and most importantly loss of soil fertility leading to reduction in size of arable land" (p.86).

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Causes of Environmental Problems

The Sekyere Central district is experiencing bush fires due to unprofessional method of charcoal burning. The slash and method of farming and the shifting cultivation practice that has been practiced over a period of time has contributed to loss of soil nutrients. Timber Merchants and Chainsaw operators also deforest the vegetation of the Sekyere area through the felling of economic trees (Ghana Statistical Service, 2013). The GSS (2013) reports that "uncontrolled bushfires also result from the activities of hunters, palm-wine tapers and cigarette smokers in the area. Inappropriate and excessive use of chemicals in farming and fishing as well as farming along riverbanks is some of the human activities, which impact negatively on the environment" (p.32).

The fear and reverence for traditional gods or deities coupled with respect for traditional systems that worked perfectly well no longer hold. Punishment by the gods or deities for contravention of traditional laws worked (Kudadjie, 1983). Asiedu-Amoako and Ntiamoah (2020) point out that "the current phenomenon of widespread deforestation, soil erosion and water pollution of the major rivers in communities are caused by human activities because traditional laws for sustainable use have completely been ignored or rejected by many people" (p.86). They argue that influences of foreign cultures and ignorance of the traditional principles and taboos that protect forest, rivers, animals and other natural objects are decreasing their importance.

The failure on the part of Sekyere District Assembly - local government, traditional leaders, traditional priests and individuals to effectively manage its environment seems to be attributable to the fact that the actual environmental practices

have generally not conformed to the ideas of the African Traditional Religion and ethical values of the past, which offered opportunities for safeguarding and protecting the environment and its resources (Cardelus, Lowman & Wassie, 2012; Adu-Gyamfi, 2011; Maru et al., 2020) due to their spiritual significance (Maru et al., 2020). The traditional belief among the Akan makes human-beings to be answerable to the line of their ancestors for their stewardship over the environment -regarded as non-human part of creation such as land, flora and fauna belonging to the ancestors (Asiedu-Amoako & Ntiamoah, 2020). Meaning, this tradition essentially grants an intrinsic value to nature whilst acknowledging that human-kind has special and unique responsibility in protecting it.

Asiedu-Amoako and Ntiamoah (2020) contend that "as conversion took place, the people were forced to relinquish their indigenous practices and belief systems. This has resulted partly in changing the African worldview into either European or Arabic worldview" (p.192). Contrary to the Traditional African Religion, Christian tradition believe that God does not care how we treat the environment and of which human beings are the only morally important members of this world. By this tradition, nature is viewed as of no intrinsic value. Harsh as this tradition may be, it still validates the ethical basis for the preservation of nature, as long us that focuses can be related to human well-being (Rajesh & Rajasekaran, 2019; Morgan, 2020).

Other causes of the environmental problems in Sekyere include population increase and urbanisation population increase, pressure from other religions and urbanization. In the SCD for instance, population growth is a major problem facing environmental conservation in the Sekyere Central district. The district has a total land

area of 1,631.1 km². The population of the district in 2010 was 71,232. The population density as at 2010 was 44 persons per square kilometre. The projected population density of the district for 2014 is 46 persons per square kilometre (Ghana Statistical Service, 2013). Pressure on the land in the areas around Adosowago river, Aminwhewa, Supong, Tikosoma, Bonkoo and Abenaa freshwater bodies and sacred groves such as Twabiri and Dadiase sacred groves and Kogyae forest reserve have increased. Asiedu-Amoako and Ntiamoah (2020) indicate that "high population density depends on the forest for timber, firewood, and other forest resources for living and therefore remains a threat to the conservation of the forests and rivers" (p.192).

Chapter Summary

This chapter has defined and positioned who the Sekyere people are as a subgroup in the Asante tribe. The socio-politico characteristics are identical to the Asante and for that matter Akan culture. This contributes a great deal both to the formulation of ethical ideas, setting up and enforcement of moral standards and living in harmony with nature. However, there are deforestation particularly from cutting trees for charcoal burning and poor farming practices. These practices are strongly linked to impacts of modernity, population growth and urbanisation weakening the effectiveness of traditional ethical values of protecting the environment. The next chapter will examine in great detail the ethical values underlying the protection of traditionally protected areas among the Sekyere.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This current chapter presents data from the fieldwork and its analysis. The chapter is organised into four main sections in accordance with the research objectives. The first part throws light on the preliminaries of this study to connect the earlier chapters systematically to the analysis and discussion chapter respectively.

Preliminaries of the Study

The knowledge that the present study sought to unravel is the traditional ethical practices supporting the conservation of Sekyere traditionally protected areas. The study is premised on the argument that Africans have had a humane and peaceful society and environmental ethics that helped in interacting, regulating and protecting their natural environment (Kideghesho, 2009; Ojomo, 2011; Eneji et al., 2012) - meaning environmental protection has been a major concern of traditional African societies which are based on ethical values – moral codes. It has been emphasised that the Sekyere people like indigenous Africans place significant emphasis on environmental ethics which regulate their interactions and protection of the environment.

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I have extensively touched on the scholarly works on environmental ethics to the African environmental discourse averse the Western environmental ethics traditions. With growing concerns of rapid environmental problems – deforestation, water pollutions, erosion, improper waste management and disposal, wetlands

destruction, rising sea-levels and global climate change from unprecedented environmental problems in Ghana, it is imperative that some traditionally environmentally protected areas in the case of the Sekyere people are explored towards enhancing our understanding on the current African societies' environmental crisis discourse. While, there are worth of studies on African environmental ethical values (e.g., Tangwa, 1996; Ojomo, 2011; Adu-Gyamfi, 2011; Kideshesho, 2009; Ikuenobe, 2014; Botchway & Agyemang, 2012; Anolief et al., 2015; Kanene, 2016; Tosam, 2019; Maru et al., 2020), particularly in Africa with Ghana inclusive, these studies have not focused on the Sekyere people.

Thus, in the context of the Asante culture – Sekyere settings, the study investigated the traditional Asante ethical values and environmental protection with regards to: unacceptable environmental protection practices; traditional norms and values; punitive measures for norms violations; traditional belief systems and level of adherence of people. Essentially, the study sought to find out the acceptable and unacceptable practices in the traditionally protected areas; the extent punitive measures instill discipline in the local people from exploiting the resources in the traditionally protected areas; traditional communities values and belief systems that prevent local people from exploiting the resources of the traditionally protected areas; and the extent to which people observe the restrictions governing the traditionally protected areas.

In order to put the research work into proper perspective, relevant literature was consulted to discuss pertinent themes: ethics, environment, environmental ethics, environmental values, and traditional African environmental protection practices. The review provided elaborations, clarifications on complexities, in-depth perspectives and

discussions on the study. These were influenced by the different scholarly connotations, interpretations, explanations and research findings from scholarly works significantly under different African cultural context.

The study was driven in the purely qualitative research approach owing to its cultural and social nature – thus contributing to the Sekyere people's traditional ethical values underlying their traditionally protected areas. The study adopted ethnographic qualitative design which fundamentally describes the culture – behaviour, belief, attitudes, and values of people in elevating their culture (Kumur, 2011). In all, thirty-three participants – chiefs, traditional priests, sacred grove attendants, linguists, clan heads, community leaders and knowledgeable community folks were involved in the study. The purposive and convenience sampling techniques were used to sample participants for the study for interviews from Sekyere communities of Nsuta, Tadieso, Gyetiase, Dadiase, Achiase and Owuobuoho. This was complimented with field observations on the protected areas. This research carried out from September, 2021 to June, 2022 obtained some results which are analysed as follows.

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Unacceptable Practices on the Traditionally Protected Environments

With the broad nature of African environmental ethics, the study first sought to uncover the acceptable and unacceptable practices in the traditionally protected environments among the Sekyere people. This was based on the researcher's quest to obtain in-depth understanding as to what is traditionally and morally acceptable and unacceptable practice in the Sekyere people's anxiety to ensure the protection and conservation of traditional conserved environments and resources. This is with particular reference to the traditionally protected environments: rivers and sacred groves in the Sekyere communities.

Fresh Waterbodies

The Sekyere people have acceptable practices on their protected traditional environments – activities and acts perceived as less destructive to the environment, not declared as taboos by the gods and the ancestors; and not affecting the wellbeing of the Sekyere people. In an interview with Nana Amoa Asare, a notable Sekyere citizen, he disclosed that it is an unacceptable practice to farm close to water bodies. Hence, the Sekyere people of Nsuta observe important measures when farming around rivers (Personal communication, 14 May, 2022). In support of Nana Amo Asare's assertion, the field observation along the banks of river Tikosoma showed that farmers maintain considerable distances between their farms and the river valleys. Farmers purposively reserve a zone of vegetation between their farms and the flood plains to protect the rivers (Plate 1a). Trees are well preserved in these farms to ensure the protection of the rivers.





Plate 1a Plate1b

Plate 1a: A farm along River Tikosoma at Nsuta

Plate 1b: Young men swimming in River Supong at Nsuta

In an interview with Kofi Obeng - one of the three Assemblyman of Nsuta, he revealed that building close to rivers remain an unacceptable practice among the Sekyere of Nsuta. The chief of Nsuta and his people have traditional regulations that prohibit individuals from building houses close to the rivers in the town. The chief and the community ensure compliance to these norms (Personal communication, 20 May, 2022). Along the Aminwhewa, Tikosoma, Adosowago and Supong rivers in Sekyere Nsuta, it was observed that the distance between the nearest building to the flood plains of the rivers is approximately half a mile. It was also observed that bathing and washing in or onto rivers are unacceptable but swimming is an acceptable practice (Plate 1b). In the various water fetching points along the rivers in Nsuta, Gyetiase and Tadieso that I visited regularly, people did not undertake washing or bathing in the rivers. Likewise, in the Sekyere Nsuta traditional communities, washing in rivers are highly unacceptable, hence, people who go to river-sides to wash know that so they wash from considerable distances from the river valley (Wofa Kujo, Personal communication, 21 May, 2022). The field observations that followed along the rivers in Sekyere Nsuta revealed that people comply with this traditional practice. Plates 2a and 2b show people

washing clothes above the flood plains of Supong and Tikosoma rivers at Nsuta. The young girls and women who usually wash near river sides ensure that soapy waters are poured out far away from the rivers.



Plate 2a: People washing along River Tikosoma Plate 2b: Woman washing around River Supong

Similar practice goes on along the headwaters of the Adosowago river at Nsuta. Here, it was observed that people who go to the Adosowago river side to wash their clothes fetch the water from the river valley and take it to a distance of about 70 meters to do their washing and drying (Plates 3a & 3b).



Plate 3a: Young man carrying water from the Adosowago river valley Plate 3b: People washing and drying clothes around Adosowago river

Evidently, (Plate 3a) shows a young man carrying water from the Adosowago water collection point to a distant location for washing. At the water fetching point, people ensure that no one washes close to the river. Besides clothes washing, in the Sekyere Nsuta traditional communities, washing of vehicles, motor-bicycles, machines, woolen carpets and discharge of household liquid waste are prohibited along rivers (Kwame Ofosu - Second Assemblyman of Nsuta, Personal communication, 25 May, 2022). The prohibition of washing in the Sekyere rivers may be essentially to maintain the freshwater bodies' quality levels for sustainable consumptions. Similar to this finding, Lssozi (2012) noted that among the Tonga people, it is forbidden to wash clothes near water collection points and sources. The idea behind this practice among the Sekyere people may be to limit human-induced pollution from non-point sources.

Further to these observations, all the Sekyere communities studied forbid dumping of refuse and defecation in and along waterbodies. For instance, among the people of Tadieso and Gyetiase, it is unacceptable to dump refuse near or defecate near the Bonkoo River (Personal communication, Maame Nketia at Tadieso, 5 April, 2022). As a consequence of dumping refuse or defecating along the Sekyere freshwater bodies, people may be exposed to avoidable water-borne diseases such as dysentery, typhoid and cholera (Kanene, 2016). Though, it is highly understood that the African indigenous belief system has offered opportunities for safeguarding the environment and its resources for their spiritual values (Cardelus et al., 2012; Maru et al., 2011; Adu-Gyamfi, 2011) - making the living answerable to their ancestors for their stewardship over non-human part of creation (Asiedu-Asamoah & Ntiamoah, 2020), the philosophy behind this practice by the Sekyere people may not necessarily be religious, but a strong

public interest influenced high moral practice, increasing human health concerns and knowledge on the value of environmental protection, moral order where people voluntarily observe true ecological ethics to safeguard their rivers from pollution, abuse and over exploitation (Obiora & Emeka, 2015). This may explain why this practice is not strictly enforced in the Sekyere communities, but individual community members voluntarily comply with this practice to protect their rivers, probably because they know the values of the rivers to their lives and the implications of such deeds if they are allowed to take place.

In an interview with the Aduana Abusuapanin of Tadieso, he emphasised that "people are not directed not to defecate or wash in the rivers, but everyone is even afraid to even do so" (Personal communication, 5 April, 2022). Similar observations have been made amongst the Tonga, the Igbos, and the Akan by some scholars (e.g., Kanene, 2016; Obiora & Emeka, 2015; Lssozi, 2012) regarding the prohibition on defecation or dumping of human waste near water sources or near streams. This environmental protection practice among the Sekyere people can be regarded as long exiting practice being considered by scholars (e.g., Nkansah, 2018; Appiah-Sekyere, 2016; Awuah-Nyamekye, 2014) among key prohibitions employed by the traditional Akan in protecting and preservation of the natural environment and its resources. Nonetheless, a religious connection to this finding is that any contempt to the prohibition of defecation and throwing waste into rivers attracts severe sanction from the deity who owns the stream (Kanene, 2016).

The Adontenhene of Sekyere Nsuta (Personal communication, 1 April, 2022) in the interview revealed that the Sekyere people consider it an unacceptable practice

to destroy vegetations along their fresh waterbodies. Protection of freshwater bodies is a hall mark of the people of Nsuta Sekyere because they know their community was built at the site of two rivers by their great grandparents. By this historical value for rivers, the Sekyere Nsuta people seek to maintain their zeal to protect their rivers. In connection with this, the interview with the First Assemblyman of Nsuta – Kofi Obeng revealed that after the 1983 bushfires, which destroyed wide vegetation covers including those protecting the rivers, the Nsuta people and traditional authority planted trees along the devasted river banks to restore the lost rivers' ecosystems. Under this, community afforestation programmes including trees were planted on the banks of the rivers - Supong, Tikosoma and Aminwhewa. The trees were fast growing species (Oframo, Wawa and Gyaenaegyaenae) belonging to the species of the area's natural vegetation (Personal communication, 2 April, 2022). The field observation showed that trees have fully grown to replace the lost vegetation covers in 1983 – meaning that Nsuta will always ensure that their river banks are forested. Noticeably, with the Nsuta Sekyere people, it is a serious prohibition for any individual to destroy or cut trees along the rivers in the area.

Unlike the unprotected traditional environments, illegal lumbering activities are reportedly widespread, but no one endeavours to cut trees bordering a river in this area. It is for this reason that a number of trees can be found along the rivers in Sekyere Nsuta (Personal communication, Second Assemblyman of Nsuta, 25 May, 2022). This practice obviously has no spiritual connotation, but signifies the people's wisdom and value for trees in the protection of their freshwater resources and that the Sekyere people are aware that when the trees are depleted, the rivers will dry up one day. This

practice among the Sekyere as integral component of Asante culture portrays their values and knowledge for trees in the protection of waterbodies. Similarly, in the Crossriver state in Nigeria, local people showed concerns of cutting down trees along their rivers in order to sustain their drinking water sources (Eneji et al., 2012), but remains contrary to Ogungbemi's (2008) observation that modern Africans have departed from the core values and the traditional philosophy of protecting their environmental resources.

The study has revealed a recent unacceptable practice that is associated with the protection of the rivers in Sekyere that has to do with the collection of large volumes of water from the rivers of Nsuta. In an interview with the Third Assemblyman of Sekyere Nsuta, Wofa Atta, he explained that this development has been caused by commercial water operators contracted by people to supply them with water for constructional purposes and gradually many people started realising reduced river levels and flowage. In order to protect the rivers from drying up, water extraction needed to be regulated and the traditional authority timely intervened to halt its continuity. The reason for initiating such practice was because, it has been considered as the most significant measure by chiefs to limit over-exploitation of the rivers which was noticeably reducing water levels (Personal communication, 20 May, 2022). This signifies effective monitoring by the local people acting as overseers of their freshwater bodies. In line with the literature, this finding is in agreement with the ethics of care postulated by Ogungbemi (1997) as an African traditional approach to environmental protection and conservation. With the traditional African, harmonious co-existence with the environment and its resources are prerequisite for absolute consciousness as

articulated by Bujo (2009); and Tangwa (2004). This practice confirms the existence of African environmental protection ethical practice placing cautionary restrictions on unacceptable actions of people on freshwater bodies by people in authority.

Farming activities in Sekyere flood plains are also prohibited, and without any enforcement, both local people and settlers strictly comply with this norm. Interview revealed that Sekyere Gyetiase and Tadieso communities being the sources of River Bonkoo, "crop cultivation around the river previously caused reduced water levels and upon realisation, this negative practice has completely been abandoned by the communities respectively" (Personal communication, Nana Amoah Asare – Aduana clan head, Tadieso, 6 May, 2022). This norm of non-cultivation of Bonkoo river valley points to the adverse results of farming activities close to river bodies and peoples' realisation on the need to reverse their actions. This practice may implicitly replenish the vegetation along the Bonkoo River and sustain its flowage. Contrary to this action, Eneji et al. (2012) found peoples non-readiness to halt farming activities along their water watersheds in the Cross-river state in Nigeria, which was previously a taboo to the indigenous people.

NOBIS

Sacred Groves

In an interview with a sacred grove attendant (Kwame Ofori, Personal communication, 25 May, 2022), he revealed that the source of Asuo Abenaa in the Twabiri forest (Plate 3c) is a notable and well-adored sacred grove among the Sekyere people, with a hallmark of two giant glittering spotless smooth rocks – classified as male and female respectively. But these features have presently disappeared due to large pool of water emerging at the source with fallen dead trees (Plate 3d).



Plate 3c Plate 3d

Plate 3c: Twabiri Forest at the edge of Achiase Community

Plate 3d: Flood Headwaters with dead plants of Abenaa River in the Twabiri forest

It was from these rocks; people could observe the source of the Abenaa river emerging directly from the ground. The floor of the river bed in this forest was notably described as well-polished, spotless and glittering marbles rocks on which clean water flows. Symbolically, the Sekyere Achiase people believed the two giant rocks at the source of the Abenaa river remains the abode for the goddess of the Twabiri Sacred Grove (Personal communication, Osei-Mensah, Twabiri Sacred Grove Attendant, 25 May, 2022). However, there has been important changes in the morphology of the

headwaters - the rocks are no more visible like the past due to flooding and presence of dead trees, leaves, and branches as depicted in Plate 3d. Secondly, the river has submerged for a considerable distance - leaving sections of its upper course valley dry, the people of Achiase perceived this development as "Asuo Abenaa's revenge for people's disobedience towards its existence in the area" (Personal communication – Osei-Mensah, Twabiri Sacred Grove Attendant, 25 May, 2022).

Commenting on this in the interview, the gong-gong beater of Achiase (Personal communication, 20 May, 2022) revealed that the Sekyere Achiase people in recent years have suffered from mysterious illness and untimely deaths by disobeying the taboos and prohibitive practices of the Abenaa river. With such sufferings brought to offenders, the fringe communities (Achiase, Amoaman and Npantoase) of the Abenaa river have prohibited swimming and farming close to the river to prevent unexpected calamities. There is a censure on swimming in the Asuo Abenaa's source area and it is now an undesirable and prohibited practice. This unacceptable practice is ultimately influenced by the perceived sacredness of Asuo Abenaa headwaters by the Sekyere people. This commensurates with Obiora and Emeka (2015); Ssebunya and Okyere-Manu's (2017) views on the role of indigenous religion in the conservation of the environment, but inclusive of an obligation to stewardship and demonstration of co-existence between humanity and nature. The finding further agrees with Kanene (2016) who found that the Tonga regard some water sources as sacred, being perceived as habitat of the gods. Lssozi (2012) also affirmed that customary laws mandate users to keep rivers and water sources pure as they are regarded as the dwelling place of the gods. A breach of such customary taboo ultimately attracts the displeasure of the ancestors and the deities whose sanction as pointed out by Awuah-Nyamekye (2015) remains really huge for the culprits.

Besides, the Twabiri forest, Dadiase forest remains an important sacred grove for the three Sekyere Nsuta traditional gods which always needs to be protected by the Sekyere people and their chiefs. The sacredness of the grove requires the protection of the site being the abode of the gods through a number of prohibitions and taboos. Nonadherence to the taboos is unacceptable to avoid undesirable repercussions on the perpetrator (s) of those unacceptable acts (Personal communication, Nana Yaw Barima, 4 May, 2022). In the sacred grove, both defecation and urination are strictly prohibited; women in menstruation cannot stay in the compound - hence, the women of Dadiase when in menstruation immediately vacate the community until the period is over; eating is not permitted in the grove and accordingly sacrifices made to the gods in the grove cannot be tasted both at the site or at home. Slippers cannot be worn to the grove except the chief priest and his linguist who led sacrifices to the gods in the sanctuary. However, it was clarified by the chief linguist that "individuals can wear their slippers from the Dadiase compound to certain distance to the grove, but should remain quite far away from the abode of the gods. It was also revealed by one traditional priest of the Dadiase shrine compound that the gods of the grove prohibit the practice of tying firewood, carrying palm fruit through the grove or Dadiase village (Personal communication, Dadiase Linguist, 5 May, 2022). Hence, all these practices are taboos for the gods of Dadiase and as such, it is unacceptable for residents and villages to be involved in any of such aforementioned prohibitions in the area – collaborating with Rim-Ruke et al. (2013); Verscuuren and Brown's (2018) assertion on the manifestation

of the power of the gods and natural spirits in traditional societies where people must protect.

Entry to the grove is not allowed by outsiders except the priests and priestesses, of the gods, linguist and attendants. An outsider can enter the grove only in the company of these persons. The entire grove is securely guarded and maintained by fringe communities - the paths to the grove are well-cleared, the communities fringing the grove know the boundaries and endeavour not to encroach with their farming activities, cutting trees, firewood, ropes, picking or gathering of nuts, snails or any other forest products from the grove. They also observe all the taboos on the grove. Tree cutting is highly unacceptable and it is totally restricted, however, during critical times such as the need for specific medicinal herbs, individuals could seek for permission from the gods through their priests before they could be allowed to have access to any plant in the grove (Personal communication, Dadiase Sacred Grove Attendant, 4 May, 2022). Conservation of the forest may be strongly associated with the existence of shrines and spirits in the grove site which must be worshipped (Deb & Malhotra, 2001; Cox, 1995). Whistling at Dadiase Sacred Grove and the traditional priest compound are not allowed (Interview, Dadiase Grove Attendant, 20 May, 2022).

The adherence to the taboos guarding the Sekyere groves is obviously dictated by the fear of repercussions from the gods inhibiting these protected areas. The immediate consequences of any non-adherence from an individual amounts to the payment of schnapps, chicken and sheep which are offered to the gods for pacification. Msuya and Kideghesho (2009) have noted that items usually demanded by priests and priestesses to pacify and soften the faces of offended deities are expensive and

sometimes scarce. Diawuo and Issifu (2015); and Anoliefo et al. (2015) opined that the anger and punishment that were arranged for the trespassers were severe to make community members mindful in approaching such resources. With these, there is no doubt that most people refrain from committing them for fear of more or less inevitable consequences (Osei, 2006). These kinds of taboos are not only unique among the Sekyere people in protecting their sacred lands, Garutsa (2014) also noted that the Eastern Cape pools in the Republic of South Africa as abode for mermaids which discouraged venturing in such areas. Thus, the spiritualities of indigenous people and their beliefs are intimately connected to the surrounding biodiversity and environments protection and conservation (Verschuuren & Brown, 2018).

Punitive Actions related to the Violation of Environmental Protection Practices

Having covered the acceptable and unacceptable practices on prohibition of large extraction of freshwaters from rivers, refuse dumping, defecation and farming close to rivers; prohibition of hunting, tree cutting and fishing in sacred groves on the fresh water bodies and the sacred groves, I now move on to the analysis of the punitive actions related to the violations of the environmental protection practices and their impact on traditionally protected areas. Sustainable protection and conservation of the traditional protected environments and resources such as the freshwater bodies and their ecosystems, sacred groves, and mountain landscapes will ultimately be affected by the enforcement of punitive measures that exist for any violation of the acceptable norms, taboos, prohibitions and practices among the Sekyere people. As pointed out by Awuah-Nyamekye (2015); and Adu-Gyamfi (2011), a breach of any environmental

protection taboo warrants the displeasure of both the ancestors and the deities whose sanctions or penalties are really huge to culprits, as well as the traditional authorities — being the custodians of the land, and the society at large. This section of the study presents the punitive measures that are associated with the destruction of freshwater bodies (rivers) and habitats and violating taboos and sacred groves.

In an interview with a Unit Committee Member in Sekyere Nsuta, he revealed that the traditional rulers of Sekyere are noted for using fines to deter people from polluting and causing destruction to their water bodies. The activities that attract fines include taking a footwear to a river to fetch water and standing in a river to fetch water from a river (Personal communication,16 May, 2022). These punitive measures may contribute to limiting pollution from agro-chemicals applications, contaminations from people through the use of footwears, including discharge of feces and deposit of garbage and refuses.

It is established that people who are caught disobeying this norm are fined by the chief and the Unit Committee. This practice is predominant on rivers – Adosowago, Aminwhewa, Tikosoma and Supong in Sekyere Nsuta. Other offences that also amount to fines also include washing of clothes in the rivers, fetching water or undertaking any form of activity before 6:00 am and after 6:00 pm within the proximity of a river in the area (Personal communication, Nsuta folk, 12 May, 2022). This practice is connected to the Sekyere belief that their rivers are gods and as spiritual entities, need some time to rest. They hold the belief that the non-limitation of people in the rivers at certain times disturbs the peace enjoyed by the river gods. Hence, continuous presence of people throughout the day and night may disrupt this course. The Sekyere believe that

people who disobey such prohibitions will one day experience the wrath of the rivers they may be blind, deaf, get incurable diseases or meet their untimely death (Personal communication, Sekyere Nsuta Adontenhene, 4 May, 2022). Ecologically, such prohibitions ultimately limit over exploitation of fresh waters. Similarly, this type of punitive measure has been noted by some researchers like Aye-Addo (2013) and Boamah (2015) among the traditional Asantes where traditional authorities ask culprits to pay huge monetary fines. Implying that payment of fines for abusing environmental norms is not new among the traditional Asante people inclusive of the Sekyere. The relevance of fines as pointed out by Aye-Addo (2013) and Boamah (2015) serves as traditional checks deterring people and regulating moral conducts against the wanton destruction of waterbodies and biodiversity resource in the environment.

Further to these punitive measures, other punishments are believed to come from the river's gods in the form of encounters, revelations and strong warnings particularly for recalcitrant individuals abusing the rivers taboos and prohibitions. An interview with Kwame Ofosu - Second Assemblyman of Nsuta (Personal communication, 6, May, 2022) revealed incidences where people who trespassed the prohibitions and taboos of the Adosowago river had direct encounters with the river goddess which have all remained mysterious to explain till date.

In the case of Nsuta Adosowago river, which is found close to the Catholic Senior High school, students reportedly go to the river to fetch water with complete disregard for the non-visiting times -before 6:am and after 6:00pm. Consequently, an unknown woman visited the school and spoke to a teacher concerning regular disturbances of the students in the river and warned them to stop to avoid any

repercussion. The community believed that warning was initiated by the goddess of river Adosowago to caution the students to refrain from such practices. In another instance, a man who failed to adhere to this prohibition had a bitter encounter at the Adosowago river site – he became blind and deaf. It was believed that the river revealed herself to the man for causing disturbances to her existence. In a more recent development, a man went to river Aminwhewa to load a tank of water after 6:00pm, and was unable to spark his vehicle. He became frustrated and unloaded the fetched water before he was able to move his vehicle away.

These mysterious ordeals and humiliations experienced by certain offenders are deterring people from following similar course, but with an obligation to comply with these taboos to protect their rivers. This finding is in contrast with Asiedu-Amoako and Ntiamoah's (2020) observation that fear and reverence for traditional gods that worked perfectly in the past no longer hold. In truism, it can be argued that punishment from the gods and deities for the contravening of taboos on Sekyere rivers has worked successfully from the past till date. When violated, the offender automatically receives a state of mysterious warning or state of disability which could be relieved only by a ceremony of purification (Barre et al., 2009).

The sacred groves of Sekyere Dadiase Kyiridade, Tadieso Aduana clan cemetery and Twabiri forest are rarely exploited by the people. Nonetheless, existing punitive measures for any exploitation amounts to cessation of all products harvested from the area, followed by a confiscation of tools (such as cutlass, cutting machine) from offenders for unlawfully entering such restricted areas. The chief of Tadieso's attention is always drawn by his people anytime they get alarmed by a noise of a Dorma

machine around the Aduana Royal family cemetery, Asuo Bonkoo watershed and the immediate surroundings (Personal communication, Tadieso Chief, 10 May, 2022). Lumbering by commercial operators or individuals are not tolerated in the protected areas and the chief of Tadieso is supported with the services of the Ghana Police Service and the Forestry Commission to see to it sanctions are brought to bear by such offenders - hunters, illegal lumbers, wining of sand, culprits of bushfires (Personal communication, Aduana Abusuapanin, 11 May, 2022). Thus, communal efforts, vigilantism amounts to arrest and prosecutions of intruders of their protected environments.

Tuesdays are reserved as sacred days on the land of the Sekyere Nsuta traditional area and as such spirits of the land are deemed to rest, and individuals are not supposed to farm in the catchment area of any river (Asuo Abenaa) on this sacred day. It is believed that anyone who disobeys this taboo and goes to farm on any Tuesday will experience a severe cutlass cut when weeding. One resident of Achiase stated that "It will be a surprise to you, if you try to do so". Secondly, the people of Achiase believe that the land or the river goddesses may reveal herself to any individual who will disobey this taboo. The consequence could be unconsciousness, blindness, deaf, or a strong warning (Personal communication, Sekyere Achiase Farmer, 11 May, 2022). Arguably, observation of non-working days on the land of the Sekyere's limits over exploitation of the natural environment, whilst pacifying the earth goddesses, spirits, and the river gods on the Sekyere land. The Sekyere environmental protection is also associated with the observation of special sacred days on the Asante traditional calendar - Dabone, which also limit peoples' interactions and pressure on the

environment. These days are *Awukudae*, *Fofie and Akwasidae*. These days are also dedicated to the gods and farming activities are halted on any part of Sekyere. People who are caught in the bush disobeying such norms get their cutlasses confiscated first, sent to the chief and punishment ranges from heavy fines, bottles of schnapps, individual provision of a sheep to pacify the ancestors, land and the god's (Nana Amoa Asare, Aduana Clan Abusuapanin – Clan head – 4 June, 2022).

Impacts of Punitive Measures on the Traditionally Protected Areas

Following the punitive actions on the violations of environmental protection practices, the researcher proceeded to assess the impacts of the punitive measures on the protection and conservation of the traditionally protected environments. In an interview with the Kofi Obeng (Personal communication, 9 May, 2022), he revealed that observation of taboos in respect of cutting of trees, cultivation close to rivers have collectively enhanced the protection of the Adosowago and Aminwhewa rivers. The field observations revealed that the rivers in the urbanised township of Sekyere Nsuta still has thick vegetation covers along their sources (Plate 4a & Plate 4b). The vegetation along the source of river Adosowago (Plate 4a) is typically luxuriant and evergreen tick forest composing of tall trees forming close canopies. This was observed to be providing shade and chilly atmosphere at the source of the river. As evidenced in Plate 4a, the environment of the Adosowago headwaters can be described as a natural ecosystem in a town.





Plate 4a Plate 4b

Plate 4a: Tall trees along River Adosowago source Plate 4b: Thick vegetation along River Aminwhewa

With the existence of punitive measures on lumbering along the Sekyere traditionally protected rivers, no one dares to cut any tree along water bodies. A Sekyere citizen stated that "this practice of leaving trees along the rivers has been well-observed, since we came to meet it, we need to sustain it" (Personal communication Nsuta Folk, 21 May, 2022). Likewise, Asuo Abenaa and Bonkoo (Plates 4c – 4d), local people's restrictions on the interactions on the Twabiri forest and the Asuo Abenaa watershed and the Asuo Bonkoo sources.





Plate 4c Plate 4d

Plate 4c: Vegetation along Asuo Abenaa at Achiase Plate 4d: Vegetation along River Bonkoo at Tadieso Evidently (Plates 4c-d) are the unexploited forest around Asuo Abenaa and Bonkoo river. Significantly, the existing punitive measures in Sekyere are contributing to the protection of the vegetations along the rivers for the future generations. Indeed, the communities are proud that their protected rivers of Sekyere Nsuta area flow throughout the year. Rivers such as Bonkoo and Abenaa have earned recognition for their peak flows during the dry season – *Nsuo ehyire epe bre* (Personal communication, Aduana Clan-head at Tadieso, 20 May, 2022). This means that Sekyere Nsuta communities' access to freshwater continues uninterrupted throughout the year. The perennial characteristics of the traditionally protected rivers can be associated with the maintenance of forest along water bodies in sustaining the water table and microclimate of the area.

Similarly, the Twabiri forest serves as the protective vegetation of the headwaters of Asuo Abenaa at Sekyere Achiase. This vegetation is not supposed to be cleared for any reason and it has been protected since the community was founded. Presently, Twabiri forest fringe communities believe that when the forest is cleared the river will disappear which will result in unbearable consequences on their existence. Although, there are abundant fishes in the Abenaa river, but the people cannot catch or harm any due to the effective punitive measures from their spirituality and traditional authorities (Personal Communication, Grove Attendant, 20 May, 2022). In an interview with the Gong-gong beater of Sekyere Achiase (Personal communication, 20 May, 2022), he revealed that some of the fishes have ornaments such as gold on their body. These types of fishes are believed to be the offspring of the river gods and as such they cannot be harmed or harvested. He also pointed out "though crabs can be caught, but

the people rarely do so". Besides, some mysterious experiences which happened to some people who trespassed this order serve as deterrent on the local people who dare to touch such prohibited resources from the Twabiri grove and the Abenaa river.

Information shared with the researcher by two members of the Achiase Unit Committee (Personal communication, 20 May, 2022), t was revealed that a man who was mentally impaired and related to the chief priest of Asuo Abenaa went to the river to harvest some fish and died on that very day with water coming from the mouth and the nose. The people of Achiase have observed that people who deliberately or mistakenly hurt any part of a fish from the river also experience similar damage on that same part of the person's body. With these serious repercussions, Achiase and its neighbouring communities around the Twabiri forest of the Asuo Abenaa desist from harming the river and its habitats.

These observations on the Abenaa river are re-affirming the crucial roles of habitat taboos and their related punitive outcomes in the controlling access and use of natural resources in traditional African societies as pointed out by Schaaf (2003) and Awuah-Nyamekye (2013), including the protection of the last several animals that have no refuge except in sacred groves (Rim-Rukeh et al., 2013). This philosophy is further supported by positions of several scholars - Kideghesho (2009); Kouakou (2013); Rim-Rukeh et al. (2013) in checking anthropogenic interferences detrimental to flora, fauna and their habitats. The reverence of sacred places for protecting waterbodies and vegetations among the Sekyere is also a common practice among the Songo in Southern Ethiopia – being lauded by Maru et al. (2020) for setting aside for ritual purposes and development of high-level biodiversity. Also are the Ba' Aka pygmies of Central Africa

for reserving sections of rivers and streams, and forests as sacred groves where fishing and hunting are strictly forbidden as indicated by Ayong (2007).

The impact of punitive actions to the protection of sacred water sources and forests in the Sekyere land may be well explained by the following religious beliefs. First, the supreme deity and the lesser spirits constantly show displeasure to culprits defiling the environment with drought, sicknesses, famine and distressing problems, death, or are stricken with grievous ailments like leprosy, epilepsy and the like (Asiedu-Amoako & Ntiamoah, 2020; Awuah-Nyamekye, 2013; Adom, 2011; Gkyekye, 1996). There is a traditional belief among the Akan people that abuse of rivers, forests and groves is likely to be met with punishment in the manifestation of epidemics, blindness, impotence and infertility and paralysis (Adu-Gyamfi, 2011; Asiedu-Amoako & Ntiamoah, 2020); and also, prohibitions which, when violated produce automatically in the offender a state of ritual disability only relieved when the relief is possible, by a ceremony of purification (Barre et al., 2009). Arguably, the protected areas of Twabiri forest of the Asuo Abenaa headwaters and the Dadiase grove remain natural – where human activities are forbidden. These areas in Sekyere tradition are known as 'Kyiridade' - derived from two Akan words – kyiri (taboo, forbidden) and dade (metal objects such as cutlasses). Hence, Kyiridade being environments specially conserved by the past generation of the Sekyere, places strict limitation on peoples' activities in protected areas. Similar to this practice, Gathogo (2021) also indicated that it is a taboo to cut a tree with any human made tool except with the help of a blunt stone in the local forest of Mount Kirinyaga in Kenya. Breaking this taboo requires that culprits the

produce sheep for cleansing and purification ritual performed on the individual in the forest (Gathogo, 2021).

Dadiase is a small-shrine compound of about nine (9) Acre (Plate 5a) purposely created by the traditional rulers of Sekyere Nsuta in the past. Dadiase community is recognised with its sacred grove and shrine for the state deities of Nsuta traditional area - *Tano, Munumkum and Wantwifaye* (Personal communication, Dadiase Sacred Grove Attendant, 20 May, 2022). The grove attendant pointed out that the forest is the abode of the gods and remains the sanctuary for sacrifices and libations for the gods. The gods are the pioneer gods (*Bosompanin*) in the Sekyere Nsuta Traditional state. The gods are noted for providing the spiritual welfare for the Nsuta state in the past. The shrine village is ruled by the gods through a number of traditional priests. The people in the compound worship the gods and observe numerous taboos of the gods. Noncompliance of such taboos attract several repercussions which make it difficult for the people in the settlement to overlook the taboos protecting the site (Personal communication, 20 May, 2022).



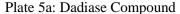




Plate 5b: Dadiase Sacred Grove

With the punitive measures of Dadiase sacred grove, essentially fines - schnapps, sheep, fowls to pacify the gods, it can be argued that the traditional African

ecology. This is inseparably linked with traditional religion where environmental destruction comes with punishment from gods and ancestors of the land for disobeying the respective taboos of the sacred natural sites preservation (Adu-Gyamfi, 2011; Bhagwat et al., 2011; Boamah, 2015; Dickson et al., 2018). This is what ultimately make local people abstain from harming the resources carelessly in the religious sites.

The taboos have therefore become the traditional commandments through which the Sekyere indigenous people are protected from spiritual and social ambivalences from the spirits of their land. The strong spiritual and physical consequences for abusing the taboos of the Twabiri forest and the Asuo Abenaa (Plate 6a & 6b) for example attract undesirable consequences to the abuser. In explaining this, the traditional priestess of Asuo Abenaa in charge of the Twabiri sacred grove stated that from its boundary in the Achiase village, no individual dares to cut tree branches, leaves, and roots, seeds, pick fruits or hunt for animals or birds. Cutting of ropes, collection of nuts, snails, edible fruits, honey and palm nut harvesting are forbidden except water. These are orders of Asuo Abenaa goddess to the people through her priestess based in Achiase (Personal communication, Asuo Abenaa Priestess, 20 May, 2022). As well explained by one farmer in an interview in Achiase village, "when even big tree falls in the forest, it is not supposed to be sawn". He hinted that "no cutlasses or chainsaw machine has been used in the site before and to the people, no fire has ever engulfed the area before" (Kwame Ahen - farmer, Personal Communication, 21 May, 2022 in Sekyere Achiase). Twabiri forest watershed therefore is a true home to fauna and flora biodiversity standing out in the midst of over-cultivated areas – thick-tall trees with huge buttresses, lianas, climbers, the forest floors are covered with dead leaves,

thorn, shrubs, robes, dead trees (Field Observation, 20 May, 2022). In line with this observation, Mgumia and Oba (2002); and Lean (2006) have indicated have the high species of biodiversity of sacred sites relative to adjacent areas due to high entry-restrictions.



Plate 6a: Achiase end of Twabiri forest Plate 6b: Abenaa river in the Twabiri forest



Plate 6c: Twabiri forest floor in Achiase Plate 6d: Tall trees in the Twabiri forest

Right from the stretch of the Twabiri forest (Plate 6a) in the Achiase community has been sustained for so many years. One dares not to cut any tree, leaves; collect snails; hunt for animals; harvest honey, pick seeds, nuts and fruits - making the forest rich in biodiversity (Personal communication, Twabiri Sacred grove Attendant, 20 May, 2022). The environment is evergreen and the plants are luxuriant. There are big trees with buttresses, climbing plants and lianas (Plates 6c & Plate 6d). Some sections have complete canopies with undergrowth. The temperature of the site remains cool relative to the nearby areas (Field Observation, 22 May, 2022). The Twabiri sacred grove environment as observed may be identical to the vegetation of the Uli sacred grove in Nigeria, described by Anoliefo et al. (2015) as typical rainforest with several tiers of trees, climbers, shrubs, and understory.

The preservation of Twabiri forest grove can be attributed primarily to sacredness and spiritual reasons. This scenario is what has been professed by some scholars (Tosam, 2019; Maru et al., 2020; Pungetti et al., 2012; Frascaroli, 2013) as mechanisms of limiting natural resource extractions in overcoming the negative consequences to the offenders from the gods. This becomes crucial usually when the primary offender is not brought to book or not asked to perform the pacification rites to appease, subsidise and soften the wrath of the gods and ancestors (Agegboyin & Jegede, 2009).

The Twabiri protected forest has been a natural habitat for several animals like the antelopes, rats, snakes, grasscutters, and variety of birds in the Sekyere area and some observers in the communities like Achiase have noted that some of the cobras in the forest have grown big to the extent that they are not even scared to run-away even

vehicles and humans are getting closer to them. Ultimately, this level of wildlife preservation has been achieved as no hunting is allowed in the Twabiri forest either in the form of trapping, shooting animals, picking snails or whatsoever (Gong-gong beater, Personal Communication, 20 May, 2022 in Achiase). Tosam (2019) and Ssebunya and Okyere- Manu (2017) have all contended that violation of such taboos is believed to further provoke the wrath of the gods and the ancestors to result in disease outbreaks, sudden deaths, droughts, poor harvests, infertility among other calamities, underlying the biodiversity richness of sacred sites. As already mentioned, people who will disobey the norm to shoot in the forest have their guns confiscated by the elders of the community before been taken to the paramount chief of Nsuta Traditional area for punishment in the form of higher fines and strong warnings. Such punitive actions as emphasised by Mgumia and Oba (2002) is a potential for promoting in-situ conservation of rare and endangered species.

Interview with Nana Amo Asare, the clan head of the Aduana clan at Tadieso revealed the punitive measures instituted by the traditional authority and the entire community of Tadieso have registered positive impacts on the protection of the Tadieso Kyiridade grove (currently about 10 hectares) after suffering from two bushfire incidents (1983 and 2018). These developments coupled with individuals grabbling for lands have intensified the local peoples' punitive measures to deter people from violating norms protecting the area (Personal communication, 20 May, 2022). According to an assessment by Nana Amo Asare, the area has regenerated close to its original ecological status prior to bush fire incidence (Personal communication, 20 May, 2022). In its current state are tall trees, shrubs, tall palm trees, climbers among

others species of trees which natural to the environment (Plate 7a). The cultivated areas observed around the protected area remains eco-friendly (Plate 7b) with tall trees and plantain, cassava and cocoyam crops.



Plate 7a: Tadieso Aduana Clan Cemetery

Plate 7b: Cultivated Backyard

This finding implies that with the existence of punitive measures, people hardly detect encroachers, lumbers and hunting around the Tadieso Kyiridade. Being royals' burial site, the people believe these actions are significantly contributing to the rapid regeneration and peaceful rest of their ancestors. Being the dwelling place of the spirits of the dead (Rim-Rukeh et al., 2013; Kideghesho, 2009), failure to protect the area particularly by the traditional chief, family members and clan heads of Sekyere Tadieso provides several consequences. First, the supposed punishment from the ancestors may include death, accidents and incurable illnesses (Maru et al., 2020); and the Akan traditional belief that all human-beings are answerable to the line of the ancestors for their stewardship over non-human part of creation – land, flora and fauna since all belong to the ancestors (Asiedu-Amoako & Ntiamoah, 2020). This may seem irrational and unscientific to the modern minds, nevertheless, this continues to thrive and protect and conserve the environment of Sekyere societies and beyond. Nonetheless, this

demonstrates a strong connection between the indigenous Sekyere spirituality and its strong connection with the natural environment protection, considering the fact that the ancestral spirits reside in such a place (Aye-Addo, 2013; Boamah, 2015).

Sekyere Traditional Value Systems underlying Traditionally Protected Environments

The third objective of the study focused on the traditional communities' value systems that prevent the local people from exploiting the resources in the traditionally protected areas. The environmental protection in traditional Sekyere societies is also embedded in several traditional values which place limitations on the utilisation of certain natural resources as a way of conserving the environment. Thus, this section presents the values underlying some protected rivers, royal clan cemetery, and rocks and caves among the Sekyere people of Nsuta, Tadieso, Gyetiase, Achiase and Owuobuoho.

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Freshwater Bodies

The traditionally protected freshwater bodies (rivers) of Sekyere land serve immeasurable importance to the local people. Asuo Abenaa is a source of drinking water for the people of Achiase prior to the construction of a borehole in the village. This value reserved for the Abenaa river compel the Achiase people to strictly observe all the taboos governing the Twabiri forest and Asuo Abenaa headwaters. First, footwears cannot be worn to the place (Personal communication, Twabiri Grove Attendant, 20 May, 2022). Hence, the local people who led the researcher to the site ensured that all sandals were removed before reaching the site (Plate 8a). With the exception of the chief priest who performs sacrifices for the Asuo Abenaa goddess, any visitor to the site must observe this practice due to the sacredness of the site (Kofi Sei and Kwame Owusu- local residents of Achiase, Personal communication, 20 May, 2022).





Plate 8a Plate 8b

Plate 8a Removal of sandals at the entrance of Twabiri forest Plate 8b: Eggs offered in River Bonkoo in Sekyere Tadieso Women in menstruation are prohibited from going to the Twabiri forest including fetching of water from the Asuo Abenaa in maintaining the sanctity of the river goddess (Personal communication, Asuo Abenaa Traditional Priestess, 22 May, 2022). Although, it is difficult to identify women in their menstruations, the community strongly believes that repercussions (e.g., illness, deaf, and bareness among others) go the women who disobey this taboo. Indeed, there were incidence of women confessing flouting this taboo and eventually had to be punished by offering a sheep and a schnapps to pacify the gods (Personal communication, Gong-gong Beater of Achiase, 20 May, 2022). This ultimately deters women in their menstrual periods not to visit the river. Asuo Abenaa is held in high esteem in the Sekyere area particularly the people of Achiase community.

The traditional priestess of Asuo Abenaa is a native and resident of Achiase whose responsibility it is to ensure observation of the taboos of the river; lead pacification when people break taboos of the river; and link the river goddess of Asuo Abenaa to its custodian communities. The people of Sekyere Achiase believe in Asuo Abenaa and therefore consult the river goddess for spiritual support – intercede on their behalf, provide protection, healing, child-birth, success and other services. People present drinks and sacrifices to the community linguist and the priestess of Asuo Abenaa to ask for their wishes, desires, and protection from the river (Personal communication, Gong-gong Beater, Achiase, 20 May, 2022).

Likewise, in Tadieso and Gyetiase, some local people present eggs (Plate 8b), fouls, cola and drinks to River Bonkoo as sacrifices in granting their desires. Achiase people desiring for child-birth break bread into pieces for the fishes in the river to grant

them children. It is held that the consumption of the bread by the fishes in the river signify that the person who offered the bread will have babies. The people consistently depended on the river for spiritual services and offer eggs and some items (Personal communication, Aduana Clan Head, 20 May, 2022). These religious-oriented values for rivers among the Sekyere similarly can be interpreted as representing benevolence and malevolent to the divine spirits of nature as posited by Tangwa (2004). Similar to this finding, Eneji et al. (2012) have observed the Bekwarra – Gakem of the Cross River State in Nigeria where women who after marriage cannot have children appeased the river god of Ogbogoro with a sacrifice to make a request for children from the god.

Aminwhewa (the river that swallows testicles) at Sekyere Nsuta derived its name as swimmers in the past experienced reduced testicle during swimming. However, the river remains a traditional god for the people of Sekyere Nsuta. The chief priest (*Tano Komfour*) offers libations and sacrifices to the river on sacred days (*dabone*) according to the Asante traditional calendar - *Awukudae*, *Fofie and Akwasidae*. There are special taboos observed by the people to maintain the sanity of the river. These includes – corpses cannot cross the river until special rituals are performed, mainly because the people have a strong belief that the river is possessed with spirits and forces whose commands must be adhered to (Personal communication, Sekyere Nsuta Adontenhen, 4 April, 2022). Additionally, some of the rivers have special recognition and conservation status as the only freshwater that is used by the paramount chief of Nsuta. Implicitly, this status requires special protection of such water bodies to ensure its sanity for its royal importance. Traditionally, its implications remain that when the river dries up the chief will not survive. River Tikosoma

traditionally remains the source of drinking water for the ruler of Nsuta and thus referred by the people as "Ohene Nsuo"- the king's water. For this reason, the river's purity is highly maintained and the public cannot fetch from the site reserved for the chief (Sekyere Nsuta Adontenhene, 4 April, 2022). My field studies did not lead me to the king's source of water probably for security reasons. However, it was found that the banks of Tikosoma are houses with backyard gardens that extend to the river. Besides, runoff from the built environments have deposited waste materials directly into the river which presently affects its status as the "kings' water".

During sacred days (Akwasidae, Awukudae, Fofie) people usually observe crocodiles coming to the banks of the river of River Tikosoma. They are not to be harmed as they are believed to the children of the river. The chief of Nsuta pours libation during Fofie for the Tikosoma river god, and his ancestors, hence it is prohibited for people to get to the river to fetch water or work in their farms near the river. It is also mandatory for the people not to take black objects to any river in the area. This taboo relates to all the rivers found in Nsuta, Tadieso, Gyetiase and Achiase areas. People caught defying this taboo are punished severely by the chiefs to pacify the rivers (Personal communication, Sekyere Nsuta Adontenhene, 4 April, 2022). Likewise, Asuo Bonkoo serves some spiritual importance for the local people of Tadieso and Gyetiase. The Fofie Konfour (traditional priest) worships the river and links the people of Tadieso to the river. He makes sacrifices on particular days reserved such as Fofie, Fridays, Akwasidae for the land. He ensures that no one visits the river on Fridays, whilst, maintenance of the spiritual sanity of the Bonkoo river require women in menstruation not to visit any part of the river (Personal communication,

Aduana Clan Head, 20 May, 2022). To them, sacredness within nature calls for regular performance of rituals and sacrifices to ensure the continuance of mutual relationship to avert any potential calamity (Ssebunya & Okyere-Manu, 2017). Such beliefs as asserted by Kunhiyop (2007) often remain unchanged even after there has been a religious conversion. Kellert (1996) has stated that respect and reverence for the value of life results from self-interest. Thus, van Klinken and van Hoff (2004) have stressed that for a society to be civilised, all life must be respected and people must co-exist with all nature regardless of its utility.

Sustaining the values for freshwater bodies like rivers is also marked by regular cleaning activities among the Sekyere people. This is probably influenced by the utility values - drinking, cooking, washing and other household chores. The First Assemblyman of Nsuta – Kofi Obeng through interview (Personal communication, 20 May, 2022) confirmed that the people of Nsuta Sekyere have maintained a good sanitation on the Adosowago River through communal labour since the past. The activity, as explained by the Assemblyman of Nsuta involves the removal of litters, dredging, weeding river banks and footpaths that leads to the collection points and scrubbing the rocky-river bed. Similarly, among the Sekyere Achiase people, the community undertaken communal labour to maintain Asuo Abenaa clean. Community collective labour involved the use of simple tools like holes, rakes, brooms and cutlasses to remove fallen leaves, stems and dirt particles from the river (Personal communication, Achiase Unit Committee Member, 14 May, 2022). One folk from Achiase (Personal communication, 20 May, 2022) recounted that "women scrubbed the rocky river bed with brooms to appear clean and shiny". Nonetheless, the communal

labour on the Asuo Abenaa has stopped in recent years. This has been attributed to the construction of mechanised boreholes with installed poly tanks (Plate 9b) providing the Achiase people with an alternative source of drinking water.

Furthermore, the observation at the source of the river – which used to be a water collection point and where the cleaning activities took place has developed into a large pool of water. Evidently, there has been accumulations of dead trees in the river at the headwaters, litters from plants and growth of weeds with significant dissolved organic components makes it unsuitable for drinking purposes (Plate 9a). These new conditions ultimately provide accessibility difficulties and continuity of the communal cleaning practice. This time, the people will require the support of the local government to remove huge dead trees in the river. This was the position of the Achiase Assemblyman. With the source of the river becoming a large lake, the rocks from which the river emerges are completely covered (Personal communication, Achiase Folk, 14 May, 2022).





Plate 9a

Plate 9b

Plate 9a: Fallen dead trees in River Abenaa Plate 9b: Mechanised borehole in Achiase

The interview with the Gongong Beater of Achiase (22 May, 2022) revealed that the community river cleaning used to be scheduled on Tuesdays – been the days reserved for non-farming activities on the land of Nsuta Sekyere area. However, the organisation schedules depended on when the people have realised the need to embark on cleaning in and around the river at the source. That is, when the people observe growth of weeds and algae, increased volume of litters and dissolved materials in the river such exercises were initiated. It was during such routine clearing practice that, women of Achiase desiring for children were permitted to catch crabs from the river for consumption without repercussions. The community believed that the sex of crab determines the sex of the would-be child the woman could have.

However, in the Sekyere communities of Tadieso and Gyetiase, the Bankoo river remains their important source of water despite having boreholes. The perennial nature of the rivers ensures all year water supply to the communities. A woman from Sekyere Achiase confirmed that "it is even the dry season that this river overflows its banks". People still fetch water from the Bonkoo river for consumption and for all domestic activities (Akua Serwaa – resident of Achiase, Personal Communication, 23 May, 2022). Thus, individuals remove their footwears before they fetch water from the collection points along the Bonkoo river (Plates 10a and 10b). People stand on wooden boards to fetch water from the Bonkoo river. This is to ensure that individuals do not step in the water to avoid dissolving with other particles or contamination from their foot wears. This practice of not taking footwears to the river has been noted by researchers like Appiah-Sekyere (2016); Awuah-Nyamekye (2014) and Nkansah, (2018).





Plate 10a

Plate 10b

Plate 10a: Children fetch from the Bonkoo river at Tadieso Plate 10b: A man drinking from River Bonkoo at Tadieso

The communities depend on River Bonkoo to meet most of their water needs despite having portable water supply from mechanised boreholes. One woman from Tadieso in an interview asserted that "we prefer water from Asuo Bonkoo to the boreholes, it has a good taste, it is always chilled and we use it for everything" (Maame Mansa, Personal communication, 20 May, 2022 in Tadieso). Possibly, the local people might have become accustomed to the drinking of River Bonkoo, whilst still maintaining the quality level of the Bonkoo River as high. Similarly, the Aminwhewa river (Plate 10c) continues to support the urban population in Sekyere Nsuta. At the point of collection, two people confirmed that they use the water for domestic purposes, washing dishes, clothes, irrigation and application of agrochemicals, and constructional purposes (Agyeman and Frimpong, Personal communication, 26 May, 2022).





Plate 10c Plate 10d

Plate 10c: A girl fetching water from River Aminwhewa

Plate 10d: River Akrampaasu at Owuobuoho

Other values of the Sekyere rivers are associated with farming activities. This has become very important with the growing demand of vegetables in the nearby towns. Presently, the local Sekyere communities have taken advantage of the perennial nature of their rivers for dry season vegetable cultivation. In particular, the Sekyere communities along the Asuo Abenaa river embark on intensive dry - season vegetable farming - okra, tomatoes, onion, cucumber, cabbage, pepper and alike (Personal communication, Achiase Unit Committee Member, 20 April, 2022). This ultimately supports the local peoples' livelihoods through access to regular income. Similarly, the Akrampaasu river (Plate 10d), flowing through Owuobuoho community and mountains provides water for the local Sekyere farmers from Owuobuoho village, Bimma, Amoaman and Mampong for irrigation; application of fertilisers, weedicides and pesticides; including cooking during farming activities. The local people predominantly farmers, ensure that the banks of the Akrampaasu river are well protected from grazing by cows in the area, whilst ensuring that no one farms close to the river (Wofa Kwadwo - Farmer at Bimma and Owuobuoho, Personal

communication, 2 June, 2022). These freshwater bodies are recognised by the traditional Akan as part of God's creation and part of the universe, in Akan societies as pointed out by Awuah-Nyamekye (2014) and serve as sources of sustenance for human life. This is notwithstanding their spiritual connection (Ntiamoah-Baidu, 1995; Taringa, 2006; Gedzi et al., 2016).

Aduana Clan Cemetery

Aduana clan cemetery remains the burial place for the dead Aduana clan members of Sekyere Tadieso. Hence, this land area is well protected by the local people. The reservation and the protection of the site ensures that the Aduana clan members continue to enjoy their high-class status, which provides a special recognition for the Sekyere royal families even after their death. However, members of the royal family whose action are inimical to the community are not allowed to be buried in this royal cemetery. The place is a restricted spiritual settlement of the dead royals which is why its protection is very necessary. The Sekyere Tadieso people see it as their obligation to protect the boundaries of the cemetery. In an interview with one Aduana royal of Tadieso, he revealed that "we came to meet that all royals should be buried here and we have continued till date". Another clan member pointed out "the members of the Aduana royal family must still live together even after death". Commenting on this, Nana Amo Asare, who remains the head of the Aduana clan at Tadieso revealed that the area is revered and prohibited from all encroachments- building, farming; and human activities such as cutting of trees, collecting of fruits, seeds, snails and hunting among others. Most importantly, no cutlass touches the site expect in times of royal

burial. The maintenance, preservation and protection of the cemetery land for the royal remains mandatory for the chief and the rest of the royal family because they know the implication of not doing so. This observation remains significant for the Sekyere people as for housing the dead relatives buried in there and the land also serving as an ancestral shrine. In the case of traditional sacred forest of Rusitu Botanical Reserve in South eastern Zimbabwe, Byer et al. (2001) and Mabvurira et al. (2021) reported that unathorised tree cutting is believed to be revenged by the ancestral spirits through droughts, death, mental illness or vanishing. The continuous protection of the site from the past till date is also based on the belief that failure to observe taboos and prohibitions could cause misfortunes as opined by Kidegheso (2009) and Rim-Rukeh et al. (2013).

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Owuobuoho Mountains, Rocks and Caves

The Sekyere people value the aesthetic nature of the Owuobuoho Mountains. The field study revealed that Sekyere Owuobuoho Mountains (Plates 11a-11e) have spectacular carves, rocks and stones around Sekyere communities like Bimma, Owuobuoho and Mampong - composing of several landforms depicting fascinating and mysterious features. The rocky (Plate 11b) mountains show interesting shapes – round, opened and steep, wide openings (Plates 11c-11d).





Plate 11a: Distant view of Owuobuoho mountains

Plate 11b: Rocks close view



Plate 11c: Round rocks



Plate 11d: Opened rocks



Plate 11e: Steep rocks

In an interview with Opanin Thousand, the oldest resident of Owuobuoho community and recognised with his familiarity with the Owuobuoho mountain terrain also revealed that some parts of the mountain's caves "show openings like specially

designed windows, living rooms and streets, some surface of the rocks depicts carvings of *Oware* (Akan traditional game of pit and marble games with six set of holes facing each other). This mysterious carving on the rock surface is believed to be the work of dwarfs and spirits residing in the mountain range among the people of Owuobuoho village. They also believe that the *Oware* game is played by the dwarfs which are dwelling in the mountains (Personal Communication, 1 June, 2022).

The local Sekyere people have coined different names that truly describe rock shapes, depictions and appearances - Noah's Arch, Ship, Aeroplane and Mushroom, whilst one rock's shape was described by one as "a woman seated on a stool, wearing beads and bathing her child". Other scene as given by another local resident indicates a permanent large pool of water stagnant in a rocky basin" (Personal communication, Opanin Thousand, 1 June, 2022). Ultimately, the mysterious natures of rocks present special beliefs among the local Sekyere people to appreciate and protect the mountains from human activities like quarry, sand-wining, mining among others to modify the natural landscapes. In truism, the values of Owuobuoho landscape among the Sekyere people can be regarded as aesthetic and a spiritual abode of dwarfs and living spirits and personification of living beings as indicated by Infield and Mugisha (2013) and Taringa (2016) in their studies.

Besides, some of the rocks are in the form of a miniature book showing inscriptions which the local people of Owuobuoho translate to be "Arabic" and referring to the rock as "Nkramobuoho" - Muslims Rock (Mallam of Owuobuoho, Personal communication, 28 May, 2022). The site of "Nkramobuoho" is an abode for several spirits and dwarfs. No person sweeps the site but it is always appearing well-

polished, shiny without leaves, dust, broken stones and other waste, whilst, some of the caves appear like big halls with widows - features the local people believe to be imprints of ancient people's lives and civilisations in the area (Personal Communication, Opanin Thousand, 1 June, 2022). These finding remains consistent with the positions expressed by Rattray (1929); Guiley (1991); Henshey (2011); Diawuo and Issifu (2015) and G'Nece (2012) that in the traditional African societies, many people believe that mountains, rocks, stones and hills are manifestations of the powers of the Supreme Being, souls and spirits inherent in rocks and as such if wantonly destroyed would incur the wrath of these powers. Furthering this position, some scholars (Infield & Mugisha, 2013; Kopina & Gjerris, 2015 and Kopnina & Cherniak, 2016) have argued that natural features are created by acts of gods or ancestors and in this regard, actions may be required or proscribed to maintain the harmony or the healthiness of landscapes.

Furthermore, an interview with the chief of Owuobuoho revealed that there is a growing visit by Christians to the landscape for prayers. The chief of Owuobuoho revealed that the mountain's environments are been used by the local people as a special site for worshipping and communicating with the Supreme Being (Nana Atta, Personal communication, 6 June, 2022). This occurs under the permission of the local custodians of the sites to ensure proper protection of the landscape's aesthetic features and the sacredness of the environment. The chief of Sekyere Owuobuoho village stated that "anytime I am informed of the presence of some clergymen in the caves for their prayer activities, I send them invitation and give them caution not to befoul the sites with soiling substances and sacrifices". This observation commensurates with the

views of some researchers like Henshey (2011); Eneji et al. (2012); and Thompson and Homewood (2002) who have asserted that many people believe that rocks are manifestation of the power of the Supreme Being and as such remain an ideal place to meet Him.

The interview with the chief of Owuobuoho (Personal communication, 6 June, 2022) revealed some historical importance of the Owuobuoho Mountains in the traditions of the Sekyere Nsuta and Mampong people. He revealed that the protection of Owuobuoho also hinges on the historical values preserved by the Mampong people for the mountain's sites. The Owuobuoho caves and surrounding lands are historically battle fields for two groups of Sekyere people - Nsuta and Mampong, who battled for supremacy in their quest to dominate and control larger part of the surrounding territories and its resources. This area therefore is regarded as the dwelling place of the Sekyere ancestors who sacrificed their lives for the course of their communities. It is in this course, the Owuobuoho rocks and mountains are both not mined or quarried among the Sekyere people of Nsuta and Mampong. The historical information obtained from the caretaker of the Owuobuobuo village revealed that several Mampong warriors who were taking refuge in the mountains cave were sheltered and killed by Nsuta warriors in the past.

From this historical account, the Chief of Owuobuoho revealed that the origin of the mountains name was derived from - *Owuo* (death) – *Buoho* (site of rocks). Thus, Owuobuoho Mountains remains a site for the remembrance of the lost souls of Mampong in their encounters with the neighbouring Nsuta people. The mountains are

not predominantly protected by any group of Sekyere people, but the custodians are the Mampong rulers, people of Owuobuoho, Bimma and the chief of Tadieso. From this development, it is also evident that the historical importance of the rocks makes the people of Mampong to regard the place as sacred. The historical importance of the Owuobuoho landscape can be associated with the views of researchers like Infield and Mugisha (2013); and Kopnina and Gyerris (2015), who have maintained that such places like battle sites are locations of cultural and historically important.

Level of Adherence to Traditional Environmental Ethical Values among the Sekyere People

The last research question of the study sought to find out the extent to which people adhere to the ethical values in the traditionally protected environments among the Sekyere people these days. This was necessitated by the burgeoning challenges of socio-economics, political and religious factors having debilitating effect on the development of environmental ethics in the traditional African societies. Asiedu-Amoako and Ntiamoah (2020) have argued that "the fear and reverence of traditional gods coupled with respect for traditional systems as a way of conserving the environment that worked perfectly in the past no longer holds, whilst taboos and punishments that protected rivers, forests and natural objects are been ignored or rejected by some people" (p.191). Thus, this section of the study focuses on the Sekyere peoples' adherence to norms on the protection of the freshwater bodies and sacred groves.

Protection of Freshwater Bodies

The Aminwhewa river in the Sekyere Nsuta township still has large natural vegetation cover along its banks (Plate 12a). The river's banks are well protected by its dense forest, which includes tall trees with canopies, climbing plants, shrubs, oil palm trees, lianas and several plants which are natural to the environment. The preservation of the vegetation of the natural vegetation along the Aminwhewa river has been possible as the people of Nsuta do not put-up buildings close to the flood plains. Probably, they know the spiritual implications and negative community response they will receive when they embark on such practices.





Plate 12a

Plate 12a: Vegetation along River Aminwhewa

Plate 12b: Degraded areas close to River Aminwhewa

Plate 12b

However, the rapid urbanisation is gradually registering its negative impact on the water bodies as some lands close to the traditionally protected rivers are been encroached upon. Plate 12b shows a prepared site for a building about 80meters from the valley of River Adosowago. Evidently, the site has a deposit of building materials – sand and water storage tank. There are clear differences between the natural vegetation bordering the immediate banks (Plate 12a & 12b). These observations

suggest diminishing responsibilities of the some Sekyere traditional authorities as true custodians of the land and enforcers of traditional ethical values on the protection of freshwater resources. Here, they are involved in demarcating important environments for the development of buildings with complete disregard on the negative impacts on water bodies and its effects on people's livelihoods. The negative outcome of the traditional authorities' non-adherence to the ethical values that have sustained the Sekyere rivers is visible in Plate 12b. Apparently, the natural vegetation close to a waterbody has been converted from forest to shrubs and grasses and few trees; and cultivated fields – plantain and cassava crops. This development represents a change in the traditional Asante environmental conservation practice. People treated the environment with dignity where it was a contempt to abuse the environment (Appiah-Sekyere, 2016).

In effect, such actions from some sections of the present Sekyere people affect the sustainability of their rivers through increased evaporation, deposition of materials from build-up areas and destructed flowage through increased sediment loads. The findings further suggest declining environmental ethical values among the present Sekyere people especially on the protection of rivers that sustain their lives. Botchway and Agyemang (2012) have argued that the removal and destruction of vegetation along banks of the waterbodies are traditionally forbidden in the Asante societies. Contrary to this observation, Appiah-Sekyere (2016) contended that it was an absurdity to see a typical Asante wantonly destroying his or her environment. Anane (1997) also noted that the Asante prohibited indiscriminate felling of trees and all anthropogenic activities that affected the quality of their environment.

Furthermore, the observations along the protected freshwater bodies in the Sekyere Nsuta area provide indications of limited adherence to the norms that traditionally protect their water bodies. Currently, both the upper and the middle courses of River Adosowago faces threat from human activities in the Nsuta township – meaning that there is a pressure on the catchment area of the river. Rapid expansion of the Nsuta settlement is having a devastating toll on the vegetation cover at the sources of the Adosowago river. The immediate environments around River Adosowago are depleted of its natural vegetation. Plates 13a and 13b show grasses, houses, footpaths and bare surfaces around the headwaters of the Adosowago river. The source portion of the Adosowago river as visible in Plate 4a (p.95) is the only areas still containing the original vegetation of the area. This kind of threats on the source of the Adosowago river apparently are occurring from increased population with the resultant settlement expansions to the banks of waterbodies which have been protected since the past.





Plate 13a

Plate 13b

Plate 13a: Grasses along River Adosowago at Nsuta

Plate 13b: House and Bare surfaces along River Adosowago

The remaining natural vegetation cover of River Adosowago watershed presently can only be found in its upper course – this is a wide depression bordered by steep slopes within which the river starts its flowage. Whilst the area appears shady at day times and dark in the evenings, with noises from - birds, frogs, and other animals, certainly coming in contact with the environment instills feelings of wonder, awe and fear which in itself prevent people to encroach. The reduced vegetation cover along the river is also attributable to farming activities by the local Sekyere Nsuta people. The field observational studies revealed the presence of plantain, cocoa and orange farms around the source of the river (Plates 14a & 14b).



Plate 14a Plate 14b

Plate 14a: Cocoa farm around the source of River Adosowago at Nsuta
Plate 14b: Orange and cassava farm near the source of River Adosowago at Nsuta

The cocoa farmers have preserved a good number of tall trees that still provide shade for the area, nonetheless, the orange plantations along the river have widely dispersed trees that is potentially leading to high evaporation from the river. This phenomenon involving the local people's conversion of the vegetation sheltering river sources to agricultural lands for their personal gains suggests limited enforcement of the traditional ethics that protect the Sekyere water bodies particularly by the chiefs. The

presence of cocoa farms with the application of fertilizers and pesticides, and other agrochemicals in the operations of the farmers present health implications for the local Sekyere Nsuta community as chemicals may be washed from the nearby farms into the river which are consumed by the several communities along the river.

The development of plantations around the Adosowago river's watershed at Nsuta suggests the local people's poor attitudes to protect their freshwater bodies. This uncontrolled cultivation of river banks may cause chemical pollutions, siltation, and reduction in the river flows. In fact, it was revealed that rapid population increase in the Sekyere communities and negative attitudes of some local people have caused poor adherence to the Sekyere ethical values protecting their rivers. Furthermore, the Assembly men of Sekyere Nsuta revealed that unscrupulous people and their activities are leaving devastative effect on the vegetation covers along the river banks. From their observations, people openly defecate in the surrounding area which certainly gets washed into the rivers; soapy waters are directly washed into the main rivers particularly along the rivers Tikosoma and Supong rivers as people wash close to the rivers (Plate 2a & 2b). This finding suggests non-strict observation of the moral order among the recent local Sekyere community such as Nsuta. The results further imply the reduced levels of the Sekyere people's adherence to traditional Asante and African ecological ethical values with regards to removal or destruction of vegetation along river banks, defecation along river banks as indicated by Botchway and Agyemang, 2012; Obiora and Emeka, 2015; Kouakou, 2013 and Kanene, 2016.

However, some of the observations have provided evidence of people's adherence to the Sekyere ethical values protecting their freshwater bodies. That is, the study also found that some Sekyere communities strictly adhere to the norms that protect the vegetations along river bodies. It was found that the vegetation at the headwaters of Asuo Abenaa at Achiase is well-maintained – there are no threats from the local people on the fringe communities such as Achiase, Dida, Nkwabirem, Npantuoase (Plate 4c). Similarly, an observation along the Asuo Bonkoo at Tadieso and Gyetiase shows large areas of natural vegetation covers in the headwaters of Asuo Bonkoo (Plate 15a). The vegetation is visibly luxuriant and evergreen composing of species tall trees, palms trees, lianas and shrubs which are natural to the environment. Favourable farming practices by the Sekyere Tadieso and Gyetiase communities were observed along the Bonkoo River. This involved local farmers maintaining large numbers of tall trees in their farms to provide shade in limiting excessive evaporation from the river and mix-farming practices (Plate 15b) – where they grow cocoa, oil palm, cassava, cocoyam, and plantain on one piece of land. These farming practices involving tree conservation ultimately protects Asuo Bonkoo from excessive evaporation, regulation of the area's microclimate and soil erosion control which protect the river.

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Plate 15a: Luxuriant Forest along Asuo Bonkoo at Tadieso Plate 15b: Mixed- farm near Asuo Bonkoo at Tadieso

Plate 15c: Plantain farm along River Tikosoma at Sekyere Nsuta

Cultivated lands at Tadieso and Gyetiase do not extend to the flood plains of Asuo Bonkoo. The closest cultivated area from Tadieso community to the Bonkoo river is approximately 150metres, yet, local farmers intentionally leave trees to provide the needed shade for their crops and also protect the rivers from drying up. The Tadieso community (located above the fold plains of river Bonkoo) maintain the forest covers, the surroundings of the community have tall trees and farms which still preserve the indigenous trees of their environment. This may not necessarily be traditional, but be due to the relatively low population size with limited pressure on the environment. Likewise, along River Tikosoma in Sekyere Nsuta, cultivated areas (plantain farms) still have large trees standing (Plate 15c). A zone of considerable size is maintained by the local farmers between river valleys and farms. Essentially, this controls runoff, sedimentation in the river and drying up of the river, but the people know that any questionable farming practice along the rivers will attract sanctions from the community. The findings correspond with the traditional African ethics which views

humans as mere co-occupants of nature without any heavenly mandate to subdue, dominate and exploit nature (Tosam, 2015). This also involves recognition and acceptance of peaceful coexistence between nature and humans (Awuah-Nyamekye, 2014).

The study reveals the development of destructive human activities along the valleys of the Supong river due to non-adherence to ethical values and practices among the local people of Sekyere Nsuta. There is conversion of the original forested Supong river banks to farms. This has depleted the vegetation along the Supong river valley to shrubs and few trees at Sekyere Nsuta. The outcome of these noticeable anthropogenic activities ultimately are the occurrences of runoff from the adjacent lands and pollution from agro-chemicals applications and farm residues. The banks of River Supong at Nsuta are bordered by farms and buildings which provides clues to several human activities which are obvious indication of poor observation of the Sekyere people's ethical values for their rivers. The field observation spotted parts of the Supong River channels been used to cultivate maize and plantain (Plates 16a & 16b). The local people do not care about the threat of poor farming practices on the Supong river. Plate 16a show farms which extend to the Supong river valley. This unrestricted cultivation has depleted the vegetation along the river banks.

Clearly, the cultivators do not consider the need to leave vegetational buffer zone that would safeguard the river and its immediate vegetal cover. For instance, some of the farms (Plate 16b) are located within the channel of the Supong river. These threats are occurring with the knowledge of the traditional Sekyere authorities and other community leaderships, and opinion leaders who are still undetermined to initiate

measures to curb farming in the river valleys. This poor environmental protection orientations of both local government and traditional leadership arise from their collective interest for money, hence demarcating some lands close to waterbodies to individuals for building purposes. They also presume that once settlements have reached such waterbodies, it is difficult to enforce some of the environmental protection prohibitions (Personal Communication, Ofa Kujo, 1 June, 2022).





Plate 16a

Plate 16b

Plate 16a: Maize farm in R. Supong Valley Plate 16b: Plantain farm in R. Supong Valley

The threats of the local people's farming activities on river Supong can be attributed to non- enforcement of existing punitive measures to counter people's deliberate destruction of the environment and in particular common resource like rivers – implying weaning of traditional norms and values that have safeguarded Sekyere waterbodies since the past. The rapid population growth of Nsuta in recent years is a major problem regarding adherence to the environmental ethical values protection and conservation of rivers especially the Supong river. Asiedu-Boakye and Ntiamoah (2020) have indicated that high population densities depend on the forest for timber and land for farming for their livelihoods. The rapid urbanisation drive in the traditional

Sekyere communities particularly in Nsuta is undoubtedly leaving destructive imprints on the rivers. This finding is consistent with Ogungbemi's (2008) contention that the present drive for development has led to the wholesale abandonment of traditional practices as if development and modernisation are incompatible. The consequence of this phenomenon has been a break-down in environmental stability in traditional communities like Sekyere.

In Sekyere Nsuta, it was observed that people built close to river valleys without any consideration of its negative impact on the rivers (Plate 17a) including their vulnerability to flood disasters.





Plate 17a

Plate 17b

Plate 17a: Farm and house along River Supong

Plate 17b: Children collecting water in River Supong

Additionally, it was observed that some parents in the Sekyere communities do not transmit and inculcate in their children and other young ones the traditional moral values and practices that help to protect fresh waterbodies. Hence, children exhibit practices that result in the pollution of the rivers without any sense to adhere to any good practices that protect the fresh waterbodies in Sekyere Nsuta. Mothers who frequently go to river sides to wash, send their children to fetch water from the river in

their footwears, stand in the river to cause the water to dissolve (Plate 17b) - suggesting poor adult attitudes to ensure the transmission of good environmental protection values to the young ones in Sekyere. This situation is affecting the young one's acquisition and adherence to the traditional ethical practices in respecting their waterbodies.

The study further reveals the development of permanent farms and houses (Plates 18a & 18b) within the flood plains of River Tikosoma at Nsuta. The crops include cocoa, sugar cane, oil palm, cassava, cocoyam, bananas and plantains (Plate 18a). Unfortunately, this river (Tikosoma) is reserved as the water that is traditionally consumed by the chief of Sekyere Nsuta. The chief's palace is located few meters from the river.





Plate 18a

Plate 18b

Plate 18a: Farm in the River Tikosoma flood plains Plate 18b: Building in River Tikosoma valley

The existence of permanent crops - cocoa, sugar cane and oil-palm in the Tikosoma flood plains to some extent protects the river by limiting erosions, evaporation and its aquatic habits – fishes -crabs, cat fish, mud fish and other organisms. In view of the environmental situation around the Tikosoma river, in recent years the traditional authority of Nsuta has limited development of buildings close to

the river banks, cautioning people from dumping refuse around the river, preventing large volumes of water extracted for commercial purposes, preventing livestock to drink from the river and preventing washing activities (car, motorcycles, bicycles, machines and clothes) on the river or close to the river. Nonetheless, the effectiveness of these measures remain questionable as there are no existing taskforce to enforce such measures, coupled with poor waste management practices from households, workshops, institutions and marketplaces in the town.

The local knowledge on the cleanliness of the Tikosoma river since the past is well-established among the Sekyere Nsuta people, which is why it was traditionally reserved for serving the chiefs of Nsuta – drinking, for preparing his meals, bathing and washing his clothes. However, the current status of the river will make it difficult for its royal utilities in Sekyere Nsuta - implying poor adherence to the traditional norms that protected the rivers of Nsuta has affected the traditional use of freshwaters for drinking and cooking purposes. The field study showed that the community members currently use the water they fetch from the Tikosoma river for washing and farming purposes - irrigation, application of weedicides, pesticides and liquid fertilisers applications. Run-offs and deposition of both liquid waste (waste oil, sewage) and solid waste (garbage, rubbish) poorly discarded or managed from the township are transported to the river through the actions of running waters – after heavy rainfalls.

The field observation along the rivers in Nsuta further shows free ranging animals (goat, sheep) including cattle grazing and drinking from the Sekyere Nsuta rivers such as Aminwhewa, Tikosoma and Supong. These forms of activities suggest reducing values and utilities of the Sekyere traditional water bodies particularly those

rivers flowing in urban areas of high population densities, it is becoming quite difficult to compel the people to adhere to the norms that enhance the protection of fresh waterbodies. Urbanisation has generally detached people from their traditional roots and ethics (Asiedu-Amoako & Ntiamoah, 2020). Poor adherence to environmental protection norms implies poor continuity and diminishing of the traditional Asante environmental values with regards as removal of vegetation along the banks of waterbodies and working on farmlands (Botchway & Agyemang, 2012). Contrary to this observation, Ikuenobe (2014) opined that in the past, the traditional African societies thought that ill-health, natural catastrophe, or any other misfortune was triggered by such imbalance in some parts of nature, that was why they realised the need to seek to maintain harmony with nature for their own good and the good of nature.

Good Water Fetching Practices

The Assemblymen in Sekyere Nsuta through the interviews conducted with them revealed the Nsuta local people's efforts in their attempts to ensure people protect the river from other's unethical practices on the Adosowago river. In connection with this, the community leaders specially developed a special water collection point that large water storage tanks with tape components where people could fetch water from to prevent pollution of the river. Nonetheless, this initiative was not sustained due to the community leaders (Personal communication, Kwame Ofosu, Second Assemblyman of Nsuta, 15 April, 2022) failure to enforce all the community members to use the tanks as one water collection point. One folk from Nsuta also disclosed that the point was poorly maintained. Presently, this point which was purposely built to control pollution of the Adosowago river has been abandoned due to excessive invasion by bushes making the area difficult to access.

This value of ensuring good water fetching practice along the Adosowago has gradually been abandoned. The field studies at the Adosowago water fetching point to the current negative practice where people intentionally stand on the shallow Adosowago river bed in their foot wears to fetch water (Plate 19a) without any due recognition of the negative impacts of their actions on the river and the public health. This practice leaves the water dissolved (Plate 19b) with dirt particles and possible contaminated objects.





Plate 19a

Plate 19b

Plate 19a: A boy fetching water on the River Adosowago at Nsuta Plate 19b: Dissolved water on River Adosowago at Nsuta

These unethical practices among the current dependents of the Adosowago river suggests a decline in the ethical practices and prohibitions that helped in protecting freshwater bodies among the many people in Sekyere Nsuta. In contrast to this finding, Anoliefo et al. (2015) found strong influences of traditional taboo practices in the protection and protection of natural resources among the Uli, Ihiala in Nigeria. This finding contradicts with the traditional Akan environmental protection taboos which prohibit people from crossing a river with a foot wear (Appiah-Sekyere, 2016; Awuah-Nyamekye, 2014; Nkansah, 2018).

Whilst other people remove their footwears before getting to the stream (Plates 20a & 20b), other people take their gallons to the flowing stream to fill (Plate 20a). Possibly, most of such gallons is directly placed in the flowing stream and may be contaminated with substances which may also affect the water quality at the source.





Plate 20a

Plate 20b

Plate 20a: A young man filling a gallon on the bed of River Adosowago Plate 20b: A young man fetching water with a bucket on River Adosowago

Significantly, if these practices were the order of the day in the past, the Adosowago water body would have disappeared before the present Nsuta generation. By all moral standards, it is unethical when people stand on river beds with their objects (buckets, gallons) to fetch water. This suggests declining of individuals and communal moral practices and responsibility in protecting and ensuring the sanity of their fresh water resources especially by people who fetch water from the streams. This unethical attitude on fetching water on the Adosowago river bed has also been possible as the river flows on bare rocks in its shallow channel at its source. This situation requires what Ssebunya and Okyere-Manu (2017) described as sacred areas within nature which need protection for ensuring mutual relationship between nature and humankind to avert potential calamity.

The observation undertaken at the water fetching point on the Adosowago river further reveals abandonment of old Sekyere Nsuta initiatives in maintaining the sanity of the Adosowago river. This was also confirmed by one of the Assemblymen of the

Nsuta township in an interview session - suggesting longtime relegation of the traditional communal practice that ensured the cleanliness of the Adosowago river beds and the banks – through removal of fallen dead leaves and silts, men clearing the weedy banks and women scrubbing the river bed. The present situation questions the existence of a formidable communal spirit, the traditional chief's zeal and passion to enforce norms that help to protect and conserve their waterbodies which are connected to the survival of the Sekyere people. This has become crucial as traditionally, the chiefs are responsible for implementing the moral sanctions on environmental protection violation; serve as repositories of community histories and norms and command loyalty (Diawuo & Issifu, 2015; Kideghesho, 2009) by virtue of the powers bestowed on them. But unfortunately, this is not clearly seen in the Sekyere context.

The considerable period of time spent by the researcher at Sekyere Nsuta has revealed that several people from different places who have migrated to the Sekyere communities for economic opportunities and other purposes may affect the observation of key traditional Sekyere environmental protection practices particularly on waterbodies. For these migrants (temporal or permanent) full immersion and acculturation in the traditional values of Sekyere particularly in environmental protection ultimately remains a gradual process. This may explain why mostly students (mostly from different places) are blamed for not adhering to good water fetching practices on the Adosowago river. Another perspective that was gathered has to do with the development of portable water sources in the area. It was noted that: "Because of the Government Water Company supplying water to the people, their dependance on the rivers has drastically reduced. People also depend on sachet water for drinking so

they do not see the value of protecting the rivers" (Nsuta Resident, Personal Communication, 23 April, 2022).

On the other hand, people in the Nsuta community continue to maintain some good practices in protecting the Sekyere freshwater bodies. People desist from dumping refuse and garbage in the rivers; people do not defecate along the rivers as they depend on the water for domestic uses. In an interview with Kofi Obeng, the first Assemblyman of Nsuta, he revealed that a man who established cattle rearing ranch close to the headwaters bank of Adosowago river was immediately reported to the Sekyere Central district environment officer to put a halt on the activity. The culprit was arraigned before court, found guilty and made to pay a fine. This arguably ensures people's deterrence from similar acts in the future along the rivers as the community closely monitor threats of human activities on the river" (Personal Communication, 20 May, 2022).

Contrary to the poor observation of water fetching practices on the Adosowago and the Supong rivers, the people ensured good ethical practices when fetching water from the rivers such as Tikosoma and Asuo Bonkoo. On these rivers, all the children who were found fetching water removed their foot wears, they also ensured that they did not step their foots in the rivers (Plates 21a & 21b). On the Asuo Bonkoo water fetching point, wooden boards are placed at the edge of the river by some members of the Tadieso community (Plate 21b). This is a platform on which the people stand to fetch water from the river - to avoid the water from contamination and dissolving with mud and other particles.





Plate 21a

Plate 21b

Plate 21a: A girl fetching water on River Tikosoma in Nsuta Plate 21b: Children fetching water from Asuo Bonkoo in Tadieso

Without the guidance of any adult, children voluntarily and consciously do what is expected to maintain the freshwaters clean and fresh for the general wellbeing of the communities. These good practices ensure that the people are able to use the water for the current purposes it serves.

Protection and Conservation of Sacred Groves

The earlier findings of the study have obviously confirmed the sustainable protection and conservation of important traditional environments - Achiase -Twabiri forest, Dadiase sacred forest, and Tadieso Aduana Clan Cemetery through the Sekyere people's adherence to the norms, taboos and prohibitions governing such protected areas. Nonetheless, some important traditional protected areas in Tadieso and Nsuta have been destroyed. The 'Kyiridade' of Tadieso has been converted to a cocoa farm (Plate 22a), whilst the old Kyiridade of Nsuta has been demarcated for building plots in Sekyere Nsuta (Plate 22b).



Plate 22a Plate 22b

Plate 22a: Tadieso Kyiridade turned int cocoa farm Plate 22b: Nsuta Kyiridade demarcated for building

The history of Tadieso Kyiridade has it that in the olden days during the outbreak of diseases, women of Tadieso cleaned the community and disposed the refuse and garbage at the Kyiridade – which was then a natural forest. This tradition was regarded as a way of sweeping out diseases especially during the mango season where children eat raw mangoes from the grounds without washing (Aduana Clan Head of Tadieso, Personal Communication, 10 May, 2022). In line with the tradition of the Sekyere people, the land been regarded as Kyiridade, should limit the local people from cutting any tree, farming or hunting in that nature reserve. This practice, unlike what the Songo people practiced in Ethiopia, permitted axing of trees if it is needed for public use and ritual purposes with the consent of the community leaders (Maru et al., 2020). Nana Ayew - (past) chief of Tadieso granted the land to his nephew to cultivate oil palm and later cocoa plantation. This was seriously contested by the women of the Tadieso Aduana royal family for that decision. It was intended to be an asset of the Tadieso Stool, to provide financial support for the financial needs of the community

(Aduana Clan Head of Tadieso, Personal Communication, 10 May, 2022). This action by the past traditional ruler was not in the general interest of the community as it was vehemently opposed by the royal Aduana women at the time – representing a failure of a Sekyere traditional institution to sustain the 'Kyiridade' traditional approach of environmental protection and conservation. This finding is in contrast with the conventional role of traditional Ghanaian chiefs in the implementation of moral sanctions on environmental protection violation (Diawuo & Issifu, 2015) and natural resources crucial for the survival of humankind (Wiredu, 1994).

An interview with the Adontenhene of Nsuta further revealed that the Kyiridade of Nsuta (about 4-acre land) - close to the left bank of River Aminwhewa remained as a traditional demarcated site since the founding of Sekyere Nsuta, well-known for its special role in protecting the Sekyere Nsuta community from ailments, and reserved for traditional initiation and cleansing of chiefs of Sekyere Nsuta. The site was protected by traditional guards who ensured that cutting of trees and killing of animals were not allowed from the site. However, since 2017, the site had been poorly protected upon the death of the late chief – Nana Dwumfour (Adontenhene of Nsuta, Personal communication, 13 June, 2022). Despite traditional values the Sekyere Nsuta people derived from this protected area, the site's traditional importance and value is lost due to pressure from the increasing population and urbanisation.

Sustaining some protected environments particularly those found in the fringes of settlement has been very challenging due to rapid urbanisation in the Sekyere area. For instance, the traditional authority of Sekyere Nsuta have customary changed the site once reserved for the traditional bathing and isolation of new traditional chiefs as

part of enstoolment customary processes to a non-traditionally protected status – as building plots due to threats from encroachers, people in the surrounding areas, grazing livestock and peoples' low interest in initiating strict measures in protecting and maintaining (Adontenhene of Nsuta, Personal communication, 17 May, 2022). This situation has been described by Nana Amo Asare, the clan head of Aduana of Tadieso as "ato kuro" that means "the settlement has expanded to the margins of the protected areas". That meant that the protection and conservation of the traditionally revered site became unstainable. This development pinpoint to the effects of the recent urbanisation and increasing population trends in traditional societies like Sekyere and their threats to environmental protection, demand for more lands for settlement expansions, and developmental projects to maintain their traditional valued sites they inherited from their past generations. Also, it can be argued that the quest for environmental protection and cultural continuity among the Sekyere people of Nsuta has been sacrificed for the land needs of the present generation. Ogungbemi (2008) has argued that in modern Africa societies, usage of land does not reflect the importance of forest and trees for the maintenance of environmental values. His point emphasises that environmental problems in modern African societies illustrate abandonment of traditional practices as if development and modernisation remain incompatible with the conservation of forest and protection of trees.

Chapter Summary

The present chapter has presented, analysed and discussed the data gathered from the fieldwork. It aimed to respond to the research questions which were set to guide the study. It was revealed that the Sekyere people prohibit farming closer to waterbodies; extraction of large volumes of freshwater from rivers; dumping of refuse, defecation and washing in rivers are unacceptable practices. Punitive measures for violations of environmental values involved fines, payment of drinks, sheep, confiscation of items and tools; physical encounter with gods and spirits that sometimes led to the culprit becoming deaf, been visited with an incurable disease or death. Sekyere people value their environments for sustenance and spirituality. Clan cemetery sites are valued for been the spiritual abode for dead relatives whom they are answerable to, whilst, mountain sites, rocks and caves are valued for being historical battle sites, abodes of spirits and dwarfs and for their aesthetic features. Lastly, the Sekyere people still adhere to their environmental protection values - sacred days where they do not fetch water from the rivers nor work on farmlands in proximity to the rivers, preserve vegetation along their river banks; prohibitions on hunting, farming, cutting of trees, fishing in their rivers and protected areas and desisting from refuse dumping and defecation in rivers. However, the Sekyere people have abandoned the old practices of cleaning rivers. People flout prohibition in farming and building close to waterbodies, whilst people stand in streams in footwears to fetch water. Having answered the research questions in this chapter, I conclude the entire study in the next chapter.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this thesis, I have tried exploring the traditional environmental ethical values on the protection of traditionally protected areas among the Asante Sekyere people. Motivated by current environmental problems all over the Ghanaian society with its ultimate threat to sustainable development, the thesis sought to analyse the fact that the association of traditional ethical values underlying the protection and conservation of traditionally protected areas makes environmental problems rare relative to the other areas such as forest reserves. With the help of the African environmental ethics – which attempts to define how Africans ought to live in relation to the environment and advances its own response to African ecological problems, indigenous religion and environmental protection values, the study sought to evaluate the Asante-Sekyere ethical values underpinning the protection of their traditionally protected environment from the past till date. This chapter concludes the thesis. It reviews the objectives in the thesis, summarises the research findings, and draws conclusions for the study with recommendations on areas for future research.

Key Findings

Based on the four research objectives, the study came out with the following key findings.

Unacceptable Practices

With regards to the unacceptable practices on Sekyere traditionally protected environments, it was found that farming close to freshwater bodies and sacred groves, including dumping of refuse, defecation and washing near or in fresh waterbodies are unacceptable. Extraction of large volumes of freshwater has also become an unacceptable practice due to rising water demand for construction and other productive activities. Additionally, it was found that wearing of footwears, eating, whispering and other practices such as defecation and urination are also not allowed in the Sekyere sacred groves to maintain the sanctity of the areas.

Moreover, analysis of the data established that it is also prohibitive to cut a tree along rivers or fish in any of the rivers under traditional protection. At the same time, hunting, collection of snails, cutting of fire wood and trees, ropes and nuts are forbidden from all Sekyere sacred groves and royal cemeteries; fishing is not allowed in any of the protected freshwater bodies in Sekyere.

Punitive Measures

The study noted that punitive actions for violations on taboos and prohibitions on sacred groves, fresh waterbodies and habitats includes fines, physical encounters with river gods, blindness, deaf, incurable diseases or untimely death. However, punitive actions for forceful entry and exploitation of resources in sacred groves and royal cemeteries includes confiscation of all collected products, confiscation of tools being cutlasses, guns and machines; violators are brought to the chiefs for any appropriate punishment. It was also revealed that working in the farm during a sacred day on Sekyere land contravene the taboos of the land. This act first attracts confiscation of farming implements the culprit used; and secondly, the violator is taken to the traditional chief for prescribed fines, schnapps (drinks), and sheep to pacify the gods and the ancestors.

With the application of punitive measures, most of the natural vegetations along the Sekyere fresh waterbodies are flowing throughout the year; Twabiri forest on Asuo Abenaa watershed has developed into a class rainforest vegetation; Aduana clan cemetery and Dadiase sacred groves have regenerated close to their original status after previously suffering from fire outbreaks.

Environmental Protection Values

The findings also point out that Sekyere rivers are protected for their religious values. Libations and sacrifices are offered to the river gods; sacred days are strictly observed. Crocodiles and fishes are not harmed since they are regarded as the off springs of the rivers. Sekyere people value their rivers as sources of power through which their desires and predicaments can be granted. Local people call on river deities to intercede on their behalf, ask for protection and successes in life, to get healings from sickness and child-birth.

Furthermore, the traditional Sekyere people revere some rivers by preserving it for their traditional chiefs as their source of water. This association requires special protection, treatment conservation and maintenance of sanity from the local people of the river. Also, the sanctity and cleanliness of the Sekyere protected rivers are observed through communal cleaning activities. This involves removal of fallen leaves, clearing of weeds along the river banks and footpaths leading to water fetching points and scrubbed river rocky beds.

Furthermore, the study revealed that the Sekyere Tadieso people have protected the Aduana clan cemetery based on the belief that the site remains the spiritual abode for their dead relatives. The Sekyere people of Tadieso hold the belief that the members of the Aduana clan must still live together even after death - as a recognition of their royal and social status which position them to be unique from other people. However, Owuobuoho mountains are regarded by the Sekyere people as the dwelling place for their ancestors who sacrificed their lives for the course of their community. It reminds

them of the historical battles among the Nsuta and the Mampong people for supremacy; abodes of spirits and dwarfs and aesthetic features.

Adherence to Traditional Environmental Ethical Values

Sekyere people till date strictly observe traditional sacred days and taboos of not taking black objects (cooking pots and utensils) to a river in Sekyere; women in menstruation try as much as possible not to get to any river- side or sacred grove not until their period is over. Furthermore, the Sekyere people still preserve vegetations along their rivers as large areas of river banks have natural vegetations undistracted. The river banks show dense forest with tall trees, climbers, shrubs, palm trees, and lianas which are natural to the environment.

Till date, Sekyere communities surrounding Twabiri forest and Dadiase sacred groves strictly observe the taboos on hunting, farming, fishing, cutting of trees, and not going to the river on Tuesdays. Sekyere people continue to desist from dumping refuse and garbage in their fresh waterbodies, no one defecates in the rivers or along the rivers. The Sekyere people highly adhere to the practice of not wearing footwears to a river to fetch water and not using their bare foot in rivers meant for drinking. Hence, people fetch water by standing on wooden boards that are placed by the community on the edge of the river.

However, Sekyere people are clearing river banks for building and agricultural land-use causing the emergence of grasses and bare surfaces. Build-up areas are developing close to river flood plains of river, whilst river valleys are extensively

cultivated for cocoa, sugarcane and food crops such as plantain and cocoyam. These days, the Sekyere people have halted the communal river cleaning practice which involved the scrubbing and dredging of the river beds, removal of silts and leaves, weeding the banks and paths that lead to the water collection point.

Conclusions

Based on the key findings of the research highlighted above, the following conclusions have been drawn.

The study has shown that the traditional Sekyere people have protected their fresh waterbodies through prohibition on refuse disposal and defecation close to fresh waterbodies, building close to waterbodies, extraction of large volume of freshwaters, wearing of footwears or using bare foots in rivers meant for drinking. It is also prohibited to farm close to waterbodies to maintain the vegetations along rivers. These practices not only protect the rivers catchment areas, minimise soil erosion, flooding, and point source pollutions, but serve as moral codes which are not necessarily religious ought to be done right for the wellbeing of the people. Furthermore, the study revealed that the Sekyere environmental protection norms violations - fines, payment of sheep and schnapps, deaf, blindness, incurable diseases and deaths are having positive imprints in the traditionally protected areas: all traditionally protected rivers flow throughout the year; Aduana and Dadiase sacred groves have regenerated close to their original status after suffering from fire outbreaks.

In all, the environmental protection of the traditional Sekyere people is largely based on actions and their ways of life that reflect their determination to live in harmony with nature - driven indigenous belief systems, sanctions, moral codes, and taboos whose infringement result in automatic penalty from both the gods and traditional leaders. These practices of the Sekyere people hold nature as partner in mankind's struggle for existence whilst contributing to the protection and conservation of local valuable biophysical resources. The Sekyere people's environmental protection ethical values and practices distinctively have proved very practical and thus compliments the growing African environmental philosophical discourse – African moral world and nature-relatedness pioneered by proponents like Tangwa (2007); Ogwuanyi (1997, 2011); Ogungbemi (1997) and Kimmerle, 2006. This can be adopted towards biodiversity conservation, climate change mitigation, forest conservation, protection of fresh waterbodies and landforms and several other environmental problems.

Recommendations

Wiredu (1994) professed that "of all duties owed to the ancestors, none is more imperious than that of husbanding of resources of land so as to leave it in good shape for posterity" (p.125). Hence, based on the findings of the study, the following recommendations are given.

First, efforts should be made by the local government, conservation agencies and the Sekyere traditional rulers to offer non-religious incentives particularly communities fringing traditionally protected areas to strengthen the existing traditional restraints and practices safeguarding the sacred grove and freshwater bodies. Such practices can be in the form of prizes and awards, conservation tours and exhibition to the communities; and encouraging royalties and tariffs to be paid to such communities like Achiase, Dadiase, Tadieso and Gyetiase and Owuobuoho by Ministries of Environment, natural resources and conservation Non-governmental Organisations.

Also, to deal with the rapid deforestation along the Sekyere fresh water bodies, unscrupulous farming and building practices, attitudes of taking footwears to rivers and, standing in streams to fetch water will urgently require sensitisation and awareness on the need to adhere to traditional Sekyere environmental ethical values. This can be approached through Fm radio stations, mounting of billboards on major roads in Sekyere towns and villages by community leaders; embarking on school and church visits and using cultural festivals as effective platforms to create environmental protection awareness.

There is the urgent need to control all human activities threatening the state of fresh waterbodies particularly in the urban communities in the Sekyere areas like Nsuta

due to their growing negative impacts on the fresh waterbodies. This can be achieved through the District Assemblies, traditional chiefs and community leaders, faith-based organisations by forming local environmental protection committees in the various Sekyere communities to be responsible for monitoring encroachers on river banks, establishing buffer zones along rivers in the towns and undertaking tree planting specifically in degraded areas along waterbodies.

There is the need to re-enforce traditional environmental protection values and practices in the Sekyere area to revive the degrading traditional environmental protection values. This is to be done by the traditional rulers, opinion leaders, local government authorities and interested parties in the Sekyere area. This should target faith-based institutions, educational institutions, market men and women, farmers, charcoal burners, hunters, lumbers, and the general public across all the Sekyere rural and urban communities on the need to reinforce the existing traditional Sekyere environmental protection values. This can be done through Fm radio stations, schools, and traditional festivals to help change peoples' negative attitudes such as steping in rivers bare footed or with footwears, building and farming close to waterbodies.

With the growing population and urbanisation in Sekyere areas and in Ghana as a whole, and its threats on the fresh waterbodies particularly those in the Sekyere towns will require Government, conservation agencies, and policy makers to integrate indigenous Sekyere's environmental protection ethical values and practices into environmental policies and take advantage of these practices to minimise environmental degradation particularly in the traditional communities.

It is also recommended that Government, NGOs, Media Houses, District and Municipal Assemblies should help traditional communities like those in the Sekyere area to project their environmental protection values by helping them to observe, celebrate and sustain the norms safeguarding their environments.

The protection of the traditional protected areas by the Sekyere people can be strengthened when these areas are also demarcated as heritage sites by government and international and local conservation agencies, Ministries of Environment and Natural Resources, Environmental Protection Agency and other environmental stakeholders in collaboration with traditional chiefs, clan heads, traditional priests, and community elders.

Area for Future Research

Though, the present study contributes to the African environmental ethics discourse from the Sekyere people in the broader Asante cultural context, however, in narrowing the gap between what ought to be in the African traditional environmental philosophies, it is recommended that future studies can be based on other Ghanaian cultural context (e.g., Ga-Adangme, Akuapem, Twifo, Brong, etc) to broaden African environmental ethics perspectives. After all, Oggay and Bassey (2019) citing Tangwa (2007, 387) wrote: "harnessing the old morality, seemingly gigantic feat for any civilisation, is probably the only way that Africa can begin to reverse the demise of its natural landscape" (p. 81).

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Appendix A: Protection of Freshwater Bodies

Observational Guide

- Name of the waterbody
- Sites under observation
- Human activities along the river (building protects, farming)
- Pollution activities (washing, refuse dumping etc)
- Water fetching practices (use of foot wears, fetching methods)
- Compliance of taboos (use of black utensils, visiting on sacred days)
- Community compliance of local rules and norms on the waterbody
- The proximity of farming activities along the rivers
- The quality of freshwater bodies (colour, odour,)
- Proximity of houses to the flood plains
- Encroachment of river banks
- Evidence of sacrifice (egg, cola, fouls, sheep).
- Landmarks of community protective measures (reservation of zones, planting trees along the river banks)
- Nature of vegetation along the river banks

a. Name and status.....

- Evidence of waste disposal in and around river.
- Evidence of defecation in/around waterbodies

Interview Guide (Assemblymen, Committee Members,

o .	Place and time
1.	What human activities are permitted to be undertaken on the rivers?
2.	What activities do the Sekyere people regard as morally wrong to be practiced on
	the water bodies?

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- 4. In what ways do the Sekyere people traditionally value the rivers?
- 5. Explain the Sekyere people's belief systems in the traditionally protected rivers?
- 6. What are the sacred days associated with the protection of the rivers in Sekyere land?
- 7. Account for the spiritual importance of the rivers to the Sekyere local people?
- 8. What traditional regulations do you have for the protection of the waterbodies?
- 9. Have the community undertaken initiatives of protecting the rivers?
- 10. In your opinion, have these traditional measures helped in protecting the rivers?
- 11. If any, what are taboos guarding the protection of the traditionally protected rivers?
- 12. In your assessment, to what extent are the taboos helping in protecting the rivers?
- 13. Is there incidence of people disobeying taboos of the rivers?
- 14. If any, what are spiritual consequences to violators of such taboos?
- 15. What are the available community punitive measures on violation of taboos?
- 16. To what extent do people adhere to such taboos?
- 17. How will you rate the level of violation on the existing taboos and practices on the water traditionally protected rivers?
- 18. What stories do you know on the incidence of violations and repercussions on trespassers?

Appendix B: Traditionally Protected Sites -Sacred Groves

Observational Guide

1.	Name	of	the	sacred	grove

- 2. Extensiveness of the protected area
- 3. The nature of the protected forest (tree density, type of biodiversity)
- 4. Presence of rivers and habitats
- 5. Evidence of sacrifice in the fringes of the grove
- 6. Information on species/ fauna and flora
- 7. Evidence of sanctuary, offertory, sacrifices etc
- 8. Evidence of bush fires in the site or around the site
- 9. Evidence of encroachment of the protected area

Interview Guide (Fetish priest, Grove attendants, Linguists)

- Name of the interviewee.
 Status in the area.
 Place and time.
- 4. What is the history on the creation of the grove?
- 5. What are the main reasons for the creation of this sacred grove in this community?
- 6. What are the taboos observed by the local people on the protection of the grove?
- 7. How are the taboos and prohibitions enforced?
- 8. Explain the believes reversed for the conservation and protection of this site?
- 9. Of what spiritual importance is the site to the local people and outsiders?
- 10. Services people derive from protecting and conserving the site?
- 11. What activities are allowed in and around the forest?

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- 12. How can you describe the level of local people adherence to the traditional taboos of the grove?
- 13. To what extent do the prohibitions and the taboos deter people from exploiting the protected area?
- 14. Do you have stories on the violations of protective norms and taboos and their repercussions?
- 15. If yes, how are they deterring people from exploiting the area?
- 16. What are the spiritual repercussions for the trespassers of taboos of the site?
- 17. What punitive actions have the traditional authorities have for anyone who break the conservation taboos?
- 18. Do you think such punitive measures deter people from exploiting the area?
- 19. In what ways do you think these measures have contributed to the protection of the sacred grove?
- 20. What is the level of destructive human activities around the protected area?
- 21. If any, has the site suffered from bush fires before?
- 22. What are the acceptable and acceptable practices within and around the grove?

Appendix C: Sekyere Values for Ownobuoho Mountains

Observational Guide

- 1. Nature of the environment (forest, plain, savannah, settlement etc)
- 2. Nature of rocks (colour, hard, soft, polish, shiny, shapes, scripted etc)
- 3. Height, extensiveness/coverage of the landscapes.
- 4. Other features in the mountains (waterbodies -rivers, spring, waterpoint, pond)
- 5. Evidence of fascinated rocks, rocks, caves
- 6. Nature and appearance of rocks, caves and mountains

Interview Guide (Chief, Elderly residents, Farmers, Community Leaders)

- 1. Name.....
- 2. Age.....
- 3. Number of years in the community......
- 4. Occupation.....
- 5. How well are you familiar with the terrain of the Owuobuoho mountains?
- 6. If you know the terrain, please state the features you have observed from the mountains?
- 7. What description can you provide to explain the features
- 8. What historical information do you know about the Owuobuoho mountains?
- 9. What past mysterious information do you know about the Owuobuoho mountains?
- 10. Do you observe any taboo/s on the mountains?
- 11. Do you observe restrictions on the mountains?
- 12. What belief systems do you have for the mountain sites, rocks and the caves?

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- 13. How do the Sekyere people regard the mountain sites?
- 14. What are the historical and cultural relevance of the mountains to the Sekyere people?
- 15. What practices are prohibited in the Owuobuoho mountains?
- 16. What human activities around the sites (farming, sand winning, quarry,) are allowed?
- 17. What punitive measures exist for violation of the prohibited practices on the Owuobuoho mountains?

Appendix D: Protection of Traditional Cemetery Site

Observation Guide

- 1. Location and extensiveness of the site
- 2. Nature of vegetation (height, canopies, thickness)
- 3. Tree species and other plants at the site
- 4. Evidence of site encroachment by the local people
- 5. Evidence of human activities around the site

Interview Guide (Chief, Clan head)

- 1. What has been the underlying focus for creation and protection of the site?
- 2. If any, what are the traditional significance of maintaining the site?
- 3. What are the taboos and prohibitions governing the site?
- 4. What traditional implications exist for people who break the taboos and violate the prohibitions?
- 5. In your opinion, what are the levels of adherence to the site protection taboos and the prohibitions?
- 6. What are the punitive measures for any violations of taboos and the prohibitions protection the site?
- 7. How can you describe the level of encroachment and incidence of hunting, bushfires in the conservation history?
- 8. How does the community respond to any illegal activity around the site?
- 9. What are the main threats to the continual protection of the site?