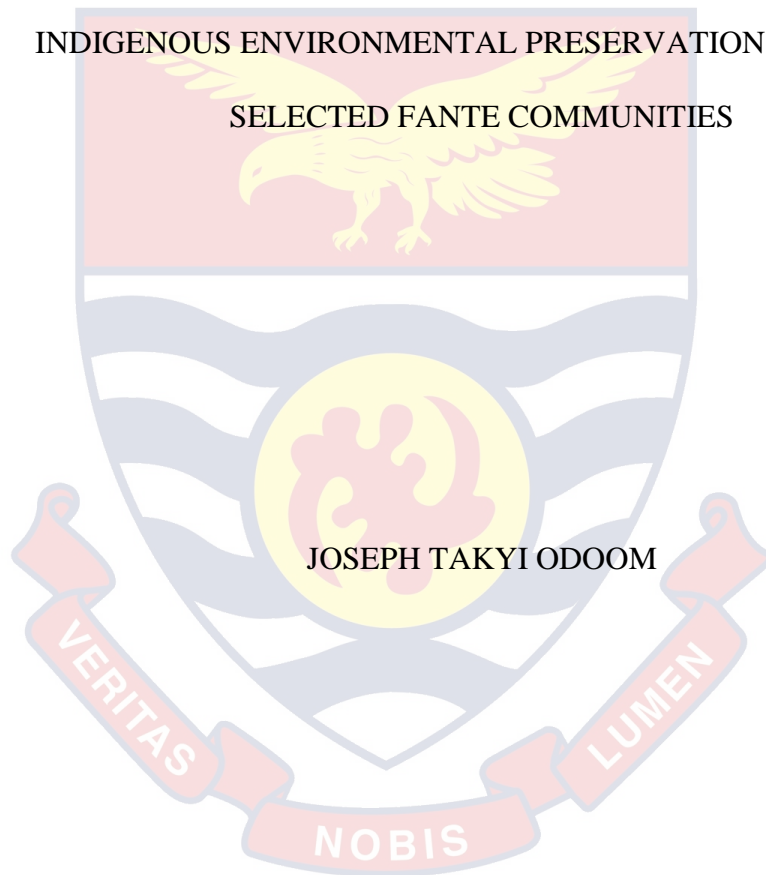


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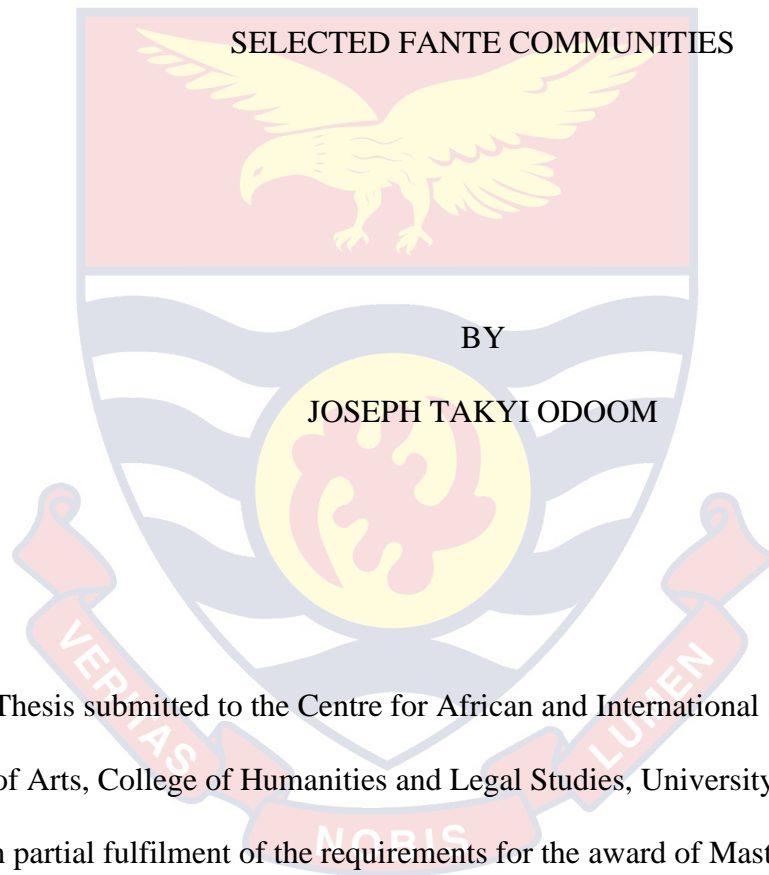
ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 15: REVISITING
INDIGENOUS ENVIRONMENTAL PRESERVATION NORMS IN
SELECTED FANTE COMMUNITIES



2020

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ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 15: REVISITING
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SELECTED FANTE COMMUNITIES



BY

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Thesis submitted to the Centre for African and International Studies, Faculty
of Arts, College of Humanities and Legal Studies, University of Cape Coast,
in partial fulfilment of the requirements for the award of Master of Philosophy
degree in African Studies

DECEMBER 2020

DECLARATION

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.

Candidate's Signature Date

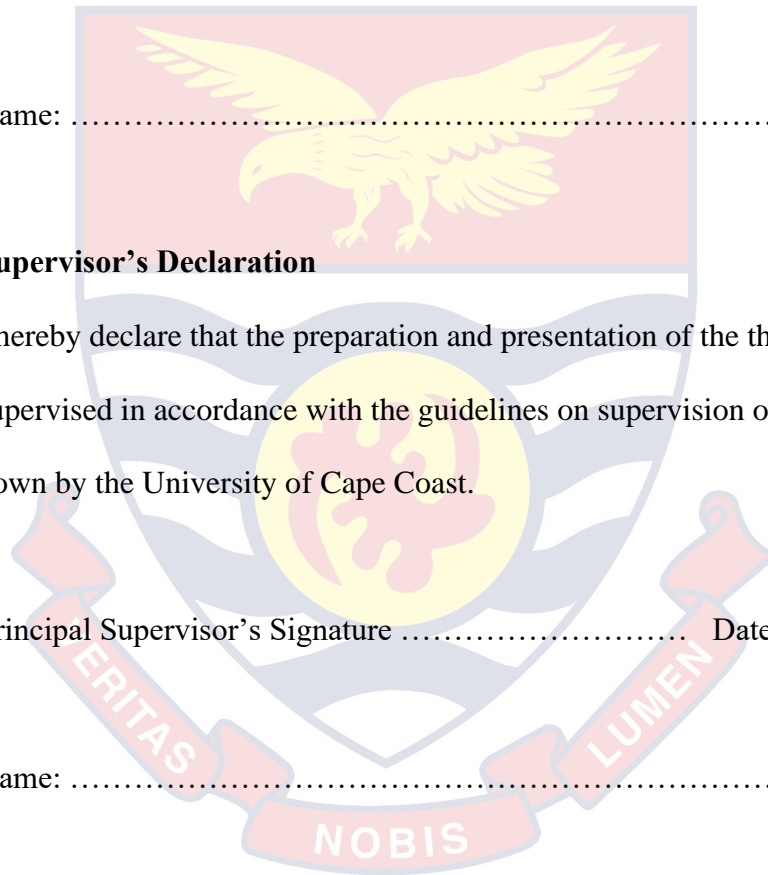
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Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature Date.....

Name:



ABSTRACT

The thesis is an exploratory study of revisiting indigenous environmental norms in selected Fante communities, a conception of the environment as public goods and the social expectations and traditional sustainability framework that resonates with the Sustainable Development Goal 15. The worldview of a group of people entails describing the Philosophical components related to the way they see their version of reality in the cosmos created by the Supreme Being, which is the abode of the supernatural entities. Accordingly, most indigenous African societies used numerous norms to preserve the environment on a sustainable basis. Due to modernisation and globalisation, the neglect of these traditional protocols has dwindled the environmental preservation norms and brought about severe environmental challenges in its wake. The thesis is driven by the theory of the human-environment relation and applies the Sustainable Development Goals 15, which focuses on protecting the ecosystem to interrogate human activities that undermine the physical environment. The study revealed that the environmental worldview of the Fante comprises physical and spiritual. This is shown in their belief in supernatural entities. The belief system informed the formulation of norms that aided environmental sustainability in indigenous Fante communities. The thesis concludes that a holistic approach in dealing with the environmental challenges of the Fante should bear in mind the human-environment relation theory that requires human beings to mediate their relationship with the environment based on their culture.

KEYWORDS

Environment

Environmental preservation

Indigenous Norms

Sacred grove

Sustainable development Goal

Totem



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DEDICATION

To my parents, Mr Kofi Takyi Okwan and Madam Elizabeth Fynn.



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LIST OF ABBREVIATIONS

| | |
|--------------|--|
| EPA | Environmental Protection Agency |
| EPC | Environmental Protection Council |
| GES | Ghana Education Service |
| IEPNs | Indigenous Environmental Preservation Norms |
| MDGs | Millennium Development Goals |
| MEPM | Modern Environmental Preservation Models |
| NADMO | National Disaster Management Organization |
| SDGs | Sustainable Development Goals |
| USAID | United States Agency for International Development |
| UN | United Nations |
| WBES | World Bank's Environment Strategy |
| WIPO | World Intellectual Property Organisation |



CHAPTER ONE

INTRODUCTION

Introduction

Before their encounter with the Western Europeans, African countries used numerous norms to preserve the environment, which was largely successful. But today, many factors such as Western culture, modernity and what has become known today as globalisation has affected the efficient use of these environmental preservation norms. This development has brought serious environmental challenges to indigenous ways of salvaging nature. This particular chapter introduces the thesis, the methods employed and reviews relevant literature needed for the study.

Background to the Study

From September 25th to 27th in 2015, State Heads of United Nations' member States and their high-delegates agreed on the Sustainable Development Goals (SDGs), which replaced the Millennium Development Goals (MDGs). The United Nations adopted the Millennium Declaration in 2000, which was intended to ensure the reduction of extreme poverty by setting out specific targets which were to end in 2015. This Declaration became known as the United Nations Millennium Development Goals (UNMDGs). They were planned to achieve eight goals, namely: eliminating extreme poverty and hunger (Goal 1); achieving universal primary education (Goal 2); fostering gender equality and empowering women (Goal 3); decreasing infant mortality (Goal 4); enhancing maternal health (Goal 5); combating HIV/AIDS, malaria and other diseases (Goal 6); ensuring environmental sustainability (Goal 7); and establishing a global alliance for

developing (Goal 8) (United Nations, 2000). The MDGs (2000–2015) can be seen as one of the most significant and fruitful poverty eradication programs in recent history (Tjoa & Tjoa, 2016). The eight crystallized goals that the MDGs had were further transformed into practical measures that have rescued more than a billion people from extreme poverty and attained a better standard of living in many parts of the world (United Nations, 2015). In 2015, the UN also initiated another intervention called The United Nations Sustainable Development Goals (SDGs). The SDGs comprised 17 goals and were put together, with each goal emphasizing an important aspect of human life to ensure human security. The SDGs have been identified as a human, planetary and prosperity action plan (sustainabledevelopment.un.org, 2015). The SDGs were seen as illustrating the scope and ambition of the UN's 2030 Agenda for Sustainable Growth, which aims to move the planet down to a sustainable and resilient route.

Jones et al. (2017) reiterate that the 17 SDGs and their 169 related targets, including climate change, poverty, energy, management of water, marine preservation, biodiversity, supply of food and security, sustainable demand and supply, cover a range of environmental, social and economic concerns, along with a wide range of objectives for the future. The United Nations called on all states to establish national strategies independently to pursue the realisation of the SDGs and stressed that the corporate community has a crucial role in achieving these goals (Jones et al., 2017). The call was on all stakeholders to help the attainment of the 17 goals. This thesis emphasises on achieving goal 15: to Protect, restore, and promote sustainable use of

terrestrial ecosystems with greater importance placed on revisiting indigenous environmental norms.

Revisiting indigenous environmental norms depends largely on the indigenous knowledge system of the people who practice them. Indigenous knowledge is explained by Fernandez (1994) as the distinct or unique knowledge to a particular society or group of people with the same culture. The knowledge system about the environment is passed on from generation to generation through stories, songs, norms, customs, among others. Over several centuries, African societies have used indigenous environment knowledge to maintain and sustain their livelihoods (which largely depends on the environment). Environmental sustenance is dependent on man's relationship with nature. Moreover, Africans attach religion to all spheres of life, including the sustenance of nature (Parrinder 1961; Mbiti 1969). Boaten (1998) reiterates that the African being clothed in religion resulted in reverent attitudes towards nature that helped them develop a knowledge system that made them the caretakers of the environment.

However, this concept is evident in the Christian religion. The Bible says, following after the creation of human beings, God blessed them in Genesis, 1:28 and said to them "...be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moves upon the earth." This was a charge that God gave to Adam and Eve to till the environment for their benefit. The use of the environment by the first man spurred a sustainable use of the environment for man's existence since he depended on it for survival.

The axiom of people concerned with the environment is that when the last plant dies, the last man will also die.

However, the above-established argument put forward by scientists and people about environmental issues is still increasingly showing concern about problems of resource scarcity, primarily due to population growth and world hunger, climate change problems, species extinction, disposal of toxic radioactive waste, acidification, ozone depletion, dehydration, contaminants. (Postma, 2006). That is why the United Nations adopted the Sustainable Development Goals under Goal 15 to protect, restore, and encourage the sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, and preventing and reversing land degradation and biodiversity loss (United Nations, 2015).

It is worthwhile to note that the United Nations, under Article 5 of the Declaration on the Rights of Indigenous Peoples in 2007, stated that indigenous peoples have the right to preserve and improve their independent economic, legal, political and socio-cultural structures while maintaining their right to engage entirely if they so decide in the economic, political and social-cultural life of the State. The above gives the various ethnic groups the right to protect their institutions using cultural and indigenous means. It also indicates that a specific group is not out of place to use their traditions and customs to preserve the environment. The United Nations Declaration on the Rights of Indigenous People (UNDRIP) in 2007 further supported the viewpoint under Article 31 section 1, which states that:

Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional

cultural expressions, as well as means of manifesting their sciences, technologies and cultures, including all resources such as seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literature, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions (UN General Assembly, 2007).

The World Intellectual Property Organisation (WIPO) also recognised the application of indigenous knowledge and acknowledged local innovation and intellectual property systems, especially towards environmental conservation (Eyzaguirre, 2001). The concept of indigenous environmental conservation is fast growing in academic circles and even in the media. Indigenous environmental preservation is mostly ascribed to divine reverence and realistic knowledge of the natural world. The above notion is embodied in culturally articulated environmental ethics, animism, organisms as social beings and a higher biodiversity abundance within the sacred grooves. (Negi, 2012).

Statement of the Problem

Environmental degradation has over the years been a serious global canker yet to be resolved. This informed the United Nations in putting up the Sustainable Development Goals to include terrestrial or the protection of the ecosystem under goal 15. It is relevant to note that most African indigenous societies used various ways to preserve the environment. Amlor (2015) opines that before the time of Western urbanization and industrial revolution,

indigenous communities, including the Akan of Ghana, used traditional practices such as taboos to protect forests, which were largely successful. This made Asante et al. (2017) posit that Ghana has variety of forest reserves that have been well-preserved by indigenous peoples' socio-cultural values. Also, Cobbinah (2011) states that the transition of cultural traditions from one generation to the other has ensured the survival of biodiversity in forests and practices that have made it possible to maintain their livelihoods.

These old conservation methods used by indigenous peoples were considered successful because they were inexpensive and needed less time and ability to implement (Jimoh et al., 2012). Recently, the environment in most African countries has been regulated using standardized scientific techniques, including the implementation of a variety of cultural values enshrined in laws, legislation and international treaties, thus neglecting the traditional system of beliefs systems and practices (Asante et al., 2017).

Awuah-Nyamekye (2013) observed that Ghana's conservation policies often ignore traditional people's ecological awareness or worldview. It can, however, be noted that it is not only Ghanaian policy, but also many interventional policies rolled out by the World Bank on sustainable development for Africa viz the World Bank's Environment Strategy (WBES) for Africa, and the Environmental Initiative of the New Partnership for African Development do not involve indigenous cultural traditions rooted in the African religion into their schemes (Awuah-Nyamekye, 2013). A Report by Brundtland Commission, however, recognised the significance of indigenous knowledge in attaining sustainable development. This recognition bordered around the dominant Western agenda (McGregor, 2004). Awuah-

Nyamekye, attributes the cause to the belief that there is no empirical justification for native conservation strategies (Awuah-Nyamekye, 2009).

Awuah-Nyamekye (2013), believed that most environmental protection initiatives in third world countries, especially in Africa, are unsuccessful due to the propensity to overlook the important connection between scientific and traditional ways of preserving the environment. The need, therefore, arises for a critical evaluation of the Fante indigenous environmental norms and the traditional belief strands earmarked for the preservation and sustainable use of the ecology to be used in contemporary times to enhance the attainment of the Sustainable Development Goal 15.

Objectives of the Study

The study's main objective is to examine how indigenous environmental preservation norms in selected Fante communities can be combined with modern environmental preservation methods to achieve the Sustainable Development Goal 15.

The specific objectives accordingly are;

1. To describe Fante's general worldview of the environment.
2. To examine the indigenous environmental norms in some selected Fante communities.
3. To examine the social change elements that have influenced indigenous environmental preservation norms in some selected Fante societies.
4. To assess which indigenous environmental preservation norms can be combined with the modern conservation models to achieve Sustainable Development Goal 15 of the UN.

Research Questions

To achieve the above set objectives, these four main research questions were asked and carefully followed through to the latter to obtain the ultimate result, a true reflection of the people's perspectives on the said subject of interest.

1. What is the general environmental worldview of the Fante?
2. What are the known indigenous environmental norms in the study area?
3. Which main factors have affected the Fante indigenous environmental preservation norms (IEPN)?
4. Which indigenous environmental preservation norms can be combined with the modern models to achieve the sustainable development goal 15 in the selected Fante communities?

Scope of the Study/Delimitation

This thesis is to revisit the indigenous ways of preserving the environment and how ideas from these indigenous environmental preservation norms can be used in contemporary times to aid the attainment of the Sustainable Development Goal 15. The concentration of the work will only be focused on the realisation of the Sustainable Development Goal 15 without considering other development paradigms.

Also, due to time and other considerations, some areas related to the topic were not included. For instance, the environment and the Millennium Development Goals, children's socialisation from an early stage towards the environment and issues of climatic change were not tackled. The study

revolved only around core issues of indigenous environmental preservation practices and the Sustainable Development Goal 15.

Significance of the Study

The study will be significant in the following respect. To begin with, the findings of this research will aid in the projection and careful implementation of existing policies by authorities and their correspondent agencies like the Ministry of Health and Ministry of Tourism, Arts and Culture to help achieve the SDG 15. Another perspective will highlight the need to reconsider the use of indigenous forms of environmental preservation in our environmental conservation agenda by policy implementers in Ghana since culture is fused with global trends in a widely accepted democratic dispensation.

It will be prudent that the Government led by the Head of State work hand in hand with heads of traditional institutions like Chiefs and Queenmothers in their respective Paramountcies to achieve the desired results since they are agents of change and their authority, divine. Besides, the study will help the indigenes of the selected communities to accept the new methods of environmental preservation because they can relate with it as they see their indigenous norms in it. And last but not the least, it will also contribute to the body of knowledge on indigenous protected areas and their relevance in the attainment of SDG 15.

Theoretical Framework

The study is situated within the Human-environment relation theory with Ingold (1992), Descola and Pálsson (1996) and Milton (1996) as the main proponents. This theory states that humans are connected to their environment

and that this connection between man and the environment is moderated by culture. (Descola & Pálsson, 1996; Ingold, 1992; Milton, 1996 as cited in Awuah-Nyamekye 2013). This means that the environment is connected either directly or indirectly to the culture of a group of people, i.e. the environment influences the way of life of a group and vice versa.

The role played by culture has generated some debate, and some scholars who criticized this viewpoint argue that the relationship may be envisaged in myriad ways (Milton, 1996 as cited in Awuah Nyamekye 2013). For his part, Milton (1996) grouped this relationship into three types. First of all, human beings respond to nature and, as such, are affected by their surroundings. This means that the environment largely influences people's behaviour and economic activities. People in coastal towns are fishermen, while others in the forest zone are mostly hunters and farmers. Second, people's behaviour can lead to changes in the environment. This is because man can also influence their environs to fit their needs by making certain changes through their actions and inactions towards the environment. The third is that the essence of human-environmental interaction impacts both human beings and the environment influence one another (Milton, 1996; Sarfo-Mensah, 2001).

Supporting the viewpoint mentioned above, the proponents were emphatic that the separation of humanity from nature and the quest for determinism within this relationship are mutually constitutive and tend to differ in degrees at all human-environmental moments (Fekadu, 2014). The relationship at this level is developed under two schools of thought similar to the three discussed above. The first school argues that the environment

controls man's social activities, termed determinism (Koszegi et al., 2015). Determinists believe that the environment is inseparable from all activities of man and that nothing is without the influence of the environment. The more general concept by the proponents is that the behaviour of an individual is seen in the light of the environment in which they live. The strict version of this school holds that the climate influences the psychological mindset of the individual. Among key proponents include Ellen Churchill Semple, Thomas Griffith Taylor, Ellsworth Huntington and Jared Diamond (Andrew, 2003).

Singh (2007) observes that Semple and Ratzel contended that ecological indications like climatic impacts are relentless and regularly adamant in their control. Furthermore, horticulture and stationary life in the arid area are conceivable just with the assistance of the water system; for instance, Egypt is said to be "the endowment of the Nile". It is important also to point out that the physical condition impacts the work of man. For instance, the Steppe region in Egypt is noted for grass production for nomadism and pastoralism. Individuals in cool territories use and depend more on a few equine like pony and donkey for their work. The creatures also decide cultural commitment like speciality and their eating routine (Singh, 2007). On his part, Huntington insists that the blacks of the Caribbean have dark skin due to the climate and that the tropics cause a wide group of climatically explicit diseases. There is a chance of jungle fever, yellow fever, and warmth around Cape Horn (as cited in Fekadu, 2014).

Rolston (1988) states that the atmosphere impacts the mentality of people, which thus characterizes the conduct of the people. For him, the tropical atmosphere is said to cause lethargy, loosened up dispositions and

wantonness. At the same time, the continuous inconstancy in the climate of the centre scopes leads to determination and the development of hard-working attitudes. Singh (2007) argues that Semple and Ratzel were emphatic that man is a product of the earth's surface so that the environment determines man's physical traits. Climate is seen as the main element of culture, which is seen as an inclusive term that includes language, religion and others. For example, the dressing and feeding society in cold and hot areas differs. As far as feeding is concerned, people in the colder locale consume more food to convince calories to have the option of adjusting to nature, but the warm zone is not.

The other school of thought, Nihilism or Possibilism, argues that the physical condition gives a chance to a scope of conceivable human reactions and that individuals have extensive caution to pick between them (Fekadu, 2014). Possibilism evacuates the absolutist causal methodology found in determinism and keeps up human understanding. Fekadu (2014) maintains that this thought was acknowledged by geographers in the twentieth century in France, in the school of Human Geology. It focuses on the human being's ability to select an example of human activity on earth. In addition, man has altered the surroundings by increasing his capacity to meet his enlarged desires and demands. The maximum seen is not remarkable because man's commercial revolution, agricultural progress, technological revolution, and others are the order of the present age. The different concept of possibilism from technology is well known and demonstrates that communities are not jointly exclusive entities but affect every element of social development (Fekadu, 2014). They contend that a person is certifiably not an absolute slave of his condition or environment.

Rolston (1988) also contends that culture and nature have weaved fates, like (and identified with) how psyches are indistinguishable from bodies (as cited in Fekadu, 2014). He further states that the biological development of nature has clarified that culture stays fastened to the bio system and that the alternatives inside fabricated situations, notwithstanding, extended, give no discharge from the environment (Rolston, 1988). Rolston continues that some kind of comprehensive natural wellness is needed of even the most developed cultures. Whatever the choices, in any case, their surroundings are reconstructed; people remain occupants in a biological system.

The discussions by far indicate that although the environment has greatly influenced man notwithstanding, it cannot be denied how dire human activities affect the environment. When we agree with the determinists, we can reiterate that when the environment determines, for instance, the economic activity of a group of people, they also use various means to extract the resources involved in such economic activity. For example, populations that live in the forest zones either kill the wild animals for a game as hunters, clear the forest for farming activities as farmers, cut the big trees for timber as lumberjacks, while populations who lived around water bodies fish in them as fishermen, use the water for irrigation purposes as farmers, construction, for domestic use etc. This varied economic reliance on the ecosystem affects the environment adversely.

When we consider the Nihilist or Possibilist School of thought, we can also note that man influencing the environment has contributed to the environmental challenges we are facing today. We can trace this to the period of the industrial revolution where fumes were emitted from industrial

machines as well as vehicles and oil spillage that had dire consequences on the environment, specifically water and air pollution. An attempt to extract resources from the environment (mining, sand wining, galamsey, deforestation, etc.) has seriously contributed to land degradation.

The human-environment theory interconnected by culture is consistent with the Fante understanding of the interaction between man and his physical environment (USAID, 2005). The USAID policy document on the environment further maintained that the theory is thus observed as a helpful system for this research work. This is because the Fante perceive that people are, as a need, in an association with their environment, and that it is to these individuals' greatest advantage for this relationship to be an agreeable one. Such beliefs have urged the Fante to utilize normal assets economically. Some global associations have even perceived this nearby and agreeable connection between conventional people groups and their surroundings, for example, USAID, which holds that indigenous and customary people groups have one of a kind societies that might be firmly coordinated with the common neighbourhood habitat, and this cosy relationship can make indigenous gatherings an incredible power for conservation' (USAID, 2005).

Literature Review

This section explores the relevant literature for this thesis and describes the study's key environmental and SDG concepts. The key concepts that have been discussed include the environment, components of the environment, environmental pollution and the SDGs.

Environment

The word "environment" is a non-solidified construct that is culturally grounded and socially challenged (Hannigan, 2014). The smoothness of the word "environment" is reiterated by Kumar and Kumar (2009) when they express that the earth incorporates all the physical and organic environment and their connections. Osuntokun (2000) reiterates that when we say "environment," we are talking about man and his surroundings, along with the life support provided by air, water, soil, animals and the ecological system of which human beings are but a member. On his part, Larsson (2009) points out that the term environment may cover each of those components that, in their complex of connections, structure the system, setting and living conditions for humankind, by their very presence or by the uprightness of their impact.

The New Zealand Environmental Act of 1986 further describes the environment to include habitats and their constituent parts; physical and natural resources, socioeconomic, aesthetic and cultural factors that affect the environment or are affected by changes in the environment (IBA, 1991). Cunningham and Cunningham (2004) state that the environment means all situations and conditions surrounding an individual or a group of organisms. They further expand their environmental concept to the social and cultural factors that affect the person or society. According to Worika (cited in Okabam, 2008), although the environment means different things to different people, it is characterized as the physical environment, situation, circumstances, etc., in which people live. To him, the environment includes Mother Nature which is the physical part of the substantial world, including plants, animals, landscape, etc. and the entire ecosystem, the biological

community of interrelating organisms. Worika failed to mention that the environment comprises the spiritual components based on the belief system of a particular group. This concept is captured under the indigenous Fante religion section of the literature review.

Waripamo (cited in Jack 2014) opined that the environment is related more to the conditions that support the survival of human beings. For him, the environment means a large part of the elements that include air, water, land and all vegetation and man himself; other animals living there and above all, the interaction between all or any of them. The environment in its simplest form can be defined as the things that surround us, which is adopted for this work.

Components of the environment

Bernstein (1996) asserted that the environment comprises two categories, namely, living and non-living. He called the living component of the environment, **biotic** which includes plants, birds, mushrooms, insects, etc. The other non-living component of the environment Bernstein referred to as **abiotic** includes water, soil, air temperature, wind and sunlight. He emphasized that the environment is an interaction of the biotic and abiotic factors. These biotic and abiotic components of the environment are further subdivided into four categories which Jack (2017) explained as follows:

Lithosphere (Land): The outer layers of the soils earth, e.g. rocks, sediments and soils. **Atmosphere (Air):** The layer of gases that extend from the earth surface up to about 100 km to the outer bounding of our planet.

The hydrosphere (Water): The layers of water that cover our planet, oceans, lakes, rivers, streams, and ice sheet snow and water in the soil.

Biosphere: This is the tiniest layer, comprising organic matters, i.e. plants and animals. This layer covers much of the land surface and extends into the atmosphere and deep into the water bodies. Human beings are part of the biosphere and exist by interacting with the other three spheres.

Ibrahim (2014) maintains that Anthropologists have categorized the environment into two main types: physical and social environments. The first, which is the physical environment, refer to the surroundings within which man lives. These are both natural and artificial things that man uses in his daily life. Examples include; trees, buildings, cars, water bodies, atmosphere, land, animals etc. On the other hand, the social environment refers to the interpersonal relations, cultural milieus, and the immediate physical surroundings within which people interact and function. Parts of the societal climate include a fabricated framework; a technological and word-related structure; labour markets; financial and social procedures; economic power; social, human and well-being administrations; ties of impact; government; race issues; social disparities; social structures; manifestations of human experience; on-site religious principles and traditions and beliefs. The social environment is part and parcel of the physical environment, given that the contemporary environment, water assets, and other traditional assets have, in any event, been partly influenced by human social processes. In contemporary social environments, social and power relations are registered, progressing towards being structured after some time (Casper, 2001).

Environmental pollution

Taofeek et al. (2014) define pollution as the contamination of land, water and air that may harm human survival. They further note that four main

classified substances are mostly polluted; air, noise, water and land. When infused into the biosphere in a large quantity, the pollutants tend to affect the functioning of the ecosystem, implicating these effects on plants, animals, and man (Taofeek et al., 2014).

Environmental degradation has been a striking worry to humankind, especially during the last quarter of the twentieth century, which finished in the Rio Conference on the Environment in 1992. The Beijing Conference for ladies in 1995 articulated an equal concern on the earth. Jack (2017) also stipulates that man's contributions to this environmental impasse cannot be overemphasized, ever since the advent of the industrial revolution in the 18th and 19th century, the spread of industrialization across the world, the incidence of environmental degradation have skyrocketed. Kemp (1998) stated that environmental pollution, which is the degradation of the physical and biological elements of the earth or atmosphere, is now to the degree that normal environmental conditions are adversely affected. This continuous destruction of the environment is known as the "environmental crisis" that the world faces today.

Ojomo (2010) states that the environmental problem is considered one of humankind's most serious problems. He also points out that, in reality, it has become a global issue that no society is entirely exempt from because the problems posed by the crisis are both human and ecosystem-wide. Tucker and Grim (2000) maintains that this environmental crisis is already aggravated by population increase, rapid industrialization, technological development and the proliferation of weapons by the military. All countries worldwide degrade the environment from myriad perspectives. Some of the mediums through the

environment is degraded include water, air and air. Amlor and Alidza (2016) also outlined the main environmental pollutants; bush fires, population size, mining, and waste management.

The authors who discussed the environmental crisis blamed the European presence in Africa for this mayhem. Among them are (Amlor & Alidza, 2016; Awuah-Nyamekye, 2012a; Nwosu 2010 and Agboro, 2008). This is because the presence of the Europeans distorted our political and social structures, which had the sole mandate of preserving the environment. The political system democracy neglected the chieftaincy institution and took away their judicial powers to the law court. Also, industrialisation, urbanisation, and technological advancement mentioned above as factors contributing to environmental degradation were introduced, intensely forced by the colonialist.

Definition of environmental degradation and types

The UN International Strategy for Disaster Mitigation describes environmental degradation as a reduction in the ability of the environment to meet social and ecological goals and wants (Tyagi et al., 2014). Environmental degradation also refers to the gradual destruction or reduction of the quality and quantity of the things around us by natural or human activities. Hence, we can say that the negative activities which destroy the environment constitute environmental degradation. The three main types of environmental degradation are; air pollution, water pollution and land degradation.

Air pollution

Ibrahim (2014) wrote that air pollution is a term used to describe how the atmosphere is made impure. The causes include harmful gases or waste

from industries, smoke from exhaust pipes of vehicles and kerosene stoves, bush burning or the smoke from burning bushes, deforestation, and dust in the air through construction and other activities and bad odour from decomposed animals. The effects were also outlined as follow; it causes respiratory diseases, skin diseases, destruction of vegetation, destruction of the ozone layer, rising temperature and heat and finally, poor visibility (Ibrahim, 2014).

Water pollution

Ibrahim (2014) further reiterated that water pollution is the contamination of water by foreign matter such as spilling oil, faecal matter, chemicals, refuse and others into water bodies, making them impure. Some of the many causes of water pollution include the discharge of industrial chemicals into water bodies, poor fishing methods such as the use of dangerous chemicals like DDT for fishing, oil spillage, which kills the living things in water bodies, defecation in water bodies, domestic animals drinking from water bodies, cleaning utensils and bathing in or close to water bodies, dumping of both solid and liquid wastes into water bodies, seepage, dredging, cutting down trees along water bodies which exposes it to direct sunshine and many others. The dire effects of water pollution include; spread of water-borne diseases like bilharzia and elephantiasis. Destruction of fishes and other aquatic plants and animals is also an effect of this menace. Making the water muddy and impure for use through sand winning and illegal mining activities near water bodies leads to the high cost of treating polluted water. As a result, fish caught in polluted water is unwholesome and finally leads to the drying up of water bodies.

Land degradation

Land degradation refers to the systematic deterioration of the land by human and animal activities to the degree that the land loses its fertility or usefulness (Ibrahim, 2014). He outlined the causes of land pollution to include the following; overgrazing, mining or quarrying, sand winning, improper or excessive use of fertilizers, logging or destruction of vegetation for timber, urbanization or improper layout of settlements, bush fires, bad farming practices, improper waste disposal and indiscriminate destruction of the vegetation. The effects are; it leads to soil erosion, deforestation, desertification, reduction in rainfall and drying up of water bodies, reduction in soil fertility, removal of vegetation and habitat for animals, loss of agricultural land, and water pollution through seepage.

Indigenous Fante Religion and Belief System

African people are generally very religious, and in so doing, religion permeates in all spheres of life, i.e. dancing, drumming, singing, festivals, ceremonies, marriages, among others. African traditional religion (ATR) refers to the indigenous religious beliefs and practices of the African people. To Mbiti (1969), African Traditional Religions is a comprehensive study of the attitudes and beliefs that have evolved in Africa's diverse societies and influence the manner of life of the majority of the continent's people. On his part, Awolalu (1976) believes that Africans' indigenous religious ideas and practices are referred to as African traditional religion. It is the religion that arose from the enduring faith shared by the forefathers of today's Africans.

Opoku (1978) maintained that if one observes the role of religion in indigenous African societies, it could be noted that religion is at the root of African culture and is the determining principle of African life. As a result, it is no exaggeration to argue that in traditional Africa, religion is life. Religion provides their life purpose and value in this world and the next (Idowu, 1973). As a result, it is more than an abstraction; it is a part of reality and everyday existence. Since African traditional religion is part of everyday life, it relies on oral transmission. Awolalu (1976) reiterates that African traditional religion is not written on paper but in people's hearts, minds, oral history, rituals, shrines and religious functions.

Awuah-Nyamekye (2009b) states that the spirituality of the Akan is what is commonly known as African Traditional Religion, and this religion can be viewed as the beliefs and practices of indigenous Africans that have evolved and have been practised by Africans since time immemorial, based on close observation and interaction with practitioners. Simply put, it is the African religion before their interaction with Western Europeans and religions such as Christianity, Islam, and others (Awolalu, 1996).

Awuah-Nyamekye (2009b) further maintained that the main elements of this religion include: a belief in the *Onyankopon* (Supreme Being/God), belief in divinities or lesser gods (*abosom*), belief in the Ancestors (*nananom nsamanfo*), belief in the other impersonal forces which manifest themselves in the operations of sorcery, magic, witchcraft, charms and amulets, totems etc. For the Akan, it is these that provide vigour, hope, and meaning to life. The Akan believe that these supernatural creatures include both good and terrible (evil) ones. Still, they all qualify for cultic attention because they believe that

these spirit beings can positively or negatively impact their lives. Religion has such a stronghold on the traditional Akan's life that it pervades all their endeavours, including their political, social, and economic lives (Awuah-Nyamekye, 2009b).

Hornsey (1979), writing about the Fante Indigenous Religion, indicated that the Fante believe in the multiplicity of the deity. Hornsey also states that there is a belief in the hierarchical institution of the realm of the deity. Before the advent of the Europeans, the Fante believed in the one Great God controlling all things and the lives of men. The Fante call God *Twerampon Kwame*, which means the one who, if you lean on for support, always remains sure and born on a Saturday and is male. Hornsey (1979) states that the Supreme Being is also called *Nyame* or *Nyankopcn*.

The Fante refer to the sea, whom they revere as a God, as *εpo Kobina*, meaning the sea was born on Tuesday: hence Tuesday is regarded as a day of rest for all fishermen. Sometimes the sea is called *Nana Bosompo*. They refer to the earth as *Asaase Efua*, meaning the earth or soil female born on a Friday; that is why Friday is the day of rest for all farmers. There is also the belief in gods, *abosom*, who inhabit stones (big ones), lagoons, queer trees with lianas and epiphytes growing on them, and any odd creation of nature (Hornsey, 1979). Believe in the ability of these gods to influence men's lives either for good or bad is prevalent. These gods are noted with an aptitude to administer justice with impartiality; that is why the Fante appeal to them in times of doubt. Some people have moulded effigies of gods in clay and wooden carvings they worship (Hornsey, 1979). There are male gods and female gods. It is believed that they do travel to visit each other and they do marry. There is

also the belief that gods and ghosts move about the earth on midnights, even with their children following them.

Hornsey (1979) further stated that the Fante believe in ghosts (*nsamanfo*) and life beyond the grave. That is why in former days, the Fante had special burial grounds for every particular *ebusua* (clan). These places were always considered sacred places directly linked with *samanadze* (where one resides after death). Pouring libation to an indigenous Fante is a way of bribing the departed souls of their ancestors to come to their aid and to avert ill from plaguing their lives. Believing in dwarfs (*mbowatsia*), miniature mysterious human beings known to inhabit forests, is part of the indigenous Fante religion (Hornsey, 1979). These Hornsey (1979) indicated that they hold the secrets of herbal medicine, and at times they abduct men and take them to the forests to teach them herbs and their uses. The Fante people also feared disease and other calamities which they believed were caused by witchcraft or as punishment from the gods.

It can be argued from the literature above that the indigenous Fante religion formed the basis of all social, political and economic life of the Fante. Believe the multiplicity of spirits and that spirits inhabit spirits formed the basis for environmental preservation. The motivated the Fante to ensure a better relationship with the environment because if one fails to interact peacefully with their surroundings, he draws diseases and calamity upon himself

Sustainable Development Goals (SDGs)

World leaders converged at the UN Heads of State Conference in New York in September 2015 and adopted the SDGs to replace MDGs negotiated

by governments in 2000 but terminated in 2015 (Jaiyesimi, 2016). Jaiyesimi (2016) further argues that the MDGs concentrated primarily on social results, while key development goals, such as infrastructure and electricity, were missing from the list, though not exclusively. The 17 objectives of the SDGs illustrate the obstacles we face to develop, emphasizing the fundamental factors of sustainable development and not just observable outcomes. (Jaiyesimi, 2016).

My engagement with the available literature so far points to the fact that the SDGs have weaknesses, especially with its implementation in third world countries (see: Abubakar & Aina, 2017; Janoušková et al., 2018; Jaiyesimi, 2016; Machingura & Lally, 2017; etc.). Therefore, this thesis is relevant since it addresses the above weaknesses.

Methodology of the Study

This section deals with the methods the study employed. The general methodological approach is situated within the framework for researching indigenous environmental preservation. The researcher in this section has discussed the research design used, the population, sampling techniques, the tools for data collection, the data collection procedure, and the data analysis.

The study employed qualitative research methods because, as Myers (2000) states, qualitative research methods are tools used in understanding and describing human experiences. Wheeler (1996) believes that Qualitative research is concerned with topics related to people and how they live to understand human thinking and general actions. When a researcher seeks meaning, experience, or perception mostly from respondents, it is appropriate to use a qualitative research design (Morse, 1999). Understanding indigenous

environmental preservation norms hovers around the perceptions, experiences, and meanings they draw from their surroundings. Thus in a socio-cultural setting, the qualitative research method fits well.

Research design

The study employed the qualitative research method with interviews, observations, and participation. The study, however, used an exploratory research design. The research is exploratory because it explores and describes the indigenous environmental preservation norms and their associated practices in selected Fante communities. The exploratory design also has the technique to put the researcher and the interviewees together to relate harmoniously so that an in-depth study of indigenous environmental preservation norms in Fante communities can be undertaken. This design also allowed me to explore the occurrences and behavioural patterns of the Fante towards the environment. The interviews also helped me explore cultural practices and the roles governmental institutions and the global goals (SDGs) play to salvage the environment.

Sources of data

Leedy and Ormrod (2005) recognize two principle wellsprings of information that are primary and secondary. While the previous is the legitimate and enlightening truth from the correct source, the last comprises reality not from reality itself but the essential source. Composed notes, voice chronicles, computerized pictures, and video recordings were utilized to accumulate essential information. For the most part, Auxiliary information was gathered from narrative sources, for example, books, propositions, diaries, and the internet.

Study population/area

Frankel et al. (2011) define a population as the whole set of individuals (subjects or events) who have shared characteristics that interest the researcher. Therefore, the researcher selected individuals from some Fante societies who knew about the topic under study. The main target population for the study were traditional rulers, leaders of the Asafo Companies, Environmental Protection Agency and the District Assemblies in the selected districts who have the requisite skills and knowledge in indigenous environmental preservation and the Sustainable development Goals with specific emphasis on the goal 15. It must be noted that the choice of the respondents was not entirely for the whole topic but rather a knowledge of a specific aspect of the topic. For instance, the Traditional Rulers and the Asafo Companies were selected based on their in-depth knowledge of indigenous environmental preservation norms but not the SDGs.

The study was conducted in four selected Fante districts, Komenda Edina Eguafo Abrem-Agona, Cape Coast Metropolis, Abura Asebu Kwamankese and Mfantseman. These districts were selected because they have towns that had forests or water bodies that had been successfully preserved using indigenous environmental preservation norms. The communities were selected after the researcher enquired and later visited these indigenous protected areas to ascertain their usefulness to the topic. More importantly, it was observed that the indigenous protected areas were all polluted or degraded in recent times, coupled with the challenges of implementing the SDGs to achieve environmental sustainability, made the study a viable one to undertake.

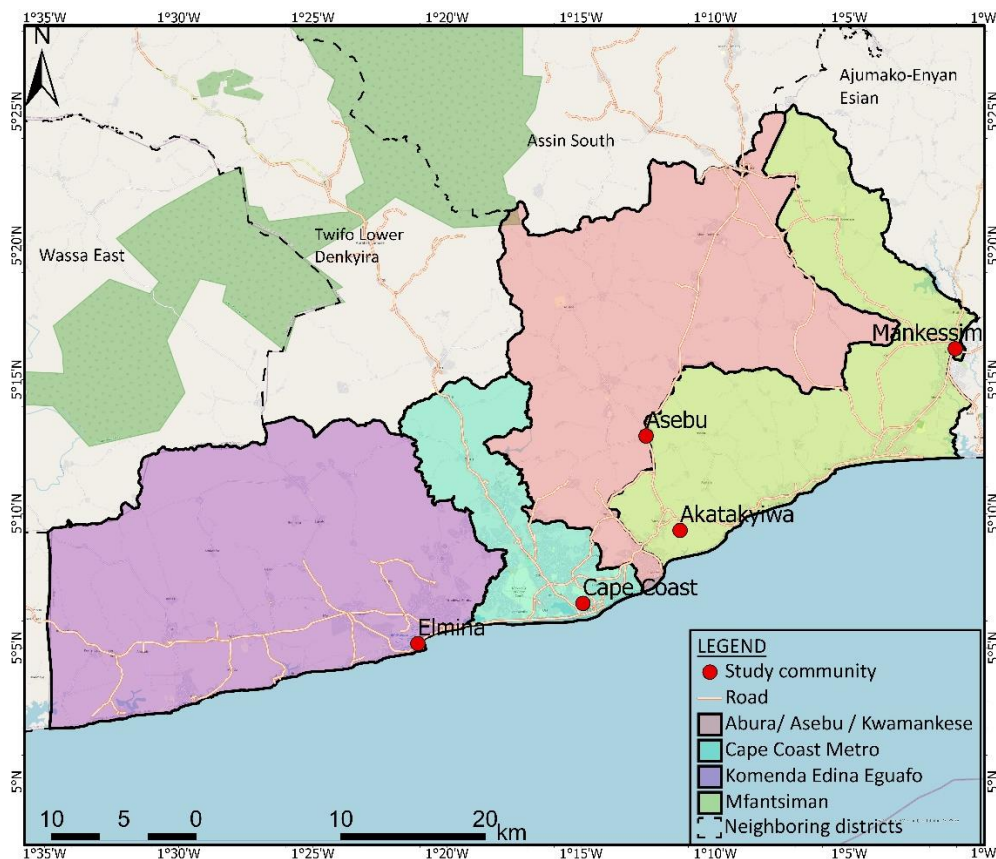


Figure 1: A map of the study area

Source: Department of Geography and Regional Planning, UCC

Sampling technique and size

The study used a purposive sampling technique to select the communities and the respondents to be interviewed. Patton (2002) describes Purposive sampling as a method commonly used to choose and identify information-rich instances for the most efficient use of scarce means. This includes identifying and selecting individuals or communities that are informed or individuals that are especially knowledgeable in the field (Creswell & Clark, 2017). This technique was chosen because, as Lewis and Sheppard (2006) put it, purposive sampling successfully selected areas for a study within a cultural area that have unique characteristics under study. Purposive sampling has been used for its time and cost-effectiveness.

The selection of people to be interviewed was also based on the sampling mentioned above technique to get people knowledgeable in indigenous environmental preservation norms. In all, 17 respondents were interviewed comprising eight traditional leaders- one queenmother and one elderly woman, four leaders of the Asafo companies, The Environmental Protection Agency in the Central Region and Environmental Officers in the four district assemblies located in the selected communities. Seventeen respondents were used because the 17 marked the saturation point, which means that there was a repetition of responses from participants as given by the first 17 respondents. The research respondents were men and women who are within the age range of 40-70 years. Some of the respondents have acquired formal education, while others do not have any formal education. Some respondents are self-employed (farmers, traders and fisher folks), while others are government employees.

Data collection technique

The selection of people to be interviewed was based on the above sampling to get the people knowledgeable in indigenous environmental preservation norms. Semi-structured interviews which deployed interview guides with open-ended questions were designed to collect the data on indigenous practices that have been effectively used for environmental protection in the study area and how the Sustainable Development Goal 15 can be achieved with the incorporation of these traditional methods. Here, I explained abstract concepts such as the SDGs and modern environmental preservation models to respondents who had little understanding of such concepts. Also, it helped to look for reasons and consequences of their neglect

on former or indigenous conservation efforts. This enabled the researcher to ask follow-up questions to seek clarity. The researcher conducted the interviews in a friendly and conducive zone of the interviewees. This was to make them comfortable narrating the stories or provide concise answers to the questions.

The interviews were conducted in Fante, the language spoken and understood by the indigenes. Observation was also used since it is one of the important tools for collecting data for qualitative research. McMillan and Schumacher (1993) describe observation as a specific form of data collection tool in which the researcher visually and auditorily observes such phenomena and systematically records the resultant observation. Critical observation of the selected water bodies and the forest with respective shrines in the study area was done, especially those protected using indigenous environmental preservation norms. The raw data from the field interviews were transcribed and analysed to get the appropriate information that has been provided in response to the interview schedule.

Data analysis plan

The field data were critically analysed, and the empirical information gathered was written into readable text. Thematic content analysis, clarified by Barbour (2001) to include analysing transcripts and identifying themes within the text, was used to analyze the qualitative data collected from the interview. To ensure that the data analysis was more thorough and minimised bias factor, I used the interrater reliability method, where Mays and Pope (1995) described as a situation where an experienced qualitative researcher independently checked interview transcripts and data analysis and emerging themes. The

researcher coded the transcribed data and notes taken from the field. The coding was done by looking at recurring responses on the broad themes in analysing the data by grouping the like responses for synthesis, analysis and writing them into readable prose. Information from other documents related to the topic was also cited for complementing the findings from the field.

Ethical considerations

The following steps were taken to ensure that the ethics in research work was adhered to. First, I sought the consent of the interviewed people and introduced myself as a student undertaking research work purely for academic purposes. I took an introductory letter and ethical clearance from my department (Centre for African and International Studies). The introductory letter made things easy for me to be readily accepted by the community. Second, ethical clearance was sought before interviewing respondents, and a good relationship with the people was established for effective and credible data. Third, I sought the approval of the interviewees before recording the information since it contained their images and voices. Lastly, I made sure that the information provided by the participants was confidential and anonymous to protect my respondents from any troubles.

Limitations of the Study

During the data collection process, I encountered some challenges which delayed the process. Financial constraints in aiding the researcher to get to these chosen towns and rescheduling activities concerning this research were also difficult to overcome. Sometimes, those to be interviewed were unavailable due to their engagements and other unforeseen circumstances. But as a researcher, necessary steps like proper coordination to timeously meet

participants to bring the research program into fruition were taken to address the challenges faced during the data collection process.

Accordingly, some interviewees found it difficult to understand these issues, especially the Sustainable Development Goal 15, which restricted the researcher to choose from the few who knew. To address this challenge, I explained concepts to respondents who had issues with the SDGs but were knowledgeable in indigenous environmental preservation. It was also difficult to get participants who were readily available for the interviews and others who were unwilling because most Christians now consider indigenous environmental preservation practices idol worship or ancestral worship. Time scheduling was mutual as both parties found a favourable time to meet the respondents. With religion, I explained to respondents that I only needed their knowledge on the topic under study, this convinced them and therefore allowed me to interview them.

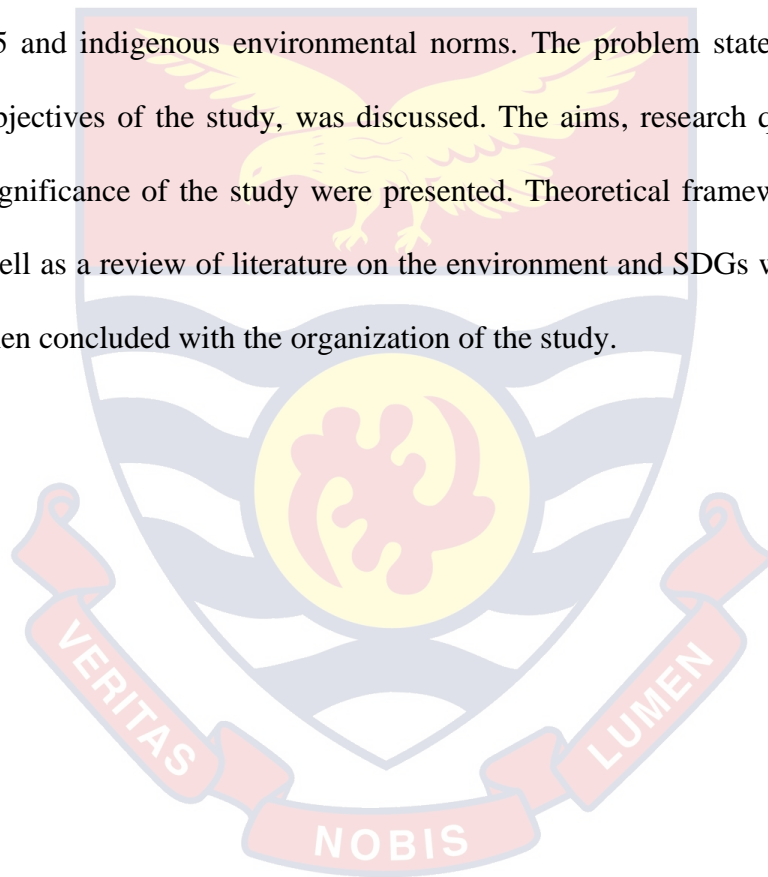
Organization of the Study

The study is organized into six chapters. Chapter one looked at the introduction (a brief background with the study's intent properly outlined based on the problem statement), theoretical framework, literature review, and study methods. The second chapter dealt with Fante worldview of the environment and indigenous norms used to protect the environment. The focus of the third chapter was on indigenous environmental norms and the change elements that have affected these norms over time in Fante communities. The fourth chapter looked at the SDGs and some modern environmental preservation models. Chapter five did a detailed assessment of which of the indigenous environmental preservation norms can be combined with the

modern conservation models to achieve SDG 15 of the UN. The last, chapter six, gave a summary and conclusion of the study.

Summary

The subject matter of this thesis was outlined in this introductory chapter (indigenous environmental preservation and SDGs) was put into perspective in the background to the study. I looked at the environment with specific emphasis on the development of degradation and situated it with SDG 15 and indigenous environmental norms. The problem statement, scope and objectives of the study, was discussed. The aims, research questions and the significance of the study were presented. Theoretical framework, methods as well as a review of literature on the environment and SDGs were done. It was then concluded with the organization of the study.



CHAPTER TWO

THE ENVIRONMENTAL WORLDVIEW OF THE FANTE

Introduction

Understanding the worldview or the cosmology of a group of people is significant because that will help one understand the people to be understudied well. This is because a group's survival hinges on its worldview. A people's worldview encompasses all spheres of life of the people concerning the universe. It is exactly so because one cannot roll out good policies for a group without understanding their worldview, which is highly influenced by their geographical and cultural setting. This chapter, therefore, examines the Fante cosmology and how it aided environmental preservation in Fante communities. Before discussing their worldview in detail, it is prudent to provide a brief history of the Fante, the people at the centre of this study.

The Fante

The study participants indicated that the Fante are believed to have migrated from the old Ghana Empire after it collapsed and first settled in Techiman as part of the larger Akan ethnic group. The Fante further migrated to their current traditional home (Mankessim) led by three great warlords, namely; Obunumankoma (the whale), Odapagyan (the eagle) and Oson (the Elephant). It is believed that Obunumankoma and Odapagyan died on the journey to Mankessim, so they were embalmed and carried along. They were buried at a sacred grove at Mankessim, known as Nananompow (personal communication, Nana Ama, April 2020).

The Fante are located in the Central Region of Ghana and encapsulate towns such as Mankessim, Kormantse, Abandze, Anomabo, Moree, Asebu,

Cape Coast (Oguaa), Elmina, Komenda, among others. (Aidoo, 2011). The Fante are one of the ethnic divisions of the Akan. Arhine (2009) states that the Fante can be found in the South-Western beachfront area of Ghana from Pra in the West to about 24km West of Accra, the present capital of Ghana. Toward the south is the Atlantic coast dapped with Dutch and British exchanging fortifications, sharing boundary to its North is the Ashanti Kingdom. A couple of them are likewise found in Yamoussoukro in La Cote d'Ivoire (Aidoo, 2011).

The conventional states which make up this ethnic gathering incorporate the Assin, Fante, Asebu, Efutu, and Etsi, with the Fante individuals practising social and semantic impact over the others (Arhine, 2009). Arhine further reiterates that this procedure of social combination is still ongoing since groups of unadulterated Efutu, Etsi and others are still found in the Central Region. It is now evident that the principal Fante states include Mankessim, Abura, Ekumfi, Nkusukum, Ogua (Cape Coast), Eguafu, Dena (Elmina), Efutu, Asebu, Etsii, Komenda, Shama-Adjumako, Gomoa, and Anomabo (Arhine, 2009).

The Fante is a matrilineal group organized under seven clans, with each clan tracing descent to one apical ancestor. The economic activities the indigenous Fante rely on for their sustainability are predominantly farming, hunting and fishing. This is largely due to their geographical location. On this note, it has become prudent to discuss how they view and relate to the cosmos. Other authors like (; Aidoo, 2011; Arhine, 2009; Ross, 2007; Henige, 1973, etc.) have extensively written on Akan ethnicity.

Worldview

Worldview as a concept culminates in all spheres of reality and disciplines. It has cultural, philosophical, economic, political and many other dimensions explored by different scholars based on their interests. The emphasis of the worldview in this regard will dwell mostly on the cultural underpinnings of the worldview. In literal terms, scholars often use the term worldview to mean vision of the universe, how it works, and how it works on individuals' fate (Underhill, 2009). Chalk (2006) stated that it includes explaining the philosophical factors inherent in interpreting their version of the truth to examine a people's worldview. Chalk further said that it is essential because a people's worldview determines their belief and belief determines people's attitude and behaviour which is also selected based on anticipated consequences and experiences.

Defined differently, worldview means a collection of fundamental concepts individuals have formed to describe reality and their role and function in this universe (Mkhize, 2004). This means that people's worldview comprises all they feel about nature and how they relate with them. This also reflects in a definition given by Kraft (1999), who defined a worldview as a collection of culturally structured assumptions, principles and commitments that underlie people's interpretation of reality and their reaction to those perceptions, and that a people's worldview cannot be isolated from their culture. Worldview attempt answers to the model of reality as a whole. The model of the past, the future, the theory of values, the theory of action, and the theory of knowledge about nature fall within the worldview scope. In more

simple terms, a worldview can be the collection of concepts and ideas that allow a group of people to construct an entire image of the world.

Fisher (2012) categorized the types of worldview under three main themes. First, he mentions naturalism with agnosticism, atheism, existentialism, Marxism, materialism and secular humanism as loose sub-groups. Second, Fisher (2012) mentions that theism can be split into Christian faith, Islam and Judaism, both monotheistic and thus pantheistic, including Hinduism, Buddhism, Taoism, and the Modern Age. The Fante Indigenous Worldview

The participants indicated that the Fante worldview is theistic, i.e., the belief in the Supreme Being as the highest authority, followed by the gods, ancestors, talismans, and amulets. This entrenches the position of the belief in supernatural entities. The respondents further noted that the belief in supernatural entities affects the social, religious, economic and political life of the Fante and how they approach the cosmos.

Belief in supernatural entities

The consensus among participants was that the Fante conceive the world to comprise the supernatural and the physical, but in all dealings, the supernatural supersedes the physical. This viewpoint is supported by Larbi (2002), who posits that the Fante, a sub-group of the Akan, just like other African societies, believe that all that happens to man has a religious dimension and interpretation. The participants further reiterated that the Fante are also of the view that beyond the physical is spiritual; i.e. behind the seen is unseen and that all the occurrences on earth can be traced to a spiritual cause in the spirit world. Therefore, the final heir lies the ultimate succour. This

ultimate succour is seen by Smith (1966) as the creator (*Nyame*) who is at the apex with gods (*Abosom*), ancestral spirit (*Nananom*), talisman and amulets (*Suman*).

The Supreme Being

In an interview with Opanyin Ebo Sam (15th February 2020), he explained that the Supreme Being (*Nyame/Nyankopon*) is believed to be a spirit that has no image representation. This is evident in the Fante proverb ‘*se epe biribi aka akyere Nyame a, ka kyere mframa*’ (literally meaning; if you want to tell God something, tell the air). This is to echo the saying that God is spirit and cannot be conceived as a material being. The Fante worldview about the Supreme Being is that He is all-powerful and wields power. According to the participants, one striking feature among the Fante is that God is clear and evident in society to the extent that it is unbelievable for someone to deny the existence of God. Mbiti (1990) wrote that the Supreme Being is not a stranger to African societies. This is to say that in African indigenous life, there are no atheists (persons who disbelieve the existence of God). The Fante captured it in their proverb, “*obi nkyere abofra Nyame*” (No one shows a child the Supreme Being). That means that all human beings, including children, know the existence of God almost by intuition.

In an interview with Nana Tandoh, a sub-chief of the Asebu Traditional Area (19th February 2020), he posits that God is regarded as the creator (*Oboadze*) of all power, justice, generosity, omniscience and eternity are ascribed to. He is the centre of all power, and he has power over life and death. He rewards people and rebuffs them when they go wrong. God is believed to be inherent, just as unavoidable. According to him, *Nyame*, in this

way, is acceptable to be available and dynamic in people's affairs. Parrinder (1949) is of the view that the Akan at large perceives God as the protector of the universe, and He is acknowledged most of all as to what He is agreed to do for humankind. In this way, God is described as the provider of sun '*ɔma ewia*', provider of water '*ɔma nsu*', the giver of rain '*totrobonsu*' and the dependable one '*twerammpon*'.

Opoku (1993) reiterated that customary names, characteristics, fantasies, images, maxims welcome, and regular platitudes express God's transcendence, omniscience, goodness, trustworthiness, everlasting status, and different convictions in him. He is not revered straightforwardly. Notwithstanding, he is called upon for help amid an emergency. Along these lines, there are not many ways to deal with God. There are no standard and formal religions to God. Opoku (1993) further noted that most Fante family homes had shrines that constituted a pot, a tree (*Nyame dua*) or a stone devoted to God in the distant past. The participants revealed that the Fante see God as both male and female. In this way, *Obaatanpa* (good mother) fits mother while *Twerammpon Kwame* depicts a male character. The female guideline is symbolized by the moon, which made individuals with water.

The sun symbolizes the male guideline. The sun shot nurturing discharge into the human veins and made individuals live. God is seen as extraordinary in that it takes intermediaries who are known to be the one's in-between God and humankind to interact with the Supreme Being through divination and incantations. That is to say that God interacts with humankind, and humankind likewise interacts with him through deities and ancestors, a notion supported by (Opoku, 1993).

The gods/deities

The participants also revealed that the Fante believe that there are other spirits aside from the Supreme Being. These spirits are groups that are unseen beings and are called *abosom* (gods/deities). Nana Tandoh mentions *bosompo*, *akɔtser*, *mboatsia*, *benya*, etc., as examples of such deities. Cleal (2005) writes in support of the above that there are several of these gods, which number up to seventy-seven (*abosom*) in *Oguaa* (Cape Coast). As mentioned by Cleal, this figure is believed to be pneumatic, which means that new ones can be added at any time while many others can become obsolete. The deities are considered children of the Supreme Being, which is evident in the statement '*abosom nyinara yɛ Nyame mba*'.

These spirits inhabit trees, land, sea, water bodies, rocks and air. Although the traditional folks believe them to be the children of the Supreme Being, it is not in the biological or sexual sense but a power relation that shows the existence of their power next to the creator. Some of the *abosom* are believed to have a constant place, especially those whose abode is water bodies and trees, while the others can move or dislocate to a different location where there are other spirits or a place where human beings can constantly commune with them. This communication with *Nyame mba* (deities) is vital for the human community because the deities and the ancestors serve as a link or intermediaries between the Supreme Being and humankind.

According to the participants, another general belief about these deities among the Fante society is that they were created by Nyame, the Supreme Being, to perform specific roles. That is, it is not on their own volition that they came into existence. Because these gods are creatures of the Supreme

Being, their power is limited to the performance of specific functions and could not enjoy the unlimited powers that the Supreme Being possesses. Cleal (2005) further wrote about other forms of deities in the following words;

Other *abosom* are associated with artificial objects. The household *bosom*, Abam Kofi, has two raffia bags for twins as the objects within the house or compound through which the *bosom* can be contacted and served. One person is designated the custodian for such objects, while an *Ɔkomfo* (priest) or diviner or family head will be responsible for serving the *bosom* (god) by performing the customary seasonal rites. The spirit *bosom* possesses any person destined to be their future servant.

The above view by Cleal means that these deities have designated cults or shrines (*abosomfie*) for their worship. A *Komfo* (priest) is seen as the servant of that deity and becomes the intermediary between the *bosom* and the individuals who worship the said deity. One striking feature of these deities relevant for this study is that they are just and reward deserving individuals and punish wrongdoers.

Ancestral spirits

The belief in ancestors is a widespread conception among all Akan communities, according to participants interviews. Opanyin Kofi Akyen said:

Accordingly, belief in the continued existence and influence of the departed fathers of the family and the ethnic group is very strong in all Fante societies. Not only are the ancestors seen and respected as former heroes, but they are often assumed to be still present, watching over the family, closely concerned with all matters of family and land,

giving ample harvest and fertility. The Fante claim that the ancestral spirits are the guardians of the values of the ethnic group and history (personal communication, Opanyin Kofi Akyen, Kormantse No. 1 Asafo Company, 9th March 2020).

This assertion implies that the secrets, professed ignorance, and the obvious falsification of tradition and custom that draw the enquirer's attention into local history are under their care (Parrinder, 1969).

On his part, Pobee (1979) reiterates that the ancestors (*Nananom nsamanfo*) remain one of the significant religious traditions among the Akan and observes that the cult of the ancestors remains the most potent aspect of the Akan religion. The term ancestor was defined by an interviewee to mean the Akan community members who have completed their mission here on earth, led a respected life worthy of emulation and have gone to the higher world (*samanadze*) to be the elder of the living in a place designated to them by the Supreme Being. For the Fante, a person who qualifies to be an ancestor must be a male or female who lived exemplary life while alive and has exited naturally to the spiritual world. This means that not all Fante become ancestors when they die; therefore, the cult of the dead should not be equated to the ancestorship position. In this regard, however, the ancestor is a saint in the Fante society and is perceived by the living as a person who had lived a good moral life worthy of being emulated. Therefore, the ancestor is an ideal Fante, an immortal, dignified and venerated person who is the mediator between God and their clan or Kindred. Another important role of the ancestors is maintaining the bond of relationship between the individual Fante and the community.

The participants posit that in the day to day activities of the Fante, the ancestors remain a significant part of it. They state categorically that this notion is evident in the daily speech (especially during the pouring of libation) of the Fante. Some participants also believe that the use of the term *nananom nsamanfo* has become an unconscious phrase in the daily activities of the Fante. One participant notes, “We call on our ancestors in times of trouble because we believe that they intercede for the family since they have the welfare of the family at heart”.

Dickson (1984) supports this stance and indicates that ancestors remain a significant part of the Akan community. They are believed to be guardians of land, rules and customs. Being the guardians of law and morality, they have the power to punish wrongdoers and, in the same regard, reward deserving individuals. This is to ensure cohesion in an already existing orderly society. The Fante contact the ancestors by placing food on their respective altars that is a representation of them and also calling out their names during libation pouring, for it is believed that the ancestors keep living the same kind of life they lived while alive and that they need food and drink in their eternal state of existence.

Thus, offerings are made to them, either by individuals, regularly or by religious leaders performing on behalf of the entire community during festivals or rituals. It is also believed that their ancestors visit members of the family in a dream and vision. Sometimes, the ancestors disguise themselves as living humans to help their family members when they (alive family members) need help. The Fante believe that the dwelling place of these ancestors is the *nsamanpɔw mu* (forest for the dead); hence, the forest constitutes a bulk of

sacred groves that spread across the Fante communities, including the most famous *nananompɔw* in Mankesim must be kept sacred.

Talisman and amulets

The participants are of the view that the Fante also believe that some artificial object possesses spirits. These spirits are termed *suman* (talisman and amulets) and comprise objects such as amulets, charms, mascots, juju, etc. A participant had this to say on the existence of talismans and amulets in the Fante community “the concept of *suman* is present in our every usage of our language. For example, the proverb *Kontrofi se ne suman nye n’enyi* (the chimpanzee says his talisman or amulet is its eyes) proves that there is the usage of the word in our community”. This means that the main source of protection for the chimpanzee is its eyes. This points to the fact that talismans and amulets are meant for protection, i.e. to ward off evil spirits and calamities on an individual who possesses them. Smith (1966) observes that the *suman* is a universal concept in Akan societies. This *suman* are of many types and made with a strange variety of substances including fibre, the skin of wild animals, the horn of animals, claw of other animals mostly leopard's claw, the tail of animals especially porcupine, shell, feathers, beads, etc. are usually smeared over with eggs laid by a local hen and blood of fowls sacrificed on them.

The participants further revealed that the indigenous Fante possessed *suman*, which were meant for protection and were mostly hanged around the neck, wrist and waist, even for infants. Other amulets are kept in secrecy, mostly under beds, pillows, and other parts of one’s inner room. Smith (1966) further notes in agreement that these talismans and amulets obtain their powers from the *mmotia* (dwarfs) and *sunsum* (spirit) of plants and trees. It is

important to note here that the Fante believe that animals and plants possess spirits aside from the deities who are believed to use them as their abode. These powers of the talisman and amulets are not derived from the *abosom* (gods), although the priests of the *abosom* are often covered with charms and put great reliance on their efficacy. These amulets and talismans help allow individuals who believe in them to heed the numerous taboos associated with the dwarfs and the spirits in the plants and animals, consequently leading to environmental preservation.

Traditional Environmental Worldview of the Fante

The varying perspectives about how genuine our environmental issues are and what we ought to do about them generally emerge from contrasting environmental worldviews. A person's environmental worldview is how they think the world works, how they figure their role on the planet, and what the individual accepts as good and bad environmental behaviour (environmental ethics), which depends on the cultural setting. This has been a great deal to the International community because of the environmental problems (climate change) that engulfed the globe.

Over the years, human activities have been recognised as a focal instrument for altering the environments on which our life and all other living organisms rely. It is understood that increasing awareness of the need to introduce more sustainable models of development lends credence to claims that we are in the middle of a profound re-evaluation of the underlying worldview that has guided our interaction with the physical environment (Dunlap et al., 2012).

Environmental worldview is people's perception about worldview theories and principles related to human interactions with the natural environment and their milieus and consequences. The key elements of the world view of the earth are the protection of the planet and all its inhabitants, allowing selflessness to regulate the immediate self-interest that hurts others and living every day to leave the smallest possible footprints on the globe (Kaur, 2019). In the words of Xue and Zhao (2015), environmental worldviews are the standards or decisions that are important to specific instances in which individuals and groups are pretentious and can enact behaviours out of it. This definition stems from the environmental determinist point of view and also from the environmental possibilist school. That is more like a mid-way point where the environment exerts a degree of influence on the individual and, at the same time, the individual exercising control over the environment to meet their needs.

This study employs the definition of environmental worldview given by Miller & Spoolman (2008), who simply defined it as “what people believe as right or wrong environmental behaviour”. Based on the above definition, three worldviews that protect the environment can be looked at. They are biocentric, ecocentric and anthropocentric. Biocentrism is the view that humans are at the same level as animals. They believe that humans are not superior to other animals. They deter killing any animal because since killing a human being is wrong and unaccepted in all known human societies, biocentric people believe that all animals should be treated the same as human beings. People who hold this view mostly fight for animal's rights. According

to biocentric theorists, all animals have an intrinsic value, and all modes of life have an inherent right to live.

The ecocentric environmental worldview has it that the environment has a moral consideration; it does not associate itself with human interests and activities. This worldview identifies the need to prevent the extinction of some species with a strong emphasis on the essence of protecting the ecosystems that these species live. The third type of environmental worldview is the anthropocentric worldview. The anthropocentric worldview states that the protection of the environment is human-centred. Anthropocentric environmental people most at times believe that it is the role of humans to be controllers of nature. They, however, think that humans have inherent value; humans are important simply because they exist. Nature, at the other breath, has influential value; its worth is determined only by its usefulness to humans.

Fante indigenous environmental worldview

When the traditional Fante environmental worldview is mentioned in this context, it means the Fante indigenous people's notion or how they understand themselves and the cosmos and the necessary interactions or relationship they should have with the cosmos to make life lively. This, in simple terms, explains the Fante people's understanding of the universe or how they perceive the environment. This was in line with Barker (1999) when he wrote that Worldview could be defined as a way a person tries to understand their relationship with social structures, nature, things, peoples and spirituality. Asante (1987) also noted that the African worldview is based on African cultural traditions, customs and values. Kalu (2001) rightly reiterated that the African traditional cultural pattern is influenced by worldviews which

serve as a medium of transferring knowledge from generation to generation. They are stored in myths, proverbs and folklore.

My participants indicate that the Fante, a sub-group of the Akan like all the other Akan, believe that the environment has two natural and supernatural components. In an interview with Supi Kwame Amoyaw, the Supi of the Asafo Ntsin Number 3 Company in Kurowfofondo in the Oguaa Traditional Area (26th January 2020), he stated that the cosmos is made up of two entities that are the physical and the supernatural. He explained the physical to include the tangible environment (man and his surroundings) while the supernatural comprises the Supreme Being, gods, ancestors, and other spirits). Supi Kwame Amoyaw further noted an interaction between the physical and the supernatural where a harmonious relationship brings about peace and development.

Supi's view confirms Ameh's (2013) findings of the Akan worldview, which stipulates that the Akan worldview of the world consists of the supernatural, the spiritual, and the living, which is also seen as the physical. Ameh further maintains that the supernatural has control over the affairs of the physical. However, for humanity to achieve balance and enjoy the good things that life brings (such as fertility, development, bumper harvest, good health, etc.) and prevent the occurrence of undesirable things of life (including sudden deaths, incurable diseases, famine, recurring accidents, drought, etc.), there is the need to grasp the wide-ranging constituents of both the supernatural and the living aspects of the universe and how to relate to each of them harmoniously (Ameh, 2013).

It has already been established that the Akan worldview is a theistic one which means that they see the universe and its accomplishments as one God creates. The burden, therefore, lies on them to be the major responsible stewards of the environment. They are convinced that this responsibility is a religious one since religion encompasses all spheres of life of the Akan, the Fante (Awuah-Nyamekye, 2009a). The Africans believe that everything belongs to the earth and the environment has a strong metaphysical connotation for human beings (Awuah-Nyamekye, 2009b). This means that they accept responsibility for environmental accountability individually (Beavis 1994).

In an interview with Nana Mbir, a sub-chief of Edina Traditional council (11th March 2020), he states that the Fante, therefore, are of the view that an individual has the responsibility to manage their natural resources for the benefit of the current and generations yet unborn. This is because man's physical life and existence depend largely on the universe that is the necessities of life, which comprises food, water, air, shelter, etc., which are derived from the physical environment. The Fante believe that the command that God gave to humankind in Genesis 1:28 "And God said unto them, be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (KJV) is an indication to humanity that they are to be caretakers of nature but not a destructive agent of nature because man is to take dominion over the other creatures. Awuah-Nyamekye (2009a) had a similar finding from his study of some groups of Akan (Brekum Traditional Area).

The participants posit that the Fante attach spirituality to most occurrences in their life and that religion permeates all spheres of life of the Fante. For this reason, the environmental worldview of the Fante is strongly attached to religion. This viewpoint aligned with Mbiti (1990:1) when he wrote that the African in which the Fante is a sub-group is notoriously religious. This, however, informed the Fante to use their religion to enact norms and taboos to enhance environmental sustainability. Awuah-Nyamekye (2009a) emphasizes that because of the presence of the Akan religion and the crucial role which the environment plays in the life of the Akan, there is severe punishment for any person who violates any of these environmental norms and taboos of the society.

In an interview with Nana Ama Amissah, Queenmother of Mankesim Traditional Area, (8th March 2020), she shared her thoughts on the world view of the Fante;

We *Mfantsefo* (Fante people) attach serious importance to the environment, and therefore, there were some practices and concepts that our ancestors used to protect the environment. Our ancestors enacted norms to protect these concepts and practices since man's life is dependent on them. Some of these concepts and practices include *ɔw a w'abɔ ho ban*, forest preservation (sacred groves), *nsutsen nye nsutae* water bodies, the concept of *asaase* land, the concept of animism and totems.

Forest preservation (sacred groves)

The Fante had the concept of sacred groves as a prominent tool in their environmental worldview. The participants postulate that there were forest

reserves in all indigenous Fante communities and that these reserves were believed to be the abode of either the deities or ancestors. One participant remarks:

Sacred groves are mainly *pɔw a hɛn egyanom bɔɔ ho ban mber pii a aba sen kɔ* (forests that our ancestors guarded in the past). The sacred groves are mostly protected because of some reasons best known to the rulers of such area but mostly because it is believed to be the abode of deities, dwarfs and the burial place for prominent ancestors in the community. Individuals are prohibited from either farming or hunting in such reserves but permitted to fetch firewood and hunt in it during some periods of the traditional calendar year, which needs a game from the reserve for the performance of rituals (personal communication, Opanyin Kofi Akyen, 27TH March 2020).

Awuah-Nyamekye (2009a) observes that sacred groves are usually the traditional forest reserves protected strictly for centuries due to their sacred and cultural importance. Groves are generally explained as areas of forest vegetation allocated by the traditional authorities in their respective communities where they live. They have the community's culture, history, and religious concerns attached to them (Ntiamoah-Baidu, 2008). Scholars over the years have observed such practice in traditional Akan societies and even throughout Ghana. There is evidence to prove clearly that the idea or practice of sacred groves is common in Africa and Asia. (Awuah-Nyamekye, 2009; Chouin, 2002; Fomin, 2008; Laird, 1999; Ntiamoah-Baidu, 2008).

According to Nyamweru and Kimaru (2008), the sacred groves range from a few hectares to quite a sizable stretch of land in size. They are called

differently by different communities among the Akan groups. The Akan who speak Twi calls the sacred grove *kwaye yennɔ* that is a forest that people cannot cultivate (Ntiamoah-Baidu 2008).

A participant re-iterate in an interview with me in support of what Ntiamoah-Baidu (2008) states:

We (Fante) have two broad terms for sacred grooves, namely, *nananomɔw* (ancestors' grove) and *nsamanɔw* (ghosts' grove).

The *nananomɔw* is the widely used concept for the sacred grove in most Fante communities. The most popular one is the *Nananomɔw* in Mankesim in the Central Region of Ghana. Our ancestors saw the Forest as an important natural resource and a crucial element needed for survival. Therefore, they enacted laws that guided the use of the forest with religion and culture seriously attached to it (personal communication with Nana Tandoh, 19th March 2020).

The *nsamanɔw* and *nananomɔw* were areas in the Fante societies designated for the burial of prominent chiefs and that it was the abode of the deities and the ancestors. Hence, there was a restriction on the use of such areas. Such restrictions included a ban on visiting the grove during certain days and hours, hunting, cutting trees, and even using the pathway to other places.

Tuffour (1991) writes that the Akan view Forests as an important resource for humankind, so the Akan are guided by their way of life, including their religion, with well-articulated measures to protect the forests to ensure their sustainable use and, for that matter, achieve a balance between the

supernatural and the physical. Awuah-Nyamekye (2009a) writes the overriding conception of the sacred grove in the following words:

The Akan's main means to conserve forest is the institution of 'sacred forest/grove'. In Ghana, sacred groves are estimated to constitute the bulk of 1% of the forest that remains outside existing reserves. It is estimated that there are about 2,000 to 3,200 sacred groves scattered throughout Ghana. The groves are protected by local taboos, norms and belief systems in the rural communities. Failure to comply with the taboos and norms could result in ill luck, diseases, death or social sanctions. The institution of sacred groves abides in the Akan society because of the religious underpinnings attached to them. Such groves are believed to be the abode of the gods, ancestors and other spirit beings; they may also serve as a royal mausoleum for the community. Usually, all forms of vegetation and water bodies (many a time these water bodies are the reigning deities of the grove) in the grove are under the care of the reigning deity of that grove and thus, people are usually prevented from entering such places. It is usually the accredited members (usually priests/priestesses, chiefs, family heads, etc.) of the community that are permitted to enter the 'sacred groves to perform the necessary rituals on behalf of the other members of the community (259).

Land

The participants believe that land among the Ghanaian culture and societies is seen as a gift that the supernatural (*Nyame* that is God, who is the head of the supernatural and the creator) provided. They further state that the

Fante believe that the land (earth) was first given to their ancestors by the Supreme Being then to the subsequent generations and therefore should be handled with utmost sanctity and jealously guarded. Land in the Fante communities is seen as a social or a communal good that any individual does not own. This made it impossible to make the land a commodity to be purchased as it is in the modern era. Despite the land being a communal good, clans and lineages owned portions of the land and gave it to clan members to cultivate. Since it was seen as a divine gift, necessary taboos and norms were enacted to safeguard it. Asiama (2003:17) puts the general Ghanaian conception of land as:

Religious beliefs and practices characterize land ownership in Ghana. To the northern ethnic groups, the land is a sacred trust of the ancestors, whose labour won it and preserved it for the use of their descendants; it belongs to them, and the belief is general that to sell land is a sacrilege. Amongst the Ga Mashie, the land is considered to be owned by the lagoon gods. According to Fante folklore, the land is a supernatural feminine spirit with Friday as its natal day; hence, its name, *Asaase Efua*, can be helpful if propitiated and harmful if neglected.

This implies that the Fante concept of land (*Asaase Efua*) has significant importance that cannot be taken for granted. In this regard, *Asaase Efua* is considered one of the most important deities. Opoku (1978) opines that the Akan see the earth as a goddess and, in most indigenous societies, the drinks that are used in offering libation are received by the earth deity *since*

yekyerε Nyame nsa na *yemma* no nsa (meaning we show our drinks to God but do not give him to drink).

In explanation to the above proverb in an interview, Nana Kofi Amoah (9th April 2020) opines that the Fante give reverence to the earth deity by setting aside a special day in her honour. In some societies, it is called *Asaase Yaa*, where the *Yaa* here is a female born on a Thursday and the *Asaase* as the earth as already noted above. One important thing to note is that the Fante people set Friday and Tuesday (when *Bosompo*, the sea deity, operates) which is a day designated to the fisherfolks as a rest day where no economic activities are done. However, this is done to allow the individuals themselves to have a rest day and allow for sanctity to prevail on the earth.

This viewpoint is elaborated by Parrinder (1969) when he avouches that the earth deity is the next great deity in order of relevance revered by the Akan and is most of the time regarded as the orchestra of *Nyame* in the sky. Therefore, the Akan regard it as a female and called *Asaase Yaa*, or *Aberewa* (old woman) by the Ashanti, while the Fante call it *Asaase Efua*. Thursday then becomes a day set aside for mother earth. No farmer in the Ashanti land would till the land on this day. The participants affirm that *Efua* is also a Fante name for a female born a Friday; likewise, the Ashanti and the Fante have also set this day apart where there are no farming activities. A participant avers on the above in the following word:

The sacredness of the land has religious significance and also can serve as a day for resting to human beings, animals, forests, lakes, rivers and all things that has a relationship with the land. Working on a sacred day and performing certain acts on the land is considered hateful and

taboo by the goddess and is severely punishable by folk-law. The earth finds certain things to be taboos. These taboos include tilling the land on sacred days, having sexual intercourse on the bare floor, particularly in the bush, delivering women of their baby in the bush, burying dead expectant mothers without removing the foetus etc. When one kills or spills blood on it, it is a sacrilege and when one refuses to seek permission before digging a grave, etc. A breach of any is dire and therefore considered as a defilement of the land. A serious sin against the earth goddess and for the fear that calamity will befall the land, it is expected that purification rites will be performed either by the person of whose actions is the cause of that calamity that has befallen them or the religious leader, who can either be a priest or a chief can stand in for the community and perform such needed rites as instructed by the spirits to restore the severed relation or else misfortunes will follow the perpetrator(s) or even the whole family in some cases. The consequences may be a strange disease, a poor crop yield, death, etc. (personal communication with Nana Ama Amissah, 23rd March 2020).

Awuah-Nyamekye (2009a) has a similar response from his study of salvaging nature: the Akan religio-cultural perspective among some selected Akan communities.

The participants further maintain that the earth deity has the indigenous farmers' huge and special respect because she (the earth) is responsible for a bumper harvest. Also, the ancestors are connected with her and chiefs who rule over the land are bound to respect her. The Fante's respect for the earth

leads them to preserve and protect the land from degrading or losing its fertility. Though the taboos were religiously backed to put fear in the people, upon proper scrutiny, it can be observed that the taboos were meant to check environmental pollution as we have today and other excesses of human behaviour or conduct.

Water Bodies

Another area that cannot be left out when discussing the environmental worldview of the Fante is their view on water bodies. Parrinder (1974) was of the view that the indigenous Fante people view rivers and other water sources, such as the sea, lagoons, lakes, etc. as sacred entities, much as the Egyptians see them, and so they put firm religious prohibitions to regulate the use of these water bodies. Parrinder (1969) said that the Akan gods are mostly trees or water gods. They are called the children of *Nyame* (God) and contain some of his being and force. The participants maintain that because the gods are associated with the water bodies, there are taboos that the traditional Fante enacted to preserve these sacred entities. For example, it is taboo to defecate into or near a source of water, and menstruating women were forbidden to even go near water bodies, swim, cross or fetch water from a river. This is done for the fear that the menstrual blood flow will nullify the potency of the deities, and the deity in return might not give them the blessings and bountiful harvest they need, or in worse cases, the deity may either be forced to move and relocate from its habitat or bring them diseases or death by placing a curse on the land. The motive here is to prevent the menstrual blood from polluting the water body and farmland. This would enable all dependent on the water

bodies and the land to see its full yield and have a sense of satisfaction of the source that serves them, be it the land or water bodies.

In an interview with Supi Kobina Mina, Supi of the Asafo No. 6 Company in the Oguaa Traditional (13th March 2020), he avers on indigenous preventive measures for water bodies below:

Preventing people from farming close to water bodies prevented the destruction of vegetation cover around water bodies, leading to the eventual drying up of the water bodies. The motive of not allowing animals to graze near water bodies or drink directly from a water source was to prevent rainwater from washing the faeces of the grazing animals into the water bodies and, even worse, the livestock defecating into it. The fishermen in the coastal towns of the Fante land reserve Tuesday as a sacred day and hence do not go fishing on such a day. This is because the day is seen as a sacred day for the Sea goddess (*Bosompo*).

Writing about the Fante along the coastal stretch, Awuah-Nyamekye, (2009a) posits in support of the above notion from the participant that apart from the religious implication of the Tuesday, the practice is seen as a way of giving the sea a breathing space to replenish its fish and also serve as a rest day for the fisher folks as they use it for social activities such as naming ceremony, marriage, communal labour, funeral, etc. Some also use the day to mend their nets and repair other broken tools they use for fishing.

The interviewees divulge that the lagoons and lakes found along the Fante coastal towns are revered. Society has mechanisms to regulate the usage of the lagoons and the lakes. The traditional authorities in the Oguaa

Traditional Area and the Edina Traditional Area regulate fishing activities in the *Fosu* lagoon and the *Benya* lagoon, respectively. When the *Fetu Afahye* (the annual festival celebrated by the people of Cape Coast), as well as the *Bakatue* (the annual festival celebrated by the people of Elimina), are approaching (from July – September), the traditional authorities in these two traditional areas place a temporal ban on all fishing activities in the respective lagoons. Awuah-Nyamekye (2009a) believes that fishers in Cape Coast can return to their fishing activities in the *Fosu* Lagoon only after the celebration of the *Fetu* Festival. At the same time, their counterpart in Elmina can also fish in *Benya* Lagoon after the *Bakatue* (literary, the opening of the lagoon) festival. Rituals are performed in which the Chief and the Chief fishermen (*Apofohen*) cast their nets to harvest some fish.

The participants once again state that a significant thing during this ritual process is that the catch that is made will determine the year's catch (that is, a bumper catch during the process means that there will be bumper catch throughout the traditional year. The reverse is also true). This ban is important because, apart from the religious connotations, it helps the fishes in the lagoon breed and increase their numbers and serve as a rest period for fisher folks who use the two lagoons. The authorities ensured that individuals who did not comply with the laid down norms, including fishers who did not use the appropriate tools and fishing methods, were severely punished even though they strongly believed in punishment by the gods.

The concept of animism

The participants divulge that the indigenous Fante's main environmental worldview that helped preserve the environment was through

the concept of animism. This section seeks to address using taboos and totems to explain it. The concept of animism in this context is explained as the belief that objects and natural phenomena (animate or inanimate) are inhabited by souls or spirit beings (Parrinder, 1969). The belief is widespread in all Akan Indigenous societies. This is because, aside from the Supreme Being who is believed to be at the apex of the hierarchy of supernatural entities, the deities or the gods who are known as *Nyame mba* in Fante are believed to be living in stones, trees, water bodies, etc. which is in line with the concept of animism. Parrinder (1969) further states generic gods of the storm, mountain, wind, and sea. Special stones are associated with the thunder god, and granite and laterite rocks are sacred to the spirit of the earth. Most rivers are sacred; many rules over a pantheon of gods, like Fosu of the Dante in Cape Coast.

The next section of this chapter looks at some norms directed towards environmental preservation based on the discussions so far of the Fante since their worldview bothers around supernatural entities and interaction with their environment. The participants agree that the Fante ancestors used various means and norms to preserve the environment. Some of the major means and norms outlined by the participants include the belief in totems, belief in taboo days, ban on economic activities, and sacred groves.

Specific Indigenous Fante Environmental Norms Directed Toward

Environmental Preservation

Taboo days

Dosu (2017) defined taboo as a prohibition or a mere ban. The participants, however, defined it simply as a religious restriction that will incur an instant and automatic punishment when violated. Taboos can, therefore, be

seen as an obligatory task rather than an option for the individual to obey or not. Failing to observe or break a taboo is an offence against ancestors and the Supreme Being (Fisher, 1998). For this reason, Scanlan (2003) writes that punishment from the flouting of taboos mostly was from the Supreme Being, Ancestors or spirits. The punishment for breaching taboos ranged from crop failure, famine, drought, hunting accidents, drowning, low fish catch, etc. Aye-Addo (2013) posited that taboos have an unending interconnection between the visible and the invisible and that this connection can be seen in the taboo itself and the ancestors. The connection between taboos and the ancestors correlates implications for how humans relate to their physical environment since it is considered the abode of ancestral spirits and the deities (that is, they live in trees, rocks, and rivers).

Across all Akan communities, there is a day set aside where there is no economic activity. Parrinder (1969) states that a day is set aside across Akan society to revere the earth goddess. The Ashante have Thursdays, while the Fante have Fridays for those inland and Tuesdays for Fisher folks.

Among the Fante on the coastline of Ghana, there is a taboo that makes Tuesday a sacred day; hence, the fishermen do not go to the sea and the lagoons on the said day to fish. This is a point held by Ntiamoah-Baidu (1991) that there are taboos and sacred days associated with lagoons, which are set to protect the lagoon habitats that is to allow the fishes to breed, help reduce fishing pressure on the lagoon resources and the Fisherfolks using the day to attend to their social activities. In an interview with Maame Ama Amissah (27th February 2020), she indicates that the Fante in the hinterlands who are farmers also have a day aside when there was no farming and even hunting

activities. Those who have rivers and streams also had a day when the water body was not visited. These assertions are mostly evident in stories, folklore, proverbs, etc. One of such folklores is narrated by her in the lyrics of the song below:

Wɔma Abena n'anko nnkɔ 2X allow Abena to go alone 2x

Abena rokɔ ewiaber nsu Abena is fetching water in the afternoon

Abena nnya obi nsoa no Abena needed a helping hand to carry

Mara Kuku kɔsoa no a I, Kuku helped her to carry

Abena ka fa adze bekye me oo Abenaa!!! Abena catches me as a fish

This is about a lady (Abena) who went to fetch water on a taboo day, and the river deity called Kuku came in the form of a fish to come and help her carry her load of water, but Abena caught her (Kuku, the deity who's turned into a fish) for food. So as a punishment, the deity hunted and tormented Abena till she died. This is mainly a caution to put fear into people who would like to defy taboos. Many of such stories could be found across most Akan societies and even West Africa as a whole.

The taboo day is one of the indigenous Fante environmental norms still prevalent but has gone through some changes over the years. It is important to note that the day set aside as a taboo day where there is no farming activities differs from town to town or area to area. While some have it on Tuesdays, others observe it on Wednesdays depending on when the deity operates (personal conversation with Nana Ama Amisah, Queen Mother of

Mankessim Traditional Area, March 2020). Supi Kobina Mina speaking about these taboo days, states that:

The customs I came to meet include no fishing on Tuesdays in the coastal areas, and this taboo is strictly adhered to even today. The day was set aside to mend their net and work on the beach (communal labour). In the forest areas, Fridays were also set aside where they did not till the land. Today, a handful of people go fishing during Tuesdays because the laws have been relaxed (personal conversation with Supi Kobina Mina, Supi of Asafo No.6 Company in Cape Coast, March 2020).

Totems

Parrinder (1969) articulates that the word totem is used to indicate emblems or images by communities and clans to represent most of the animals or plants to which the clan was named. Parrinder further reiterated that in West Africa, certain animals and trees could be called totems of some clans; though they do not necessarily worship them, they are revered. Animals are often taken as family symbols. The most popular are the elephant and the lion, who are mostly deemed royal animals because they are resilient. Lions and leopards are also modelled in clay as statues outside the palace and houses of kings and chiefs, while the elephant is used as a royal stool.

The Fante mostly see totems as *ebusua asenkyeredze* (family emblem, symbol or image). Awuah-Nyamekye (2013) asserted that totems are used to refer to animals, trees, images, symbols or representations representing a clan or a community. The interviewees reiterate that the Fante mostly trace the origin of this *ebusua asenkyeredze* from the animal helping a member or the

leader of that particular clan or the ancestors tracing their origin to such plant or animal. Members of the clan with these symbols are forbidden to hunt them or even eat their meat, while objects are also prohibited from being used in any form. This concept helps in resource conservation and the preservation of endangered species of some animals.

For instance, since the Anona Ebusua used the parrot (*ekoo*) as their totem, it was forbidden for the Anona clan members in all Fante communities to hunt them and use them for food, but rather, they could use them as their pet which helped the preservation of the parrot from going into extinction. One significant thing to note is that each clan has totem(s), which means that all individuals in the Fante state had a responsibility to protect and conserve an object (either plant or animal) that they are forbidden to cut or use as food because it is their family emblem, and in extreme cases, these animals are seen to be part and members of the family. The under-listed is a table indicating the seven clans, their totem and attribute(s).

Table 1: Clans and their Totems

| Clan (<i>Ebusua</i>) | Totems (<i>Nsenkyeredze</i>) | Attribute/ Appellation (<i>Huandzin</i>) |
|------------------------|--|--|
| Anona | Parrot (<i>ekoo</i>), Hawk (<i>Sansaw</i>) | <i>Okusubentsir</i> |
| Nsona | Crow (<i>Akonkoran</i>) | They don't fight in vain (<i>wɔmmper kwa</i>) |
| Twidan | Lion (<i>Twi anaa sebɔ</i>) | A lion that ate flesh (<i>twi a odzii amon</i>) |
| Aboradze | Plantain (<i>Boredze</i>) | <i>Twiifo</i> |
| Ntwea or Ntwaa | Dog, <i>Bɔdɔm anaa</i>) <i>twaa</i> | <i>Birekwam</i> |
| Kɔna | Buffalo (<i>Eko</i>) | I did not go into extinction (<i>m'ase enntu</i>) |
| Adwenadze | Mudfish (<i>adwen</i>) (<i>Dwen a Aberwatsia nye ne mba tse ase ma abowa twi da do</i>) | <i>Okusubentsir</i> |

Source: Fieldwork (2020)

Ban on economic activities

The participants state that across the length and breadth of Fante societies, one environmental norm which is prevalent among all communities is the ban on economic activities. This is most especially seen before the celebration of religious festivals. During the celebration of the Fetu Afahye, there is the placement of 40 days ban on fishing activities in the Fosu Lagoon and noise-making in the Oguaa Traditional Area. The Forty-day ban on fishing activities allows the fishes in the lagoon to breed and enhance bumper catch in the traditional year. The ban on noise making is meant to tackle the noise pollution aspect of environmental degradation. This phenomenon is still operational in the modern era. The only significant change that affected it is religion, mostly Christianity and Islam (since many people have converted to these two leading religions), the participation in traditional activities is only by a handful of people who still follow tradition especially, the traditional leaders and their followers because it is being classified by these Christians and Muslims as part of fetishism and seen as outright pagan.

In their narrative, all respondents of the study in the Oguaa Traditional Area mentioned the 40 days ban on noise making and fishing activities in the Fosu Lagoon. This ban on economic activities helps to reduce the overutilization of the land or the fish in the water bodies. It helps the fishes to restock themselves and allow fingerlings to grow up. The interviewees aver that in the hinterlands of Fante communities, there was no strict ban on farming activities for some time, but rather over-cultivation is checked through farming practices such as the shifting cultivation, bush fallowing and the periods attached to farming activities.

I observed specific periods within the year designated for clearing a plot of land for planting, a different period for planting seedlings, and a different period for harvesting. The periods for each activity depend more on the season because I observed that clearing the land is done mostly during the dry season (January to March). The planting of seedlings is mostly done during the rainy season, and harvesting is done in August hence called *Dzifoo* (eat in abundance). This practise is followed by almost all Fante farmers, which means that there is some period within the year where there are no farming activities though there are no stringent taboos attached to its compliance.

Respect is one of the greatest virtues cherished in all known African societies. Respect is said to be reciprocal. But in indigenous African societies, respect for authorities is a must, without relegating its reciprocity to the background. Key informants stated that respect for authority is present among Fante communities and very important that individuals cannot simply override. This concept is present in proverbs and day-to-day language usage. One such proverb is *panyin guar wie a nna nsu nyinara asa* (when the elderly finish bathing, all the water is finished). This, however, means that the elderly's authority is final and overriding. This delves into environmental conservation because all norms concerning environmental conservation were formulated and enforced by traditional authorities (Chiefs, with the help of the Asafo Companies). The respect of these authorities ensured that these norms worked. The Fante cherished their Chiefs as sacred and, therefore, had the backing of the supernatural. This made it easy for their subjects to accept and obey the laws and rulings while all the needed respect was accorded to them.

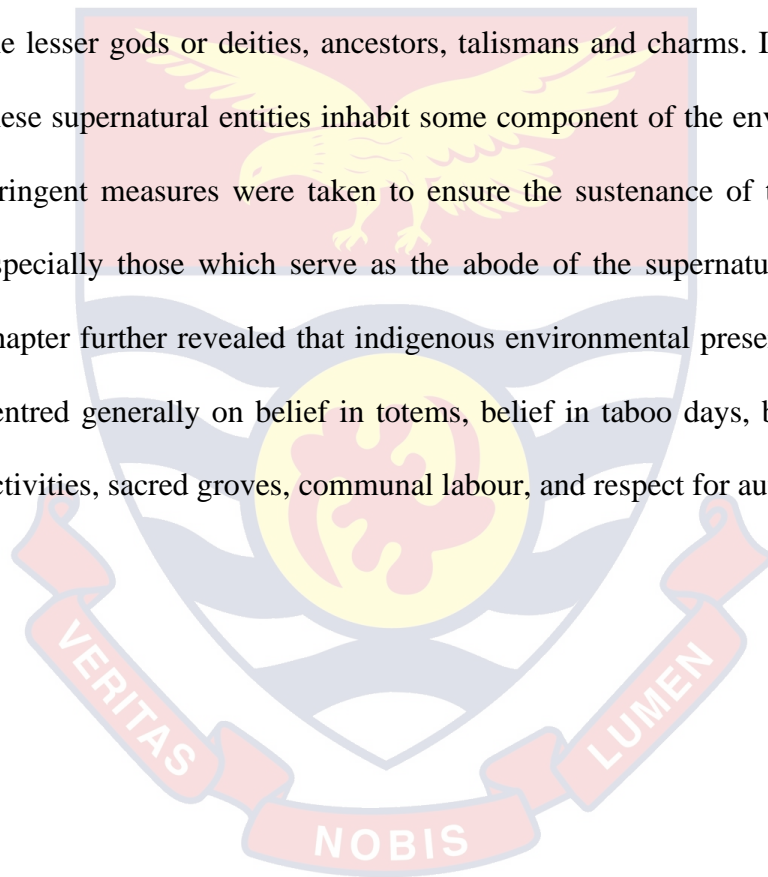
Awuah-Nyamekye (2017) notes that Chieftaincy is the indigenous political system of the people, with the Chief as the overall head of their community. That makes the chief the most relevant individual in indigenous society because their office has religious meanings and responsibilities. The Chief is seen as the representative of the ancestors, therefore, serves as a link or mediator of the divine power. This explains why a lot of norms or taboos regulates the office of the Chief. The norms made by the chief and their elders are deemed to have divine backing, and as a result, the subjects, according to their ruler with much respect and dignity, readily abide by them without any impunity or under no compulsion.

The discussions thus far imbibe in it the human-environment relation theory since the Fante attach everything to supernatural entities. This is so because they believe that these supernatural entities inhabit the environment and thus, influences their way of life. In the same vein, the Fante can cause a change to his way of life by invoking these supernatural entities to come to their rescue when needed. So the inverse relationship between human beings and their environment put out by the theory plays out in this regard.

Since change is inevitable in all human institutions, social change and its associated elements have affected these indigenous norms. This has made the enforcement of these laws by the traditional authorities diminish. Hence, the effectiveness of these norms has reduced drastically with the diminishing of the authorities of our traditional leaders in the current democratic dispensation leading to the environmental challenges we encounter in Fante communities today. Therefore, it is not out of place to look at how these norms have been affected by the elements of social change in the next chapter.

Summary

This chapter has focused on the general environmental worldview of the Fante. The discussions started with a brief history of the Fante people. It was observed that Fante's worldview about the environment is made up of the physical and the supernatural and that the two interact in a symbiotic relationship. It was revealed that the worldview is theist, which talks about supernatural entities with the Supreme Being (*Nyame*) at the apex followed by the lesser gods or deities, ancestors, talismans and charms. It is believed that these supernatural entities inhabit some component of the environment; hence stringent measures were taken to ensure the sustenance of the environment, especially those which serve as the abode of the supernatural entities. This chapter further revealed that indigenous environmental preservation measures centred generally on belief in totems, belief in taboo days, ban on economic activities, sacred groves, communal labour, and respect for authorities.



CHAPTER THREE

INDIGENOUS ENVIRONMENTAL PRESERVATION NORMS

(IEPNs) AND SOCIAL CHANGE

Introduction

For a society to exist peacefully, there is the need to put in place mechanisms to check the conduct of individuals. For this reason, in his *Leviathan*, Thomas Hobbes wrote that in the ‘state of nature, life is short, nasty and brutish where there was a war of all against all. He noted that for such to be prevented, there is the need to put in place laws enforced by an undivided government (Hobbes, 1980). So in indigenous African communities, norms were enacted to check the conduct of individuals, especially on how they relate with one another and the environment. However, since change is inevitable, these norms have gone through changes, either voluntary or involuntary—the chapter analyses Fante indigenous environmental norms and the social changes that have affected them over time.

The Concept of Social Change

Social change has been defined variously by different scholars; Defleur et al. (1977), as cited in Akujobi & Jack, (2017), defines social change as alterations or variations in the arrangement and structure of the social organization of specific groups within a society or even of the society itself at large. This means that by social change, one can only look at such alterations that occur in the social organization, which consequently affect the structures and functions of the society. It can, however, be deduced from the above that alterations in the social institutions of a group or a society itself denote

formulation of new norms, role expectations modification, enactment of new types of sanctions to suit the changing trends, the development of diverse principles for ranking individuals and institutions, and the introduction and use of new production methods (Ekpenyong, 1993 as cited in Akujobi & Jack, 2017).

For this work, a more general definition is adopted as a working definition of social change. Social change is seen as the change of a group or a society (Elder, 1994). Examples of these changes comprise the size of the society, institutional norms and structure, economic organizations and emotions. It is worthy to note that any change that affects any part of society affects the entire community in the long run. Human wants and desires mostly orchestrate these changes. Therefore, factors that will be considered because of the focus of this chapter are colonialism, western education, impinging religion, urbanisation and technology.

Colonialism

The term colonialism refers to a broad economic and political structure that allows a geopolitical body (such as a nation-state or city-state) to create controls outside its conventional regional limits in the service of increased gain or influence (Ahuja, 2009). The process results in the alteration of the social, political, religious and economic systems colonised.

The presence of the Europeans on the Gold Coast was a great threat to the land and its people. The Gold Coast Aborigines Rights Protection Society (ARPS) was formed in 1897 to protest the British Crown Land Bill of 1896 and the Land Bill of 1897. The two bills sought to control what the colonialists deemed 'wastelands' and later as public lands to the colonial government (Nti,

2013). This is a clear indication that the colonialists took over the lands of the Fante people since their first encounter was with the Fante. In the process of the colonialist building forts and castles, sacred grooves were encroached and destroyed totally. Also, during the period of imperialism, certain sacred grooves were cleared and used as farmlands to cultivate cash crops. Because of the profit in the agricultural produce, protected areas were used to cultivate cocoa, coffee, cashew and palm plantations to be exported for income. The above viewpoint supports Castro's (1993) historical analysis of the Kikuyu's agroforestry.

Key informants articulate that traditional Chiefs had the enormous authority to summon all citizens, without much trouble, to engage in communal work and waver throughout the pre-colonial period. However, with the introduction of colonial rule in English West Africa and the development of an indirect rule system by the British colonialists on the Gold Coast, the legitimate authority of the Chiefs was weakened. When power was officially transferred from the Fante Chiefs to the British colonialist with the signing of the Bond of 1844, it has been argued that it marked the beginning of the Fante Chiefs ceding their authority to the colonialist. While some indigenous leaders were used to enforce colonial policies and preserve British colonial supremacy throughout the age of indirect rule, now, the indigenous rulers no longer had the absolute command to control their subjects.

Austin (2010) supports the above assertion and stipulates that colonial rule introduced a capitalist economy (imperialism) driven by the plantation of the settlers and farming colonies. It is further argued by Austin (2010) that the implementation of this new economic paradigm pushed labour

recruitment into jobs for either the State or newly formed companies. This account, among other things, affected the communal labour custom under the new colonial government.

Asamoah (2018) supported the above assertion in the following words;

The commitment by which the people of the Gold Coast came together to contribute to the development of their communities and addressed emerging challenges was largely affected. New rules and regulations were established in the performance of communal work on the Gold Coast. Broadly, it is observed that the change of authority changed the governance structure, which affected traditional authority and the way communities were organized and governed. His Majesty Osagyefo Amoatia Ofori Panin (2010) observes that with the imposition of colonial rule, “the political governance of the nation-state transformed overnight from a familiar customary based one to a strange distant controlled one” (Asamoah, 2018).

I observed that in Ghana today, the institutions that mobilize people for communal work are not well known and respected. The Local Government Act 1993 (Act 462) and the Local Government Services Act 2003 (Act 656) enable the District Assemblies to collaborate with different associations, institutions and individuals at the societal level in the preparation, coordination and implementation of community-based development programmes. It can, however, be observed that the new Local Governance Act 2016 (Act 936) makes a similar assertion by calling on municipal, districts and metropolitan assemblies to closely work with community stakeholders (traditional rulers and unit committee members) to ensure the execution of

local development projects. Unfortunately, these calls have not received the requisite attention that district officials and community members deserve due to increasing community apathy.

The District Assemblies' authority and potential to mobilize people and arrange communal work in the neighbourhoods remain uncertain and unanswered (Asamoah, 2018). Even when the government made it compulsory for communal labour every first Saturday of the month, the youth refused to partake, and there was no stringent punishment for them. This led to the eventual collapse of the general cleaning policy.

The participants aver that colonialism negatively affected the Chieftaincy institution contributing to the Chieftaincy institution losing respect. It is good to point out that the chiefs were pivotal in all spheres of life in pre-colonial Fante society. Especially in governance and religion, they were safeguarding the customs and traditions carefully passed down from generations for environmental sustainability. Gradual steps were taken to weaken the power of the chiefs over their subjects when the then Gold Coast came under the imperial power of the British. Through indirect rule, the power of the chiefs was taken, and a new role was given to them to play as mediators between the people and the colonial masters.

Awuah-Nyamekye (2012a) indicates that although the British imperial power adopted indirect rule, where the people were ruled through the chiefs, this can best be described as a sham. This is because it was a subtle way to hide their real intentions. The real power of the chiefs over their subjects was taken away. For example, the governors enacted series of laws which comprised; Native Jurisdiction Ordinances (1883), Native Administrative

Ordinance (1927), Native Authority Ordinance (1926), which were all meant to plummet the power of the traditional sovereigns. The Native Authority Ordinance, for instance, enabled the colonial government to appoint Native Authorities.

These laws aimed at reducing the power of the traditional authorities because the mere appointment of traditional authorities by the colonial masters distorted the traditional way of search, selection, coronation and installation of a chief. The effect of this mere appointment of chiefs was that it erupted chieftaincy dispute across the country with its rippling effect of distortion in the divine chieftaincy, which has trickled down to the current generation. Most chiefs that were appointed were rejected by the kingmakers as well as the indigenes; hence, they placed a dent and encouraged some of the people to oppose their authority. The more significant effect was that these appointed chiefs ignored indigenous norms and toed the lines of the colonial masters who appointed them. This affected the indigenous political institutions and the norms that they used to govern and protect the populace.

Western education

The term simply means the type of education introduced to the African continent by countries from the West (Okpalike, 2014). He further explains western education as a colonial scheme that aims to maintain Western understanding and view of Africa and African life, breeds African leaders within the same structure, and, as a result, fosters Western interests within the context of a supposedly African struggle.

Key informants avow that there are norms that have been relaxed in the Fante communities because of Western education. An indication of a relaxed

norm is when a taboo day was removed in Mankessim because Western education allowed young girls to use the Okye River on Saturdays for washing. After all, it was the day the young girls had their free time. This is evident in the following words from a respondent;

I remember growing up as a schoolgirl; we were not allowed to go to the riverside (Okye River) on Saturdays because it was taboo. But because Saturday was a free day for students to wash and perform other domestic duties, rituals were performed to allow us to use the river on Saturdays (personal conversation with Nana Ama Amissah, Queen mother of Mankessim Traditional Area, March 2020).

Further probing indicated that there is no taboo day regarding the use of the river now. It can be attributed to Western education because students go to school from Monday to Friday and church on Sundays, leaving only Saturdays to perform domestic duties.

Since the advent of Western education, the youth today disregard traditional norms that protect our environment. The educated people, through Western education, view environmental norms as uncivilized thus, resolve to even work on taboo days because they also disregard the power of the deities which reside in these water bodies and forest areas used for farming activities. People even see these faunas and flora as a mere raw material gifted to us by the creator; hence, they have the dictate to till, mine or harvest for their self-centred desires. They, therefore, work all the time and disregard the taboo days. Galamseyers work all week even though their activities are illegal without having environmental consciousness at heart, destroying farmlands and water bodies. Because of this, farmers in areas where galamsey is

prevalent always go to their farms to ensure that their farms will not be encroached upon without recognising the taboo day.

Impinging religion

Key informants define impinging religion as any form of religion introduced to Ghana. Fanteland by European missionaries or missionaries from Asia who spread Islam in Africa is a matter of concern. Awuah-Nyamekye (2017) states that his interactions with indigenous Ghanaian people have shown that religion is one of the key bases of their local ecological practices and laws, and thus, anything that affects their beliefs and practices has implications for local environmental conservation. Awuah-Nyamekye (2017) further states that from when Islam, colonialism and Christianity became established in the Gold Coast (now Ghana), more Ghanaians changed their way of life. Both the political system and religion have begun to lose their influence on the Ghanaian populace. This means that since indigenous Ghanaians relate everything to religion, their norms and practices will change when introducing a new religious force.

Religion has been another influencing factor that has affected the taboo day because, since the advent of Islam and Christianity, people no longer regard the power of the deities because the youth of today deem the power which resides in rivers and forests as fetish, idols, uncivilized based on the doctrines they claim to have in their holy books (Bible and Quran) (Supi Kwame Amoyaw, March 2020).

Nukunya et al. (1986) posit that soon after the arrival of Islam and Christianity, they started to attack African belief systems and ways of doing things. The main target of missionaries of Mohammedism and Christiandom

was to assault African Traditional Religion as ancestral worship, paganism, fetish and divination. This attack has been largely successful because the Fante now deem the taboo day norm as such hence, disregard it and fish or enter the forest when they deem fit.

With social change on the ban on economic activities, all respondents I interviewed in the Oguaa Traditional area mentioned the 40 days ban on noise making and fishing activities in the Fosu Lagoon in their narrative. In that regard, Supi Kobina Mina posits that;

When I was the Fetu Afahye Planning Committee chairman, the greatest setback we encountered was implementing the ban on noise making in churches. Charismatic churches were the main culprits of this norm because the orthodox churches have been with us for a long time and understand our operations. Even today, the same problem persists because the leaders of such churches want to exhibit how powerful they are. One church member who was arrested and brought before the committee said that “*abosom nyi tum nkyen me Nyame a mosom no* (the gods are not powerful than the God I worship) so there is nothing that your gods can do. I can’t leave the worship of my maker to suit whatever interest of your so-called gods or deities” (personal conversation with Supi Kobina Mina, Supi of Asafo No.6 Company in Cape Coast, March 2020).

The churches ignore the authority of the traditional leaders drawing their inspiration from 1 Kings Chapter 8. In this chapter, the Bible recounts Prophet Elijah, who defeated and killed Baal gods and prophets. They believe that the saving grace of God and his miraculous signs will save them from the

wrath of the traditional leaders as well as the gods. One striking thing the churches fail to understand is the environmental protection dimension associated with the whole concept of the ban on economic activities before the celebration of the Fetu Afahye.

The Queen Mother of Mankessim Traditional Area also laments on the impact of religion on sacred grooves in the following words;

So many years ago, religion was attached to the way of life of the Fante as it is today. It was the belief in supernatural entities which held the *nananompɔw* intact in Mankessim. The *nananompɔw* collapsed when *Sɔfo* (pastor/ Rev.) Akwasi, a Methodist missionary, challenged the authorities of the people in charge of the sacred grove because of the acts they performed in that forest, which he described as evil. He then used the place as a prayer camp. This act changed the ownership of the *nananompɔw*, which was for the indigenes and was handed over to the Methodist church. Ever since, people have started encroaching the *nananompɔw* and have turned them into farmlands and areas for residents (personal conversation with Nana Ama Amissah, Queen mother of Mankessim Traditional Area, March 2020).

This means that the collapse of the *nananompɔw* can be attributed to the seizure of the forest from the traditional authorities. Although it is recounted that the leaders of the *nananompɔw* ascribed to it as an evil forest, one cannot doubt how their activities protected the sacred grove for years before Christianity took over and allowed the indigenes to encroach upon the sacred grove. One of my respondents reiterates that;

In the olden days, we used myths to scare off people and their harmful activities to the environment to preserve sacred grooves. As days went by, we learned that these things scared us, so we destroyed the sacred grooves. Probably, we could have approached the matter from a different perspective, the environmental knowledge level, so that individuals will know that these resources were preserved for our good so we will not go in there to start destruction based on our belief or disbelief (personal communication, Daniel Kofi Sarpong, the principal program officer, March 2020).

With the advent of Christianity and Islam, the zeal which was attached to communal labour has dwindled. A respondent laments;

The youth today no longer pay heed to communal labour when the call comes. Respect for authorities is not held in high esteem as it used to be. Most importantly, the youth do not want to associate themselves with any *amambra* (tradition). They don't want to join the Asafo companies anymore because they deem it as *abosomsom* (paganism), and they perceive that *Kristosom* (Christianity) do not have anything to do with the performance of rituals, especially the pouring of libation (*Maame Ama Amissah*, personal communication, 7th April 2020).

Christianity has also crafted its role and performed its task highly effective to reduce the authority and respect for traditional authorities. The mere conversion of Africans meant that their way of life would be affected since it has been established that their way of life depends on their religion and the environment. Awuah-Nyamekye (2017) stipulates that shortly after the arrival of Christianity, it started to sustain an attack on indigenous African

religio-cultural beliefs and practices. Indigenous African religion was in one breadth seen as false and a way of life that was uncivilised. On the other breadth, indigenous African religion was seen as heathenism, paganism, fetishism, and polytheism. This affected the Chieftaincy institution because many Christians challenged the authority of the Chiefs. The over-enthusiastic Christians saw the Chieftaincy institution as idol worship because of the religious roles attached to the institution hence, reducing their authority. This affected the enforcement of environmental norms since the indigenes, especially the youth, openly challenged their authorities.

An interviewee stated in response to the above in the following words:

When those who call themselves *Kristofo* (Christians) started following *Kwesibronyi sofo* (the white missionaries), they disregarded our norms using the bible; they termed our gods to be false and rendered ineffective. Our people do not respect our elders and see our customs and traditions as archaic and outmoded (Maame Ama Amissah, personal communication, 7th April 2020).

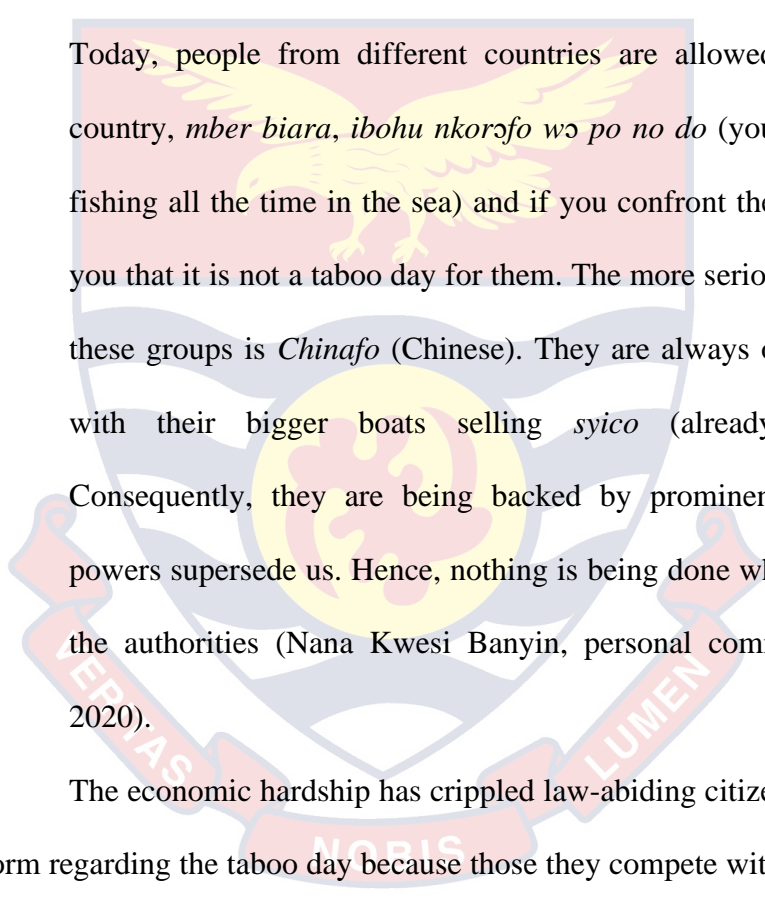
Urbanization

United Nations (2015) explains the process of urbanization as a change in population from one spread around small rural settlements in which agriculture is the main economic activity to one in which the population is concentrated in larger, clustered urban settlements dominated by manufacturing and service activities. It can simply be seen as the growth of towns and cities characterized by population growth and its related challenges. Uncontrolled urbanization has caused serious problems such as land

insecurity, reducing water quality, extreme air pollution, noise and the problems associated with waste disposal.

With towns and cities growing together, the taboo day has suffered a great setback because people have different days, as reiterated earlier in this chapter. This is because urbanization has brought people from different cultures together, thus difficulty applying one specific cultural norm.

An interlocutor reacted to the above statement in the following words;



Today, people from different countries are allowed to fish in our country, *mber biara, ibohu nkorɔfo wɔ po no do* (you will see people fishing all the time in the sea) and if you confront them, they will tell you that it is not a taboo day for them. The more serious people among these groups is *Chinafo* (Chinese). They are always on top of the sea with their bigger boats selling *syico* (already frozen fish). Consequently, they are being backed by prominent people whose powers supersede us. Hence, nothing is being done when you report to the authorities (Nana Kwesi Banyin, personal communication, July 2020).

The economic hardship has crippled law-abiding citizens who obey the norm regarding the taboo day because those they compete with work all day in the week. To catch up with the ever-growing hardship, taboo days have become working days though few people still adhere to the norms.

Urbanisation is another change element that affects sacred grooves in Fante societies as human beings increase in population and demand for basic needs for man's survival increases. This demands that farmlands are increased and more houses built to cater for the increasing population. Even,

construction of social amenities (roads, schools, hospitals, markets, etc.), which is a major feature of urbanisation, contributes to the destruction of forests designated as sacred grooves. A response that was given on population growth by an interviewee was that;

The population that we had in those days is not the population we have today. Suppose we had a population of 5 million in Kwame Nkrumah's independent time. In that case, we know that the impact on resource extraction for survival would be minimal compared to the 30 million-plus population we have today. Now, everybody will extract these resources for survival, so the burden and depletion rate has shot up significantly (personal communication, Daniel Kofi Sarpong, the principal program officer of the EPA, Cape Coast, March 2020).

On his part, Awuah-Nyamekye (2012b) laments that the speed at which towns and cities grow in Ghana today is also gradually taking the indigenous people away from their roots. The current population growth rate and its associated pressure on the land make it difficult to keep the sacred groves set up in the various Akan villages to cater to the growing populace's housing and recreational needs.

Another respondent commenting on the ineffectiveness of communal labour and Asafo Companies stipulates;

Because of urbanisation and civilisation, people work all days of the week and therefore do not have time to embark on communal labour. Now migrant who settles in new communities most at times do not associate themselves with the activities of their new residents setting a bad precedent for the indigenes... migration has also taken away the

youth who formed the vibrant part of the Asafo Companies away from the villages rendering the Asafo Companies ineffective (*Safohen* Kweku Ampah, personal communication, 27th June 2020).

Technology

Drengson (1995) defines technology as the systematic arrangement of techniques and skills to manufacture a commodity by reorganizing a raw material or another suitable medium. In other words, technology can be seen as using scientific knowledge to create machinery and equipment to enhance work. These machines have altered the ways by which work is done. How people relate to their environment will change as they employ technological tools (chainsaw, excavators, agro-chemical etc.) to make their work easy and faster. Undoubtedly, these tools have contributed to the changes that have affected the indigenous Fante environmental norms considering the human-environmental theory with which this thesis is working with.

With the advent of technology that has promoted the manufacturing of sophisticated machinery, large tracts of land are cleared or ploughed within hours, deepening the rate of deforestation. Technology has made it simple to destroy sacred grooves because chain-saw and other tree-cutting machines are used to fell trees for timber and firewood. The role that agrochemicals play in the destruction of forest cover cannot be left undiscussed. Farmers use agrochemicals in their farming activities. The use of weedicides especially has the tendency of increasing bushfires hence, the destruction of vegetation cover. Other forms of pesticides used for farming tends to affect some plant species consequently, causing their extinction when these chemicals are washed by rainwater to other farmlands and even forest reserves.

Because of anomie in urban centres, people disregard authorities who enforce indigenous norms. Migrants who settle at the new residence sometimes go contrary to norms they meet in the urban centres. Urban life is without a specified indigenous cultural trait but rather a blend of different cultures. Individuals from different cultural backgrounds exhibit different lifestyles. People even see urban areas as freedom or a hiding place for their traditional societal norms. This contributes to the prevalence of numerous social vices that are on the rise in towns and cities.

Key informants expressed that social change, as discussed above, had had a dire consequence on environmental preservation than its contributions. The change factors that seem to have threatened indigenous environmental preservation norms are colonialism and Christianity. Awuah-Nyamekye (2017) expresses that some years back, when a greater number of Akan were inclined to the belief systems of our ancestors, environmental problems were not encountered at all. Rainfall was in abundance for farming and a lot of tropical rainforests. Fresh air was abundant as well. Currently, the pattern of rainfall has drastically changed. This means that it does not rain at the pace and period they are supposed to, and even when they fall, they don't last as expected.

There is also excessive heat in the atmosphere, which has led to diseases and crop failure. Even our rivers have been affected by this change in weather conditions that used to be predictable but are now unpredictable. This is largely because of the disrespect of the youth, which has now characterised our society today. It was about human activities that cause havoc that the youth have engaged in out of disrespect for our forefathers' traditions and

customs to protect the environment. This all started when the Europeans came with colonisation, education and religion. These have entirely affected the common good of the environment.

As put out by the human-environment relation theory, the relationship between human beings and their environment makes it possible for social change elements to affect people's orientation towards the environment. Since their environment and vice versa influence people, it is apparent that any changes that affect a group of people and their culture will affect their environment as well. The theory becomes relevant in addressing how changes over time affect people's orientation towards the environment.

It is important to note that despite these changes that have affected the indigenous norms, some of the norms are crucial to this current generation if there is any chance of achieving environmental sustainability. Other indigenous environmental preservation norms are still resilient, therefore, makes them relevant today. However, these norms need to be improved to meet the changing trends in environmental protection like the sustainable development goal 15.

Summary

The chapter has discussed how some elements of social change have affected the indigenous norms that the indigenous Fante used to preserve the environment. The change elements mentioned were colonialism, western education, impinging religion, urbanisation and technology. It was revealed that all the indigenous environmental norms were in one way or the other affected by at least one of the social change factors mentioned above. However, traces of these indigenous norms prove relevant today, especially if

they can be fused with today's changing trends. Therefore, the next chapter will look at the Sustainable Development Goals with particular attention to Goal 15.



CHAPTER FOUR

THE SUSTAINABLE DEVELOPMENT GOAL 15 AND ENVIRONMENTAL PRESERVATION MODELS IN GHANA

Introduction

The Sustainable Development Goals (SDGs) were strategic developmental paradigms to replace the Millennium Development Goals. To operationalise these SDGs, various parties have adopted strategies for the achievement of these Goals by 2030. Goal 15 was aimed at protecting, restoring, and encouraging the sustainable use of terrestrial habitats, maintaining forests sustainably, combating desertification, avoiding and reversing land degradation, and stopping biodiversity loss (United Nations, 2015). It will not be out of place to look at the challenges involved in achieving these goals, especially goal 15 and the available prospects. The United Nations also charge governments and other stakeholders to put strategies to help them achieve these goals at their national and local levels. Therefore, this chapter of the thesis discusses the Sustainable Development Goals, emphasising Goal 15 and some environmental preservation models by the government geared towards achieving this goal (SDG 15).

Sustainable Development Goals (SDGs)

The policy agenda for the Millennium Development Goals (MDGs) was established in 2000 with a set of eight goals: eliminating extreme poverty and hunger, achieving universal basic education, fostering gender equality and empowering women, decreasing infant mortality, enhancing maternal health, fighting HIV/AIDS, malaria and other diseases, ensuring environmental protection and creating a healthy climate (UN, 2015). The goals are related to

18 objectives, and 48 indicators are used to track progress against the goals (Abubakar & Aina, 2017).

The mobilisation of capital around MDG-related initiatives has been unprecedented across many global and national projects, and the development community has regularly met to assess progress (Abubakar & Aina, 2017). They further argued that the MDGs had gone far towards changing how we ponder and speak about the world, impacting the worldwide discourse and advancement conversation, and expanding public cognisance of good objectives, for example, achieving gender equality and bringing an end to poverty and hunger. The MDGs have led to significant improvements in development assistance, as demonstrated by a 66 per cent rise in Official Development Assistance (ODA) between 2000 and 2014, which exceeded an astounding USD 135 billion (Peitl, 2014).

The World Health Organisation's report on the MDGs in 2015 deems the MDGs to be more effective than any other international goal-setting attempted in the area of growth and development. Waage et al. (2010) state that since 2000, particularly since 2005, the sudden increase of global development towards poverty eradication, gender, health and education goals is only one indication of their beneficial effects. The implementation of a straightforward, transparent and time-bound system that is persuasive, easy to send across and observable was among the key strengths of the MDGs, enabling funding states, foreign agencies and national decision-makers to direct resources on areas of need and to determine the results of interventions undertaken (WHO, 2015).

Abubakar & Aina (2017) aver that the MDGs have not been overwhelmingly accepted despite their overall success. For instance, it has been figured out that amid their pro-poor orientation, the MDGs also overshadowed intra-country inequalities by using almost entirely aggregated priorities and metrics, undermining the measures required to strengthen conditions for the weakest and most difficult-to-reach populations. Birdsall et al. (2005) state that doubts have often been raised regarding the uses for which the MDGs have sometimes been put. For instance, MDGs were adopted as one-size-fits-all development planning tools with objectives that each country should achieve, even though MDGs were never intended as goals for single nations. Global goals are less useful for low-level countries or in situations of conflict. This and many other challenges compelled world leaders to adopt a sustainable development agenda to replace the MDGs when it was completed in 2015 (Abubakar & Aina, 2017).

According to Assanful (2018), by the end of 2015, after the Millennium Development Goals (MDGs) were completed, the United Nations adopted the Sustainable Development Goals (SDGs), beginning from where the MDGs started. He further states that the SDGs are the outcome of an intense process set in motion by the United Nations to help accelerate the development of the MDGs. The SDGs have been implemented to maintain the results of the MDGs and ensure that the world follows a course for sustainable development in the next 15 years (Assanful, 2018). Osborn et al. (2015) indicate that the SDGs have 17 goals, each with specific targets to be achieved by UN member states. These objectives reflect the universal principle that no

one and no nation should be left behind and that every nation should be seen as having a mutual duty to play its part in achieving the global vision.

Assanful (2018) further notes that the SDGs have been couched to ensure economic growth, social inclusion and a sustainable climate. The new goals entered into force on 1 January 2016 and were intended to ensure the world is free from poverty, hunger, disease and want, a place where all human beings will survive. The paradigm change to a sustainable environment as envisaged would ensure the use of resources for the good of both the living and the unborn.

The Sustainable Development Goals (SDGs), also known as the World Goals, are a universal call for action to end hunger, protect the world and ensure that all people enjoy stability and prosperity by 2030 (Weber, 2017). The SDGs, adopted by 193 countries including Ghana, came into force in January 2016 and sought to promote economic development, ensure social integration and preserve the environment. Agenda 2030 has five subjects known as the Five Ps: peace, partnership, prosperity, people and planet, covering all 17 SDGs (Tremblay et al., 2020). They discuss the root causes of poverty in areas such as hunger, health, education, gender roles, water and sanitation, energy, economic growth, manufacturing, innovation and infrastructure, inequality, cities and communities, consumption and production, climate change, natural resources, as well as peace and justice (United Nations Communications Group and CSO Platform on SDGs, 2017). The 17 SDGs have been outlined in the table below;

Table 2: SDGs with their Respective Targets

| SDG | TARGET |
|------------|--|
| Goal 1 | End poverty in all its forms everywhere |
| Goal 2 | End hunger, achieve food security and improved nutrition and promote sustainable agriculture. |
| Goal 3 | Ensure healthy lives and promote well-being for all ages |
| Goal 4 | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. |
| Goal 5 | Achieve gender equality and empower all women and girls. |
| Goal 6 | Ensure availability and sustainable management of water and sanitation for all. |
| Goal 7 | Ensure access to affordable, reliable, sustainable and modern energy for all. |
| Goal 8 | Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. |
| Goal 9 | Build resilient infrastructure, promote sustainable and inclusive industrialization and foster innovation. |
| Goal 10 | Reduce inequality within and among countries. |
| Goal 11 | Make cities and human settlements inclusive, safe, resilient and sustainable. |
| Goal 12 | Ensure sustainable consumption and production patterns. |
| Goal 13 | Take urgent action to combat climate change and its impacts. |
| Goal 14 | Conserve and sustainably use the oceans, seas and marine resources for sustainable development. |
| Goal 15 | Protect, restore and promote sustainable use of terrestrial ecosystems |
| Goal 16 | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels, |
| Goal 17 | Strengthen the means for implementation and revitalise the global partnership for sustainable development. |

Source: Sustainable Development Goals (UN, 2015)

The Sustainable Development Goal 15

The main aim of SDG 15, as mentioned above, is to sustain and manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss. Instead of this, 15 targets were outlined to support the achievement of this goal. This has been enlisted in the table below;

Table 3: SDG 15 Targets with their Respective Aims

| TARGET | AIM |
|----------|---|
| Target 1 | By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements |
| Target 2 | By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and re-forestation globally |
| Target 3 | By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world |
| Target 4 | By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits that are essential for sustainable development |
| Target 5 | Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species |

Table3 Cont'D

| | |
|-----------|--|
| | Promote fair and equitable sharing of the benefits arising from |
| Target 6 | the utilisation of genetic resources and promote appropriate access to such resources, as internationally agreed |
| | Take urgent action to end poaching and trafficking of protected |
| Target 7 | species of flora and fauna and address both demand and supply of illegal wildlife products |
| | By 2020, introduce measures to prevent the introduction and |
| Target 8 | significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species. |
| Target 9 | By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts |
| Target 9A | Mobilise and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems |
| | Mobilise significant resources from all sources and at all levels |
| Target 9B | to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including conservation and re-forestation |
| | Enhance global support for efforts to combat poaching and |
| Target 9C | trafficking of protected species, including increasing the capacity of local communities to pursue sustainable livelihood opportunities |

Source: Sustainable Development Goals (UN, 2015)

It is important to achieve this goal coupled with the associated targets because forests occupy about 31 per cent of the planet's land area (UN, 2015). The United Nations further note that the air we breathe, the water we drink, the food we eat all come from nature. Our sustenance is dependent on the forest. About 1.6 billion people rely on the forest for their livelihood. Nearly 75 per cent of the world's poor are directly affected by the land loss. Forests are home to over 80 per cent of all terrestrial mammal, plant and insect species. However, in human history, biodiversity is decreasing faster than at any other time. Between 2000 and 2015, an estimated 20 per cent of Earth's land area was destroyed (UN, 2015).

SDG Fact Sheet (2015) asserts that 13 million hectares of land are lost annually. Approximately 1.6 billion of the world's population rely on forests for their livelihoods. This involves about 70 million indigenous peoples. It is apparent that Forests house more than 80 per cent of all earthly species of mammals, insects and plants. 2.6 billion people are directly dependent on agriculture, but 52 per cent of the land used for agriculture is judiciously or seriously affected by soil depletion (McNeely & Scherr, 2003). SGD Fact Sheet (2015) further explains that 12 million hectares of forests per year (23 hectares per minute) were destroyed due to drought and desertification. In the process, 20 million tons of grain could have been cultivated. Of the 8,300 recognized breeds of animals, 8 per cent are extinct, and 22 per cent are at risk of extinction. As many as 80 per cent of rural residents of developed nations rely on traditional herbal medicines for basic health care.

Mohieldin & Caballero (2015) state that nature's gifts to humans, also referred to as ecosystem resources, include food sources, raw materials,

cultural identity and physical, mental and emotional health support. Biodiversity improves and even underpins many of these programs like crop pollination. The United Nations Communications Group and CSO Platform on SDGs' 2017 report indicate that declining biodiversity and deteriorating habitats were driven by external pressures such as growth, pollution, and land use. These changes are particularly threatening poor and vulnerable communities as there is a narrowing source of food, medicine, fuel, and clean water combined with soil depletion and soil erosion. This creates detrimental impacts on Forests in which about 2.5 million people living in Ghana depends on. In addition to helping sustain the climate, they play an important role in providing food, clothing, shelter, furniture, drinking water and bush meat. Woods are also commonly known as sources of natural medicines, essential components of health care that are widely used in conjunction with magic and ritual practice (United Nations Communications Group and CSO Platform on SDGs, 2017).

Forests are vital to the fulfilment of our shared dream for man and the world. They are vital to our future prosperity and global climate stability. That is why the Sustainable Development Goals call for effective steps to conserve and combat desertification, reverse land destruction, and halt biodiversity loss. From my key informants, it was revealed that the livelihood of the Fante depends largely on the forest and the water bodies. Most of the economic activities among the Fante communities are farming and fishing which are environmentally determined. This means that the destruction of the ecosystem in Fante communities has dire consequences on the indigenes, especially on their occupation. Hence, the achievement of goal 15 will be significant to the

progress of the Fante communities and the country. It must be noted that SDG 15, like the other goals, faces challenges of fully achieving its targets. Details for adopting the other 16 Goals have been discussed in appendix C in this work.

Modern Environmental Preservation Models (MEPMs)

To operationalise the SDGs, parties to the 2015 adoption of the Sustainable Development Goals were required to put in mechanisms such as enacting acts and creating specific agencies to enhance the success of the global goals. The general nature of the goals meant that policy makers should engage in specific strategies to accommodate these goals. Therefore, this section deals with some modern environmental preservation models directed toward achieving environmental sustainability hence, achieving SDG 15.

MEPMs used in this study refer to the various documented acts and regulations enacted by the state's relevant institutions (s) to preserve and sustain the environment in this modern era. Adjarko et al. (2016) are of the view that environmental regulations in Ghana can be said to date back to the colonial period. However, much of the environmental laws at the time was concerned with disease prevention and control. Some of them, such as the Beaches Obstruction Ordinance (Cape 240) of 29 January 1897, had some connection with the built environment. Implementation has mostly taken place not at the local level but in major urban centres. Following the Stockholm Convention of 1972, the Environmental Protection Council (EPC) was created in 1974 to oversee all environmental issues in the country (Yeboah & Tutuah, 2014). In 1976, the Resolution of the Environmental Protection Council of

1974 (NRCD 239) was amended by the Decision of the EPC of 1976 (Amendment) (Sub Metropolitan District Council, SMCD 58).

Ghana has, over the years, adopted several environmental policies to enhance environmental preservation. This has been crucial with successive governments because the 1992 constitution makes it mandatory for governments to ensure environmental sustainability. Article 36(9) of Chapter 6 of the Constitution provides that “the State shall take the appropriate measures necessary to protect the national environment for posterity and shall seek partnership with other States and bodies to protect the wider international environment for humankind” (1992 Constitution of Ghana as cited in the Ghana National Climate Change Policy, 2012). Chapter 6 of Article 41 of the 1992 Constitution of the Fourth Republic of Ghana also states that citizens of Ghana are expected to protect and preserve the environment. This makes environmental preservation a holistic one comprising all stakeholders.

To make international treaties work effectively, Ghana has made efforts to internalise these international agreements and thus, enacted the following national legislation: Control and Prevention of Bushfires Act (1990); Energy Efficiency (LI 1815; LI 1932; LI 1937; LI 1958; LI 1970); Environmental Protection Agency (EPA) Act (1994); Forest Protection Act (1974); Management of Ozone Depletion Substances and Products Regulations Act (2005); Minerals and Mining Law (2006); Pesticides Control and Management Act (1996); Renewable Energy Act (2011); Wildlife Conservation Reservations Act 1971 (2012); Science, Technology and Innovation Policy (2010); Hazardous and Waste Management Control Act

(2016); Timber Resources Management Act (1998) among others. Selected Acts that are relevant to the study is discussed below.

Environmental Protection Act

The Environmental Protection Agency Act (1994) was an act of parliament to ensure the creation and functioning of the EPA to enhance environmental sustainability in the country. Adjarko et al. (2016) state that the EPA Act was enacted in 1994 to replace the Environmental Protection Council (EPC). The Environmental Protection Council (EPC) was founded in Ghana as a public agency responsible for monitoring the environment in 1974 by Decree 239 of the National Redemption Council (NRC) (Decree 239). Section 2 of the Decree mandated, among other things, the Environmental Protection Council to ensure compliance with appropriate protections in the planning and implementation of all construction projects, including those already in progress that is likely to interfere with the quality of the environment (Adjarko et al., 2016). The functions of the EPA are:

1. to advise the ministry on the formulation of environmental policies and, in particular, to make recommendations for the conservation of the environment;
2. to co-ordinate the activities of the bodies dealing with the technological or practical aspects of the environment and function as a medium of contact between those bodies and the Ministry of Environment.;
3. coordinate the activities of the relevant bodies to regulate the generation, treatment, storage, transport and disposal of industrial waste;

4. ensure, on its own or in partnership with any other person or body, the control and prevention of discharges of waste into the environment and the safety and enhancement of the quality of the environment;
5. to issue environmental permits and pollution reduction notices for controlling the volume, types, constituents and effects of waste discharges, emissions, deposits or any other source of pollutants and of substances that are hazardous or potentially dangerous to the quality of the environment or a segment of the environment;
6. to issue notices in the form of directives, procedures or warnings to any other person or body to control the volume, intensity and quality of noise in the environment;
7. to suggest standards and guidelines relating to the pollution of air, water, land and any other forms of environmental pollution, including the discharge of waste and the control of toxic substances;

A respondent summarises these core values and functions of the EPA in the following words;

The mandate of the EPA is to ensure environmental sustainability by bringing all stakeholders in the area together to win this fight. The EPA is the first point of call when dealing with environmental issues. We work with state and non-state actors to ensure that our mandate is successfully executed (Daniel Kofi Sarpong, the principal programme officer of the EPA in Cape Coast, March 2020).

The above indicates that EPA implements laws on environmental sustainability. For instance, the EPA Act 490 gives absolute protection to individuals charged to ensure strict compliance with environmental laws.

Section 15 of the EPA Act 490 provides that the board select environmental protection inspectors for this Act. In addition to the powers set out in section 54, an inspector or a person approved by the Board may, at a reasonable time, enter any premises to ensure compliance with this or any other environmental protection act, and shall, if necessary by the person in charge of the premises, produce the competent authority. An individual who assaults or obstructs a duly authorised person acting in compliance with subsection (2) commits an offence and on summary conviction is liable to a fine not exceeding two hundred penalty units or to a period of imprisonment not exceeding six months, or both.

The EPA Act also gives them the mandate to enforces laws as already stipulated. For instance, section 28 (1) states that a person shall not import, export, manufacture, distribute, advertise, sell or use a pesticide unless the Agency has registered the pesticide under this Act. During an interview with Daniel Kofi Sarpong, the principal programme officer of EPA in Cape Coast (March 2020), he laments that;

in the EPA act, there's an element called the tree fell law. This law demands that before one can cut a tree for any purpose, the person needs to contact EPA so that the EPA will evaluate the need for such a tree to be fell. And even with this, the person who wants to cut the tree must pay a fee which should all be within the confines of the law.

Forest Protection Act

The Forest Protection Decree (NRCD 243) was enacted in 1974 to check the use of forest vegetation in the country and thus, enhance forest protection and sustainability. Section 1 of the Forest Protection Decree spells

out the various forest offences. The law states that any person who enters a Forest Reserve without the written consent of the competent forest authority,

(a) fells uproot, lops, girdles, taps, fire damage or otherwise destroy any tree or timber;

(b) produces or cultivates any farm or erects any building;

(c) causes any damage by negligence in the felling of any tree or the cutting or removal of any timber;

(d) burns any grass or herbage, or light a fire without taking the appropriate precautions to prevent it from spreading.

(e) makes or lights a fire contrary to any order of the Forestry Commission;

(f) in any mode obstructs the channel of the flow of any river, stream, canal or creek;

(g) hunts, shoots, fishes, poisons a source of water or set traps or snares;

(h) subjects any forest produce to any manufacturing process or collects, conveys or removes any forest produce; or

(i) permits any cattle to trespass any forest for grazing commits an offence and is liable to summary conviction of a fine not exceeding 500 penalty units or to imprisonment not exceeding two years or to both, except that for a second or subsequent offence under this section the offender shall be liable on summary

conviction to a fine of not less than 250 penalty units or imprisonment not exceeding three years or to both; [As substituted by the Forest Protection (Amendment) Act, 2002 (Act 624), s.1(a)]. This act aims to prevent individuals from unlawful encroachment of forest reserves and further protect it for future generations.

Wildlife Conservation Reservation Act

The Wildlife Conservation Reservations Act 1971 protects flora and fauna in Ghana's forest reserves and national parks. Part 1 of this Act elaborates on restrictions on hunting which includes;

1. No individual shall at any point in time hunt, capture or destroy any of the protected animals or animals deemed as endangered species.

2. No individual shall at any point in time hunt, capture or destroy- (a) animals that are young; or (b) animals that are taking care of their offspring or accompanied by their young, or any of the species which falls under the list of animals that are protected by law.

3. No person shall hunt, capture or destroy any species protected by law in the close season, which falls between the 1st day of August and the 1st day of December.

4. (1) No person shall manufacture, use or own any *gin trap* which may be used for hunting, capturing or destroying any animal. (2) No individual shall hunt, capture or destroy any wild animal using any non-natural light or *flare*.

(3) No individual shall hunt, capture or destroy any wild animal by using nets (except in the case of fish or poisonous snakes) unless approved in writing to do so by the Chief Game and Wildlife Officer. (4) No individual shall hunt,

capture or destroy any wild animal using snares, pitfalls effective only in conjunction with pitfalls, poison or poisoned weapons.

Hazardous and Waste Management Control Act

The Hazardous and Waste Management Control Act 917 enacted in 2016 seeks to control and manage hazardous waste and other waste to prevent

environmental pollution. Section 2 of this act states that an individual cannot accept otherwise provided in this act;

- (a) aid or order for the importation of hazardous wastes or other wastes into the country
- (b) aid or order for the exportation of hazardous wastes or other wastes out of the country
- (c) aid or transport imported hazardous wastes or other wastes through the country
- (d) purchase, sell or deal in hazardous waste or other wastes

under section 3 commits an offence and is liable on summary conviction; (a) to a fine of not less than two thousand five hundred penalty units and also to a term of imprisonment of not less than one year and not more than ten years or both, and (b) for the cost of cleaning up any contamination caused by the hazardous waste or other waste and any other mitigating action required to deal with the effects of the waste.

Section 4 of the Hazardous and Waste Management Control Act states that an individual cannot deposit any hazardous wastes or other wastes on any land in the country or the country's territorial waters. Any individual who violates this commits an offence and is liable on summary conviction to a fine of the cedi equivalent of two million United States dollars or a term of imprisonment of not more than 20 years or both and shall also pay for the cost of cleaning up any contamination caused by the hazardous waste or other waste and any other mitigating action required to deal with the effects of the waste.

There is a Local Government Act 462 enacted in 1993. This law abolishes and replaces the previous statute, the District Assemblies Law of 1988 (PNDCL 207), which required the District Assemblies to take care of environmental protection within their respective districts (Kwarteng, 2013). Section 10(3)(e) of the act states that “The District Assembly shall be responsible for the development, improvement and management of human settlements and the environment in the district”. This Act (462) gave the authority to the District Assemblies to manage and control the environment.

With my engagement with the District Assemblies, it was revealed that the Environmental Management Committee mostly comprise traditional rulers representative, Environmental Health and Sanitation Unit, Town and Country Planning, National Disaster Management Organization (NADMO), Ghana Education Service (GES), District Community Development Officer, Waste Management Unit, Social Welfare Department and the Gender Desk office. These units are present in the committee because they have some basic knowledge of environmental management and prevention.

Adjarko et al. (2016) state that environmental sustainability at the district assembly level is guided by the district assembly bye-laws, with the environmental officer at the district assembly responsible for ensuring the implementation of these bye-laws. For instance, the Cape Coast Metropolitan Assembly enacted a bye-law to arrest and prosecute individuals who openly defecate in the metropolis. This bye-law is differently enacted in the Komenda Edina Eguafo Abrem (KEEA) District with tacit support from traditional rulers not to register the marriage of couples without a toilet facility in their new locality after marriage. This is possible because Section 54 of the Local

Government Act provides that where substantial injury to the environment, amenity, public health or the economy is caused by any nuisance or is likely to result from the action or inaction of any person, a District Planning Authority may serve notice on the person requiring him to abate the nuisance within such time as may be specified in the notice.

Challenges of the SDGs

Although Ghana has tried to make the SDGs, especially Goal 15, which is the focus of this study, succeeds, a close look at the SDGs reveals challenges that confront the global goals in general. While the SDGs framework shows impressive balance across the triple bottom line when presented as a whole, this balance is not inherently mirrored in every SDG because it has been structured as separate goals. This raises the possibility of policy loopholes, whereby policymakers and practitioners pick up on the elements of the SDGs they want to enforce. Others fall prey to political expediency or needless and poorly thought-out trade-offs, with no mitigation policies in place to ease adverse impacts (Machingura & Lally, 2017). On their part, Janoušková et al. (2018) posit that the Sustainable Development Goals (SDGs) pose opportunities and challenges for developing countries, as their implementation costs would be high, while they can offer long-term benefits. Patterson (2015) supports the above view that the SDGs are more likely to fail unless stringent attention is given to addressing governance challenges vital to the SDGs' implementation.

The major challenges facing the full realisation of the SDGs include bringing together the right stakeholders at the right time in the right place to operationalize and implement the SDGs, implementing difficult but necessary

trade-offs, and lastly, how to build in accountability for action. These points are further explained by scholars below.

Patterson (2015) believe that inherently, sustainable development includes various stakeholders, including national governments, transnational companies, local and multinational NGOs, small villages, and many more. It can be difficult to get the appropriate stakeholders to address complex poverty and sustainability problems at the right time and place. For instance, the single goal of access to accessible, secure, renewable and modern energy for all can be a great challenge (Goal 7). Who will need to create, manufacture, implement, and maintain technologies to provide universally accessible energy? Who is interested in deciding what is “reliable” and “accessible” to various cultures in different parts of the world? How do governments, the private sector and societies collaborate to decide on effective and sustainable energy systems, and how do they vary in various contexts? Consider the distance between China and the United States or between countries across Africa. These types of collaboration problems exist not only for services but also for addressing poverty, food, health education, water, biodiversity and many other SDGs. However, they are important to ensure that the right stakeholders work together at the right time and place. (Patterson, 2015).

In an attempt to fully achieve one goal, there is the tendency to neglect the achievement of the others; that is, one is likely to trade-off one goal in the pursuit of the other. Machingura & Lally (2017) mention many of such trade-offs in the following:

How can ending hunger be reconciled with environmental sustainability? (SDG targets 2.3 and 15.2). How can economic growth

be reconciled with environmental sustainability? (SDG targets 9.2 and 9.4). How can income inequality be reconciled with economic growth? (SDG targets 10.1 and 8.1) (Machingura & Lally, 2017).

It is not out of place for one to argue and ask that with Africa's ever-increasing population, which points to a marked increase in demand for land, food, wood fuel and innovative methods to end hunger, how can such competitive demands on the planet's resources be reconciled with sustainable forest management? Patterson (2015) support this view that the ecosystem could be endangered if forests are to be cut in an attempt to expand agricultural production for food security. Food security could be endangered if food crops are switched to biofuel production for the sake of energy security. Water security could be endangered by decisions to step up or expand agriculture or build hydroelectric power for energy security and greenhouse gas mitigation. (Jaiyesimi, 2016). In the same way, if proper measures are not taken, the quest to find wealth will expose the environment to serious environmental degradation.

The SDGs are so loose on holding key stakeholders to account and, for that matter, be questioned in terms of failure to achieve a specific target of a goal. According to Patterson (2015), a key challenge of the SDGs is ensuring responsibility and accountability for growth towards achieving the SDGs. Methods to do this need to connect across local, national and international levels. Jaiyesimi (2016) reiterates that it is important for accountability to be present in every input in the SDGs at all levels. There is a need for transparency about how private, public, and political leaders utilise resources

and the need to show integrity in how resources from any source are utilised to achieve global goals.

The above discussions point out that over-reliance on the SDGs will not be adequate to solve the global problems especially environmental degradation. The overarching challenges in achieving the SDG 15 in Africa are wide and deep and will require innovative responses entrenched in partnerships among groups and individuals and deeply rooted in our shared values of justice, fairness, impartiality and commonality (culture and belief system) (Jaiyesimi, 2016). This means that nations should adopt specific measures to help operationalize the SDGs.

The revelations made above indicate that the SDGs and the modern models have not successfully achieved environmental sustainability. Therefore, the discussions made in chapter three and this chapter open the door for discussing which Fante Indigenous norms can be blended with the SDG 15 to achieve environmental sustainability in the next chapter.

Summary

The chapter focused on the SDGs, why they were brought to force and their pros and cons. It was observed that the government of Ghana had enacted some acts to aid the achievement of SDG 15. Some of these acts and policies existed before the SDGs, but they work towards achieving goal 15. Some of such acts include the local government act, environmental protection agency act, wildlife management policy.

CHAPTER FIVE

THE SYNERGY OF MODERN AND INDIGENOUS

ENVIRONMENTAL PRESERVATION NORMS TO ACHIEVE SDG 15

Introduction

The challenges of the effectiveness of indigenous environmental norms and the resilient nature of some of the indigenous environmental norms have been pointed out earlier in this thesis. Again, the challenges connected with the modern ways of achieving environmental sanity have also been discussed in the previous chapter. This means that neither the Indigenous nor the modern means can single-handedly deal with the current environmental problems. There is, therefore, the need to devise a holistic strategy to solve the environmental challenges we have today. It has also been pointed out that some of the modern environmental preservation laws are consistent with some of the indigenous environmental preservation norms. This chapter points out the specific indigenous environmental norms that can be blended with the modern environmental preservation models in achieving SDG 15.

IEPNs that can be blended with the MEPMs to Achieve the SDG 15

Ghana's national environmental policy notes that environmental issues influence all facets of human endeavour and must be incorporated into the work of all state institutions. This calls for intergovernmental harmonization of regulations, laws, supervision, enforcement and other environmental functions. This means that environmental protection systems must consider all stakeholders' desires, needs, and values in the decision-making strategy to ensure sustainable development. This recognition should include all types of knowledge, including conventional systems of knowledge.

Key respondents, however, noted that there are important areas of indigenous preservation norms that have been left out of modern laws. One of the respondents laments:

What the government is doing cannot solve the problem entirely. The issues about environmental protection should be given to the care of Chiefs with support from the government in terms of funding because we directly relate with the indigenes and further understand them better (Okyeame Kwesi Abew, Okyeame of Asebu Traditional Council, personal communication, 26th June 2020).

The participants agree that with issues striking both the indigenous environmental preservation norms and the modern environmental preservation models, it is necessary to blend some of the indigenous norms with the modern ones to achieve SDG 15 in the study area. Some of the norms mentioned were: sacred groves, the concept of totems, a ban on economic activities and taboo days. The participants further note that the government should create an enabling environment with broader consultation with the indigenous people. This is in conjunction with article 27 of the United Nation's declaration on the rights of indigenous people, which states that:

States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples' laws, traditions, customs and land tenure systems, to recognise and adjudicate the rights of indigenous peoples about their lands, territories and resources, including those which were traditionally owned or otherwise occupied

or used. Indigenous peoples shall have the right to participate in this process (United Nations General Assembly, 2007).

This means that these indigenous norms should be placed alongside the modern models to discover the differences, similarities, challenges and how best they can be blended to achieve goal 15.

Sacred groves

The concept of protected areas and species has been identified as an environmental preservation norm in both indigenous Fante communities and modern Fante communities. It is evident in Fante communities that certain areas and animal and plant species were protected, as discussed in chapter two. Also, discussing the various environmental laws in the country in chapter four, it has been revealed that the concept of protected areas is still present. For instance, as discussed in chapter four, the Forest Preservation Act protects some forest zones, preventing people from hunting and farming in such forests. These protected forest zones are demarcated as National Parks or Forest Reserves. These protected areas include Kakum National Park in the Central Region, Mole National Park in the Savanna Region, Bui National Park in the Bono and Savanna Regions, and Boin Tano Forest Reserve in the Western Region others (Forestry Commission, 2016).

The study area has three forest reserves: Brimsu Forest Reserve, Komenda Forest Reserve, and Ankafu Fuelwood Forest Reserve. These forest reserves, including other reserves across the country, were restricted by the colonial government to improve forest vegetation and prevent the drying up of the water bodies. The Brimsu forest reserve was purposely to protect the Brimsu dam from direct sunshine and eventually dry up the Kakum River

dammed in the area. The aim was to improve the loss of vegetation cover and halt desertification in all its forms. Forest reserves and the wildlife conservation act together provide the protection of flora and fauna, which is compatible with the concept of sacred groves among indigenous Fante communities.

As discussed in chapter two of this thesis, Sacred groves mean forest zone protected with indigenous norms and customs. Sacred groves found in the area of study include the *nananompɔw* in Mankessim, *akɔtser* in Brimsu, *funfopɔw* in Moree, *Mbubepɔw* in Akatakyiwa etc. These small forest patches are meant to protect the forest from depletion and serve as a check on desertification because individuals are restricted from farming, hunting and cutting down trees from such sacred groves. Some of these sacred groves were located near a water source meant to prevent evaporation and eventually dry the water bodies. Commenting on this, Daniel Kofi Sarpong posits that:

in the olden days, we had the sacred groves, you don't enter without a warrant, neither will you fell a tree for any reason if you are not authorised to do so. Today, we have a law in the LI of EPA Act 490 which states that you don't fell a tree unauthorised, we apply an assessment, we access and agree that trees must be pulled down and even that you must pay a fee for pulling the tree to compensate the state (Daniel Kofi Sarpong, the Principal Programme Officer, EPA Cape Coast, Personal communication, March 2020).

It can be argued that the concept of sacred groves, which has the value of protecting areas so demarcated, can be said not to be fundamentally different from the forest reserve concept of today. This means that a blend of

the indigenous conception of sacred groves and the modern conception won't be out of context since the modern ones have not largely achieved their purpose. The participants maintain that the protection of sacred groves is key to SDG 15 since it improves green cover in the study area.

A successful blend of the two would have seen the achievement of SDG 15 target 2, 3 and 5, which aims to sustain, maintain all forests, halt deforestation, restore degraded forests, increase afforestation, reduce the degradation of natural habitats, halt the loss of biodiversity and prevent the extinction of endangered species by 2020. However, there is still the encroachment of forest reserves for settlements, illegal lumbering and failure to implement environmental policies fully. When the governing body tackles and solves the problem of promoting the implementation of sustainable management of all types of forests, then the target will be deemed an achievable target but have not been achieved though we are in the 11th month of 2020. Also, the concept of forest reserves and the Wildlife Conservation Act has been in the system years before the SDGs' adaptation but has failed to prevent certain species from going extinct. Achieving this goal in 2020 is far from reach with its major hindrance: making the laws effective and identifiable by the entire populace.

Target 3, which talks about achieving a land degradation-neutral world by 2030, is almost not real. The interviewees were of the view that efforts to degrade land almost increase daily. People are clearing forests for residents and other construction-related activities, increase the production of solid waste materials, building in waterways, sand wining and quarrying has not yet seized because of population increase and greed on the part of some individuals.

Efforts to reduce these activities are redundant despite numerals that kick against it combat mostly because of the usual problem of policy implementation. However, with the blend of the two environmental protection strategies discussed above, it will be possible for governments to ensure the achievement of this goal by 2030 since the two have the power to prevent the loss of forest vegetation in the study area.

The concept of totems

The concept of totems is an important norm used in protecting some plant and animal species in indigenous Fante communities. The seven clans in the indigenous Fante communities have either plant(s) or animal(s) totems. As discussed in chapter two, the clan members are restricted from killing an animal(s) or cutting down plant(s) they use as their totem for food or any other reason. This helped the protection of such creatures. On deeper scrutiny, I realised that some of the animals used as totems for specific clans are animals deemed endangered species, hence needing particular attention. For instance, the parrot, the totem for the Anona clan among the indigenous Fante, is an endangered species and is likely to extinction. The Buffalo, which is the totem of the *Kona* clan, is another example of an endangered species likely to go into extinction in the study area. Therefore, these animals were used as totems to ensure that they were not meant as animals for a game to fast track their extinction.

As discussed in chapter four of this thesis, the modern environmental preservation law (the Wildlife Conservation Reservation Act 1971) seeks to protect plants and animals likely to go into extinction or be classified as endangered species. Article one of this act states that “No individual shall at

any point in time hunt, capture or destroy any the protected animals or animals deemed as endangered species”. This banned people from killing endangered animals and cultivating plants either for food or any other purpose, protecting such animals from extinction.

The use of totems to protect the environment in indigenous Fante societies and the article one of the Wildlife Conservation Reservations act 1971 seeks to achieve the same purpose, i.e. to protect plants and animals, especially the endangered species that are likely to go into extinction. Since there are still endangered species that the target 5 and 7 of the SDG 15 seeks to prevent their extinction, poaching and trafficking, then a blend of the two will be important to aid the achievement of this target since the Wildlife Conservation Reservation Act since its inception in 1971 has failed to deal with the problem at hand adequately.

Ban on economic activities and taboo days

Ban on certain economic activities is another means present in indigenous and modern environmental preservation in Fante communities. The indigenous Fante societies banned certain economic activities (fishing activities, hunting and farming) from ensuring the protection of some plants and animal species. In an interview with Supi Kobina Mina, he avers that these close season days are days believed by indigenous Fante societies to be days purported to be event days for the gods and ancestors in and around water bodies and forest areas. Adom (2016) has a similar result with his study on the Asante indigenous knowledge systems. Supi Mina further indicates that the ban was mainly from (August to December) and for festival reasons. Adom (2018) has a similar finding with his study of traditional biodiversity

conservation in Ghana. Coincidentally, these periods where there is a ban on economic activities are when the fishes lay eggs and nurture their young ones.

For instance, as discussed in chapter two, the ban on fishing activities in the Fosu and the Benya lagoons in Cape Coast and Elimina respectively serve as a breeding time for fishes in the lagoon to restock themselves. This period also allows for the growth of planktons and other nutrients necessary for the survival of aquatic animals. The activities of fishers in the lagoon kill and prevent the growth of such nutrients in the water bodies because of the continuous dragging of fishing nets in the water bodies. Also, in forest zones where there are farming activities, a ban on general noise-making (drumming and singing) during some periods of the year was to allow some animals who move away from their habitats because of noise to remain or return to their habitats to prevent them from going into extinction from the study area.

Some of the Acts talk about the restriction of people from harvesting and hunting some kinds of animals in some periods. This is consistent with the ban on fishing in the water bodies in certain periods in indigenous Fante societies. The modern environmental preservation model mentions the close season, which Apetorgbor (2018) defines as the cessation of fishing when fishes release eggs or sperms. Apetorgbor further states that this is meant to reduce the pressure on fishing in their most productive stage, where they lay eggs to replace the lost population. This means that the pregnant fishes are protected to increase the stock available for the next few years.

The participants maintain that the closed season would be more successful if other forms of fishing pressure were also regulated, such as the use of illegal mesh nets, light fishing, the use of pesticides and toxic

chemicals, and dynamite or other explosives. This means that blending the indigenous ban on economic activities with modern models will be the way to go since both systems have found traces of water and fish protection. This will go a long way to help in achieving SDG 15.

The blend of the two environmental preservation strategies in indigenous Fante communities and modern environmental preservation models will help achieve the target 7 of SDG 15. This is because the close season allows fishes to breed and restock themselves. Continuous fishing without a break means that some fish in our water bodies are likely to go extinct since pregnant fish are not exempted from being harvested by fishermen.

Ban on farming near a water body/use of harmful chemicals for fishing.

In indigenous Fante communities, people were restricted from farming close to water sources, as discussed in chapter two of this thesis. This was to prevent the pollution of water bodies through erosion to make it unsafe for domestic use. Apart from the pollution of water bodies through erosion, one important thing was to prevent the deforestation of river banks, which will lead to eventual drying up of the water bodies. This is because farmers will clear the vegetation cover before cultivating the crops.

The indigenous Fante was also restricted from the use of some chemicals like DDT for fishing and farming. It was to prevent making water bodies and the whole environment unsafe for human survival. In an interview with Supi Kwame Amoyaw (27th March 2020), he revealed that using harmful chemicals for fishing was equal to the death penalty because the use of such harmful chemicals can lead to the death of many people in the community. It

is important to note that these chemicals expose the land to degradation and even kill aquatic animals in water bodies leading to the extinction of some aquatic animals. Animals on land who are allergic to such chemicals may migrate to places they deem safe or even die through the process.

This concept is present in the modern environmental preservation model, i.e. the Hazardous and Waste Management Control Act 917. This Act was brought to force in 2016 to check the disposal of hazardous and waste materials either on land or in water bodies. Therefore, any hazardous substance used either on land or in water bodies is criminalised by this law if proper safety measures are not taken to safeguard the individuals' health in such areas.

Since the concept is present in indigenous and modern environmental preservation strategies, a blend of the two will be effective since the indigenes will willingly associate with it to achieve goals 1 and 8 of SDG 15. Respondents outlined that the first target of this goal has not been met, and it will be difficult to accomplish it by the end of 2020. One respondent observes:

Our water bodies are still engulfed in filth, and there is no sign of dredging or cleaning. Illegal activities such as galamsey, sand wining, logging, among others, are still in practice, and there is no hope of ending anytime soon. Deforestation near a source of water is still on the rise exposing water bodies to evaporation and eventual drying up, animals are still drinking from the streams and rivers, and people are still farming close to water bodies (Kweku Ampah, Safohen of Abura Traditional Council, personal conversation, June 2020).

The worrying trend is that individuals are not even aware of the details of the SDGs, let alone understanding their associated targets. This means that target 1 of this goal seems not achievable despite some inroads made because, in as much as these laws talk about protecting water bodies, its implementation has been difficult.

Target 8 will be achieved if the blend is successful because it will reduce invasive alien species on land and water bodies. Species are also intentionally introduced by fish farming, pet trade, horticulture, bio-control; or accidentally, by means such as land and water transport, travel, and scientific study. With increased transportation of goods and travel, the world economy has encouraged the movement of living species over vast distances and beyond natural borders. Although only a small proportion of transported species are invasive, they have an immense effect on the health of vegetation, animals and even humans—threatening lives and impacting food security and the ecosystem's health. This means that the movement of invasive species can be limited if chemicals that can result in these species are prevented from entering the land or water bodies to cause mayhem. However, it means that a blend of the two will effectively protect water from pollution and extinction of some aquatic and other animals that live on land.

Taboo days

A taboo day is a specific day within the week where there was no fishing or farming in the indigenous Fante communities, as already discussed in chapter two; the day falls on Tuesday in the coastal Fante towns and Thursday or Friday in the interior. It must be noted that the major economic activities in the indigenous Fante communities were mainly fishing and

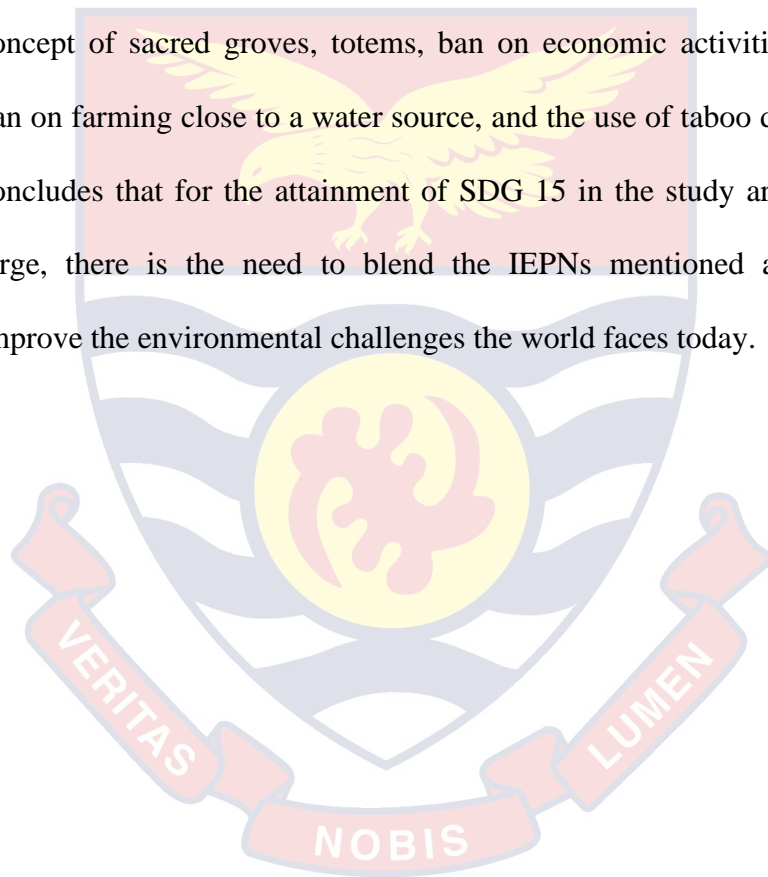
farming; hence the taboo day was necessary in this regard. Though it is just a single day within the week, it takes 52 days, which is significant for environmental protection within the year. There are 52 days free of forest destruction, land degradation and constant harvesting of fish from water bodies.

My interviewees indicated that when this concept is blended with modern models, especially the close season as discussed above will aid the protection of some plant and animal species which will help the attainment of the SDG 15. This means that attention should be given to this form of the close season, if possible, incorporated into the modern close season to make it compulsory for fishers and farmers to heed this indigenous norm considering its significance outlined above.

In more general terms, my respondents believe that the sustainable development goal 15 largely cannot be achieved to an extent by 2030. This is because, despite the major inroads made to formulate and enact laws to address the environmental challenges, its implementation has been a fiasco. The respondents attributed the failure to implement the policies and laws to the unwillingness of the government to channel resources to recruit and equip the security agencies to ensure strict compliance with environmental laws. However, there is still hope because the discussions in this chapter point out that a successful blend of IEPNs and MEPMs is the ideal means to achieve environmental sustainability. The next chapter will look at the summary, conclusion and some recommendations.

Conclusion

This chapter set out to discuss the IEPNs that can be blended with the MEPMs to achieve SDG 15, juxtaposing it with the relevant targets of goal 15. It was revealed that the MEPMs we have today have fertile grounds, which will make it easy to accommodate and blend with IEPNs to tackle the environmental challenges in the study area. The indigenous environmental preservation norms discussed as clear norms that can be blended were the concept of sacred groves, totems, ban on economic activities that comprise ban on farming close to a water source, and the use of taboo days. The chapter concludes that for the attainment of SDG 15 in the study area and Ghana at large, there is the need to blend the IEPNs mentioned above. This will improve the environmental challenges the world faces today.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The thesis is organised into six chapters. In chapter one, I introduced the topic (Achieving Sustainable Development Goal 15: Revisiting Indigenous Environmental Norms in some Selected Fante Communities) briefly. I also introduced the rationale for the topic and stated the problem clearly with its associated objectives. I reviewed some relevant literature important to the topic and further explained the human-environment relation theory adopted for the thesis. The method used was explorative which employed participant observation, interviewing and field notes taking. How the data was collected has also been discussed. The study area was briefly described as well as the sampling size and technique. The ethical issues and delimitations that arose during the fieldwork have also been discussed in this chapter.

In Chapter Two, I presented the environmental worldview of the Fante. Here, I briefly looked at the Fante people. Their concept of worldview and its types was also discussed in the chapter. The people's belief systems, which comprises the Supreme Being, gods/deities, ancestral spirits, talisman and amulets, were discussed in this chapter as the main Fante indigenous worldview. The traditional environmental worldview of the Fante was followed by the specific measures put in place to conserve the environment. Measures such as forest preservation (sacred grooves) and the concept of land and water bodies were extensively considered. Furthermore, the concept of animism and environmental preservation was discussed. Here I looked at some

specific norms and taboos which helps in environmental preservation in indigenous Fante societies.

Indigenous environmental norms and social change was the main theme for chapter three. In this chapter, I broadly looked at the concept of social change and its associated elements. The social change elements which were of great importance to the discussion included colonialism, western education, impinging religion, urbanization and technology. After discussing the social change elements, I discussed the specific environmental norms and how they have been affected by the social change elements outlined in this chapter.

In chapter four, I discussed the Sustainable Development Goals and further narrowed it down to Goal 15. I then moved on to present the modern environmental models where I analysed the environmental component of the 1992 constitution of Ghana, the Environmental Protection Agency Act (1994), the Forest Protection Act (1974) critically, the Wildlife Conservation Act (1971), Hazardous and Waste Management Control Act (2016) and the Local Government Act (1993). The chapter revealed that the Sustainable Development Goal 15 and the modern environmental preservation models alone could not solve the environmental problems single-handedly, so a blend with the indigenous environmental preservation norms is necessary.

Chapter five focuses on combining some of the indigenous environmental preservation norms and that of modern environmental preservation models to achieve the sustainable development goal 15. When discussing the possible blend, I looked out for the prospect of the blend and the SDG 15 target that can be met if the blend is successful.

Conclusion

The core point of this study is that environmental sustainability can only be achieved in Fante communities when efforts are made to blend some of the Fante indigenous environmental preservation norms with the modern environmental preservation models. This will be the likely option for the achievement of SDG 15 in Ghana at large. In doing so, the study answered the following research questions:

- (a) What is the Fante general environmental worldview?
- (b) What are the indigenous environmental norms which were used in preserving the environment?
- (c) How have the environmental preservation norms in Fante communities been affected by social change elements?
- (d) Which indigenous environmental preservation norm can be combined with modern environmental preservation models to achieve SDG 15?

The following conclusions were drawn at the end of the research: Most respondents noted that the Fante perceive the environment to encompass the physical and the spiritual state where there is an interaction. They believe that the physical and the spiritual have a symbiotic relationship. I concluded that any activity that a Fante performs in the environment is associated with the supernatural entities because if one treats the environment anyhow, it means they are maltreating the supernatural entities, just as it was established that the environment is also the abode of the spirits. This conclusion supports the arguments advanced by the human-environment relation theory, which this thesis worked with. The supernatural resides either in trees, in the air or in water bodies and on

land. The religious nature of the Fante meant that one reveres the supernatural entities and, therefore, lives in harmony with the environment to please the spirits to invoke their blessings and sustenance of peace. This notion helped environmental conservation in Fante communities. This finding is supported by other studies across other Akan groups and even the African continents at large. (see: Ameh, 2013; Asante, 1987; Awuah-Nyamekye, 2009; Ntiamoah-Baidu, 2008; Opoku, 1978; Parrinder, 1974).

I also concluded that the belief in supernatural entities encouraged the Fante to enact norms that helped preserve the environment. It was revealed that these norms were mostly taboos directed towards protecting lands, water bodies and forest vegetation. These taboos were largely successful in protecting the environment because the Fante people believed that land, water bodies and forest vegetation possessed spirits, and for that matter, they needed to be protected. This concept of animism was extended to items that represented the seven clans in the Fante land (totem). These totems were believed to possess spirits; thus, clan members were deterred from killing or destroying these items that represented them. Inadvertently, the Fante environmental worldview was the main driving force that led to environmental preservation and sustenance in indigenous Fante communities. Scholars such as Parrinder (1969), Ntiamoah-Baidu (1991), Awuah-Nyamekye (2013) etc., mention the general belief in supernatural entities among the general Akan group, but this thesis has revealed that the belief informed the formulation of norms in indigenous Fante communities. Once again, this revelation goes to confirm the theory of the human-environment relation.

My respondents revealed that social change has two opposing impacts on environmental preservation in Fante communities, but the negative impacts override the positive ones. Generally, the change factors that affected environmental preservation were colonialism, Western education, impinging religion, technology and industrialization. However, colonialism and Christianity were the main change elements that negatively affected environmental preservation. When the Fante believed in their supernatural entities, environmental preservation was simple because they were supposed to leave in harmony with both the physical and the spiritual, but Christianity has drawn a sharp contrast between the object of worship and the physical environment. This has created the environmental mess we have today in our communities. This finding is in tandem with scholars such as Awuah-Nyamekye (2012; 2017), Asamoah (2018), Nukunya et al. (1986).

One major revelation which came out was the youth's negative attitude toward indigenous environmental norms. They break traditional rules with impunity. This has encouraged others to downplay the power of traditional authorities all because of modernity, Christianity coupled with democracy and its associated factors. Many of the key respondents were emphatic that the youth now do not respect our forefathers' traditions and customs used to protect the environment. These challenges started unfolding when the Europeans came with colonisation, education and religion and have entirely affected the common good of the environment. The main reason for these challenges is that the change elements spread individualism instead of communal living in Fante communities. Understanding the human-environment relation theory indicates that the impacts that the social change

elements have on the environment affect all spheres of life of the Fante since man and the environment relate to each other.

I also observed that there had been efforts to fuse indigenous environmental norms into modern laws over the years. But despite the incorporation, efforts to achieve environmental sustainability has failed. It has not been successful because the traditional authorities which ensured that citizens comply strictly with these norms are no longer doing so because their power has been subdued by the state and the Fourth Republican Constitution. One other key finding that came out of the study is that the institution of taboo days, an important environmental preservation norm in Fante communities, has not been strictly observed.

Furthermore, it came out of the study that the natural environment in Fante communities has seriously been polluted. The main contributory factor is the neglect of indigenous norms used to protect the environment. Other factors are summarized as below:

1. Social change elements such as colonialism, western education, impinging religion, urbanization and technology.
2. Policymakers of environmental laws have failed to incorporate indigenous environmental norms into such policies fully.
3. Implementation of environmental laws and policies have not been effective because the indigenes do not readily associate themselves due to the huge cultural gap between the environmental laws and the indigenous environmental norms.

My key informants believe that it will be difficult to use only indigenous environmental norms to protect the environment

considering the realities on the ground today. This view gives credence to Nugteren's (2009) finding, which is captured in the following words:

Suppose the public interest in conservation is made too dependent on religious sentiments and mythical associations instead of attaching common sense and general awareness of responsibility for maintaining a precarious balance. In that case, none can predict what would happen to ecological activism once the religiously inspired concern dwindle for one reason or another? (Nugteren, 2009 as cited in Awuah-Nyamekye, 2013).

It is important to note that the above comment does not negate the relevance of indigenous conservation norms. Ntiamoah-Baidu et al. (2003) study among indigenous people support this when they argue that sacred forests are important areas for indigenous people and communities' spiritual and religious beliefs and cultural identity; therefore, it will not be morally acceptable to deny indigenous peoples and communities their rights to protect and conserve such sites using their norms. The neglect of these indigenous environmental laws entirely also means that Ghana will not successfully achieve the Sustainable Development Goal 15. Institutions working with the SDGs are not equipped with the requisite instruments to educate the populace on a full grasp of the policy.

Recommendations

The following recommendations are made based on the findings of the study:

1. I recommend that policy-makers should take conscious efforts by taking practical steps to inculcate indigenous systems of knowledge (especially indigenous environmental preservation knowledge) into the academic curriculum of education at all levels so that individuals can understand and accept indigenous knowledge as a complementary source for national development. In doing so, much emphasis should be placed on explaining the scientific underpinnings of indigenous environmental preservation norms to remove the derogatory remarks such as fetishism, animism, and ancestral worship attached to it.
2. There should be an involvement of individuals who are knowledgeable in indigenous environmental preservation when drafting or formulating laws and policies on environmental conservation in the country by policymakers.
3. I also recommend that the government should provide support for traditional authorities with the required laws, which will give the traditional authorities the power to enforce indigenous environmental norms such as the ban on entry into sacred groves, working on taboo days, indiscriminate hunting, fishing, farming near a water source and other restrictions deemed important to environmental sustainability.

4. The government should educate the traditional authorities to be abreast with the modern ways of doing things so that there will be an appropriate collaboration between traditional authorities and the Environmental Protection Authority (EPA), who are concerned with environmental sustainability. This collaboration can be extended to involve traditional authorities, the District/Municipal/Metropolitan Authorities and all stakeholders to protect the environment at large.

5. Traditional authorities should have a united front so that they can fight a common course. They can engage the government in all matters concerning the environment and even try to negotiate for the power to enforce environmental laws.

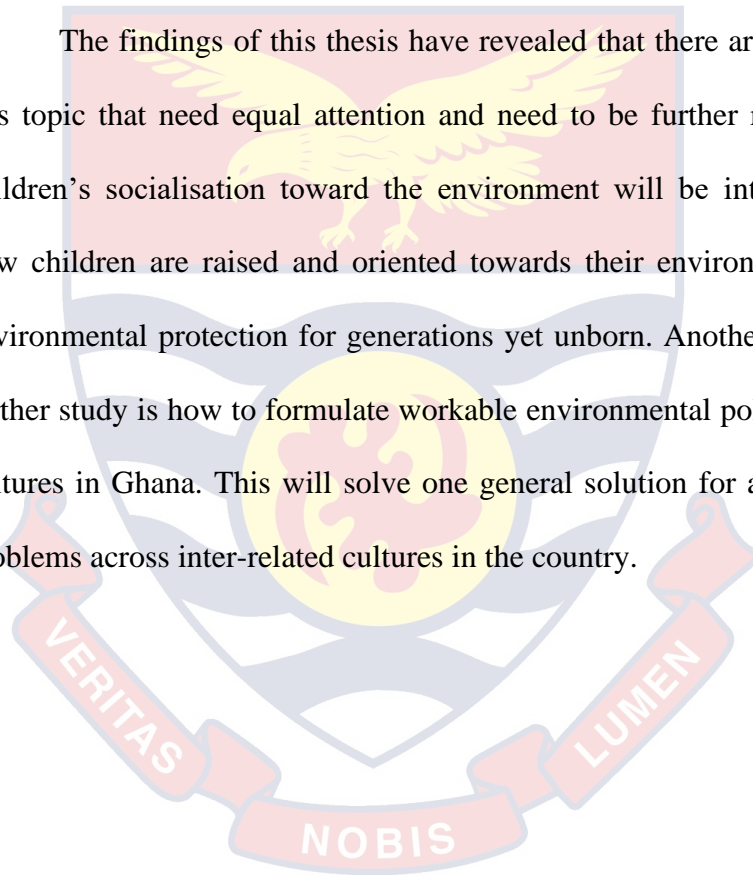
6. The international institutions such as the UN, ECOWAS and AU should not make one policy to fit all countries considering the distinct cultures across the African continent.

7. The SDGs should be individual or institution-specific when discussing stakeholders who are to work towards achieving a specified goal. The achievement of goal 15 was made open to all stakeholders without specific roles assigned to specific individuals or institutions. This has made individuals and institutions reluctant to achieve the goal because they see it as a secondary issue but not a core mandate. Consequently, if individuals and institutions are charged solely to achieve the goal, it is likely to succeed in achieving the set goals within the time limit set.

8. Based on the above recommendations, a specifically formulated policy should be crafted out of the SDGs for specified groups in the country to see how indigenous environmental norms and the SDG 15 can be effectively combined to tackle the environmental problems facing the country now. This can be done with stakeholders' consultation, including traditional authorities.

Suggestions for Further Research

The findings of this thesis have revealed that there are areas related to this topic that need equal attention and need to be further researched. First, children's socialisation toward the environment will be interesting because how children are raised and oriented towards their environment is vital for environmental protection for generations yet unborn. Another area that needs further study is how to formulate workable environmental policies for specific cultures in Ghana. This will solve one general solution for all environmental problems across inter-related cultures in the country.



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APPENDICES

Appendix A

UNIVERSITY OF CAPE COAST

CENTRE FOR AFRICAN AND INTERNATIONAL STUDIES

INTERVIEW GUIDE FOR RESEARCH INTO THE TOPIC:

ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 15:

REVISITING INDIGENOUS ENVIRONMENTAL PRESERVATION

NORMS IN SELECTED FANTE COMMUNITIES.

Interview Guide for Environmental Protection, Forestry, and Districts

Assemblies

Dear Sir/Madam,

Request for Interview

I am an MPhil student at the Centre for African and International Studies of the University of Cape Coast. I am conducting a study on the topic mentioned above. As an environmental stakeholder among the Fante, will you be ready to share your thoughts on these critical issues with me? I will ensure that the details you share with me in the interview will be handled confidentially and privately and used exclusively for the study.

Thank you so much for your support.

Joseph Takyi Odoom

Contact:

Phone: 0576090836

E-mail: odoomtakyi@gmail.com

Biodata

- i) Name ii) Age.....
iii) Nationality..... iv) Marital Status.....
v) Religion..... vi) Educational background.....
vii) Town/Village..... viii) Occupation.....

1. Do you see the general environmental situation among the Fante conducive?
2. Are you aware of indigenous environmental norms (customs or laws) in Fante communities?
3. Can you give some examples?
4. Were these norms and methods effective?
5. If yes or no, can you please explain why?
6. Are there National laws/policies on environmental preservation?
7. Which of these laws are you familiar with?
8. If yes, are these laws in conjunction with the indigenous Fante Environmental laws?
9. If No, can you identify some differences that exist between the two?
10. Do you think that such National laws, in your opinion, have generally been ineffective?
11. Are you aware of the sustainable development goals?
12. If yes, can you explain goal 15, which is about environmental preservation?
13. Do you think this goal can be achieved before 2030?
14. Can you suggest some ways through which it can be achieved?

15. Is there anything else you would like to say about the work (either a suggestion or a question)?

16. If yes, then go ahead

17. If no,

Thank you so much for your time.



Appendix B

UNIVERSITY OF CAPE COAST

CENTRE FOR AFRICAN AND INTERNATIONAL STUDIES

INTERVIEW GUIDE FOR RESEARCH INTO THE TOPIC:

ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 15:

REVISITING INDIGENOUS ENVIRONMENTAL PRESERVATION

NORMS IN SELECTED FANTE COMMUNITIES.

**Interview Guide for Traditional Rulers, Traditional Religious leaders and
other Elders in the Community**

Dear Sir/Madam,

Request for Interview

I am an MPhil student at the Centre for African and International Studies of the University of Cape Coast. I am conducting a study on the topic mentioned above. As an environmental stakeholder among the Fante, will you be ready to share your thoughts on these critical issues with me? I will ensure that the details you share with me in the interview will be handled confidentially and privately and used exclusively for the study.

Thank you so much for your support.

Joseph Takyi Odoom

Contact:

Phone: 0576090836

E-mail: odoomtakyi@gmail.com

Biodata

- i) Name ii) Age.....
iii) Nationality..... iv) Marital Status.....
v) Religion..... vi) Educational background.....
vii) Town/Village..... viii) Occupation.....

1. Do you perceive the environment as sustainable or good?
2. What is your impression of the general environmental situation in Fante communities today?
3. Are there customs in your community around specific environmental issues?
4. How do you enforce those customs
5. How do you enforce those customs
6. In your own opinion, were these laws effective?
7. If yes, can you share with me what made them more effective?
8. Who were the custodians of such environmental laws?
9. Are the indigenous environmental preservation laws still working today?
10. If not, can you give some reasons why they no longer work?
11. Do you see modern scientific, environmental preservation laws as effective?
12. If not, can you give some reasons for its ineffectiveness?
13. Is there a reason for these new environmental laws?
14. If yes, can you give some factors that led to these new or international environmental laws?

15. Can you explain how these factors affected the indigenous Fante environmental preservation norms?

16. In your opinion, do you think both kinds of law can co-exist?

17. if yes, give reasons for your answer above

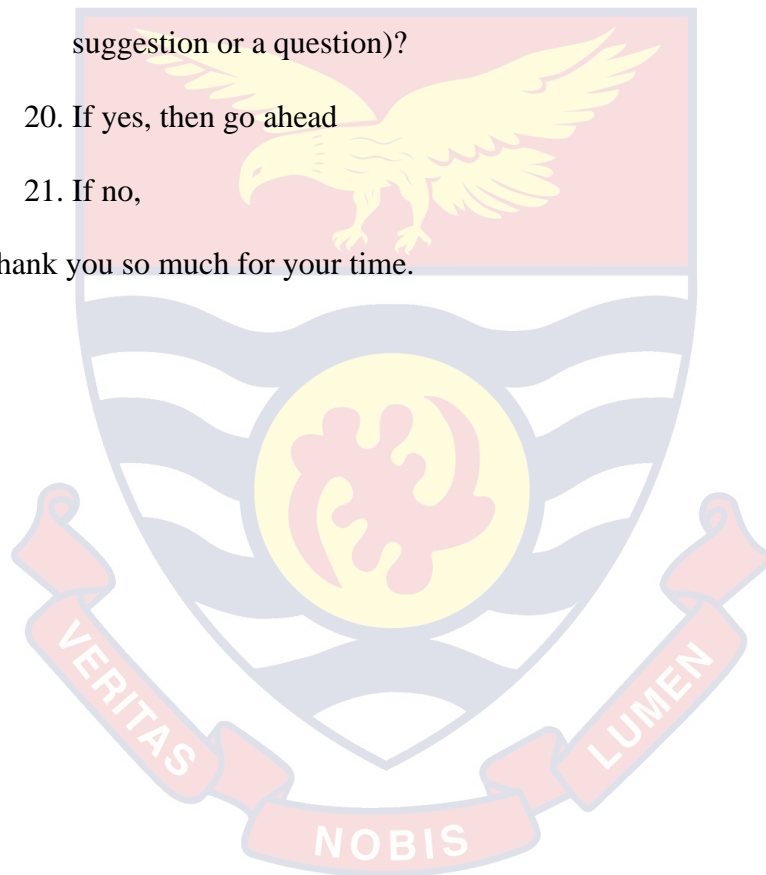
18. Aside from the blend, is there any suggestion you can give to improve the environmental conditions in the Fante communities

19. Is there anything else you would like to say about the work (either a suggestion or a question)?

20. If yes, then go ahead

21. If no,

Thank you so much for your time.



Appendix C

Reasons for the Adoption of the Other Sixteen (16) SDGs apart from Goal

15

Goal 1

According to SDG Factsheet (2015), the percentage of people living in extreme poverty worldwide decreased by more than half from 1.9 billion in 1990. However, 836 million people are currently living in extreme poverty. One in five people in developing countries survives on less than \$1.25 a day. South Asia and Africa south of the Saharan houses the overwhelming majority of populations living in extreme poverty. Poverty at its highest rates is usually seen in small, vulnerable and war-ridden nations. $\frac{1}{4}$ infants under five years in the world have been stunted by malnutrition. Therefore, the United Nations needs to ensure poverty eradication in all its form globally hence Goal 1.

Goal 2

SDG Fact Sheet (2015) maintains that it is crucial to eradicate hunger, attain food safety and boost nutrition and encourage agricultural sustainability (Goal 2) since the percentage of malnourished individuals in developing countries has decreased by 50 per cent since 1990, from 23.3 per cent in 1990-1992 to 12.9 per cent in 2014-2016. Yet one out of nine people in the world now (795 million) is also malnourished. The majority of the worlds hungry live in developing regions, where 12.9 per cent of the populace is malnourished. Asia is currently the continent with starving people – $\frac{2}{3}$ of the world. The proportion has recently decreased in the southern part of Asia but has risen marginally in the western part of the continent. Africa south of the

Saharan is the leading region with the dominance of hunger (as a percentage of the world's population). About ¼ is malnourished. Malnutrition causes almost half (45 per cent) of all deaths in children under five annually.

Goal 3

There is a need to ensure healthy lives and promote well-being for all ages because child health (goal 3) is relevant. Seventeen thousand fewer children died every day than in 1990, but more than 6 million children died every year before their 5th birthday. Since the year 2000, vaccines for measles have prevented close to 15.6 million deaths. Despite global development, there is a growing percentage of infant deaths in Africa, south of the Saharan and Southern Asia. 4/5 deaths of infants below the age of five happen in these areas (SDG Fact Sheet, 2015). They also maintain that since 1990 maternal mortality has decreased globally by almost 50%. Maternal mortality has decreased by around two-thirds in Eastern Asia, Northern Africa and Southern Asia. However, the maternal mortality ratio – the proportion of mothers who do not survive childbirth relative to those who do – is still 14 times higher in developing regions than developed regions. Just half of the women in developed countries receive the recommended amount of health care.

Goal 4

Primary education enrolment numbers in developed countries have reached 91 per cent, but 57 million infants stay out of school. More than half of the children who have not attended school live in Africa, south of the Saharan. About 50 per cent of out-of-school primary school-aged children live in regions affected by conflict. Children in poor households are four times more likely to drop out of school than children in the richest homes. The globe

has attained equality between males and females in primary education, but few countries have achieved this target at all levels of education. Among young people aged 15 to 24, the literacy rate has risen globally from 83% to 91% between 1990 and 2015. Hence, the need for goal 4 (SDG Fact Sheet, 2015).

Goal 5

SDG Fact Sheet (2015) indicates that the relationship ratio between boys and girls enrolled in Southern Asia was vast. In 1990, only 74 girls were enrolled in primary school for every set of 100 boys. By 2012, the enrolment rates for girls and boys were the same. In sub-Saharan Africa, Oceania and Western Asia, girls also face obstacles to primary and secondary education. Women in Northern Africa have fewer than one in five paying workers in the non-agricultural sector. Thus, the inclusion of goal 5.

Goal 6

According to the SDG Fact Sheet (2015), the inclusion of Goal 6 is important since, in 2015, 91% of the world's populace used improved drinking water sources compared to 76% in 1990. However, 2.5 billion population does not have access to basic sanitary facilities such as toilets or latrines. An average of 5,000 children dies each day from preventable water and sanitation-related diseases.

Goal 7

Goal 7 is required as 1.3 billion people – 1/5 worldwide – currently lack access to an advanced form of electricity. Three billion people depend on wood, gas, waste from animals or coal for heating and cooking. Power is the key climate change contributor, responsible for about 60 per cent of greenhouse gas emissions globally (SDG Fact Sheet, 2015).

Goal 8

Global unemployment increased from 170 million in 2007 to nearly 202 million in 2012, of which about 75 million were young men and women. Almost 2.2 billion people live below the US\$2 poverty line, and alleviating poverty is only possible through stable and well-paid jobs. Between 2016 and 2030, 470 million jobs are expected worldwide for new entrants to the labour market. This means that the inclusion of this goal was needful (SDG Fact Sheet, 2015).

Goal 9

The inclusion of this goal is vital because approximately 2.6 billion people in the developing world face full-time difficulties in consuming electricity. 2.5 billion of the world's lack access to basic sanitation, and almost 800 million lack access to potable water. Overwhelming numbers of the populace are also facing the same issue in sub-Saharan Africa and South Asia. One million to 1,5 million people do not have access to effective telecommunications networks; in many African countries, particularly nations with low income and infrastructure limits, companies' productivity by around 40%. (SDG Fact Sheet, 2015).

Goal 10

On average, and considering the size of the population, income inequity grew by 11 per cent in developed regions between 1990 and 2010. The vast majority of homes in developing regions were more than 75 per cent, and they live in communities where wealth is unevenly distributed than in the 1990s. Children in the poorest rural areas, representing 20 per cent of the populace, are now up to three times more likely to die by their fifth birthday

than children in the richest quintiles. Social security has been extensively expanded internationally, and disabled people are up to five times more likely than average to face catastrophic health costs. Despite the overall decline in maternal mortality in most developed nations, women in rural areas are still up to three times more likely to die while giving birth than women residing in urban centres. Hence, the arguments for goal 10 (SDG Fact Sheet, 2015).

Goal 11

The SDG Fact Sheet (2015) maintains that the inclusion of this goal was premised on the fact that half of humanity, approximately 3.5 billion people, now live in urban centres. By 2030, nearly 60 per cent of the world's population will live in cities. Today, 828 million people live in shantytowns, and the number continues to grow. Urban centres cover only 2 per cent of the world's land but account for 60-80 per cent of the consumption of energy and 75 per cent of carbon emissions. The rapid increase in the growth of towns and cities exerts pressure on the availability of fresh water, sanitation, the environment, and the public's health. But high urban concentration can lead to productivity improvements and technological advancement while at the same time reducing resource and energy consumption.

Goal 12

The SDG Fact Sheet (2015) states categorically that the inclusion of this goal was premised on the fact that 1.3 billion tons of food are wasted every year. If people worldwide converted to energy-efficient light bulbs, the world would save \$120 billion annually. If the global population is 9.6 billion by 2050, the equivalent of nearly three planets will be required to provide the

natural resources needed to support current lifestyles. More than 1 billion people currently have no access to freshwater.

Goal 13

Greenhouse gas emissions from activities of humans are causing climate change and are continuing to increase. They are currently at the highest level in global history. Worldwide, carbon dioxide emissions have risen by 50 per cent since 1990. The concentration of carbon dioxide, methane and nitrous oxide in the atmosphere has risen to unparalleled levels in the last 800,000 years. The concentration of carbon dioxide has risen by 40 per cent before the Industrial Revolution, mostly due to fossil fuel pollution and, secondarily, as a result of net land-use change. The ocean absorbs about 30 per cent of the carbon dioxide emitted, which induces the acidification of the ocean. Each of the last three decades has successively been hotter on the surface of the earth than any other decade since 1850. In the Northern Hemisphere, the warmest span of 30 years in the last 1,400 years could have been 1983-2012. This means that the inclusion of this goal was needful (SDG Fact Sheet, 2015).

Goal 14

The addition of goal 14 is necessary since oceans occupy three-quarters of the Earth's surface, hold 97% of Earth's water, and account for 99 per cent of the planet's living space by volume. Globally, the market size of maritime and coastal services and sectors is valued at \$3 trillion annually or around 5percent of Gross Domestic Product. Globally, catch levels are similar to the ocean's productive potential, with catch levels in the order of 80 million tonnes. Oceans comprise almost 200,000 species, but the real numbers could

be millions. Oceans consume about 30% of the carbon dioxide emitted by humans, which is a buffer of the impacts of global warming.

Goal 16

The number of refugees concerned by the UNs High Commissioner for Refugees (UNHCR) was 13 million in mid- 2014 which increased from the previous year. The issue of bribery, fraud, corruption and tax evasion have cost developing countries \$1.26 trillion a year. The percentage of men leaving primary school in conflict-affected countries reached 50 per cent in 2011, i.e. 28.5 million children. Hence, the need for goal 16 (SDG Fact Sheet, 2015).

Goal 17

Accordingly, the SDG Factsheet (2015) reported that the incorporation of Objective 17 is important because Official Development Assistance (ODA) amounted to approximately \$135 billion in 2014. In 2014, 79% of imports from developing countries entered duty-free in developed countries. The debt burden on developing countries remains stable at about 3% of export revenues. The number of Internet users in Africa has almost doubled over the last four years. As of 2015, 95% of the world's population is covered by a mobile signal. Thirty per cent of the world's youth are digital natives who have been active online for at least five years. Internet penetration grew from just over 6% of the world's population in 2000 to 43% in 2015. Yet more than four billion people do not use the Internet, and 90% of them come from the developing world.